SOLID WASTE MANAGEMENT PLAN UPDATE
(PUBLIC NOTICE DRAFT)

PREPARED FOR:
RICE COUNTY

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Minneapolis • Chicago • Los Angeles • Madison • Milwaukee • Phoenix
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1.0 EXECUTIVE SUMMARY

The original Rice County Solid Waste Management Plan was approved by the Minnesota Office of Waste Management in 1988 and subsequent updates were approved in 1994 and 2000 by the Minnesota Office of Environmental Assistance ("OEA"). This 2008 Solid Waste Management Plan Update ("Plan Update") has been generated consistent with Minnesota Rules 9215 as part of the re-approval process. This plan is being submitted earlier than required by Minnesota statutes (Minn. Stat. § 115A.46, subd. 1(g)) in order to coordinate County solid waste planning with the County's landfill permitting activities.

In developing solid waste management plans or plan updates, counties must:

- Review the current status of waste management in the County;
- Review and analyze processing and disposal options available to the County; and
- Propose a solid waste management system for future use that uses resource recovery as much as possible.

This document is structured according to the Minnesota Rule requirements to:

- Provide updated County information;
- Evaluate alternatives to a landfill-based system; and
- Describe components of the overall waste management system and address future implementation issues.

This Plan Update for Rice County includes the following methods for the management of solid waste:

- Solid waste management programs and policies;
- Land disposal facility/operations;
- Resource Recovery system planning;
- Waste abatement programs;
- Special wastes management programs;
- Contingency plan and alternatives analysis;
- On-going budgeting, management and planning; and
- Waste stream flow and budget tables.

The majority of solid waste generated in Rice County is currently delivered to the Rice County facility owned and operated by Rice County. The existing integrated solid waste management system contains the following components: 1) waste reduction and reuse; 2) recycling; 3) yard waste composting; 4) household hazardous waste management; 5) special waste management; 6)
waste education, and 7) disposal of municipal solid waste (MSW) and demolition debris in County-owned and operated landfills.

At this time, Rice County anticipates that the solid waste generated in Rice County will continue to be managed under the existing system throughout the 10-year planning period for this solid waste management plan. Rice County has chosen the proposed system based on an analysis of alternatives. The analysis shows that the long-term environmental and economic costs and benefits of Rice County's proposed system make it the most prudent and feasible waste management system available at this time. Rice County will, however, continue to consider alternatives in consideration of the state of Minnesota's objectives to reduce land disposal of municipal solid waste.

Although Rice County's primary disposal system is and will remain land disposal, the County has significantly reduced the use of the County MSW and demolition landfills through its waste abatement programs. Rice County has developed an aggressive and successful recycling program, which includes weekly curbside collection in all cities, a ban on land disposal of recyclable materials, and a fully engineered recycling processing facility. County staff continues to work regularly with both residential and commercial/industrial generators to maximize recycling efforts in that sector through educational efforts and economic incentives.

In addition to the materials recycled, Rice County has implemented an aggressive yard waste composting program. Yard waste generators are encouraged through education efforts to either compost yard wastes on site or use one of the municipal composting sites.

Rice County has an extensive waste education program emphasizing the importance of waste management issues from an environmental perspective. It promotes waste abatement activities such as waste reduction and participation in Rice County recycling and yard waste composting programs.

Rice County also employs a household hazardous wastes ("HHW") Coordinator to promote County-wide participation and to administer the implementation of that program. Rice County utilizes a dedicated and recently expanded HHW collection/storage building that is located at the County Solid Waste Management site. Rice County is also the regional site for Steele and Waseca Counties to maximize the efficient use of program resources in its effort to keep HHW materials out of the managed MSW stream, is registered to accept hazardous waste from Very Small quantity generators, and has a contract with the Department of Agriculture's waste pesticide program. Rice County also ensures that there is adequate drop-off accessibility for special wastes such as tires and major appliances and has sponsored clean up events within the County both on their own and with local units of government.
2.0 BACKGROUND INFORMATION

2.1 GENERAL RICE COUNTY DEMOGRAPHIC INFORMATION

Rice County has a population base of 61,980 (2006 estimate, U.S. Bureau of the Census). The population centers for the County are the Cities of Faribault and Northfield, which together represent approximately 65 percent of the County's population. Overall, approximately 72 percent of the County's population resides in area cities. Rice County cities and associated populations (existing and projected) are presented in Table 3 (Appendix A). Figure 1 (Appendix B) illustrates the locations of these cities, along with major transportation arteries.

The median household income for Rice County in 2004 was estimated at $51,111 (Bureau of the Census, Small Area Income and Poverty Estimates Program, 2004). Approximately 7.5% of County residents are at or below the poverty level (Bureau of the Census, Small Area Income and Poverty Estimates Program, 2004). The unemployment rate in the County is estimated to be 4.3% (Minnesota Department of Economic Security, Unemployment Statistics, December 2006). The local economy is heavily oriented toward agriculture, but perhaps less so than in many other out-state counties for the following reasons:

- There is significant employment in institutions outside of agriculture, such as Carleton College, St. Olaf College, Shattuck School, and the Faribault medium security prison;
- There is significant industrial employment associated with companies such as McClain’s, Malt-o-Meal, Faribault foods, Faribo Woolens and Aldi’s along with several other industrial businesses within the industrial parks of Faribault and Northfield.
- There is a significant and growing percentage of residents who commute to the Twin Cities for employment.

The primary land use in Rice County is currently for agricultural purposes, including cultivated land, and land used as hay, pasture, and/or grassland (1990’s Census of the Land, Minnesota Land Use and Cover Statistics). Urban and rural development accounts for approximately 5 percent of the overall land use within the County. A detailed breakdown of the land use within Rice County is included as Appendix C.

2.2 SOLID WASTE COLLECTION AND GENERATION INFORMATION

The County is served by several haulers. The Cities of Lonsdale, Morristown, Nerstrand, and Northfield contract with individual haulers to provide residential collection services. For the City of Faribault, individual households contract directly with one of five haulers operating within Faribault. Rice County requires that haulers base collection fees on a volume-based fee system. See Tables 4 and 5 for haulers and average collection rates, respectively. Detailed information regarding how haulers bill individual households is not available from the County. Table 5 includes the tip fees paid at the Rice County Landfill for demolition debris and MSW.
The Landfill tip fees are a volume-based fee. There are no transfer stations currently located in Rice County.

All municipalities in Rice County have mandatory refuse collection. This leaves approximately 5,000 rural/township households, which are not required to have collection service. Many of the rural/township households do have refuse collection though they are not required to do so. Those residents that do not have refuse collection either self-haul their waste to the Rice County Sanitary Landfill or dispose of their wastes in another manner.

The County estimates that approximately ten percent of the households in Rice County do not have refuse collection and that ten percent of the households without refuse collection self-haul their waste to the County Landfill. Thus, it is estimated that nine percent of the households in the County dispose of their wastes on-site in burn barrels or in unauthorized dumping areas.

Most of the County’s commercial, institutional, and industrial waste is generated in the cities. Rice County generates in excess of 100,000 tons of solid waste annually of which approximately 46,000 tons per year is municipal solid waste (“MSW”) that is collected for disposal. Based on landfill delivery records, it is estimated that approximately 40 percent of the MSW generated and collected in Rice County is residential. The remaining 60 percent is a combination of commercial, institutional, and industrial.

2.3 SOLID WASTE COMPOSITION

Rice County has not conducted a recent waste characterization study to determine precisely the type and quantity of wastes currently generated in the County. However, in 1999-2000, the MPCA conducted solid waste composition studies at eight solid waste facilities that represent geographical study areas encompassing the metropolitan region, greater Minnesota and statewide. The disposal sites where the waste composition studies occurred consisted of the Brooklyn Park Transfer Station, Waste management/United Waste Transfer Station (St. Paul), HERC WTE, NRG Newport Refuse-Derived Fuel (RDF) Production Facility, Burnsville MSW Landfill, St. Louis County MSW Landfill, Polk County WTE and Prairieland MSW Compost Facility. Table 6 in Appendix A is reproduced from the MPCA Statewide MSW Composition Study (March 2000). This table provides the overall percentage estimates of material in MSW (by weight) during a one-year study period at the Metropolitan Region Facilities, the nearest site to Rice County, the average percentages for the sites surveyed, and a comparison to 1992 results. Table 6 provides the major material categories (paper, plastics, metal, and glass) from the Metropolitan Region Facilities and problem materials, including: tires, textiles, major appliances, small electric appliances, demolition/construction debris, hazardous materials, oil filters, and “other” inorganic materials. Organic materials are also shown and include: yard materials, food materials, wood materials, diapers, and “other” organic materials. It is believed
that the information presented in the MPCA Statewide MSW Composition Study is generally representative for MSW generated and collected in Rice County.

3.0 ASSESSMENT OF ALTERNATIVES TO LANDFILL-BASED DISPOSAL SYSTEM

For Counties proposing to manage the majority of its solid waste through land disposal, Minnesota Rules Chapter 9215 requires the solid waste management plan to demonstrate in practical and financial terms why alternative recovery options are not the most feasible and prudent alternatives and must include environmental, financial, and technical analysis of both the existing facilities and alternative technologies, including a ten-year cost projection for at least one of the alternatives.

Consistent with the State of Minnesota requirements, alternatives to land disposal as the primary waste management method have been reviewed in previous plans. The review and discussion previously conducted is summarized in the following sections and updated as appropriate. The alternatives, whether proposed or existing facilities, are evaluated in terms of economic conditions, environmental issues, and general planning/institutional factors.

Ten-year projected costs for continued operation of the County-owned landfill are provided in Table 7 (Appendix A). Ten-year projected costs for transport for processing at the Newport Processing facility are provided in Table 8. Ten-year projected costs for development of either a compost or RDF facility for Rice County waste only are provided in Table 9 and for a multi-county (Rice, Steele, Waseca) facility in Table 10. A direct comparison of these four alternatives is presented in Table 11.

3.1 EXISTING FACILITIES

The following existing facilities are identified as potential options for Rice County waste:

- Prairieland MSW compost facility;
- City of Red Wing WTE facility
- Olmsted County waste-to-energy facility;
- Newport Resource Recovery Facility;
- Out-of-County Landfills; and
- Existing County Landfill.
3.1.1 **Prairieland Facility**

Martin and Faribault Counties jointly developed the Prairieland MSW processing facility, located just outside Truman, Minnesota. The facility was designed to separate the waste stream through mechanical and manual sorting. The organic fraction is processed such that biological decomposition generates a compost material that is typically used as a soil conditioner. The light inorganic "overs" fraction is currently incinerated as refuse-derived-fuel (RDF) in an Xcel Energy WTE project in Mankato. Metals are recovered and recycled. Process residuals are currently being disposed of at a Landfill.

To date, Prairieland has not solicited waste from Rice County. The Prairieland facility was constructed and permitted with a capacity of 100 tons per day. Currently, the Prairieland facility receives approximately 70 tons/day. Prairieland’s ability to market RDF is limited by the capacity at Xcel. Therefore, based on the Prairieland facility being at its RDF capacity, this facility is not an option for Rice County.

If in the future, the Prairieland facility expands, or secures additional RDF burn capacity, the Rice County would consider sending all or a portion of its waste to the Prairieland facility. For this to occur, Rice County would require a transfer station to minimize haul costs. The cost of a transfer station built at the existing County Landfill site, operation of the transfer station, transportation costs and a range of tips fees are included on Table 8.

MSW processing for RDF and composting is higher than land disposal on the state solid waste hierarchy, however, a significant portion of the waste still requires land disposal as by-pass or residual. Composting combined with RDF can drop this figure to 15 percent.

3.1.2 **City of Red Wing Waste-to-Energy Facility**

The City of Red Wing has operated a WTE project since the 1980’s. The City’s project is currently being upgraded to pre-process MMSW to recover recyclables and separate inert residues prior to combustion. The City’s project has a capacity of approximately 100 tpd, although actual throughput capacity is currently unknown.

Rice County is negotiating with the City of Red Wing to determine if the City of Red can utilize MMSW from Rice County. It is not known how long capacity would be available for Rice County MMSW. Pending the outcome of those talks, the Red Wing WTE project may be a feasible option for a portion of Rice County MMSW.

3.1.3 **Olmsted County Waste-To-Energy Facility**

The Olmsted County waste-to-energy (WTE) facility was built in 1987 and is located in Rochester, Minnesota. It is a mass-burn system (no front-end processing prior to incineration)
that burns waste from only Olmsted and Dodge Counties. It’s a permitted and design throughput is in the process of being expanded from 200 tons per day (TPD) to 400 TPD. The expansion is scheduled for completion in 2010. The Olmsted County WTE facility currently operates at full capacity with waste from Olmsted and Dodge Counties. MSW that is unable to be process from the two counties is currently being landfilled. For now, this facility is not available to Rice County. However, in the future, The Olmsted WTE should receive further consideration by Rice County.

### 3.1.4 Newport Resource Recovery Facility

The Newport Resource Recovery Facility was constructed in 1987 and is located in Newport, Minnesota. The facility is owned and operated by Resource Recovery Technologies (RRT) and processes MSW into Refuse Derived Fuel (RDF) that is subsequently transported to Xcel Energy facilities in Red Wing and Mankato. The facility processes waste primarily from Dakota, Scott, Washington and Ramsey Counties, although small amounts of waste from counties outside of the area, including Rice County, are also processed at the facility. The facility has a current permitted capacity of 500,000 tons per year and is currently operating near that capacity at approximately 425,000-450,000 tons per year.

The current operating costs, not including transportation, are currently higher at the Newport facility than they are at the Rice County landfill. The facility is, however, reported to be expandable to approximately 1,000,000 ton/year, at which time processing and transportation costs may become competitive with the current landfill operational costs. Expansion of the facility would, however, be dependent on the availability of additional burn capacity at Xcel or other potential refuse to energy facilities, e.g. Rock-Tenn.

Although higher on the State of Minnesota solid waste hierarchy, using Newport would require transport of raw waste materials to Newport and the subsequent transport of RDF to Red Wing or Mankato. This project’s actual processing capacity is limited by the capacity of its RDF partner facilities that are now at capacity. Due to limited capacity for RDF conversion this alternative is not available to Rice County at this time.

### 3.1.5 Out-Of-County Landfill

Another potential option for Rice County would be to close the County Landfill, build a transfer station, and send waste to an existing private land disposal facility. This facility could be a facility in Minnesota, Wisconsin or Iowa. It is unlikely that a publicly owned landfill in the region would solicit Rice County’s waste because of capacity constraints and political factors. The processing costs for this alternative are comparable to the costs of hauling to the alternative processing facilities discussed, the variables being miles to the facility and tipping fee.

This approach is not considered to be viable for the following reasons:
Liability Associated with Potential Site Remediation. If Rice County waste is deposited in a facility and that facility later has to be remediated due to substantial groundwater contamination, Rice County could be named as a "responsible party" and liable for a portion of cleanup costs. The legal complexities and costs can be as problematic as the cleanup costs themselves in these cases. In the case of an out-of-County facility, the County has no control in the construction or operation of the facility. And, if the County was named as a "responsible party" in an environmental clean-up at an out-of-County facility, the County would have no control in the manner or schedule of environmental remediation activities. Whereas, if the County continues to operate the County Landfill, the County will have control over construction and operation of the landfill, as well as any environmental remediation costs.

Additionally, since it is believed that if the County Landfill was not operating, waste would be transported to an out-of-state landfill, the County believes that it would be easier to work with the State of Minnesota on environmental clean-up, rather than work with another state.

Economics. Based on the increasing lack of competition amongst privately owned Landfills in the Midwest, the economics of sending waste to a private land disposal facility in Minnesota would likely be higher than continued use of the Rice County Sanitary Landfill. While private facilities currently charge less than publicly owned facilities, a long-term disposal fee of less than $48 per ton (2008 dollars) is unlikely. Additional costs associated with transfer station operations and over-the-road haul costs would further increase the costs to County residents.

A privately-operated landfill in northern Iowa is currently soliciting the disposal of waste from Minnesota. In the short run, this may be a less costly option than continued use of the County Landfill. Historically, landfills in Iowa have not had to meet the same environmental monitoring and financial assurance requirements as Minnesota landfills. However, the State of Iowa recently revised its solid waste rules and the cost of operating landfills in Iowa is now comparable to that of operating landfills in Minnesota. A recent survey of tipping fees in Iowa published by the Iowa Department of Natural Resources confirms this assessment. With the recent and projected increase in fuel costs, transport of regional wastes to landfills in Iowa is expected to be cost prohibitive in the long term.

3.1.6 Existing County Landfill

Rice County currently utilizes the County Landfill as its primary municipal solid waste management facility. The County Landfill is operated in conjunction with numerous waste abatement and special waste management programs. Through these waste abatement and special waste management programs (waste reduction, education, recycling, yard waste composting, household hazardous waste management and additional special waste management programs),
Rice County has successfully reduced the use of land disposal through recycling and abatement programs. With the exception of a small volume of waste shipped to Newport and Lake Mills, Iowa, all solid waste collected in Rice County that is not recycled is disposed of at the County Landfill. This facility has been in operation since 1973 and Rice County is proposing to continue to utilize this facility as its primary waste management facility.

The County Landfill is located just off Minnesota Highway 3 between Faribault and Northfield. With the exceptions noted above and in the Goal Volume Table (Table 1) in Appendix A, all MSW collected in Rice County (not including recyclables) is disposed of at this facility. No out-of-county waste is currently accepted at the County Landfill. A ten-year cost projection has been prepared for the Landfill and is presented in Table 7. This cost projection assumes no development of a new or use of an existing processing facility over a ten-year planning time-frame.

Regardless of the primary disposal method chosen, there will be costs associated with the County Landfill whether it remains open or is closed. If the County Landfill is closed, Rice County would incur costs associated with environmental monitoring, reporting/documentation to the MPCA, general site maintenance, post-closure care and development of a full contingency action fund which could be used for potential site cleanup activities. Information on these costs is included in the Comparison of Alternatives discussion in Section 5.3 and in the alternatives cost analyses in Tables 8, 9 and 10 as Landfill closure, operating and financial assurance costs.

3.2 NEW FACILITIES

3.2.1 Rice County Composting Facility

MSW composting is a process used to reduce the volume of waste requiring land disposal. The basic steps involved in this process are as follows:

- Deposit of waste on the tipping floor;
- Mechanical and manual separation of inorganic fractions of the waste stream for recycling, incineration or disposal;
- A controlled compost process, involving the biological breakdown of organic wastes; and
- Preparation of final compost product (curing and screening).

The compost product is a compost material that generally has low nutrient levels, but high moisture retention characteristics. This material is generally used as a soil conditioner.

There are few MSW composting facilities remaining in Minnesota at this time. They range in capacity from approximately ten tons per day (TPD) to 100 TPD. The operational history of these facilities has been one of mixed success. The facilities have generally reduced the amount of waste to be landfilled. However, all have undergone extensive shutdown periods and/or
redesign phases, and areas of concern have generally been problems associated with odors and stabilization of the final compost product. The amount of MSW feedstock requiring land disposal as process residual has frequently exceeded design expectations. The design and operations of future facilities should be aided by difficulties encountered at previous composting projects.

Table 9 presents the projected costs associated with a facility sized to handle waste from Rice County only. Such a facility would be similar in capacity to the original design capacity of the Prairieland facility located in Truman, Minnesota (100 TPD). For the purposes of this planning effort, it is assumed that such a Rice County facility would be built in 2011. It is also assumed that the oversized inorganic fraction of the waste stream would be sent to a waste-to-energy facility for incineration. This would reduce the amount of non-source-separated MSW requiring land disposal to 15 percent, and would allow closure of the County Landfill. Table 9 assumes closure of the County Landfill would occur in 2010, and that MSW would be sent to another facility for landfilling after closure. Table 9 also assumes that the residuals and bypass from the composting facility would be sent to another landfill for disposal.

### 3.2.2 Multi-County WTE Facility

The economy of scale is an important consideration for the evaluation of MSW processing technologies. This has prompted a communications network between surrounding counties to examine the feasibility of such a venture. Various scenarios have been put together to address the financial feasibility of this type of regional approach and additional studies are on-going. Locating a processing facility within normal trucking distances would make it feasible to operate without transfer stations. This would significantly enhance the economics associated with a regional facility. One scenario for a regional processing facility that has been discussed would include Rice, Steele, Waseca and portions of Scott counties. Adding Steele and Waseca and Scott's wastes would increase the amount of waste from roughly 130 tons per day (Rice only) to roughly 500 tons per day (Rice plus Steele Waseca and Scott). This would enhance the processing economics of the system, and haul distances would not be excessive due to the geography of the three counties. Since the Supreme Court recently reinstated flow control for public facilities this once again is a viable alternative to land disposal since the operation of any multi-county facility would require assurances of waste delivery in order to retire bonding.

Table 10 summarizes the projected costs associated with building a Multi-county processing facility. This table assumes the facility would be built in 2011. It also assumes the light non-organic fraction of the waste stream (primarily plastic film and paper products) would be trucked to an existing facility for incineration. This configuration would leave approximately 15 percent of the original waste stream requiring land disposal (bypass or residuals).
3.2.3 **Proposed St. Olaf College Composting Facility**

St. Olaf College has proposed constructing an organics-composting facility for food waste and has received a conditional use permit from the County for the proposed composting facility. The location of this composting facility is in Northfield, MN. The college has approximately 1,200 acres of land on which to site the composting facility.

The proposed St. Olaf composting facility would consist of an in-vessel composting system at the college to facilitate the management of primarily source-separated cafeteria waste generated at the campus. Additional waste streams, consisting of yard waste, tree trimmings and paper waste, would augment this primary waste stream as needed. Currently these waste streams are sewer, hauled off-site to the Rice County Landfill, or recycled.

St. Olaf has investigated a number of composting systems and has chosen an in-vessel system. The proposed composting system would be operated year round. Currently, St. Olaf has no plans on marketing the compost. St. Olaf proposes to use the compost on campus for landscaping and as a soil amendment. The goal of St. Olaf is to use the composting project, to the extent possible, as an educational tool for their students and faculty.

The project is targeted to compost all food waste generated on campus. Waste hauler records indicate that approximately 13 to 14 tons of food waste is generated on a weekly basis at the college. In addition, St. Olaf may expand its campus in approximately two years to include a new Northfield Hospital and Retirement Center. The food wastes from these two new facilities may also be composted at this location. This may result in an additional three to four tons of waste being generated on a weekly basis. Based on these estimates, St. Olaf anticipates composting three tons of food waste and amendments per day.

If the proposed St. Olaf composting facility is permitted and constructed, the County will track the success of this food waste composting facility. As proposed, no outside haulers will be allowed to deliver materials to the St. Olaf composting facility. As previously discussed, it is envisioned that this facility will be used as a teaching tool at St. Olaf College. However, if operations at the St. Olaf facility are successful, it will reduce the volume of waste delivered to the County landfill, and the County will discuss the feasibility of expanding the facility to include sources from outside the college. If determined to be feasible, the potential for a partnership or collaborative effort will be evaluated. Any partnership or expansion of the St. Olaf composting facility will take cooperation on the part of both the County and St. Olaf College.
3.3 COMPARISON OF ALTERNATIVES

Through the solid waste management planning process, Rice County is required to identify one primary waste management technology or approach as its “Proposed Method”. This is the method envisioned for implementation over the planning period. Plan Updates must be submitted to the State of Minnesota every ten years. If the Proposed Method changes over time, this change can be reflected in the Plan Update/Amendment Process.

There are three basic methods Rice County could select as its Proposed Method for this planning document:

- Continued use of the Rice County Sanitary Landfill as the primary facility;
- Development of an MSW processing facility (Rice County-only or regional); and
- Refitting the existing Rice County Recycling facility to transfer MMSW or construction of a new transfer station to transport waste to an existing land disposal or processing facility.

Table 11 provides a summary presentation of the projected economics of the various primary method scenarios evaluated in Sections 3.1 and 3.2. The comparative strengths and weaknesses associated with the given methods are addressed below.

3.3.1 Rice County Land Disposal Facility

Strengths
- Low relative cost
- Existing infrastructure/investment
- Accepted and low hauling requirements

Weaknesses
- Lowest element on the State’s waste management hierarchy
- Least amount of landfill abatement

Discussion
Generally speaking, this option represents the smallest administrative risk and cost to Rice County. There is permitted capacity for approximately 20 years, and the engineering, construction, and operating costs associated with utilizing the landfill can be predicted with relative confidence. There is also the potential for expansion of capacity beyond the roughly 20 years of capacity associated with the "footprint" currently envisioned for development. Rice County makes annual financial assurance payments to cover contingency actions, such as site remediation.
Land disposal is the lowest element of the State waste management hierarchy. The intent of this hierarchy is to minimize the use of landfills within the state. This is due in part because landfills have the potential to impact groundwater resources, release air pollutants, and render materials and energy entrained in mixed waste unrecoverable. As will be discussed further in Section 4.5, operations at the County Landfill have impacted ground water underneath the unlined portion of the site. However, the threat to the ground water from disposal activities associated with the lined expansion is substantially less than with the former unlined operation. The County Landfill is discussed in detail in Section 4.5.

While land disposal is at the bottom of the State of Minnesota hierarchy of waste management alternatives, the State recognizes that only feasible and prudent alternatives to land disposal shall be implemented by Rice County. Alternatives that are speculative or conjectural are not feasible and prudent. Moreover, Rice County is currently implementing a very aggressive waste abatement program to minimize the amount and toxicity of waste landfilled. Resource Recovery Processing--New Facility

On the State of Minnesota hierarchy of waste management alternatives, waste-to-energy (WTE) incineration and MSW composting are ranked at the same level and are preferred to land disposal. Development efforts in Dakota County, Lyon County, and at Rock-Tenn in St. Paul are illustrative of the degree of misinformation and public sentiment regarding WTE. However, MSW incineration may present the best long-term opportunity for Rice county by itself or regionally, dependent upon location. Rice County intends to continue meeting with others, including the City of Red Wing and adjacent counties, regarding the potential for using an existing or developing a new multi-county joint facility that would generate steam for heat, electricity, hot water and chilled water for cooling. Other technologies may also be considered for resource recovery processing.

**Strengths**
- Reduced utilization of and dependence upon landfill capacity
- Higher than land disposal on State's preferred waste management hierarchy
- Waste assurance to public facility.

**Weaknesses**
- High relative cost
- Technical concerns
- Institutional/contractual requirements (assuming regional facility)

**Discussion**
Resource recovery would significantly decrease the amount of waste within the given service area requiring land disposal. If a facility is developed such that a portion of the throughput is
segregated and prepared for incineration or alternative energy utilization, the amount of waste requiring land disposal is projected to be approximately 15 percent of what would be landfilled without such a facility. If there is no diversion to an incinerator of the inorganics that cannot be recycled, and these materials are landfilled, this figure increases to roughly 40 percent.

The initial weaknesses to be observed for resource recovery as an option for Rice County are cost and public opposition to cost increases. The costs associated with resource recovery as opposed to land disposal as a primary method is compared in Table 11. Cost is a potential difficulty at two levels. The first is the direct amount of County funding which must be expended. The second involves the issue of waste assurance (see Section 4.12 for further discussion of waste assurance). Facilities that charge tipping fees significantly higher than other available solid waste facilities, when transportation costs are included, face the risk of losing waste to those other facilities. Since solid waste facilities are generally financed on a charge-per-ton revenue stream, a loss of waste means a loss of revenues. Industrial/commercial/institutional generators will look to the County to provide a waste management option at a competitive cost.

There is some technical concern with resource recovery as a reliable and efficient operating process. Optimal design and operating parameters for resource recovery facilities are subject to on-going debate among engineers and regulators. Rice County recently experienced significant organized opposition to a proposed ethanol facility and anticipates similar objections to a large scale RDF and/or burn facility. The percentage of MSW feedstock requiring land disposal as process residual has frequently exceeded design expectations.

Rice County recognizes that State Statute establishes that cost increases alone do not constitute sufficient justification to reject any feasible and prudent alternative to land disposal.

3.3.2 Haul to Other Existing Landfills

Strengths
- Temporary cost reduction

Weaknesses
- Lowest element on the State’s waste management hierarchy
- Hauling requirements (including Transfer Stations)
- Uncertainties regarding facility availability and contractual requirements
- Uncertainties regarding liability as “responsible party” for potential site remediation.
Discussion

Land disposal is the lowest element of the State’s waste management hierarchy. The intent of this hierarchy is to minimize the use of landfills. This is due in part to the fact that landfills have the potential to impact groundwater resources. Out-of-state landfills may not have the same construction and monitoring requirements as Minnesota, and thus there is a potential for increased risk associated with these facilities. The costs associated with the operation of a transfer station also need to be factored into the cost of disposal at an out-of-County facility.

3.3.3 Comparison Summary

State law requires that counties develop solid waste management systems that abate the continued use of land disposal to the maximum extent feasible and prudent, and expresses a clear preference for resource recovery over landfilling. Rice County has implemented and continues to enhance aggressive waste abatement programs such as source separation recycling, yard waste composting, and waste education/reduction. However, the analysis and discussion presented in the previous sections demonstrate that none of the processing alternatives to land disposal are, at this time, more prudent and feasible than continued use of the existing County Landfill.

"Prudent" in this context refers to financial viability. The projected cost information presented in Table 11 clearly indicates that none of the processing alternatives can economically compete with land disposal under the assumptions utilized. "Feasible" refers primarily to technical viability. As has been discussed previously, there is not sufficient capacity at existing facilities. Therefore, hauling MSW to those facilities is not currently feasible. Another definition of "feasible" may be administrative and political viability. The issues of waste assurance and required contractual structures between all interested parties and the potential import of out-of-county waste make the regional resource recovery projects identified in this document more challenging than land disposal from the perspective of administrative viability.

The use of existing processing facilities (the Red Wing, Prairieland, Newport RRF and Olmsted County facilities) as the primary waste management option for Rice County is not an available option at this time. These facilities are currently at or near capacity. If capacity became available at these facilities in the future, then the utilization of these facilities would require the use of a transfer station. In addition to transfer costs, Rice County could face cost and liability issues associated with land disposal of residuals in a landfill or landfills over which it has no operating control. The volatile nature of costs of transportation is also uncertain at this time, given the recent fluctuation in fuel costs.

Land disposal is the least-cost option and one that can be expected to provide a minimum of ten years of reliable capacity at anticipated fill rates, assuming current/anticipated regulations. Resource recovery (a general category which includes waste-to-energy incineration and MSW composting) is not feasible or prudent as a primary waste approach for Rice County at this time.
However, Rice County will continue to closely monitor and discuss potential regional projects involving resource recovery. Rice County will closely track any legislative initiatives at the State level to prohibit the landfilling of unprocessed waste in Greater Minnesota counties.

3.4 CONCLUSIONS

The review and discussion of potential alternatives is summarized in the previous sections and will be updated as appropriate in the future. The alternatives, whether proposed or existing facilities, have been evaluated in terms of capacity, economic conditions, environmental issues, and general planning/institutional factors.

Four primary findings include:

1. No existing processing facilities have capacity to process a large portion of Rice County’s MSW;

2. Although new capacity has been proposed and may be available in the future at Red Wing, Olmsted, Mankato, Fairmont and/or Rational Energies in Coates, the new capacity is not available to Rice County at this time;

3. New resource recovery capacity built to suit Rice County is most feasible if it is done in cooperation with several other Counties; and

4. If resource recovery is selected by Rice County, then considerable cost burdens will remain associated with the Rice County Landfill that makes implementing an alternative more costly.

Based on the previous analysis, Rice County intends to continue to utilize the County Landfill as its primary waste management facility. As previously discussed, existing processing and waste-to-energy facilities do not have the available capacity to receive waste from Rice County. If one of these facilities is expanded such that additional capacity is available, Rice County will consider the option of delivering waste to that facility. Also, it is anticipated that the lack of MSW disposal capacity and higher transportation costs will ultimately drive up the price of disposal at privately owned landfills in Minnesota.

4.0 SOLID WASTE SYSTEM EVALUATION AND IMPLEMENTATION PLAN

The policies for the abatement programs adopted in the previous Solid Waste Management Plans remain in effect. Due to the success of the existing programs in achieving a 50% or greater recycling rate county-wide, the existing policies and programs will continue in effect during the 10-year term of this plan.
4.1 SOLID WASTE REDUCTION PROGRAMS

In the past, Rice County gave equal time to waste reduction and recycling programs. The County’s recycling program is now well established and has proved to be successful. The County will now devote additional emphasis to waste reduction efforts. As part of the County’s waste reduction program, the County will continue to promote waste reduction techniques in schools, offices, homes, manufacturers, businesses and churches.

Rice County promotes waste abatement through education efforts that emphasize eliminating a potential waste before it reaches the waste stream. Education efforts focus upon purchasing activities and product-use methods that minimize the packaging that has to be thrown away.

The Faribault and Northfield school systems and other area businesses and government offices have adopted detailed waste reduction and recycling policies to guide purchasing, use, and disposal patterns. County staff has provided in-service demonstrations on ways to reduce amounts of high-grade paper and other materials before they have to be recycled or disposed of.

As a Rice County Solid Waste Ordinance requirement, all refuse collection rate structures offered by haulers in Rice County are volume-based. Volume-based collection fees give households and businesses significant incentive to minimize the amount of waste they generate.

In the future, the existing waste reduction programs and activities within Rice County will be continued and built upon. The general waste education program will continue to emphasize the benefits of waste reduction and to provide information on waste reduction techniques. County staff will continue to meet with commercial/industrial waste generators to discuss methods generators can use to reduce their waste streams and hauling/disposal costs.

Through its household hazardous waste program, Rice County collects hazardous materials for Rice, Waseca and Steele counties. The HHW facility was expanded in 2008. Incoming items are inspected and useable products are put on exchange shelves for others to use. Non-useable and banned products are not included in the exchange program. Giving products back to customers through exchange shelves has saved costs for disposal and helps to reduce the amount of hazardous materials purchased.

Also, as a member of the Southeast Minnesota Recyclers Exchange (SEMREX), Rice County participates in a materials exchange program, which assists businesses and institutions with waste reduction. Usable materials, such as plastic packaging materials and chemicals, are listed on a state-wide database, and others seeking those materials are matched and can obtain the materials free or at low cost.
4.2  **Waste Education**

Effective public education is a fundamental requirement to achieve the goal of integrated waste management. Rice County has a comprehensive education program that enables residents and businesses to understand and support a waste management program that includes waste reduction and recycling. A Recycling Coordinator is on staff to plan and implement educational and promotional programs for Rice County residents and commercial, industrial and institutional businesses.

The public education program centers around the need to save landfill space, to protect groundwater beneath the County Landfill, to reuse or recycle valuable resources, and to responsibly collect and dispose of hazardous wastes.

Rice County currently has an active waste education program that is directed by the Recycling Coordinator. This program addresses all methods of waste abatement: source separation/recycling, waste reduction, and yard waste composting. It also addresses other issues such as special wastes (oil, batteries, tires, white goods) and household hazardous waste. Information on waste management issues/programs is released or published at least once every three months.

The waste education program utilizes a number of methods to inform and instruct County residents regarding waste management issues:

1. Incorporation of waste education materials into public and private school curricula, presentations in schools, and teacher in-service training;
2. Production of posters, videos, and other public materials;
3. Meetings and in-service training with commercial/institutional generators to discuss and promote waste abatement options;
4. Radio interviews, call-in programs, advertising, and regular news releases to newspapers and radio stations; and
5. On-going meetings with civic and business groups to discuss waste management issues.

Solid Waste Department staff has trained recycling volunteers that assist in the education of residents and businesses regarding recycling and other waste abatement activities.

In 1999, Rice County published a “Garbage, Disposal and Recycling Guide” with the assistance of the OEA and distributed it to businesses and residents of Rice County. This document serves as a guide to garbage disposal and recycling in Rice County. The guide was prepared in response to citizen requests for more information about proper garbage management. In the guide, items are listed alphabetically and followed by suggestions for reducing, reusing, recycling and disposal.
4.3 Recycling

After waste reduction and reuse, recycling is the most effective method to reduce the amount of materials being disposed of at the County Landfill. Rice County is committed to a comprehensive recycling program for all residential, commercial, industrial and institutional sources of materials. It is the County's goal to continue to exceed State of Minnesota requirements established for recycling programs in Minnesota Rules 9215.0600.

Since County staff did a waste stream analysis in 1988, plans and programs have been underway to divert both residential and commercial materials, away from the County Landfill. Rice County implemented a step-by-step recycling program that started with single-family households and trailer courts, and expanded to include apartments, businesses and institutions.

All six municipalities in the County currently have weekly curbside recyclables collection. This service is provided for each household by the hauler that provides garbage-collection service to the household. Collection of garbage and recyclables are on the same day to promote higher participation rates for the recycling program. The recyclables collection program utilizes 20-gallon plastic bins for in-home storage. Residents are directed to sort materials according to glass, metal, paper and plastic.

In July of 2008, Rice County made changes to the curbside pick-up of recycled materials to a commingled recycling system and adding additional materials that may be recycled.

Rice County meets the "opportunity to recycle" requirements established in Minnesota Statutes, Section 115A.552, through the facility/activities described above. Three or more materials are recycled at all County and local government facilities.

Rice County has a mandatory source separation/recycling requirement for all MSW generators. The enforcement mechanism for this program is a ban on the landfilling of recyclable materials. If a hauler delivers a load to the working face with significant contamination with recyclables, they must:

- Remove the recyclables from the working face or pay Rice County to have this done.
- Submit a letter to the Waste Management Director documenting that they have contacted the violating generator and notified the generator of the source separation requirement. The generator must document that they have received and reviewed this letter.

Residential collection contracts require that haulers transport the collected recyclables to the County Recycling Facility.

In 1991, the County completed construction of a 30,000-square-foot recyclable-processing building (Recycling Center). The Recycling Center is north of, and adjacent to, the County
Landfill site. It is designed to primarily handle commercial haulers bringing collected recyclable materials. Rural residents not using curbside collection services may also bring their materials to the Recycling Center. No redemption fees are paid at the Recycling Center.

The Recycling Center is designed to handle 50-70 tons per day (TPD), with corrugated cardboard forming the major share (up to 40 TPD). Corrugated cardboard is placed into a designated hopper and fed onto a conveyor belt for review before going into a horizontal baler. Bales are loaded directly into semi-trailers for storage. Two other hoppers and conveyor belts handle the remaining materials. Metals are separated magnetically and valued; most of the glass is broken and loaded into roll-offs; high-grade paper is reviewed and baled in a horizontal baler. Newsprint is transported to an adjacent building for chopping and baling as animal bedding, or is baled directly and stored for other markets. Plastics are sorted by resin and baled horizontally.

During 2008, the operations of the facility were modified to process recyclables by single sort rather than dual sort as had been done previously. The facility is staffed with a Plant Manager, up to six employees on the processing floor and in the receiving area, an Office Manager, and a secretary.

The Recycling Center plant manager is the lead staff individual responsible for getting materials to market. The current markets for materials collected through the Rice County recycling program are as follows:

- Newsprint - animal bedding;
- High grade paper - Pioneer Paper (Minneapolis);
- Cardboard – Rock-Tenn (St. Paul);
- Plastics - Phoenix (Roseville);
- Glass - Anchor Glass (Shakopee);
- Aluminum - Reynolds Aluminum; and
- Tin - Terry Greenside (broker).

The tonnages of materials collected and recycled for 2007 are presented in Table 12.

### 4.4 Yard Waste Management

In July of 1989, the Rice County Board of Commissioners passed a resolution banning yard wastes from the County Landfill. This policy defines yard wastes as leaves, grass clippings, and small twigs. At the same time the yard waste ban was initiated, Rice County provided alternatives for each municipality and individual household to manage yard waste. Yard waste composting sites operate in the two largest municipalities in Rice County; Northfield and Faribault. The smaller cities have established yard waste sites, but, due to the general attitude of
people living in rural communities, little yard waste is collected. Smaller rural communities burn, bury or dispose of yard waste rather than accumulate it for disposal.

The sites in Faribault and Northfield are similar to each other in layout and operations. Both are fenced and secured to prevent unauthorized dumping of garbage or other wastes. Throughout the non-winter months, the sites are open one weekday plus Saturday each week. In the spring and fall, they are also open two weekday nights per week. The sites are staffed at all times during operating hours.

Northfield collects yard wastes twice yearly at designated times, usually in the spring and fall. The local contracted refuse hauler picks up yard wastes and deposits them at the compost site. Northfield sells paper bags that homeowners must use for yard waste disposal. Haulers will not pick up wastes that are not deposited in the biodegradable paper bags. Residents that do not wish to participate in the curbside yard waste program can haul their wastes to the compost site during the designated hours.

In Faribault, residents contract directly with one of five haulers for garbage collection services. These haulers offer yard waste collection for an extra fee upon request by the households. Almost all the yard waste delivered to the Faribault site is self-hauled by residents.

Twice each year the cities take the collected yard wastes and put it in long windrows. This completes the first phase of the compost operation. Three or four times during the year, Rice County has contracted with a private operator to turn and aerate the windrows, increasing the rate of bio-degradation of the yard wastes. This has proved more than adequate to provide material breakdown. When the Solid Waste Management Director has determined that the material is adequately decomposed, usually reaching a carbon:nitrogen ratio of 12-to-1, a screener is brought in and all material is run through the screen to remove sticks and larger stones. Finished material is made available to the public at no charge.

In addition to the composting sites located in individual cities, Rice County operates a yard waste composting site at the County Landfill. This area is open for drop-off during all operational hours of the County Landfill. The piles are turned regularly with County equipment and the final compost material is available for residents and businesses to collect, free of charge, at the County Landfill site.

Backyard composting is promoted through the County Waste Education Program. The Solid Waste Department has put together a brochure available to residents focusing specifically upon backyard composting. The Solid Waste Department also sells composting bins to residents who are interested. It is estimated that approximately one percent of Rice County households actively and regularly use backyard composting sites and that approximately 140 tons of material per year are diverted from the County Landfill through these efforts.

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4.5 MSW LAND DISPOSAL

Rice County intends to continue operation of the County Landfill (MPCA Permit # SW-123). The current footprint envisioned for expansion will have capacity for over 10 years at anticipated disposal rates. The engineering and operations of the site will ensure that environmental issues are effectively addressed.

Rice County intends to extend the life of existing developed landfill capacity to the greatest degree feasible. For this reason, it has established extensive and aggressive waste abatement programs as discussed elsewhere. Rice County also controls the wastes entering the County Landfill through implementation of the Rice County Industrial Waste Management Plan, through participation in a regional MPCA-sponsored household hazardous waste management program, and by routine inspection of incoming waste by a certified Landfill Operator.

Rice County will expand the County Landfill as needed to provide an economically competitive and environmentally sound primary management method to be used for the disposal of all municipal solid waste generated within Rice County.

Closed Landfills
There are four primary sites that have, at various times in the past, been utilized as organized disposal areas in Rice County. Table 14 provides a listing of these sites, along with their locations and background information. All of these former primary sites are closed. As discussed on Table 14, the Northfield site is conducting minor monitoring, however, the extent of monitoring is unknown by the County. The majority of closed facilities within the County do not conduct monitoring. None of the closed landfills included on Table 14 are in the MPCA’s Closed Landfill Program. The MPCA previously conducted a survey of the former disposal areas located in Rice County. The MPCA should be contacted for additional information on these former facilities.

Existing Facility
The County Landfill is located approximately 7.5 miles north of Faribault on a 210-acre parcel of land. The County Landfill was originally permitted by the Minnesota Pollution Control Agency in 1973 and has operated continuously since that time. The municipal refuse limits of the County Landfill encompass approximately 73 acres at this time, of which approximately 48 acres were closed prior to 1992. In addition, the existing demolition debris disposal area occupies approximately six acres of the Landfill property. The layout of the facility is shown on Figure 2.

During the summer of 1995, Rice County completed construction of the Phase I lined disposal cell with a leachate collection system, and ceased operations in the unlined area. Final closure of the unlined portions of the County Landfill was completed in July 1995. Construction of the Phase II lined cell was completed in 1996 the Phase III cell was constructed in 1999, the Phase
IV cell was constructed in 2003, the Phase V lined cell was constructed in 2006, and the Phase VI cell was constructed in 2008. Construction of the Phase I final cover (1.87 acres) was completed in September 1998, the Phase II final cover was constructed in 2003 and the Phase III final cover was constructed in 2006. It is envisioned that new cells will be added approximately every 3 to 4 years. Subsequent closure construction projects will take place every two to three years as necessary.

The overall footprint envisioned for lined landfill construction is approximately 25 acres and is within the area established for landfill activities in the 1973 MPCA permit. The 1973 permit did not specify an airspace capacity for the site; however, it stated site development to be in accordance with the ultimate land-use plan. Using the 1973 engineering plans, the permitted volume of airspace available for refuse and cover was calculated to be approximately 3,422,800 cubic yards. The total airspace associated with the existing and proposed footprint submitted with the March 2008 re-permit application is approximately 3,970,035 cubic yards. As of December 2007, the remaining permitted total airspace at the Landfill was 797,113 cubic yards. Re-permitting documents for the Rice County facility were submitted in March 2008. The facility’s current permit expired on July 28, 2008.

The County Landfill’s leachate treatment system consists of primary and secondary treatment ponds and a spray irrigation system. Collected leachate is pumped to the primary treatment pond where initial reduction in VOCs and BOD takes place. The leachate is then transferred to the secondary storage pond from which it is pumped through the spray irrigation system to landspread the leachate. Leachate is usually applied three to four times per year between the months of May and October. As a contingency, leachate may be hauled to a wastewater treatment plant.

The County Landfill is operated primarily with a Caterpillar D7 bulldozer and a Bomag 672 RB compactor, which is used to spread and compact waste and to spread daily and intermediate cover. Equipment operators run the heavy equipment at the facility. These individuals receive daily direction from the Solid Waste Director or the landfill foreman, both MPCA-certified landfill operators. The gate attendant/clerk provides preliminary inspection of incoming loads, takes payment for individual loads coming to the site, and records all loads and payments.

There is a network of 16 water-quality monitoring wells that are used to monitor the impact of landfill activities on the underlying ground water. Data from these monitoring points indicate environmental impact upon ground water typical of other unlined MSW sites in the State. These impacts are summarized and discussed in the annual reports submitted to the MPCA. The County will continue to monitor the water quality present at the Landfill. At this time, the installation of a corrective action system is not anticipated.
The hydrogeology of the site has been extensively investigated and documented. The investigative work at the site has established that the only down-gradient receptor for the County Landfill is the Cannon River. The formations impacted by activities at the County Landfill are the Platteville dolomitic-limestone and St. Peter sandstone. Both of these formations discharge directly to the Cannon River at this location and there are no water supply wells between the County Landfill and the river. For this reason, the MPCA has agreed to replace ground water quality standards with surface water quality standards regarding water quality attainment thresholds. The concentration levels of impact parameters, as have been observed through routine water quality monitoring at the site in recent years, are well below general surface water quality limits as established by the MPCA.

Rice County has been making regular payments into its financial assurance fund since 1990. Monthly payments into this fund are currently $7,726. This payment rate was established in the "Rice County Sanitary Landfill 2007 Annual Operating Report" (Liesch Associates, Inc., January 2008) which was generated in compliance with MPCA requirements.

4.6 Tire Management

Rice County has followed state regulations and banned tires from the County Landfill. Every truck that disposes of wastes is monitored for tires which, if found, are properly disposed of.

In July 1989, the Rice County Board of Commissioners officially required the Solid Waste Department to set up a program at the Rice County Landfill to recycle used tires. Rice County has contracted a private contractor (Greenman Technologies) to haul the tires collected at the County Landfill on a regular basis. Tires are placed in a roll-off at the site for temporary storage. Rice County contacts the private contractor whenever the roll-off has reached capacity and the contractor responds promptly.

Rice County regulates unauthorized storage and disposal of waste tires through authorities established in its Solid Waste Ordinance. Enforcement actions are directed by or performed by an Assistant County Attorney and members of the Solid Waste Department staff.

4.7 Major Appliance Management

In July of 1989, the Rice County Board of Commissioners authorized by resolution the Solid Waste Department to keep all major appliances out of the County Landfill. At the same time, the Board established a recycling program to handle major appliances produced by individual households. Rice County has contracted for the safe and economical removal of major appliances collected at the County Landfill. Appliances are hauled away for recycling. Fees collected from dropping off used appliances cover the cost of the hauling and recycling service.
Appliances or "white goods" are accepted at the County Landfill. Rice County has an ongoing contract with JR's Appliance to pick up the appliances at the County Landfill site when contacted.

In order to make it easier for residents to recycle electronics the County Board has changed the fees for the recycling of electronics. Effective November 13, 2007 the Board has reduced the fee from $15.00 to $5.00 for video display devices such as monitors, TV's, and flat panel displays.

All remaining household electronics will be collected at the Rice County Recycling Facility at no charge to residential customers. Businesses that have electronics for disposal will have to contract directly with a recycler or they may bring them to the Rice County facility for a disposal rate of $0.40 per pound.

**Mandatory recycling:**
TV's & Computer Screens: $5.00 per unit
All business electronics.

**Optional Electronics recycling:**
Residential Customers only.
*Computers, small home printers, home stereos: No Charge
*Small electronic devices (radios, games, etc.)
Cell phones/small rechargeable devices and rechargeable batteries are free for disposal at the Household Hazardous Waste Facility.

4.8 **Waste Battery Management**

Rice County recognizes that the disposal of lead acid and certain types of dry cell batteries can impact levels of metals such as mercury, cadmium, and lead in the waste and resulting landfill leachate. Rice County understands the need to control the amount of this type of waste through public education and other efforts. Wet cell batteries may not be disposed of as MSW.

Used vehicle batteries are accepted at all retail outlets in Rice County that sell new vehicle batteries. In accordance with State law, it is illegal to dispose of vehicle batteries in a landfill.

The importance of keeping batteries out of the County Landfill is emphasized in the Rice County waste education program. This program also publicizes the appropriate drop-off locations for various types of batteries. The Rice County Recycling Center, located at the County Landfill facility, accepts batteries for proper disposal.
4.9 USED OIL MANAGEMENT

Rice County and the State of Minnesota have had a long-standing policy not to allow liquids in MSW landfills. Since 1988, the Rice County Board of Commissioners have required an oil collection site to be located at County Recycling Center. This has provided a safe dependable outlet for the household disposal of motor oil. The State Department of Weights and Measures also has been requiring and enforcing the collection of oil at retail outlets. There are more than an adequate number of local outlets for used oil.

Used motor oil is collected at the Rice County Recycling Center. From the Recycling Center, a licensed used oil hauler removes the material and transports it for recycling. Businesses are required by State law to collect used oil if they sell oil products. The Recycling Center drop-off option is available to anyone in Rice County.

4.10 HOUSEHOLD HAZARDOUS WASTE MANAGEMENT

Rice County policy is for the safe management of all household hazardous wastes ("HHW") produced in Rice County. It is the feeling of the Board of Commissioners that unless a convenient and economical disposal option is provided to County residents, most wastes will end up in undesirable places. Rice County has made a commitment to clean water and illegal dumping of solid wastes is one of the biggest threats to the environment.

A HHW educational plan is established, and includes: slide presentations, newspaper and radio paid ads, educational displays at county fairs, health fairs, learning stations at schools, and other media.

Through its household hazardous waste management contract with the MPCA, Rice County is working with the State of Minnesota to meet requirements as established in Minnesota Statutes II5A.96. Rice County has operated a 20' x 34' HHW building next to the Recycling Center at the County Landfill facility for many years. The Recycling Center building was expanded in 2008 to provide increased space for material processing and storage as well as adding safety features to the building. The HHW building is open every Wednesday, as well as the second and fourth Saturday mornings of every month. Rice County also is the HHW Regional Program sponsor for Steele and Waseca counties, serving as a loading site for HHW wastes from these Counties. Rice County has contracts with these two Counties and the MPCA to provide this service.

Hazardous products are defined as those that are toxic, reactive, ignitable or corrosive. Paint and paint products make up 85 percent of all incoming items, with others being cleaners, adhesives, pesticides, and solvents.
Incoming items are inspected and useable products are put on exchange shelves. Non-useable and banned products are lab-packed or bulked for shipment. Giving products back to customers through exchange shelves has saved costs for disposal.

4.10.1 Very Small Quantity Generator Program

Rice County has implemented a Very Small Quantity Generator ("VSQG") Program to assist area business with the disposal of their hazardous wastes. Rice County assists those businesses meeting the requirements of very small quantity generators with obtaining the necessary licenses, and will provide additional information concerning the storage and disposal of hazardous waste. As an additional service, Rice County collects the hazardous wastes from participating businesses under the HHW program. Participating businesses pay Rice County for the disposal of the collected materials and additional fees are collected for any additional assistance offered. This program is available to interested businesses in Rice, Steele and Waseca Counties as part of the HHW Regional Program. In 2007, the VSQG program assisted in the disposal of hazardous wastes from over 50 area business, accounting for approximately ten tons of hazardous waste.

4.11 DEMOLITION DEBRIS MANAGEMENT

Rice County recognizes the need to minimize the utilization of MSW land disposal capacity so as to maximize the life of that capacity. A significant element of this policy is to minimize the amount of wastes disposed of in MSW cells that does not have to be. Rice County has constructed an MPCA-permitted demolition debris disposal cell, providing generators with a strategically located and relatively inexpensive disposal point for demolition debris. Additionally, Rice County monitors and licenses operations at private demolition debris disposal sites to ensure that adequate environmental safeguards are being met.

The demolition landfill program centers around two approaches; those materials disposed of by private contractors at their own sites, and those materials delivered for disposal at the Rice County demolition landfill. The County has been operating its demolition landfill since 1989 to provide a more economical place for disposal of relatively inert materials. The existing demolition landfill consists of approximately 6 acres and is located adjacent to the County Landfill. Additionally, private contractors operate three demolition landfills in the County. Each of these private demolition landfills is regulated by Rice County and the MPCA to insure compliance with demolition landfill rules. Additional demolition waste disposal capacity is proposed in the permit application submitted in March of 2008. The permit application proposes an additional 255,000 cubic yards of disposal capacity in the proposed demolition debris disposal area expansion. The landfill has been increasing the amount of recycling of materials at the demolition landfill by segregating pallets and recycling the wood materials, removing large volumes of steel for salvage, salvaging materials from larger trailers as well as recycling of concrete and bituminous materials disposed of at the site.
In addition to the facilities located within Rice County, a fair amount of demolition debris is disposed of at demolition debris disposal facilities located outside of the County. As shown on Table 13, during 2007, the Rice County Demolition Landfill received approximately 14,575 cubic yards (9,689 tons) of demolition and/or construction debris. The privately owned Met-Con Demolition Landfill had its permit re-issued in April of 2002 with capacity for disposal of 258,000 cubic yards of demolition debris. During 2007 the Met-Con Demolition Landfill received approximately 5,540 cubic yards of demolition debris. Another of the private demolition facilities accepts only concrete and asphalt material resulting from their own demolition activities. The County does not know the volume of demolition debris disposed of at this or other privately-owned demolition debris facilities that may receive demolition-debris generated in Rice County.

4.12 Waste Assurance Options

Rice County recognizes the need to assess the various waste assurance options available in order to continue the waste abatement efforts currently in place and to ensure that waste generated in the County is properly managed. The following sections provide the five options for managing waste in accordance with the County’s respective Solid Waste Management Plan. These five options have been used successfully in other counties.

Rice County currently informs public entities of the requirement to comply with MN Statutes 115A.46 subd. 5 and 115A.471. Under these laws, public entities must manage waste in accordance with the preferred option stated in the County’s Solid Waste Management Plan. County staff meets with public entities and their haulers regularly to educate them about this law.

Over the next year, the Rice County Board of Commissioners, Solid Waste Director and County Attorney will assess the need for waste assurance measures within Rice County. This evaluation will be undertaken with assistance from the MPCA. If Rice County determines that waste assurance measures are necessary to ensure that waste generated in Rice County is properly managed, the following waste assurance mechanisms will be evaluated and the chosen mechanism adopted by the Board of Commissioners. It is anticipated that within the next five years, Rice County will adopt some form of waste assurance policy.

4.12.1 Public Entities

Rice County informs public entities of the requirement to comply with MN Statute 115A.46 subd.5 and MN Statute 115A.471, stating that public entities that manage waste must manage their waste in accordance with the preferred waste management practices in the County Solid Waste Management Plan.

The definition of public entities includes any of the following:
• An office, agency, or institution of the state;
• The metropolitan council;
• A metropolitan agency;
• The metropolitan mosquito control district;
• The legislature;
• The courts;
• A statutory home rule charter city;
• A town;
• A school district;
• Another special taxing district; or
• Any contractor acting pursuant to a contract with a public entity.

Actions associated with the public entities statute:

• The County’s waste management preferences should be clearly stated in the County’s Solid Waste Management Plan.
• Only affects waste generated by public entities collected or contracted for collection by a public entity.
• The state can assist counties by enforcing the public entities law.
• Enforcement requires County staff to meet with public entities and haulers to educate them about the law. This can be time consuming for County staff if public entities are resistant to complying with the law.

Numerous Counties have sent letters to public entities, or have had the state send letters, explaining what public entities must do to be consistent with the county plan. Counties have also requested assistance from the state in enforcement. Public Entity provisions may not be the most effective method for assuring MSW delivery to the Rice County Landfill.

4.12.2 County Assessment

Counties have the authority to make assessments for environmental programs. Some examples of environmental programs are: environmental education, household hazardous waste collection, recycling programs, and activities supporting the management of waste as preferred in the county plan, including the direct funding of facilities.

Counties have three options for assessing taxes to support environmental programs. Service fees are authorized by state law (Chapter 400.08) and must be dedicated to providing solid waste management services. They are as follows: ad valorem taxes, service fees on property tax statements, and hauler collected service fees.
Ad Valorem Tax
An ad valorem tax is assessed based on property value or in the case of commercial establishments, the value of the business, rather than the amount of waste generated. Funds are collected twice a year via the property tax statement and passed through the general fund. Funds collected may be used to support any county environmental program, including: environmental education, household hazardous waste collection, recycling programs, and activities supporting the management of waste as preferred in the county plan, including the direct funding of facilities.

Service Fee on Property Tax Statement
Counties may support environmental programs through a service fee billed on the property tax statement or the utility bill. The service fee can be structured based on the volume of waste generated or by property type. Typically, residents are charged a lower fee than businesses. Funds collected may be used to support any county environmental program, including: environmental education, household hazardous waste collection, recycling programs, and activities supporting the management of waste as preferred in the county plan, including the direct funding of facilities.

Hauler Collected Service Fee
This is a service fee on the waste generator that is collected by the waste hauler and then remitted to the county. The fee can be set up as a tax on the collection/disposal bill or it can be based on the volume of MSW produced by the generator.

4.12.3 Hauler Negotiations
Counties have the ability to negotiate contracts with haulers to bring the waste to the facility preferred in the County Solid Waste Management Plan. Many counties and cities use negotiated contracts with haulers to bring waste to the county disposal facility, and there have been no legal challenges.

4.12.4 Market Participation
To be a market participant, a public entity can either take over the collection and management of garbage generated within its jurisdiction or negotiate contracts with private haulers to collect and manage garbage on the public entities behalf.

If the public entity decides to contract for collection services the Request for Proposal ("RFP") needs to identify the particular services desired, such as collection days and hours, special services for the elderly or handicapped, and the processing or disposal site. The RFP is advertised on a local, state and national basis and any hauler may submit a proposal. The public entity is not limited to selecting the lowest bid. The hauler that best meets the public entities service needs is a factor in the selection.
4.12.5 Flow Control

The U.S. Supreme Court recently upheld the right of local governments to direct the flow of solid waste to publicly owned waste facilities without running afoul of the Commerce Clause. The case, United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority (Case No. 05-1345, released April 30, 2007), had been closely followed by both public and private parties involved in solid waste management. The Court concluded that flow control laws that favor government-owned and operated disposal facilities do not discriminate against interstate commerce, and are reviewed under a more lenient Pike balancing test, under which the burden is on the party challenging the statute to show that it imposes too great a burden on commerce. If alternative means of waste assurance are unsuccessful, Rice County may elect to pursue flow control in accordance with the provisions outlined in the referenced legal case.

4.13 SOLID WASTE ORDINANCE

The Rice County Solid Waste Ordinance went into effect on November 8, 2005 and provides the legal document to regulate the handling of solid waste in Rice County. The ordinance provides for the licensing of businesses that transport solid waste, and the permitting of solid waste facilities/management. It also establishes general requirements that must be met in terms of waste storage and general handling. The Board of Commissioners has established a fee schedule for the licensing and permitting of commercial businesses within the authority and process established in the ordinance. A copy of the Rice County Solid Waste Ordinance is included as Appendix D.

Section 611.001 of the Rice County Solid Waste Ordinance provides the Rice County Solid Waste Department control over disposal of solid waste in the rural areas necessary to minimize related environmental problems. The Ordinance addresses the burning and burial of MSW by rural residences.

Section 609 explains the actions to be taken to enforce provisions of the Ordinance for illegal disposal of MSW. Every illegal action will be reviewed and action will be taken to remedy contamination problems should they occur.

Rice County has not mandated County-wide collection of MSW but has put controls in the Solid Waste Ordinance that can be used to mitigate environmental risks potentially associated with on-site disposal. Rice County's Ordinance follows state statutes allowing rural farmers the option to burn MSW and has placed strict controls on on-site burial. The Ordinance restricts the burning or burying of those items considered to be hazardous to the environment.

Enforcement provisions in the Ordinance provide effective enforcement of the illegal disposal of MSW. Rice County has an Assistant County Attorney assigned to departments that require environmental enforcement.
4.14 **SOLID WASTE STAFFING**

The lead County staff individual as regards solid waste management facilities and activities is the Solid Waste Director. The Solid Waste Director is full-time and spends one hundred percent of his time on solid waste issues. The Solid Waste Director is assisted by the Recycling/Household Hazardous Waste Coordinator. The recycling portion of the position accounts for a half-time position and is primarily responsible for recycling programs, waste education efforts, and waste reduction efforts. The household hazardous waste portion accounts for the other half of the Recycling/Household Hazardous Waste Coordinator position. The Recycling/HHW Coordinator is the primary staff individual responsible for HHW program tasks, and also contributes to the overall waste education efforts. The Plant Manager manages operations of the Recycling Center and is a full-time position. An organizational chart is included as **Appendix E**.

4.15 **SOLID WASTE PROGRAM FUNDING**

**Table 2** (Appendix A) identifies the anticipated funding sources for solid waste management facilities and activities over the ten-year planning period. The County’s revenue sources include service fees, tip fees, SCORE funds, and general revenue. The baseline year assumed for the funding analysis is 2007. An annual inflation rate of 2.75% is assumed throughout the 10-year planning period from 2009 through 2018.

4.16 **PLAN REVIEW AND UPDATE**

The plan will be reviewed and updated or amended whenever significant changes are proposed or coinciding with solid waste permitting for the existing MSW landfill, and corresponding requests for Certificate of Need, which are submitted every five years. The plans, updates, or amendments will be submitted in accordance with Minnesota Rules Chapter 9215.0820 and 9215.0830.

4.17 **GOAL VOLUME TABLE**

Information regarding the amount and type of solid waste projected to be managed annually at the Rice County Landfill from 2009 through 2018 is provided in **Table 1 - Goal Volume Table** (GVT) in **Appendix A**. The GVT includes the recycling goal as required in Minnesota Statutes, Section 115A.551, an estimate of the land disposal capacity needed for the ten-year period, and an estimate of the capacity remaining in the County’s MSW and demolition landfills at the end of the 10-year planning period.

Rice County’s goal-volume table estimates that the County will need 629,400 cubic yards of land disposal capacity for refuse only, also referred to as Certificate of Need (CON), for the ten-year planning period from 2009 to 2018 (see **Table 1**). This capacity will be provided at the County Landfill. The County has established solid waste abatement goals for the same ten-year period.
Rice County's ten-year goals are also contained in the goal-volume table (Table 1, Appendix A). The abatement goals far exceed the minimum goals targeted by the MPCA.

4.18 SOLID WASTE BUDGET

It is Rice County's policy to ensure full funding as required for effective solid waste management, and to minimize debt exposure from facility development projects. All costs associated with County Landfill development, operations, and financial assurance, as well as a substantial portion of costs associated with waste abatement programs, are financed through tipping fees charged at the County Landfill. These tipping fees have also been used to generate a general solid waste contingency fund over and above the financial assurance fund.

It is difficult to project expenditures associated with solid waste facilities and activities over a ten-year timeframe with confidence. There are many factors that can develop in an unforeseen manner and which can significantly impact economic outcomes. However, Table 2 represents a "best estimate" of anticipated costs and sources of revenue over the planning timeframe. Inflation of 2.75 percent is assumed. Funding at existing relative levels is assumed for illustrative purposes.

The primary waste management method assumed in Table 2 is land disposal. This is considered the most prudent and feasible option available to Rice County at this time. Rice County will continue to discuss potential regional processing projects with neighboring counties. The proposed primary method can be revised in future planning documentation, should conditions warrant.

4.19 ALTERNATIVES TO PROPOSED SYSTEM

Rice County is concerned about the rising cost of waste management, minimizing environmental impacts associated with land disposal, developing long-term waste abatement solutions, and achieving waste reduction and recycling goals set by the State. Rice County recognizes the need to evaluate and consider solid waste management alternatives, including regional solutions for landfill abatement. Rice County will continue to examine options for improving waste management as opportunities arise. It is anticipated that new and expanded capacity for solid waste management will need to be examined on a County and regional basis.

Currently, the County is participating in a regional task force made up of five counties. This task force is assessing the prospect of developing a regional solid waste management system for the area. The County intends to continue to participate actively in the process.

Rice County is also a member of the Southeast Minnesota Recyclers Exchange (SEMREX). SEMREX is a Joint Powers Board of 10 counties working together to improve recycling and
waste reduction through cooperative marketing of recyclables, recycling market development, materials exchange and innovative education efforts.

Rice County believes that the proposed waste management system described in this Plan Update is the most feasible and prudent system available to Rice County at this time. Rice County intends to continue its solid waste management planning. As necessary, Rice County will update this plan to address potential changes and improvements to the overall system, including regional planning, initiation of greater resource recovery, and landfill abatement. The updates will contain all relevant information of proposed projects Rice County has reviewed.

Rice County will continue to track and potentially participate in regional efforts to develop MSW processing facilities. If Rice County's intended primary waste management method changes such that it will actively participate in a regional processing project, the revised approach will be documented and justified in the next Rice County Solid Waste Management Plan Update, which is to be completed 10 years from approval of this document. The process required for generating update documents is established in Minnesota Rules 9215. If Rice County changes its approach sooner than this timeframe, the new primary method will be documented and justified in a Plan Amendment, consistent with Minnesota Rules 9215. Rice County's current Alternatives Review Process is outlined in Appendix F.

For any regional processing facility project considered by Rice County, a systematic approach to feasibility assessment and potential development will be utilized. The manner in which these projects may be proposed will vary, so it is difficult to establish a procedure with great detail that would be followed under all circumstances. However, there are certain basic questions that will be addressed by the County when reviewing alternative development approaches.

As part of the evaluation and potential development of an alternative primary waste management approach or approaches, Rice County will solicit public input on planning and policy issues. An evaluation would be presented to County residents and businesses, and input from interested parties would be solicited in a systematic manner.

The mechanisms used to achieve residential/commercial participation would be as follows:

- Regular news releases to local media outlets on project evaluation/development efforts;
- Presentations by County staff to civic/business groups and at local government meetings;
- Discussion at the County Board level, with Board members soliciting formal and informal input from constituents;
- Issue-specific public meetings/hearings determined appropriate based upon the level of public interest in the issue.
4.20  ENVIRONMENTAL RISKS

Rice County has implemented aggressive and successful special waste management and waste abatement programs to minimize environmental concerns associated with landfill activities, including construction of lined MSW landfill cells, on-site management of treated leachate and regular closure of portions of the landfill as design elevations are achieved.

As discussed in Section 2.2, the County assumes that approximately ten percent of the households in Rice County do not have refuse collection and that ten percent of the households without refuse collection self-haul their waste to the County Landfill. Thus, it is estimated that nine percent of the households in the County dispose of their wastes on-site in burn barrels or in unauthorized dumping areas. Public information and enforcement of the solid waste ordinance are Rice County’s methods of reducing illicit disposal of waste.

As discussed in Section 4.2, Rice County has developed and implemented comprehensive solid waste reduction and education programs. The County’s “Garbage, Disposal and Recycling Guide” published with the assistance of the OEA, serves as a guide to waste disposal and recycling in Rice County. The guide was prepared in response to citizen requests for more information about proper garbage management. In the guide, items are listed alphabetically and followed by suggestions for reducing, reusing, recycling and disposal. Additional educational publications are distributed to the public on a regular basis through a variety of means, as described in Section 4.2.

There have not been significant problems associated with the coordination between Rice County and local governments regarding the planning and implementation of solid waste programs. The Cities look to the County to provide direction for solid waste activities and facilities and the County fills this role.

In the event of a short-term emergency that requires bypassing the County Landfill, the County’s first course of action would be to contact other facilities within a reasonable distance to determine the best disposal option based on available capacity, transportation factors and cost. These alternative facilities include, but are not limited to, the Steele County Sanitary Landfill, the Prairieland facility, the Pine Bend Sanitary Landfill and the Burnsville Sanitary Landfill.

In the unlikely event that the current primary management system fails, Rice County would probably deliver waste to one of the facilities listed above until the County Landfill was back in operation or until an alternative system was implemented. Rice County would seek the assistance of the MPCA in the alternative system analysis. It is possible that the Rice County recycling facility could be used to transfer a portion of waste until a new system could be developed.
4.21 SOLID WASTE FACILITY SITING PROGRAM

Rice County submitted repermitting documents for the existing MSW and demolition-debris landfills to the MPCA in March 2008. The plans illustrate expansion of both the MSW and demolition-debris disposal areas at the existing facility to accommodate the County’s solid waste management needs into the foreseeable future. The plans and supporting documents submitted with the repermitting documents included detailed drawings and development details to allow the orderly location, permitting, development, and financing of the operations throughout the ten-year planning period addressed by this update.

There are no other plans at this time for siting of additional solid waste management facilities within Rice County. Should a new project be initiated at some point in the future, all applicable local requirements and rules of state agencies such as the MPCA, the Department of Natural Resources (“DNR”), the Environmental Quality Board (“EQB”), and others will be met. The public participation outlined below would be enhanced as required and implemented.

4.22 PUBLIC PARTICIPATION IN CURRENT PLANNING EFFORTS

Solid waste management issues, including landfill development plans, are regularly reported in local media outlets. Rice County staff has frequent meetings with civic/business groups and local government representatives regarding waste management issues. Rice County's extensive waste education program provides information on environmental issues associated with waste management activities and the overall waste management approach.

Updated and amendments to the Rice County Solid Waste Management Plan are presented to the Rice County Board of Commissioners. These presentations are open to the public, with notice of the meeting being provided in the Faribault Daily News.

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APPENDIX A
# Table 1: Rice County Goal-Volume Table Summary

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*Source Reduction Credits Applied Over 10 Year Planning Period  **Waste Credits Were Applied Over The 10 Year Planning Period

Average Projected 10 Year Recycling Rate: 58.3%
### Table 1: Rice County Goal-Volume Table Summary

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<tbody>
<tr>
<td><strong>Resource Recovery Facility</strong></td>
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<td>10,200</td>
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<tr>
<td>Facility Ash or Reject Residue to LF - tons</td>
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#### Landfill Disposal Destinations for Rice Co. MSW -tons

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<tbody>
<tr>
<td>Rice County Landfill located in the County</td>
<td>45,590</td>
<td>44,231</td>
<td>44,924</td>
<td>45,578</td>
<td>46,240</td>
<td>46,090</td>
<td>47,566</td>
<td>48,277</td>
<td>48,850</td>
<td>49,433</td>
<td>50,024</td>
<td>472,100 tons</td>
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</table>

#### Other MN co's MSW to County LF

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<tr>
<td>CON MSW Tonnage for MN MSW</td>
<td>45,590</td>
<td>44,230</td>
<td>44,920</td>
<td>45,580</td>
<td>46,240</td>
<td>46,090</td>
<td>47,566</td>
<td>48,277</td>
<td>48,850</td>
<td>49,430</td>
<td>50,020</td>
<td>472,100 tons</td>
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<tr>
<td>CON MSW Cubic Yards for MN MSW</td>
<td>-</td>
<td>58,900</td>
<td>59,900</td>
<td>60,800</td>
<td>61,600</td>
<td>62,500</td>
<td>63,500</td>
<td>64,400</td>
<td>65,200</td>
<td>65,900</td>
<td>66,700</td>
<td>629,400 cu yds</td>
</tr>
</tbody>
</table>

#### Per Capita Calculations:

- **Lbs/person/day (total waste generated):** 8.91 lbs
- **Lbs/person/day (residential MSW only):** 3.56 lbs
- **Lbs/person/day (recycled materials):** 4.45 lbs

#### Demolition & Construction Debris to C&D

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<tr>
<td>LF Capacity Use ALL Co S. Waste + Cover - cu yds</td>
<td>68,900</td>
<td>70,000</td>
<td>71,100</td>
<td>71,900</td>
<td>73,200</td>
<td>74,300</td>
<td>75,200</td>
<td>76,100</td>
<td>77,000</td>
<td>78,100</td>
<td>735,800 cu yds</td>
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#### Percentage Breakdown of Solid Waste Stream:

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<tbody>
<tr>
<td><strong>Recycle</strong></td>
<td>53.8%</td>
<td>53.9%</td>
<td>53.8%</td>
<td>53.6%</td>
<td>53.6%</td>
<td>53.6%</td>
<td>53.6%</td>
<td>53.6%</td>
<td>53.6%</td>
<td>53.6%</td>
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</tr>
<tr>
<td><strong>Resource Recovery</strong></td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
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<td>0.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>On-Site Disposal - Burned/Buried</strong></td>
<td>0.9%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
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<td>1.0%</td>
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<tr>
<td><strong>Problem Materials NOT Recycled</strong></td>
<td>1.6%</td>
<td>1.6%</td>
<td>1.6%</td>
<td>1.6%</td>
<td>1.6%</td>
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<td>1.6%</td>
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<td>1.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Landfill</strong></td>
<td>45.5%</td>
<td>42.8%</td>
<td>42.8%</td>
<td>42.8%</td>
<td>42.8%</td>
<td>42.8%</td>
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<td>42.8%</td>
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</tr>
</tbody>
</table>

#### Projected 10 YR Recycling Rate

- **Recycle % of total**:
  - 2009: 58.7%
  - 2010: 58.6%
  - 2011: 58.6%
  - 2012: 58.5%
  - 2013: 58.5%
  - 2014: 58.5%
  - 2015: 58.5%
  - 2016: 58.5%
  - 2017: 58.5%
  - 2018: 58.5%

#### Waste Stream Breakdown:

- **Recycle**: 53%
- **Resource Recovery**: 33%
- **Landfill**: 13%
- **On-Site Disposal - Burned/Buried**: 1%

---

*W:\bf504\09\2008 Recap\tMgmt Plan\2008 SW Mgmt Plan\Tables\Table 1 GVT Rice County bdr update rev5 090422.xlsx*
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</thead>
<tbody>
<tr>
<td>21. BBY</td>
<td>64,942</td>
<td>65,916</td>
<td>66,905</td>
<td>67,909</td>
<td>68,927</td>
<td>69,961</td>
<td>71,011</td>
<td>72,076</td>
<td>73,157</td>
<td>74,254</td>
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<td>22. HH</td>
<td>22,787</td>
<td>23,129</td>
<td>23,475</td>
<td>23,828</td>
<td>23,185</td>
<td>24,928</td>
<td>25,916</td>
<td>25,290</td>
<td>25,669</td>
<td>26,054</td>
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<td>23. MSW TO PROCESSING FACILITY</td>
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<tr>
<td>24. MSW to facility (tons)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>25. Tons per Day (6 day week)</td>
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<td>0.0</td>
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<td>26. LAND DISPOSAL FACILITIES</td>
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<tr>
<td>27. Bypass from Processing Facility</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>29. Other Landfill</td>
<td>1,030</td>
<td>1,048</td>
<td>1,061</td>
<td>1,077</td>
<td>1,093</td>
<td>1,110</td>
<td>1,128</td>
<td>1,143</td>
<td>1,161</td>
<td>1,178</td>
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<tr>
<td>30. Total to Landfill (tons/year)</td>
<td>45,261</td>
<td>45,969</td>
<td>46,639</td>
<td>47,317</td>
<td>48,802</td>
<td>48,865</td>
<td>49,403</td>
<td>49,993</td>
<td>50,593</td>
<td>51,352</td>
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### Table 2
RICE COUNTY SOLID WASTE MANAGEMENT BUDGET
System Components = Recycling + Waste Education + Waste Reduction + HHW Collection + Yard Waste + Land Disposal

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<tbody>
<tr>
<td>Abatement Programs Costs</td>
<td>$1,978,715</td>
<td>$2,033,130</td>
<td>$2,089,041</td>
<td>$2,146,490</td>
<td>$2,205,518</td>
<td>$2,266,170</td>
<td>$2,328,490</td>
<td>$2,392,523</td>
<td>$2,458,317</td>
<td>$2,525,921</td>
</tr>
<tr>
<td>Landfill Costs</td>
<td>$984,446</td>
<td>$1,011,519</td>
<td>$1,039,335</td>
<td>$1,067,917</td>
<td>$1,097,285</td>
<td>$1,127,460</td>
<td>$1,158,405</td>
<td>$1,190,323</td>
<td>$1,223,057</td>
<td>$1,256,691</td>
</tr>
<tr>
<td>Cost / HH &amp; Business / Year (occupied HH)</td>
<td>$130.04</td>
<td>$131.64</td>
<td>$133.26</td>
<td>$134.90</td>
<td>$136.56</td>
<td>$138.25</td>
<td>$139.95</td>
<td>$141.67</td>
<td>$143.42</td>
<td>$145.18</td>
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<tr>
<td>Cost / HH &amp; Business / Month</td>
<td>$10.80</td>
<td>$11.00</td>
<td>$11.10</td>
<td>$11.10</td>
<td>$11.10</td>
<td>$11.10</td>
<td>$11.10</td>
<td>$11.80</td>
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<td><strong>REVENUE ESTIMATES FOR COUNTY WASTE MANAGEMENT PROGRAMS</strong></td>
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<td>MPCA HHW Grant</td>
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<td>Commodity/Material Sales</td>
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<td>Tip Fees/Surcharges</td>
<td>$1,963,707</td>
<td>$2,017,709</td>
<td>$2,073,108</td>
<td>$2,130,208</td>
<td>$2,185,789</td>
<td>$2,246,081</td>
<td>$2,310,828</td>
<td>$2,374,376</td>
<td>$2,439,671</td>
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<td>SCORE</td>
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<td>$433,516</td>
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<td>$458,109</td>
<td>$470,707</td>
<td>$483,652</td>
<td>$496,952</td>
<td>$510,618</td>
<td>$524,660</td>
<td>$536,089</td>
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<tr>
<td>Other Revenue</td>
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<td>$8,900</td>
<td>$8,900</td>
<td>$8,900</td>
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<td>$8,900</td>
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<tr>
<td><strong>GROSS EXPENDITURE FOR ABATEMENT PROGRAMS</strong> (Source Reduction, Waste Education, Recycling, TVW Composting, HHW, and Special Waste)</td>
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<tr>
<td><strong>TOTAL ABATEMENT PROGRAMS EXPENDITURE</strong></td>
<td>$1,978,715</td>
<td>$2,033,130</td>
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<td>$2,146,490</td>
<td>$2,205,518</td>
<td>$2,266,170</td>
<td>$2,328,490</td>
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<td>$2,458,317</td>
<td>$2,525,921</td>
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<td>HOUSEHOLD EXPENDITURE / YR</td>
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<td>$88</td>
<td>$89</td>
<td>$90</td>
<td>$91</td>
<td>$92</td>
<td>$93</td>
<td>$95</td>
<td>$96</td>
<td>$97</td>
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<td>MONTHLY HOUSEHOLD EXPENDITURE</td>
<td>$7.24</td>
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<td>$7.60</td>
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<td>$7.79</td>
<td>$7.88</td>
<td>$7.98</td>
<td>$8.08</td>
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<td>NET COST / Household / Month -- after SCORE</td>
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<td><strong>LAND DISPOSAL FACILITY</strong></td>
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<td>$29,419</td>
<td>$30,228</td>
<td>$31,060</td>
<td>$31,914</td>
<td>$32,791</td>
<td>$33,693</td>
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<td>O &amp; M</td>
<td>$423,303</td>
<td>$433,916</td>
<td>$446,840</td>
<td>$458,109</td>
<td>$470,707</td>
<td>$483,652</td>
<td>$496,052</td>
<td>$510,618</td>
<td>$524,660</td>
<td>$536,089</td>
</tr>
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<td>$0</td>
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<td>Professional Services</td>
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<td>$65,087</td>
<td>$66,776</td>
<td>$68,466</td>
<td>$70,060</td>
<td>$71,458</td>
<td>$73,453</td>
<td>$76,593</td>
<td>$78,099</td>
<td>$80,683</td>
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<td>$173,881</td>
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<td>$183,567</td>
<td>$188,624</td>
<td>$193,811</td>
<td>$199,141</td>
<td>$204,618</td>
<td>$210,245</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$984,446</td>
<td>$1,011,519</td>
<td>$1,039,335</td>
<td>$1,067,917</td>
<td>$1,097,285</td>
<td>$1,127,460</td>
<td>$1,158,465</td>
<td>$1,199,323</td>
<td>$1,223,057</td>
<td>$1,265,691</td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
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<tr>
<td>Landfill Tip Fees</td>
<td>$1,794,786</td>
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<td>$56,329</td>
<td>$56,933</td>
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<td>$63,275</td>
<td>$65,015</td>
<td>$66,603</td>
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<tr>
<td>O &amp; M</td>
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<td>$27,765</td>
<td>$28,529</td>
<td>$29,313</td>
<td>$30,119</td>
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<td>$94,223</td>
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<tr>
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<td>$211,205</td>
<td>$217,613</td>
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<td>$538,089</td>
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<td>$122,000</td>
<td>$122,000</td>
<td>$122,000</td>
<td>$122,000</td>
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<td>$1,012,707</td>
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<tr>
<td>Wages and Benefits</td>
<td>$55,249</td>
<td>$56,768</td>
<td>$58,329</td>
<td>$59,933</td>
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<td>$65,015</td>
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<td>$66,640</td>
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<tr>
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<td>$11,564</td>
<td>$11,882</td>
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<td>$12,545</td>
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<td>$136,937</td>
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<tr>
<td>Steele &amp; Waseca Reimbursements</td>
<td>$8,500</td>
<td>$8,900</td>
<td>$8,900</td>
<td>$8,900</td>
<td>$8,900</td>
<td>$8,900</td>
<td>$8,900</td>
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<tr>
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<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>COUNTY STAFF &amp; ADMINISTRATION - only for time spent on solid waste activities</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Departments Services</td>
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<td>$574,938</td>
<td>$590,749</td>
<td>$606,995</td>
<td>$623,687</td>
<td>$640,839</td>
<td>$658,462</td>
<td>$676,569</td>
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<td>$714,292</td>
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<td>Financial Assurance</td>
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<td>$119,327</td>
<td>$122,908</td>
<td>$125,990</td>
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<td>$133,004</td>
<td>$136,602</td>
<td>$140,420</td>
<td>$144,262</td>
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<tr>
<td>Total Expenses</td>
<td>$675,684</td>
<td>$694,265</td>
<td>$713,358</td>
<td>$732,975</td>
<td>$753,132</td>
<td>$773,843</td>
<td>$795,124</td>
<td>$816,989</td>
<td>$839,457</td>
<td>$862,542</td>
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**TABLE 3**
Rice County Solid Waste Management Plan
Rice County Population Information

**POPULATION INFORMATION**

<table>
<thead>
<tr>
<th></th>
<th>4/1/2000 Census*</th>
<th>2005 Population**</th>
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</thead>
<tbody>
<tr>
<td>City of Dundas</td>
<td>547</td>
<td>759</td>
</tr>
<tr>
<td>City of Faribault</td>
<td>20,818</td>
<td>21,166</td>
</tr>
<tr>
<td>City of Lonsdale</td>
<td>1,491</td>
<td>2,401</td>
</tr>
<tr>
<td>City of Morristown</td>
<td>665</td>
<td>1,042</td>
</tr>
<tr>
<td>City of Nerstrand</td>
<td>233</td>
<td>234</td>
</tr>
<tr>
<td>City of Northfield</td>
<td>17,147</td>
<td>18,961</td>
</tr>
<tr>
<td>Rural (unincorporated)</td>
<td>15,764</td>
<td>16,984</td>
</tr>
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</table>

**COUNTY POPULATION**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>56,665</td>
<td>61,547</td>
</tr>
</tbody>
</table>

**SOURCES:**
*U.S. Bureau of the Census, Population Division

**Rice County
TABLE 3
Rice County Solid Waste Management Plan
Rice County Population Information

**POPULATION INFORMATION**

<table>
<thead>
<tr>
<th></th>
<th>4/1/2000 Census</th>
<th>2005 Population**</th>
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</thead>
<tbody>
<tr>
<td>City of Dundas</td>
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</tr>
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<td>2,401</td>
</tr>
<tr>
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<td>1,042</td>
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<tr>
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<td>234</td>
</tr>
<tr>
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<td>18,961</td>
</tr>
<tr>
<td>Rural (unincorporated)</td>
<td>15,764</td>
<td>16,984</td>
</tr>
</tbody>
</table>

**COUNTY POPULATION**

|                        | 56,665         | 61,547            |

**SOURCES:**
*U.S. Bureau of the Census, Population Division
**Rice County
<table>
<thead>
<tr>
<th>Hauler</th>
<th>Service Area</th>
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</thead>
<tbody>
<tr>
<td>Archambault Brothers</td>
<td>Morristown, Faribault</td>
</tr>
<tr>
<td>City and Lakes Disposal</td>
<td>Faribault</td>
</tr>
<tr>
<td>Flom Disposal</td>
<td>Nerstrand</td>
</tr>
<tr>
<td>Novak Sanitation</td>
<td>Lonsdale</td>
</tr>
<tr>
<td>Cashin Sanitation</td>
<td>Faribault, Rural</td>
</tr>
<tr>
<td>Waste Management, Inc.</td>
<td>Northfield, Faribault</td>
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</table>
Table 5
Rice County Solid Waste Management Plan
Collection Rates and Tip Fees

**Rice County Collection Rates**

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<thead>
<tr>
<th>City</th>
<th>Rate</th>
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<tbody>
<tr>
<td>Faribault</td>
<td>$15.00*</td>
</tr>
<tr>
<td>Lonsdale</td>
<td>$11.00*</td>
</tr>
<tr>
<td>Morristown</td>
<td>$8.66*</td>
</tr>
<tr>
<td>Nerstrand</td>
<td>$13.50 (regular)</td>
</tr>
<tr>
<td></td>
<td>$10.50 (reduced)</td>
</tr>
<tr>
<td>Northfield</td>
<td>$11.80*</td>
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* Average rate per household per month.

**Rice County Landfill Tips Fees**

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<th>Fee</th>
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<td>Demolition Debris (ton)</td>
<td>$26.75*</td>
</tr>
<tr>
<td>MSW (ton)</td>
<td>$51.33*</td>
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</tbody>
</table>

* Tip fees listed include all State and local fees.
* Includes Bridgewater Township Host fee of $0.75 demo and $3.33 MSW
### TABLE 6
Rice County Solid Waste Management Plan
MPCA Waste Composition Study Results
Metropolitan Region Results (1999)

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<th>1999 Average</th>
<th>1992 Average</th>
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<td>OCC -- Uncoated, Recyclable</td>
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<td>8.7</td>
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<td>OCC -- Uncoated, Non-Recyclable</td>
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<tr>
<td>OCC -- Coated</td>
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<tr>
<td>(Total)</td>
<td>(7.4)</td>
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<tr>
<td>Magazines/Catalogs</td>
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<tr>
<td>Mixed Paper -- Non-Recyclable</td>
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<td>Boxboard</td>
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<td>Mixed Paper -- Recyclable</td>
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<td>(17.3)</td>
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<td><strong>Total Paper</strong></td>
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<td>PET Bottles/Jars - Clear</td>
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<td>PET Bottles/Jars - Colored</td>
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<td>Other PET</td>
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<td>HDPE Bottles - Natural</td>
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<td>HDPE Bottles - Colored</td>
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<td>Polystyrene</td>
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<td>Other Film</td>
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<td>(Total)</td>
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<td>Aluminum Beverage Containers</td>
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<td>Other Aluminum</td>
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<td><strong>Total Metal</strong></td>
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<table>
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### TABLE 7
Rice County Solid Waste Management Plan
Economic Summary
Land Disposal Scenario

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### TABLE 7
Rice County Solid Waste Management Plan
Economic Summary
Land Disposal Scenario

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<td>$47,071</td>
<td>$48,365</td>
<td>$49,695</td>
<td>$51,062</td>
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<td>$113,888</td>
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**FINANCIAL ASSURANCE**

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**TOTAL ANNUAL COSTS**

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**ANNUAL TONS LANDFILLED**

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**COST PER TON**

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TABLE 8
Rice County Solid Waste Management Plan
Economic Summary
Newport Processing Facility (with Transfer Station)

| Inflation (general): | 2.75% |
| Low Range Tip Fee: | $ 55.00 |
| High Range Tip Fee: | $ 75.00 |

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<td>46,200</td>
<td>46,900</td>
<td>47,600</td>
<td>48,300</td>
<td>48,900</td>
<td>49,400</td>
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<tr>
<td>residual/bypass to landfill:</td>
<td>3,420</td>
<td>6,930</td>
<td>7,035</td>
<td>7,140</td>
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<td>7,335</td>
<td>7,410</td>
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</tbody>
</table>

RICE CO. LANDFILL COSTS

Cover Const. $/AC: $30,000

Capital Costs

| Engineering Design | $50,000 | $51,375.0 | $54,239.5 |
| Cover Construction (incl. CM) | | |
| acres | 10 | |
| cost | $924,750 | |
| Contingency (15%) | $7,500 | $7,706 | $8,136 | $138,713 | $0 |

Subtotal $57,500 $59,081 $62,375 $1,063,463 $0

Annual Payments -2008 Costs

| investment term (yrs): | 5 |
| investment rate: | 6.0% |
| closure amortization | $252,462 $252,462 $252,462 $252,462 $252,462 |

Total Annualized Capital Costs $57,500 $59,081 $62,375 $252,462 $252,462 $252,462 $252,462 $252,462

Operating Costs

| Labor/Wages | $200,000 | $205,500.0 | $216,957.9 | $117,676.8 |
| Utilities | $35,000 | $35,962.5 | $37,967.6 | $20,593.4 |
| Environmental Monitoring | $40,000 | $41,100 | $42,230 | $43,392 | $44,585 | $45,811 | $47,071 | $48,365 | $49,695 | $51,062 |
| Consulting Services | $45,000 | $46,238 | $47,509 | $48,816 | $50,158 | $51,537 | $52,955 | $54,411 | $55,907 | $57,445 |
| Leachate Management | $80,000 | $82,200 | $84,461 | $86,783 | $89,170 | $91,622 | $94,141 | $96,730 | $99,390 | $102,124 |
| Cover Material (daily and int.) | $32,000 | $32,880 | $33,784 | | | | | | | |
### TABLE 8
Rice County Solid Waste Management Plan
Economic Summary
Newport Processing Facility (with Transfer Station)

<table>
<thead>
<tr>
<th>Inflation (general):</th>
<th>2.75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Range Tip Fee:</td>
<td>$55.00</td>
</tr>
<tr>
<td>High Range Tip Fee:</td>
<td>$75.00</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Site Maintenance</td>
<td>$14,000</td>
<td>$14,385</td>
<td>$14,781</td>
<td>$15,187</td>
<td>$15,605</td>
<td>$16,034</td>
<td>$16,475</td>
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<tr>
<td>EMS Repair/Replacement</td>
<td>$5,000</td>
<td>$4,300</td>
<td>$4,300</td>
<td>$4,300</td>
<td>$4,300</td>
<td>$4,300</td>
<td>$4,300</td>
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<tr>
<td>Equipment Depreciation</td>
<td>$30,000</td>
<td>$30,825</td>
<td>$31,673</td>
<td>$32,594</td>
<td>$33,491</td>
<td>$34,377</td>
<td>$35,247</td>
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<tr>
<td>Equipment Maintenance</td>
<td>$75,000</td>
<td>$77,083</td>
<td>$79,182</td>
<td>$81,282</td>
<td>$83,383</td>
<td>$85,484</td>
<td>$87,584</td>
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<tr>
<td>Fuel</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
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<tr>
<td>Contingency (15%)</td>
<td>$86,550</td>
<td>$91,765</td>
<td>$95,065</td>
<td>$98,365</td>
<td>$101,665</td>
<td>$104,965</td>
<td>$108,265</td>
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</tr>
<tr>
<td>Total Annual Operating Costs</td>
<td>$663,550</td>
<td>$703,533</td>
<td>$728,829</td>
<td>$748,694</td>
<td>$768,925</td>
<td>$789,150</td>
<td>$810,375</td>
<td>$831,600</td>
<td>$852,825</td>
<td>$874,045</td>
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</table>

| Financial Assurance   |            |            |            |            |            |            |            |            |            |            |
| Annual Payment        | $75,000    | $75,000    | $41,500    | $41,500    | $41,500    | $41,500    | $41,500    |            |            |            |

| Total Landfill Costs  |            |            |            |            |            |            |            |            |            |            |
| Annualized Capital Costs | $57,500  | $59,081    | $62,375    | $65,670    | $68,965    | $72,260    | $75,555    | $78,850    | $82,145    | $85,440    |
| Annual Operating Costs | $663,550  | $703,533  | $728,829  | $748,694  | $768,925  | $789,150  | $810,375  | $831,600  | $852,825  | $874,045  |
| Financial Assurance   | $75,000    | $75,000    | $41,500    | $41,500    | $41,500    | $41,500    | $41,500    |            |            |            |
| Total                 | $796,050  | $837,614  | $832,704  | $870,656  | $933,220  | $959,664  | $985,109  | $1,010,765 | $1,036,320 | $1,061,885 |

**MSW Haul/land Disposal (non-Rice County Landfill)**

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<tr>
<th>Tons MSW Landfilled</th>
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<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
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<tbody>
<tr>
<td>Cost per Ton</td>
<td>$85</td>
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<td></td>
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<tr>
<td>Cost</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
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**TRANSFER STATION COSTS - CONSTRUCTION AND OPERATION**

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<tr>
<th>Capital Costs</th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Engineering, Permitting, Construction Supervision</td>
<td>$50,000</td>
<td>$51,750</td>
<td>$52,875</td>
<td>$54,925</td>
<td>$55,975</td>
<td>$57,025</td>
<td>$58,075</td>
<td>$59,125</td>
<td>$60,175</td>
<td>$61,225</td>
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<tr>
<td>Site Preparation, Roads</td>
<td>$60,000</td>
<td>$61,500</td>
<td>$63,095</td>
<td>$64,690</td>
<td>$66,285</td>
<td>$67,880</td>
<td>$69,475</td>
<td>$71,070</td>
<td>$72,665</td>
<td>$74,260</td>
</tr>
<tr>
<td>Building (including utilities)</td>
<td>$160,000</td>
<td>$164,400</td>
<td>$168,825</td>
<td>$173,250</td>
<td>$177,675</td>
<td>$182,100</td>
<td>$186,525</td>
<td>$191,050</td>
<td>$195,575</td>
<td>$197,075</td>
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<tr>
<td>Loader</td>
<td>$30,000</td>
<td>$30,925</td>
<td>$31,870</td>
<td>$32,815</td>
<td>$33,760</td>
<td>$34,705</td>
<td>$35,650</td>
<td>$36,595</td>
<td>$37,540</td>
<td>$38,485</td>
</tr>
<tr>
<td>Contingencies (15%)</td>
<td>$45,000</td>
<td>$45,925</td>
<td>$46,870</td>
<td>$47,815</td>
<td>$48,760</td>
<td>$49,705</td>
<td>$50,650</td>
<td>$51,595</td>
<td>$52,540</td>
<td>$53,485</td>
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<tr>
<td>Subtotal</td>
<td>$345,000</td>
<td>$354,425</td>
<td>$364,850</td>
<td>$375,275</td>
<td>$385,700</td>
<td>$396,125</td>
<td>$406,550</td>
<td>$417,075</td>
<td>$427,600</td>
<td>$438,125</td>
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<tr>
<td>Annual Dept Service (assumes 8% for 10 years)</td>
<td>$0</td>
<td>$0</td>
<td>$51,415</td>
<td>$52,829</td>
<td>$54,242</td>
<td>$55,675</td>
<td>$57,108</td>
<td>$58,641</td>
<td>$60,176</td>
<td>$61,711</td>
</tr>
</tbody>
</table>

| Annual Operating Costs      |            |            |            |            |            |            |            |            |            |            |
| Fuel                        | $5,200 | $5,434 | $5,668 | $5,902 | $6,136 | $6,370 | $6,604 | $6,838 | $7,072 | $7,306 |
| Labor (includes benefits)   | $65,000 | $66,798 | $68,624 | $70,450 | $72,275 | $74,100 | $75,925 | $77,750 | $79,575 | $81,400 |
| Maintenance/Supplies        | $4,000 | $4,110 | $4,223 | $4,334 | $4,445 | $4,556 | $4,667 | $4,778 | $4,890 | $5,001 |
| Insurance                   | $5,000 | $5,138 | $5,279 | $5,424 | $5,573 | $5,726 | $5,873 | $6,024 | $6,176 | $6,328 |
**TABLE 8**
Rice County Solid Waste Management Plan
Economic Summary
Newport Processing Facility (with Transfer Station)

<table>
<thead>
<tr>
<th>Inflation (general):</th>
<th>2.75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Range Tip Fee:</td>
<td>$ 55.00</td>
</tr>
<tr>
<td>High Range Tip Fee:</td>
<td>$ 75.00</td>
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</tbody>
</table>

<table>
<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Contingencies</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$62,200</td>
<td>$84,461</td>
<td>$66,783</td>
<td>$89,170</td>
<td>$91,622</td>
<td>$94,141</td>
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<tr>
<td>Total Annual Costs</td>
<td>$0</td>
<td>$0</td>
<td>$133,615</td>
<td>$137,290</td>
<td>$141,065</td>
<td>$144,944</td>
<td>$148,930</td>
<td>$153,026</td>
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</table>

**HAUL COSTS - FROM TRANSFER STATION TO NEWPORT**

<table>
<thead>
<tr>
<th>Transport Costs/Ton:</th>
<th>$13.71 (=$4.0/mi * 60 mi / 17.5 tons/load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haul Costs</td>
<td>$0</td>
</tr>
</tbody>
</table>

**TIP FEES**

| Low Range                | $0 | $0 | $0 | $1,288,485 | $2,610,876 | $2,650,436 | $2,689,995 | $2,729,554 | $2,763,461 | $2,791,718 |
| High Range               | $0 | $0 | $0 | $1,757,025 | $3,560,288 | $3,614,231 | $3,688,175 | $3,722,119 | $3,768,356 | $3,806,883 |

**Low Range**

| Total Cost               | $796,050 | $837,614 | $832,704 | $2,390,426 | $3,922,466 | $3,981,834 | $4,041,476 | $4,101,399 | $3,902,088 | $3,948,476 |
| Total Cost per Ton       | $17.19 | $18.95 | $18.55 | $52.42 | $84.90 | $84.90 | $84.92 | $79.80 | $79.93 |

**High Range**

| Total Cost               | $796,050 | $837,614 | $832,704 | $2,858,966 | $4,871,876 | $4,945,629 | $5,019,656 | $5,093,964 | $4,966,983 | $4,963,646 |
| Total Cost per Ton       | $17.19 | $18.95 | $18.55 | $52.70 | $105.45 | $105.45 | $105.47 | $100.35 | $100.48 |
### TABLE 9
Rice County Solid Waste Management Plan
Economic Summary
Rice County Processing Facility (Compost/RDF Production)

<table>
<thead>
<tr>
<th>Inflation (general):</th>
<th>2.75%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>waste to be managed:</td>
<td>46,300</td>
<td>44,200</td>
<td>44,900</td>
<td>45,600</td>
<td>46,200</td>
<td>46,900</td>
<td>47,600</td>
<td>48,300</td>
<td>48,900</td>
<td>49,400</td>
</tr>
<tr>
<td>waste direct to landfill:</td>
<td>46,300</td>
<td>44,200</td>
<td>44,900</td>
<td>45,600</td>
<td>46,200</td>
<td>46,900</td>
<td>47,600</td>
<td>48,300</td>
<td>48,900</td>
<td>49,400</td>
</tr>
<tr>
<td>waste to facility:</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22,800</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>RDF transported/processed:</td>
<td>0</td>
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<td>0</td>
<td>22,800</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>residual/bypass to landfill:</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22,800</td>
<td>0</td>
<td>0</td>
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<table>
<thead>
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<tbody>
<tr>
<td>PROCESSING FACILITY</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Capital Costs**
- Engineering: $903,271
- Site Preparation: $584,501
- Scale: $77,969
- Buildings: $3,988,873
- Processing Equipment: $4,321,699
- Utilities: $1,272,562
- Rolling Stock: $243,719
- Contingency Costs (15 %): $2,221,556

Subtotal: $13,614,150

**Financing Term (yrs):** 20
**Financing Rate:** 8.0%

Annual Dept Service: $1,386,631

Annual Operating Costs
- Labor: $245,869
- Utilities: $86,405
- Insurance: $35,880
- Professional Services: $10,478
- Testing: $15,080
- Odor Control: $23,530
- Repair/Maint.: $62,499
- Miscellaneous (site maint., fuel, uniforms, tel.): $12,636
- Contingency @ 15 %: $62,720

Total Operating Costs: $555,037

Total Processing Facility Cost
- Debt Service: $0
- Operating Costs: $555,037

Total Costs: $1,941,668

Lisch Associates, Inc.
### Table 9
Rice County Solid Waste Management Plan
Economic Summary
Rice County Processing Facility (Compost/RDF Production)

<table>
<thead>
<tr>
<th>Inflation (general):</th>
<th>2.75%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>RDF HAUL/PROCESSING</th>
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<tbody>
<tr>
<td>Tons RDF</td>
<td>5,700</td>
<td>11,550</td>
<td>11,725</td>
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<td>12,225</td>
<td>12,350</td>
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<tr>
<td>Cost/Ton</td>
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<td></td>
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<tr>
<td>Annual Cost</td>
<td>$463,748</td>
<td>$965,541</td>
<td>$1,007,125</td>
<td>$1,050,266</td>
<td>$1,095,018</td>
<td>$1,139,108</td>
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<table>
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<tr>
<th>RICE CO. LANDFILL COSTS</th>
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<th></th>
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<th></th>
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<th></th>
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<th></th>
</tr>
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<tbody>
<tr>
<td>Cover Const. $/AC</td>
<td>$90,000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Capital Costs
- Engineering Design: $40,000 $45,000
- Cover Construction (incl. CM): $6,000 $6,750 $138,713 $0
- Contingency (15%): $6,000 $6,750 $138,713 $0
- Subtotal: $46,000 $51,750 $106,463 $0

Annual Payments - 2008 Costs
- 5 year investment term, 6% interest rate:
  - $252,462 $252,462 $252,462 $252,462 $252,462

Total Annualized Capital Costs: $46,000 $51,750 $252,462 $252,462 $252,462 $252,462 $252,462

Operating Costs
- Labor/Wages: $200,000 $205,500 $211,151
- Utilities: $35,000 $35,951 $36,951
- Environmental Monitoring: $40,000 $41,100 $42,230 $43,392 $44,585 $45,811 $47,071 $48,365 $49,669 $51,062
- Consulting Services: $45,000 $46,238 $47,509 $48,816 $50,158 $51,537 $52,955 $54,411 $55,907 $57,445
- Cover Material (daily and int.): $32,000 $32,888 $33,784
- Site Maintenance: $0 $0 $0 $0 $0 $0 $0 $0 $0 $0
- EMS Repair/Replacement: $30,000 $30,825 $31,673 $4,300 $4,300 $4,300 $4,300 $4,300 $4,300 $4,300
- Equipment Depreciation: $75,000 $75,000 $75,000
- Equipment Maintenance: $75,000 $77,063 $79,182
- Fuel: $40,000 $41,100 $42,230
- Contingency (15%): $86,025 $87,850 $89,957 $14,476 $14,856 $15,247 $15,649 $16,061 $16,485 $16,921

Total Annual Operating Costs: $659,525 $673,518 $689,657 $110,993 $113,899 $116,895 $119,974 $123,137 $126,388 $129,727

Financial Assurance
- Annual Payment: $75,000 $75,000 $41,500 $41,500 $41,500 $41,500 $41,500 $41,500 $41,500 $41,500

Total Landfill Costs
- Annualized Capital Costs: $46,000 $51,750 $252,462 $252,462 $252,462 $252,462 $0 $0 $0 $0

Liesch Associates, Inc.
# TABLE 9

**Rice County Solid Waste Management Plan**  
**Economic Summary**  
**Rice County Processing Facility (Compost/RDF Production)**

Inflation (general): 2.75%

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Annual Operating Costs</strong></td>
<td>$659,525</td>
<td>$673,518</td>
<td>$689,667</td>
<td>$110,983</td>
<td>$113,899</td>
<td>$116,895</td>
<td>$119,974</td>
<td>$123,137</td>
<td>$126,388</td>
<td>$129,727</td>
</tr>
<tr>
<td>Financial Assurance</td>
<td>$75,000</td>
<td>$75,000</td>
<td>$41,500</td>
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<tr>
<td><strong>Total</strong></td>
<td>$780,525</td>
<td>$800,268</td>
<td>$731,163</td>
<td>$404,945</td>
<td>$407,861</td>
<td>$410,398</td>
<td>$413,936</td>
<td>$416,537</td>
<td>$417,888</td>
<td>$417,227</td>
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**MSW HAUL/LAND DISPOSAL (non-Rice County Landfill)**

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<td>$1,848,807</td>
<td>$502,081</td>
<td>$523,705</td>
<td>$546,138</td>
<td>$569,409</td>
<td>$592,336</td>
<td>$614,848</td>
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**TOTAL PRIMARY METHOD SYSTEM COSTS - NO CAP GRANT**

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<tr>
<td>Processing Facility</td>
<td>$1,941,668</td>
<td>$2,550,098</td>
<td>$2,582,094</td>
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<td>$2,683,456</td>
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<td>RDF Haul/Incineration</td>
<td>$463,748</td>
<td>$965,541</td>
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<td>$1,050,266</td>
<td>$1,095,018</td>
<td>$1,139,108</td>
<td>$1,182,401</td>
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<tr>
<td>Rice Co. Landfill</td>
<td>$780,525</td>
<td>$800,268</td>
<td>$983,630</td>
<td>$404,945</td>
<td>$407,861</td>
<td>$410,858</td>
<td>$413,936</td>
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<tr>
<td>Non-Rice Co. SLF Haul/Disposal</td>
<td>$0</td>
<td>$0</td>
<td>$1,848,807</td>
<td>$502,081</td>
<td>$523,705</td>
<td>$546,138</td>
<td>$569,409</td>
<td>$592,336</td>
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<tr>
<td><strong>Total</strong></td>
<td>$780,525</td>
<td>$800,268</td>
<td>$983,630</td>
<td>$4,659,167</td>
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<td>$4,523,781</td>
<td>$4,625,309</td>
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| Tons Managed         | 46,300    | 44,200     | 44,900     | 45,600     | 46,200     | 46,900     | 47,600     | 48,300     | 48,900     | 49,400     |

**TOTAL PRIMARY METHOD SYSTEM COSTS - WITH CAP GRANT**

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<th>Grant Amount</th>
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<td>Rice Co. Landfill</td>
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<tr>
<td>Non-Rice Co. SLF Haul/Disposal</td>
<td>$0</td>
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<tr>
<td><strong>Total</strong></td>
<td>$780,525</td>
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</tbody>
</table>

| Tons Managed         | 46,300    | 44,200     | 44,900     | 45,600     | 46,200     | 46,900     | 47,600     | 48,300     | 48,900     | 49,400     |
### TABLE 10
Rice County Solid Waste Management Plan
Economic Summary
Three County Processing Facility (Compost/RDF Production)

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<tr>
<td>Inflation (general):</td>
<td>2.75%</td>
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<tr>
<td>waste to be managed:</td>
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<td>44,200</td>
<td>44,900</td>
<td>45,600</td>
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<td>46,900</td>
<td>47,600</td>
<td>48,300</td>
<td>48,900</td>
<td>49,400</td>
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<tr>
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<td>44,900</td>
<td>22,800</td>
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<tr>
<td>waste to facility:</td>
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<td>0</td>
<td>0</td>
<td>22,800</td>
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<td>47,600</td>
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<td>0</td>
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<td>11,900</td>
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<td>residual/bypass to landfill:</td>
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<td>0</td>
<td>3,420</td>
<td>6,930</td>
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<td>7,140</td>
<td>7,245</td>
<td>7,335</td>
<td>7,410</td>
</tr>
</tbody>
</table>

### PROCESSING FACILITY

**Capital Costs**
- Engineering: $1,112,136
- Site Preparation: $794,383
- Scale: $89,265
- Buildings: $6,615,554
- Processing Equipment: $6,259,768
- Utilities: $1,350,451
- Rolling Stock: $624,168
- Contingency Costs (15 %): $2,526,709
Subtotal: $19,371,436

**Financing Term (yrs):** 20
**Financing Rate:** 8.0%
**Annual Dept Service**
- 2008: $1,973,024
- 2009: $1,973,024
- 2010: $1,973,024
- 2011: $1,973,024
- 2012: $1,973,024
- 2013: $1,973,024
- 2014: $1,973,024
- 2015: $1,973,024
- 2016: $1,973,024
- 2017: $1,973,024

**Annual Operating Costs (contract)**
- 2008: $825,500
- 2009: $1,666,403
- 2010: $1,743,054
- 2011: $1,790,898
- 2012: $1,840,240
- 2013: $1,890,846
- 2014: $1,942,845

**Total Processing Facility Costs**
- Debt Service
  - 2008: $1,973,024
  - 2009: $1,973,024
  - 2010: $1,973,024
  - 2011: $1,973,024
  - 2012: $1,973,024
  - 2013: $1,973,024
  - 2014: $1,973,024
  - 2015: $1,973,024
  - 2016: $1,973,024
  - 2017: $1,973,024
- Operating Costs
  - 2008: $825,500
  - 2009: $1,666,403
  - 2010: $1,743,054
  - 2011: $1,790,898
  - 2012: $1,840,240
  - 2013: $1,890,846
  - 2014: $1,942,845
- **Total Costs**
  - 2008: $2,798,524
  - 2009: $3,669,426
  - 2010: $3,716,077
  - 2011: $3,764,011
  - 2012: $3,813,263
  - 2013: $3,863,870
  - 2014: $3,915,866
  - 2015: $3,915,866
  - 2016: $3,915,866
  - 2017: $3,915,866

### RDF HAUL/PROCESSING

- Tons RDF: 5,700
- Cost/Ton: $70

**Total Cost**
- 2008: $432,831
- 2009: $901,171
- 2010: $939,983
- 2011: $980,248
- 2012: $1,022,017
- 2013: $1,063,167
- 2014: $1,103,574

### RICE COUNTY LANDFILL COSTS

- Liner Const. $/AC: $200,000

---

\CyR\Ip$i\S\504092008 Repermit\SW Mgmt Plan\2008 SW Mgmt Plan\Tables\Table 10 three county pr6cesing.xls

Liesch Associates, Inc.
<table>
<thead>
<tr>
<th>Inflation (general):</th>
<th>2.75%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TABLE 10</strong></td>
<td>Rice County Solid Waste Management Plan Economic Summary Three County Processing Facility (Compost/RDF Production)</td>
</tr>
</tbody>
</table>

**Cover Const. $/AC** $90,000

**Capital Costs**

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<td>$45,000</td>
<td>$35,000</td>
<td>$45,000</td>
<td>$35,000</td>
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**Financing Terms (yrs):** 5

**Financing Rate:** 6.0%

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<td>$168,008</td>
<td>$168,008</td>
<td>$168,008</td>
<td>$168,008</td>
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<tr>
<td>Cell 6 amortization</td>
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<td>$418,033</td>
<td>$418,033</td>
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<td>$255,813</td>
<td>$466,158</td>
<td>$276,180</td>
<td>$348,466</td>
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**Operating Costs**

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**Financial Assurance Payment**

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**Total Landfill Costs**

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<td>Annualized Capital Costs</td>
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<td>$418,033</td>
<td>$418,033</td>
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<td>$255,813</td>
<td>$466,158</td>
<td>$276,180</td>
<td>$348,466</td>
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\ '~/SW Mgmt Plan\Tables\Table 10 three county pricing.xlsx

Liesch Associates, Inc.
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<tbody>
<tr>
<td>Inflation (general)</td>
<td>2.75%</td>
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<tr>
<td>Total Operating Costs</td>
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<td>$825,650</td>
<td>$663,019</td>
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<td>$75,000</td>
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<td>$37,500</td>
<td>$37,500</td>
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<td>Cost per Ton</td>
<td>$21.69</td>
<td>$24.55</td>
<td>$24.65</td>
<td>$99.37</td>
<td>$123.14</td>
<td>$121.34</td>
<td>$120.54</td>
<td>$125.43</td>
<td>$122.28</td>
<td>$124.79</td>
</tr>
</tbody>
</table>

**TOTAL PRIMARY METHOD SYSTEM COSTS - NO CAP GRANT**

| Processing Facility     | $2,798,524 | $3,669,426 | $3,716,077 | $3,764,011 | $3,813,263 | $3,863,870 | $3,915,886 |
| RDF Haul/Incineration   | $432,831   | $901,171   | $939,983   | $980,248   | $1,022,017 | $1,063,167 | $1,103,574 |
| Rice Co. Landfill       | $1,004,308 | $1,085,291 | $1,106,803 | $1,300,134 | $1,118,552 | $1,034,612 | $993,299   | $1,222,893 | $1,052,695 | $1,145,304 |
| Total                   | $4,343,663 | $5,665,888 | $5,965,862 | $6,164,676 | $6,058,173 | $5,979,732 | $6,164,746 |
| Cost per Ton            | $20.17 | $23.11 | $23.22 | $92.22 | $115.97 | $113.78 | $111.98   | $124.17 | $121.70 | $124.79 |

**TOTAL PRIMARY METHOD SYSTEM COSTS - WITH CAP GRANT**

<p>| Grant Amount:           | $4,000,000 |
| Processing Facility (net)| $2,391,115 | $2,362,017 | $2,308,668 | $2,356,602 | $2,406,854 | $2,456,461 | $2,508,459 |
| RDF Haul/Incineration   | $432,831   | $901,171   | $939,983   | $980,248   | $1,022,017 | $1,063,167 | $1,103,574 |
| Rice Co. Landfill       | $1,004,308 | $1,085,291 | $1,106,803 | $1,300,134 | $1,118,552 | $1,034,612 | $993,299   | $1,222,893 | $1,052,695 | $1,145,304 |
| Total                   | $4,043,054 | $5,665,888 | $5,965,862 | $6,164,676 | $6,058,173 | $5,979,732 | $6,164,746 |
| Tons Managed            | 46,300    | 44,200    | 44,900    | 45,600    | 46,200    | 46,900    | 47,600    | 48,300    | 48,900    | 49,400    |</p>
<table>
<thead>
<tr>
<th>Cost per Ton</th>
<th>$21.59</th>
<th>$24.55</th>
<th>$24.65</th>
<th>$90.44</th>
<th>$114.32</th>
<th>$112.65</th>
<th>$111.98</th>
<th>$116.99</th>
<th>$133.95</th>
<th>$116.55</th>
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<tbody>
<tr>
<td>Tons MSW Managed</td>
<td>48,300</td>
<td>44,200</td>
<td>44,900</td>
<td>45,600</td>
<td>46,200</td>
<td>46,900</td>
<td>47,600</td>
<td>48,300</td>
<td>48,900</td>
<td>49,400</td>
</tr>
<tr>
<td>Tons Residential MSW Managed (40%)</td>
<td>18,520</td>
<td>17,680</td>
<td>17,960</td>
<td>18,240</td>
<td>18,480</td>
<td>18,760</td>
<td>19,040</td>
<td>19,320</td>
<td>19,560</td>
<td>19,760</td>
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</table>

**LAND DISPOSAL**

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<tr>
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<th></th>
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<tbody>
<tr>
<td>Total Annual Cost</td>
<td>$1,206,600</td>
<td>$1,287,649</td>
<td>$1,028,301</td>
<td>$1,220,727</td>
<td>$1,313,469</td>
<td>$1,318,703</td>
<td>$1,524,900</td>
<td>$1,536,262</td>
<td>$1,552,426</td>
<td>$1,406,356</td>
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<tr>
<td>Cost per Ton Managed</td>
<td>$25.69</td>
<td>$26.44</td>
<td>$20.37</td>
<td>$23.35</td>
<td>$24.27</td>
<td>$23.65</td>
<td>$26.34</td>
<td>$25.67</td>
<td>$21.90</td>
<td>$22.08</td>
</tr>
<tr>
<td>Annual Cost per Household (res. portion of total cost @ 40 %)</td>
<td>$21.89</td>
<td>$23.13</td>
<td>$18.29</td>
<td>$21.49</td>
<td>$22.90</td>
<td>$22.76</td>
<td>$26.06</td>
<td>$25.99</td>
<td>$22.66</td>
<td>$23.33</td>
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</table>

**NEWPORT FACILITY**

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Low Range Annual Costs</td>
<td>$796,050</td>
<td>$837,614</td>
<td>$832,704</td>
<td>$2,427,164</td>
<td>$4,001,399</td>
<td>$4,059,897</td>
<td>$4,118,798</td>
<td>$4,179,237</td>
<td>$3,978,994</td>
<td>$4,032,175</td>
</tr>
<tr>
<td>Cost per Ton Managed</td>
<td>$16.82</td>
<td>$18.51</td>
<td>$18.11</td>
<td>$52.04</td>
<td>$84.56</td>
<td>$84.56</td>
<td>$84.56</td>
<td>$84.60</td>
<td>$79.60</td>
<td>$79.71</td>
</tr>
<tr>
<td>Annual Cost per Household (res. portion of total cost @ 40 %)</td>
<td>$14.44</td>
<td>$15.04</td>
<td>$14.81</td>
<td>$42.74</td>
<td>$69.76</td>
<td>$70.07</td>
<td>$70.39</td>
<td>$70.72</td>
<td>$66.68</td>
<td>$66.88</td>
</tr>
<tr>
<td>High Range Annual Costs</td>
<td>$796,050</td>
<td>$837,614</td>
<td>$832,704</td>
<td>$2,908,397</td>
<td>$4,973,783</td>
<td>$5,046,155</td>
<td>$5,119,483</td>
<td>$5,194,457</td>
<td>$5,006,274</td>
<td>$5,071,706</td>
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<tr>
<td>Cost per Ton Managed</td>
<td>$17.19</td>
<td>$18.85</td>
<td>$18.55</td>
<td>$63.74</td>
<td>$107.66</td>
<td>$107.59</td>
<td>$107.55</td>
<td>$107.55</td>
<td>$102.38</td>
<td>$102.07</td>
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<tr>
<td>Annual Cost per Household (res. portion of total cost @ 40 %)</td>
<td>$14.44</td>
<td>$15.04</td>
<td>$14.81</td>
<td>$51.17</td>
<td>$86.71</td>
<td>$87.10</td>
<td>$87.49</td>
<td>$87.89</td>
<td>$83.87</td>
<td>$84.13</td>
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</table>

**RICE CO MSW COMPOSTING FACILITY**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Without CAP Grant Total Annual Cost</td>
<td>$780,525</td>
<td>$800,268</td>
<td>$983,630</td>
<td>$4,711,945</td>
<td>$4,461,095</td>
<td>$4,559,777</td>
<td>$4,662,038</td>
<td>$4,515,803</td>
<td>$4,621,356</td>
<td>$4,730,725</td>
</tr>
<tr>
<td>Cost per Ton Managed</td>
<td>$16.88</td>
<td>$18.11</td>
<td>$21.91</td>
<td>$103.33</td>
<td>$96.56</td>
<td>$97.22</td>
<td>$97.94</td>
<td>$93.49</td>
<td>$94.51</td>
<td>$95.76</td>
</tr>
<tr>
<td>Annual Cost per Household (res. portion of total cost @ 40 %)</td>
<td>$14.16</td>
<td>$14.37</td>
<td>$17.49</td>
<td>$82.97</td>
<td>$77.77</td>
<td>$79.67</td>
<td>$76.41</td>
<td>$77.42</td>
<td>$78.47</td>
<td>$78.47</td>
</tr>
<tr>
<td>With CAP Grant Total Annual Cost</td>
<td>$780,525</td>
<td>$800,268</td>
<td>$983,630</td>
<td>$4,257,391</td>
<td>$4,257,391</td>
<td>$4,358,073</td>
<td>$4,458,334</td>
<td>$4,312,099</td>
<td>$4,417,652</td>
<td>$4,527,020</td>
</tr>
<tr>
<td>Cost per Ton Managed</td>
<td>$16.88</td>
<td>$18.11</td>
<td>$21.91</td>
<td>$93.36</td>
<td>$92.15</td>
<td>$92.88</td>
<td>$93.66</td>
<td>$95.28</td>
<td>$90.34</td>
<td>$91.64</td>
</tr>
<tr>
<td>Annual Cost per Household (res. portion of total cost @ 40 %)</td>
<td>$14.16</td>
<td>$14.37</td>
<td>$14.81</td>
<td>$51.17</td>
<td>$88.71</td>
<td>$87.10</td>
<td>$87.49</td>
<td>$87.89</td>
<td>$83.87</td>
<td>$84.13</td>
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</table>
# Table 11
Rice County Solid Waste Management Plan
Economic Comparison
Primary Waste Management Methods

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Annual Cost</td>
<td>$1,004,308</td>
<td>$1,085,291</td>
<td>$1,106,803</td>
<td>$4,541,366</td>
<td>$5,710,956</td>
<td>$5,712,775</td>
<td>$5,760,111</td>
<td>$6,081,501</td>
<td>$6,003,414</td>
<td>$6,191,229</td>
</tr>
<tr>
<td>Cost per Ton Managed</td>
<td>$21.69</td>
<td>$24.55</td>
<td>$24.85</td>
<td>$99.59</td>
<td>$123.61</td>
<td>$121.61</td>
<td>$121.01</td>
<td>$125.91</td>
<td>$122.77</td>
<td>$125.33</td>
</tr>
<tr>
<td>Annual Cost per Household (res.</td>
<td>$18.22</td>
<td>$19.49</td>
<td>$19.68</td>
<td>$79.96</td>
<td>$99.56</td>
<td>$98.61</td>
<td>$98.44</td>
<td>$102.90</td>
<td>$100.58</td>
<td>$102.70</td>
</tr>
<tr>
<td>portion of total cost @ 40 %)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Annual Cost</td>
<td>$1,004,308</td>
<td>$1,085,291</td>
<td>$1,106,803</td>
<td>$4,133,958</td>
<td>$5,303,547</td>
<td>$5,305,366</td>
<td>$5,352,702</td>
<td>$5,674,092</td>
<td>$5,596,005</td>
<td>$5,783,820</td>
</tr>
<tr>
<td>Cost per Ton Managed</td>
<td>$21.69</td>
<td>$24.55</td>
<td>$24.85</td>
<td>$90.66</td>
<td>$114.80</td>
<td>$113.12</td>
<td>$112.45</td>
<td>$117.48</td>
<td>$114.44</td>
<td>$117.08</td>
</tr>
<tr>
<td>Cost per Household (res. portion</td>
<td>$18.22</td>
<td>$19.49</td>
<td>$19.68</td>
<td>$72.79</td>
<td>$92.46</td>
<td>$91.57</td>
<td>$91.48</td>
<td>$96.01</td>
<td>$93.75</td>
<td>$95.94</td>
</tr>
<tr>
<td>of total cost @ 40 %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Estimate based on 2007 data and an approximate growth rate of 1% each year.
TABLE 12  
Rice County Solid Waste Management Plan  
Recycling Tonnages

<table>
<thead>
<tr>
<th>2007 Recycling Quantities (from SCORE Report) in Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
</tr>
<tr>
<td>Commercial</td>
</tr>
<tr>
<td>Estimated Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2007 Tonnages per Material Received at the Recycling Center¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
</tr>
<tr>
<td>Tin/Aluminum</td>
</tr>
<tr>
<td>Newspaper</td>
</tr>
<tr>
<td>Corrugated Cardboard</td>
</tr>
<tr>
<td>Plastic</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

¹ Note: It is assumed that roughly half of the tonnages are residential and half are commercial/industrial.
TABLE 13
Rice County Solid Waste Management Plan
Rice County Sanitary Landfill Tonnages

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSW (cubic yards)</td>
<td>86,294</td>
<td>76,100</td>
<td>64,464</td>
</tr>
<tr>
<td>MSW (Tons)*</td>
<td>25,888</td>
<td>22,830</td>
<td>19,339</td>
</tr>
<tr>
<td>Demolition Debris (cubic yards)</td>
<td>8,508</td>
<td>11,700</td>
<td>14,577</td>
</tr>
</tbody>
</table>

* Assume 600 pounds per cubic yard average density at the gate.
<table>
<thead>
<tr>
<th>Location</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Northfield Site</td>
<td>This site is owned by the City of Northfield and located in the south end of the City. The City has built a park (Secler Park) over the landfill. Some monitoring is conducted at the site, however details regarding the monitoring system are not known.</td>
</tr>
<tr>
<td>2. Faribault Sites</td>
<td>One site is located within the limits of the City of Faribault, along the Straight River, near the Downtown area (Highway 60 overpass). This site is owned by the City of Faribault and it is unknown if monitoring is conducted at this site. One site on north side of City located near the MNDOT Garage. This site is owned by the City of Faribault and it is unknown if monitoring is conducted at this site.</td>
</tr>
<tr>
<td>3. Hoover Dump Site</td>
<td>The Hoover family owns this site, which is located in Bridgewater Township northwest of the existing sanitary landfill. This site operated between 1963 and 1973 and handled most of the County wastes once the smaller landfills.dumps closed. No monitoring is conducted at this site.</td>
</tr>
<tr>
<td>4. Township Dumps</td>
<td>A number of township dumps operated which handled small amounts of rural garbage. The ownership of these sites is unknown, and no monitoring is known to be conducted at these sites.</td>
</tr>
<tr>
<td>5. Permit by Rule Demo Sites</td>
<td>A number of small Permit by Rule sites which handled small quantities of waste for a limited time period. The ownership of these sites is unknown.</td>
</tr>
</tbody>
</table>

NOTE: The MPCA conducted a survey of the dump sites located within Rice County. Additional information regarding these facilities should be obtained from the MPCA.
APPENDIX C
Rice County
Minnesota Land Use and Cover Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Acreage</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban and rural development</td>
<td>15,638</td>
<td>4.7</td>
</tr>
<tr>
<td>Cultivated land</td>
<td>225,192</td>
<td>68.3</td>
</tr>
<tr>
<td>Hay/pasture/grassland</td>
<td>39,025</td>
<td>11.8</td>
</tr>
<tr>
<td>Brushland</td>
<td>993</td>
<td>0.3</td>
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<tr>
<td>Forested</td>
<td>33,848</td>
<td>10.3</td>
</tr>
<tr>
<td>Water</td>
<td>11,222</td>
<td>3.4</td>
</tr>
<tr>
<td>Bog/marsh/fen</td>
<td>3,397</td>
<td>1.0</td>
</tr>
<tr>
<td>Mining</td>
<td>489</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>329,809</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Appendix D
RICE COUNTY
SOLID WASTE ORDINANCE
Ordinance # 600

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CHAPTER 600

SOLID WASTE ORDINANCE
FOR RICE COUNTY

AN ORDINANCE AUTHORIZING AND PROVIDING FOR COUNTY SOLID WASTE ACTIVITIES; ESTABLISHING POWERS AND DUTIES IN CONNECTION THEREWITH; ESTABLISHING STANDARDS AND REQUIREMENTS FOR SOLID WASTE OPERATIONS WITHIN THE UNINCORPORATED AREAS OF THE COUNTY OF RICE; REQUIRING LICENSES AND PERMITS FOR STORAGE, COLLECTION, TRANSPORTATION, PROCESSING, AND DISPOSAL OF SOLID WASTE IN ACCORDANCE WITH THE COUNTY SOLID WASTE PLAN; EMBODYING AND SUPPLEMENTING THE MINIMUM STANDARDS AND REQUIREMENTS ESTABLISHED BY RULES OF THE MINNESOTA POLLUTION CONTROL AGENCY; PROVIDING FOR ENFORCEMENT OF SAID REQUIREMENTS; IMPOSING PENALTIES FOR FAILURE TO COMPLY WITH THESE PROVISIONS; REQUIRING PERFORMANCE BONDS AND INSURANCE; AND PROMOTING THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC, AND TO PROTECT THE ENVIRONMENT PURSUANT TO MINNESOTA STATUTES (MINN. STAT.) CHAPTERS 115A, 375, 400, AND 473.

THE RICE COUNTY BOARD DOES HEREBY ORDAIN:
Chapter 601 Introductory Provisions

601.01 Title
This Ordinance shall be known, cited and referred to as the Rice County Solid Waste Ordinance.

601.02 Purpose
This Ordinance is adopted for the purpose of protecting the public health, welfare, and safety; preventing the spread of disease; preventing the creation of nuisances; conserving natural resources; and protecting the County's water, air, and land resources. This Ordinance meets the purposes, goals, and policies of the Rice County Solid Waste Plan and the 2002 Rice County Comprehensive Plan goals, including the following:

A. Promote the public health, safety and welfare by enacting and timely enforcement of a solid waste material ordinance (Goal 30);
B. Coordinate with state and environmental agencies to provide input to general planning activities and to provide input into the development process (Goal 7);
C. Coordinate with state agencies on a regular basis (Goal 9);
D. Preserve, protect and improve the surface and underground waters including, but not limited to, rivers, streams, lakes, groundwater and aquifer recharge areas (Goal 20);
E. Minimize the potential for air, water and land contamination and pollution that could result from the development process (Goal 48);

To meet these goals, this Ordinance will:

F. Regulate the number, location and operation of solid waste facilities to protect the public's health and well-being;
G. Prevent public nuisances;
H. Assure that all individuals are informed and responsible for their actions regarding solid waste that may affect the environment and the community now and in the future;
I. Encourage the use and reuse of recyclable materials through a county-wide recycling program and the provision of facilities to support those activities;
J. Augment, supplement, and support state and federal regulations on solid waste issues including the regulatory management hierarchy of reduction prevention, reuse, recycling, processing and land filling.

601.03 Statutory authorization
This Ordinance is adopted pursuant to the authorization contained in Minnesota Statutes, Chapters 400, 145, and 115A.

601.04 Jurisdiction
A. Jurisdiction and activities covered. The jurisdiction of this Ordinance shall apply to land uses in all areas of Rice County outside the incorporated limits of municipalities, and shall apply to all solid waste hauling, disposal, transfer, storage, composting, and recycling services under the licensing and permitting authority of the County.
B. **Farm exception.** The licensing requirements and performance standards of this Ordinance shall not apply to burning, or burning and burying, of solid waste generated on or as part of a farming operation if the burying is done in a nuisance free and aesthetic manner on land used for farming. This exception does not apply to burning tires or plastics, except plastic baling twine, or to burning or burial of the following materials:

1. Household hazardous waste as defined in Minn. Stat. § 115A.96, Subd. 1;
2. Appliances, including, but not limited to, major appliances as defined in Minn. Stat. § 115A.03, Subd. 17a;
3. Household batteries;
4. Used motor oil; and
5. Lead acid batteries from motor vehicles.

**601.05 Compliance required**

A. **Minimum requirements.** The provisions of this Ordinance shall be held to be the minimum requirements for the promotion of public health, safety and welfare.

B. **State and federal standards.** In addition to the conditions set forth in this Ordinance, compliance with state and federal standards are required.

**601.06 Severability and validity**

It is hereby declared to be the intention of the County Board that the provisions of this Ordinance be severable in accordance with the following:

A. **Severability.** If any court of competent jurisdiction shall adjudge any provision of this Ordinance to be invalid, such judgment shall not affect any other provisions of the Ordinance not specifically included in said judgment.

B. **Validity.** If any court of competent jurisdiction shall adjudge invalid the application of any provision of this Ordinance to a particular structure, site, facility, or operation, such judgment shall not affect the application of said provision to any other structure, site facility, or operation not specifically included in said judgment.

**601.07 Effective date**

This Ordinance shall be in full force and effect on and after its adoption and publication pursuant to law.

**601.08 Rules of construction and interpretation**

The following rules of construction and interpretation apply to this Ordinance:

A. **Conflict.** Where any provision of this Ordinance conflicts with another rule, regulation, or ordinance of the County, the provision that is more restrictive shall prevail.

B. **Minimum requirements.** This Ordinance establishes minimum requirements for the collection, hauling, recycling, and disposal of solid waste and solid waste facilities.
Chapter 602 Definitions

602.01 Generally
For the purposes of this Ordinance, certain terms or words used herein shall be interpreted as follows:

A. The word “shall” is mandatory, and not discretionary; the word “may” is permissive.
B. Words used in the present tense shall include the future; words used in the singular shall include the plural; and plural words shall include the singular.
C. Words shall be given their common usage if not defined.
D. The masculine gender shall include the feminine and neuter.

602.02 Definitions
The following words and phrases, when used in this Ordinance, unless the context clearly indicates otherwise, shall have the meanings ascribed to them in this section.

Agency
The Minnesota Pollution Control Agency.

Air Pollution
The presence in the outdoor atmosphere of any air contaminant or combination thereof in such quantity, of such nature and duration and under such conditions as would exceed state and federal limits.

Appliance
Washers, dryers, electric and gas ranges or stoves, refrigerators, freezers, dehumidifiers, water heaters, residential furnaces, dishwashers, garbage disposals, trash compactors, microwave ovens and air conditioners.

Appliance Storage Facility
A facility for the storage of three or more inoperable appliances.

Backyard Composting
Composting of household putrescibles and yard wastes generated by a residential dwelling or adjoining property.

Board
The Rice County Board of Commissioners.

Brush Disposal Facility
A site used exclusively for disposal of trees and tree parts including stumps, branches, and their attached leaves. Such disposal may include open burning and burial of the resulting ash and unburned tree parts.
Cell
Compacted solid wastes developed in an orderly manner that are enclosed by cover material in a land disposal site and as regulated by the Minnesota Pollution Control Agency.

Closure
The period after which solid wastes are no longer accepted during which time the permittee completes the required procedures as regulated by the Minnesota Pollution Control Agency.

Collection
The aggregation of solid waste from the place at which it is generated; includes all activities up to the time the waste is delivered to a waste facility.

Commercial Brush and Tree Open Burning Site
A site operated for profit for the open burning of trees, tree trimmings or brush.

Commercial Hauler
Any person who owns, operates, or leases vehicles for the purpose of contracting to collect or transport solid waste or source separated materials from residential, commercial or industrial property.

Compost Facility
A site used to compost solid waste; includes all structures used to control drainage, collect and treat leachate, and store incoming waste and the final product.

Composting
The controlled microbial degradation of organic waste to yield a humus-like product.

County
Rice County, Minnesota.

Cover Material
Material, as allowed by the agency, that is used to cover compacted solid waste in a land disposal site. Important general characteristics of good cover material are low permeability, uniform texture, cohesiveness and compatibility.

CRT
Cathode ray tube, an electronic device in which electrons are emitted onto a phosphorescent screen to produce an image, used in most televisions, computer monitors, and other electronic viewing screens, frequently containing mercury or other volatile metals.
Daily Cover
Cover material that is spread and compacted on the top and side slopes of compacted solid waste at least at the end of each operating day in order to control vectors, fire, infiltration and erosion and to assure an aesthetic appearance.

Demolition Landfill
An area of land used for the disposal of demolition waste.

Demolition Waste
Non-putrescible solid waste from the construction, remodeling, repair or demolition of structures including buildings and paved roads. Demolition waste includes waste building materials; packaging; and rubble such as concrete, brick, bituminous concrete, wood, masonry, glass, trees, structural metals, insulation, roofing material, and plastic building parts. It may also include other waste materials accepted by the Department. It does not include uncontaminated earth or rock, hazardous materials, asbestos, industrial waste, or appliances.

Department
The Rice County Solid Waste Department.

Dump
An unpermitted land disposal site at which solid waste is disposed of in a manner that does not protect the environment, is susceptible to open burning and is exposed to the elements, flies, rodents and scavengers.

Facility
The land, structures, monitoring devices and other improvements on the land used for monitoring, treating, processing, storing or disposing of solid waste, leachate, or residuals from solid waste processing or the processing of compostables, recyclables or household hazard wastes.

Farm
A parcel of land located in an Agricultural Zoning District as defined by the Rice County Zoning Ordinance used for the production, keeping or maintenance, for sale, lease or personal use, of plants and animals useful to people, including but not limited to: forages and sod crops; grains and seed crops; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats or any mutations or hybrids thereof, including the breeding and grazing of any or all of such animals; bees and apiary products; fur; animals; and trees and forest products.

Garbage
Discarded material resulting from the handling, processing, storage, preparation, serving and consumption of food; and non-recyclable plastics.
Ground Water
The water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined or perched conditions in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. The term “ground water” shall be synonymous with underground water.

Hazardous Waste
Refuse, sludge, or other waste material, or combinations of refuse, sludge or other waste materials in a solid, semisolid, liquid, or contained gaseous form which, because of its quantity, concentration, or chemical, physical, or infectious characteristics may (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Categories or hazardous waste materials include, but are not limited to explosives, flammables, oxidizers, poisons, irritants, and corrosives. Hazardous waste does not include source, special, nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended.

Household
A single detached dwelling unit or a single unit of a multiple dwelling unit.

Household Hazardous Waste
Waste generated from household activity that exhibits the characteristics of or that is listed as hazardous waste under Agency rules, but does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, or household refuse.

Industrial Solid Waste
All solid waste generated from an industrial or manufacturing process or solid waste generated from non-manufacturing activities such as service and commercial establishments. Industrial solid waste does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, or household refuse. (MN Rules 7035.0300 subp 45: means solid waste resulting from an industrial, manufacturing, service or commercial activity that is managed as a separate waste stream).

Infectious Waste
Waste originating from diagnosis, care, or treatment of a person or animal that has been or may have been exposed to a contagious or infectious disease. Unless materials have been rendered noninfectious by procedures approved by the Minnesota Commissioner of Health, infectious waste includes:

A. All wastes originating from persons or animals placed in isolation for control and treatment of an infectious disease;
B. Bandages, dressings, casts, catheters, tubing, and similar disposable items that have been in contact with wounds, burns, anatomical tracts, or surgical incisions and that are suspect of being or have been medically verified as in infectious;
C. All infectious anatomical waste, including human and animal parts or tissues;
D. Infectious sharps or needles;
E. Laboratory and pathology waste of an infectious nature; or
F. Any other waste, as defined by the Minnesota Commissioner of Health, which, because of its infectious nature, requires handling and disposal in a manner prescribed for items A to E.
Junkyard

Land or buildings where solid waste, discarded or salvaged materials are brought, purchased, sold, exchanged, stored, cleaned, packed, disassembled or handled, including but not limited to scrap metal, rags, paper, rubber products, glass products, lumber products, and products resulting from the wrecking and dismantling of automobiles, boats, snowmobiles, or other vehicles, or used motor homes provided further that the storage of junk equal in bulk to three (3) or more inoperative and/or unlicensed motor vehicles, which are to be resold for used parts or old iron, metal, glass or other discarded materials, for a period in excess of three (3) months, shall be considered a junkyard, whether maintained in connection with another business or not.

Land Disposal Site

Any tract or parcel of land, including any construction facility, at which solid waste is disposed of in or on the land.

Licensee

The person who has been given authority by the County Board or the Department to carry out any of the activities for which a license is required under the provisions of the Ordinance.

Medical Waste

Infectious waste, as defined in the Infectious Waste Control Act of 1989, Minn. Stat. section 116.76, subdivision 12(Supp. 1989), as amended, or its successor, and waste originating from the diagnosis, care or treatment of a person or animal, or waste resulting from biological research, whether or not the waste has been decontaminated.

Mixed Municipal Solid Waste

Garbage refuse and rubbish from residential, commercial, industrial, and community activities that is generated and collected together but does not include materials collected, processed and disposed of as separate waste streams.

Monitoring Point

Any installation or location used to determine the quality or physical characteristics of ground water, surface water or water in either the unsaturated or saturated zone.

Nonconforming Solid Waste Disposal Site or Facility

A public or private solid waste disposal site or facility that was lawfully in existence before August 8, 1975.

Non-putrescible

Solid waste, other than garbage, hazardous waste, industrial waste, mixed municipal solid waste, sludge or other special waste that cannot become rotten or enter a foul state of decay or decomposition.

Open Burning

Burning any matter whereby the resultant combustion products are emitted directly to open atmosphere without passing through a stack, duct, or chimney, and which meets Minnesota Pollution Control Agency standards.
Operator
The person responsible for the overall operation of a facility.

Owner
The person or persons who own a facility or part of a facility.

Person
Any human being, municipality or other governmental or political subdivision or other public agency, any public or private corporation, any partnership, firm, association or other organization, any receiver, trustee, assignee, agent or other legal representative of any of the foregoing or any other legal entity, but does not include the Minnesota Pollution Control Agency.

Pollutant
Has the meaning given it in Minnesota Statutes, Chapter 115A.

Post-Closure
The period after closure during which the long term care, maintenance and monitoring of a site or facility takes place.

Processing
The treatment of solid waste, household hazardous waste and recyclables after collection and before disposal. Processing includes, but is not limited to, packaging, volume reduction, storage, separation, exchange, physical, chemical or biological modification and transfer from one waste facility to another.

Putrescible
Solid waste which is capable of becoming rotten and which may reach a foul state of decay or decomposition.

Recyclable Materials
Corrugated cardboard, glass bottles and jars, high grade ledger paper, newspaper, metal can, #1 and #2 plastic bottles or materials identified by resolution of the Board.

Recycling Facility
A site used to separate, process, modify, convert or otherwise prepare solid wastes within six months so the component materials or substances may be beneficially used or reused as raw materials. This does not include facilities that process their own waste stream.

Refuse
Putrescible and non-putrescible solid wastes, except for materials collected, processed or disposed of as separate waste streams.
Resource Recovery
The reclamation for sale or reuse of materials, substances, energy or other products contained within or derived from waste.

Rubbish
Non-potterible solid wastes, except for materials collected, processed or disposed of as a separate waste stream.

Runoff
The portion of precipitation that drains from an area as surface flow.

Scavenging
Unauthorized removal of solid waste materials, including recyclables, from a licensed solid waste disposal facility or collection point.

Shoreland
Land located within the following distances from the ordinary high water elevation of public waters:
   A. Land within 1,000 feet from the normal high water mark of a lake, pond, reservoir, impoundment or flowage; and
   B. Land within 300 feet of a river or stream or the landward side of flood plain delineated by Ordinance on such a river or stream, whichever is greater.

Solid Waste
Any solid semisolid, liquid, or contained gaseous material requiring disposal. Solid waste does not include hazardous waste, animal waste used as fertilizer, earthen fill, boulders, rock, sewage sludge, solid or dissolved material in domestic sewage or other common pollutants in water resources, discharges that are point sources subject to Section 402 of the federal Water Pollution Control Act, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954.

Solid Waste Collection
The gathering of solid waste from public or private places.

Solid Waste Plan
The Rice County Solid Waste Management Plan, dated May 1988, or most recent approved version, and amendments thereto.

Solid Waste Storage
The holding of solid waste for more than forty-eight hours.

Solid Waste Transportation
The conveying of solid waste from one place to another by means of vehicle, rail, car, water vessel, conveyor or other means.
Source Separated Materials
Recyclable materials removed from solid waste, separated by recyclable category by the generator and recovered for reuse in their original form or for use in manufacturing processes.

Special Wastes
Solid wastes requiring management other than that normally used for mixed municipal solid waste.

State
The State of Minnesota.

Tipping Fee
The fee charged to commercial haulers and citizens for waste delivered to the facility.

Unacceptable Waste
Solid waste, which does not have collection, processing, or disposal capabilities within Rice County. Such waste includes but is not limited to explosives; hospital, pathological and biological waste; commercial and industrial hazardous waste, as regulated by federal, state and local law; and chemicals and radioactive materials.

Waste Tire
A pneumatic tire or solid tire that has been discarded or that can no longer be used for its original intended purpose because of wear, damage or defect.

Waste Tire Processing Facility
A licensed waste facility used for the shredding, slicing, processing or manufacturing of usable materials from waste tires, and may include temporary storage activity. Processing does not include the re-treading of waste tires.

Waste Monitoring System
A system of wells, lysimeters or other mechanisms used to obtain representative samples of both underground water and surface water where required in the vicinity of a land disposal site.

Water Table
The surface of the ground water at which the pressure is atmospheric. Generally, this is the top of the saturated zone.

Wetcell
A lead acid battery.
Wetland

A natural marsh where water stands near, at or above the soil surface during a significant portion of years, and which is eligible for classification as an inland fresh water wetland type 3, 4, or 5 under U.S. Department of Interior classifications.

Yard Waste

Garden waste, leaves, lawn cuttings, prunings, weeds, shrubs and tree waste, excluding whole trees greater than nine inches in diameter, generated on residential or commercial properties.
Chapter 603  General Provisions

603.01  Solid waste license required

All solid waste collectors, haulers, disposal facilities, transfer stations, recycling facilities, commercial burning facilities or sites, or other solid waste activities shall be licensed by the County.

A.  **Licensed facility disposal.** Any person disposing, storing, transferring, recycling, or burning solid waste within Rice County shall do so only at a licensed site or facility and with the approval of the owner/operator of the site or facility or in conformance with the performance standards set forth hereafter.

B.  **License required.** Any person allowing real or personal property under their control to be used for solid waste disposal, storage, transfer, recycling, or burning shall obtain a license issued by the Department.

603.02  License suspension or revocation

Any license required under this Ordinance may be suspended by the County Board for violation of any provision of this Ordinance.

603.03  License application

Any person conducting activities requiring a license from the Solid Waste Department shall submit a license application that provides all necessary information for the Department to ensure that the provisions of this Ordinance and the County Solid Waste Plan will be met. Applicants for a license shall not commence any construction activities or operation or commence collection or hauling service until the license has been issued.

603.04  License for collector or hauler

The application for license shall contain the following information:

A.  The name and current business address of the refuse hauler/recyclable collector;

B.  The type, number and capacity of the refuse hauling vehicles and other containers or collection equipment used for solid waste or recyclables;

C.  A general description of the service area, which need not include information about specific customers; and

D.  An annual report identifying tonnage for solid waste and recyclables collected.

603.05  License for solid waste facilities

An applicant for a license to operate a solid waste facility, including composting facility, demolition landfill, recycling facilities, or transfer facility, shall complete and submit to the Department an application. The application shall not be considered complete until the Department receives the following information and submittals:

A.  **All other materials and fees.** All applicable fees, materials required by this section, materials required by subsequent sections applying to the specific waste management activity for which a license is sought.

B.  **Notify governing bodies.** Demonstration that the applicant has notified all municipal or township governing bodies located within two (2) miles of the affected property,

C.  **Notify property owners.** Demonstration that the applicant has notified in writing the property owners of record within one-quarter (1/4) mile of the affected property or the ten
properties nearest to the affected property, whichever is the greatest number of property owners.

D. **State submittals.** Copies of all submittals to the State during the State permitting and/or licensing process for solid waste facilities and operations.

E. **Other ordinances and regulations.** Demonstration of compliance with all other Rice County Ordinances, including copy of the conditional use permit, and compliance with State and Federal regulations.

F. **Additional information.** The applicant shall submit additional information as requested by the Department.

G. **Performance bond.** Unless otherwise provided by the Board, furnishing to the County a performance bond, in an amount to be set by the Board, and naming the County as obligee with sufficient sureties duly licensed and authorized to transact corporate surety business in the State of Minnesota as sureties. The condition of the bond or other approved instruments shall be that if the principal fails to obey any of the requirements or do any of the acts required by this Ordinance in the operation of the waste facility or activity, or if, for any reason, ceases to operate or abandons the waste facility or activity, and the County is required to expend any monies or expend any labor or material to restore the facility to the condition and requirements as provided by the Ordinance, the obligor and the sureties on its bond shall reimburse the County for any and all expense incurred to remedy the failure of the principal to comply with the terms of the Ordinance, and the obligor and its sureties will indemnify and save the County harmless from all losses, costs and charges that may accrue to the County because of any default of the obligor under the terms of their license to operate. The performance bond shall be subject to cancellation by the surety at any time only upon giving one hundred twenty (120) days prior written notice of cancellation to the County.

H. **Certificates of insurance.** Furnishing to the County certificates of insurance issued by insurers duly licensed by the State of Minnesota covering public liability insurance, including general liability, automobile liability; completed operations liability; and bodily injury liability in amounts to be set by the Board. In addition, the applicant shall provide evidence of workers compensation coverage in the required statutory amount.

I. **Plans.** The proposed plan of operation, closure, financial assurance and post closure activity.

**603.06 Additional application requirements for specialized facilities**

A. **Commercial tree and brush open burning sites.** In addition to the requirements set forth above in Section 603.05, an application shall include the following:

1. State burning permit from the township or appropriate authority;
2. Site map drawn to scale, which shows the location of the proposed facility;
3. Name, address, and phone number of applicant;
4. Any other information required by the Department.
B. Recycling facilities. In addition to the requirements set forth in Section 603.05, a license application shall contain the following:

1. A current map or an aerial photograph of the area showing the land use and zoning within one-quarter (1/4) mile of the resource recovery facility. A location inset map shall be included;

2. A plot plan including: the legal description of the site of the facility; a description of the immediate adjacent area showing dimensions, present and planned pertinent features including but not limited to roads, buildings, fencing, and other applicable details; and the general topography. The scale of the plot plan shall not be greater than two hundred (200) feet per inch;

3. A report accompanying the plans indicating:
   a. Area of the site in acres;
   b. Owner of the site and proposed licensee;
   c. Individuals responsible for actual operation and maintenance of the resource recovery facility and attending operating procedures;
   d. Sanitary landfill or other waste facility where any residue will be transferred, the owner of landfill, hours of operation, and the Minnesota Pollution Control Agency permit number;
   e. Type and amount of equipment to be provided for the operation of the resources recovery facility;
   f. Population and geographical areas to be served by the proposed facility;
   g. Anticipated tonnage of solid waste delivered to the facility from each community within the area;
   h. An estimate of recyclable materials to be delivered to the facility;
   i. Proposed storage capacity on-site;
   j. Proposed marketing plan for materials;
   k. Proposed access routes within a one (1) mile radius of the proposed facility;
   l. As recommended by the Department, suitable soils, geologic and ground water information will be submitted;
   m. Local government approval of the facility site;
   n. MPCA approved permit; and
   o. Any other information required by the Department.

C. Appliance storage. In addition to the requirements set forth above in Section 603.05, a license application shall contain the following:

1. Detailed disposal plan which does not include any on-site burial or burning, and provides for the recycling or reuse of the scrap metal;

2. Final disposal processing plans at an MPCA approved processing facility;

3. MPCA and U.S. Environmental Protection Agency approved permits;

4. Any other information required by the Department.
D. **Waste tire storage.** In addition to the requirements set forth in Section 603.05, a license application shall contain the following:

1. Detailed plans and specifications;
2. Fire prevention plans;
3. Vector Control Plans;
4. MPCA approved permit; and
5. Any other information required by the Department.

E. **Yard waste composting facility.** In addition to the general requirements set forth in Section 603.05, a license application shall contain the following:

1. Facility design capacity, type of waste received, and the intended distribution of the finished product;
2. Identification of facility location;
3. Name, phone number, and address of the owner or operator;
4. MPCA approved permit; and
5. Any other information required by the Department.

F. **Demolition waste facilities.** In addition to the requirements set forth in Section 603.05, a license application shall contain the following:

1. Detailed plans specifying proposed materials, site capacity and if appropriate, soil evaluation and hydrogeologic studies;
2. Description of procedures for dust, noise or traffic control;
3. Signed agreements or indicia of ownership of the proposed site;
4. For commercial off-site use, an approved conditional use permit;
5. Estimated duration of site use;
6. MPCA approved permit; and
7. Any other information required by the Department.

603.07 **County review of application and issuance of license**

A. **Time limit.** After receiving a completed application, the Department shall have sixty (60) days to:

1. Approve or deny the application;
2. Request additional information; or
3. If appropriate, forward the application to the Rice County Board of Commissioners for further action.
B. **Issuance and renewal conditions.** The following conditions shall be met for the County to issue or renew a license.

1. Submission of false information by the applicant shall constitute grounds for denying, suspending or revoking a license or license renewal;
2. A license issued pursuant to this Ordinance shall be for a maximum period of one (1) year. The Solid Waste Department may thereafter issue annual renewals;
3. Operational requirements must be met before a license may be annually renewed;
4. Licenses shall not be transferable; and
5. Unless otherwise provided by the Department, issuance or renewal of any license shall be contingent upon the owner of the site or facility or the operator or both, providing financial assurance for the closure, post-closure maintenance and monitoring of the site or facility, as required under Minnesota Rules 7035.2695. Use of this financial assurance shall be limited to the site or facility for which it was provided. Documentation submitted with the application for Department approval shall include funding procedures, a description of the funding method, the value of the funding, and an inflation adjusted cost estimate which assures that the closure and post-closure activities at the site or facility take place. The amount of the financial assurance shall be equal to or exceed the total estimated post-closure costs specified in the approved post-closure plan.

### 603.08 Prohibited solid waste management facilities

#### A. Prohibited facilities.** Rice County prohibits development of disposal facilities that are deemed to be unnecessary or duplicative. In addition, the County prohibits the following types of waste facilities:

1. Regulated infectious waste land disposal facilities;
2. Hazardous waste disposal facilities; and
3. Radioactive waste disposal facilities.

### 603.09 County permits and other regulations

All licenses issued by the Department are contingent upon acquiring all necessary land use permits, approvals, or other written documentation from the County Planning and Zoning Department, including conditional use permits and variances as specified in Chapter 503 (Zoning Administration) and all permits or other approvals required in Chapters 505-507 and 521-523.

### 603.10 Insurance required for all facility and hauling licensees

A licensee shall provide and maintain at all times during the term of the license such insurance coverage as identified in this section. Such policies of insurance shall apply to the extent of, but not as a limitation upon or in satisfaction of, the license indemnity provisions. Licensees shall maintain:

#### A. Workers compensation insurance in compliance with all applicable state statutes;

#### B. General liability insurance with a policy limit of at least $1,000,000 for each occurrence and $2,000,000 aggregate;

#### C. Automobile liability insurance for all owned, non-owned, and hired automobiles and other motor vehicles; and

#### D. Additional insurance as required by the County.
603.11 Indemnification of County

To the fullest extent permitted by law, a licensee shall indemnify Rice County, its officers, employees, agents, and others acting on its behalf, to hold them harmless, and to defend and protect them from and against any and all loss, damage, liability, cost and expense (specifically including attorneys' fees and other costs and expenses of defense), of any sort whatsoever, based upon, resulting from, or otherwise arising in connection with any actions, claims or proceedings brought, or any loss, damage or injury of any type whatsoever sustained, by reason of any act or omission of a licensee, its officers, employees or agents in the performance of any of a licensee's obligations under this Ordinance.
Chapter 604  Solid Waste Department

604.01  Authority established

The Rice County Board of Commissioners established by resolution or ordinance on November 8, 2005 the Solid Waste Department for which the Board may appoint a Director with sufficient personnel to discharge the duties of this Department. The Solid Waste Director shall have all necessary authority to implement and carry out the provisions of this Ordinance including, but not limited to, the following:

A. To review and evaluate all applications and supporting materials referred to the Department for facilities and operations within the County;
B. To inspect facilities and operations;
C. To investigate violations of this Ordinance and to take appropriate enforcement actions;
D. To work cooperatively with other County departments on enforcement of land use, health, or safety issues in regard to on-site management of solid waste;
E. To recommend to the County Attorney that legal proceedings be initiated against a person or group of persons to compel compliance with the provisions of this Ordinance or to terminate or control a facility or operation not in compliance with this Ordinance;
F. To conduct studies, investigations and research relating to solid waste activities, including but not limited to methodology, chemical and physical considerations, and engineering;
G. To advise, consult and cooperate with the public and other governmental agencies in furtherance of the purpose of this Ordinance; and
H. To enforce the provisions of this Ordinance.
Chapter 605  Fees And Service Charges

605.01  Fee schedule
Fees for licenses shall be set by resolution of the Rice County Board of Commissioners.

605.02  Investigation fees
Fees for repeated visits or investigations of property to determine compliance with the Ordinance may be established and set by resolution of the Rice County Board of Commissioners. The fees established shall include the cost and amount of the service, including data accumulation, planning, and administration.

605.03  Landfill fee
The Board shall establish or amend the solid waste fee by resolution. The fee shall be determined by:

A. Acquisition cost. The cost of acquisition, operation, and maintenance of county solid waste facilities;

B. Services cost. The cost of the county solid waste services including those provided by the facilities; and

C. Other costs. All other costs incurred in providing county solid waste services.

605.04  County facilities exempted
Any solid waste facilities or vehicles owned and operated by Rice County or any incorporated areas shall be exempt from payment of fees but shall be subject to the operational requirements of this Ordinance.
Chapter 606 Violations, Enforcement, And Penalties

606.01 Violations
Persons or organizations that violate the provisions of this Ordinance shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine, imprisonment or both. Unless otherwise provided, each act of violation and every day on which such violation occurs or continues shall constitute a separate offense. All of the following shall be deemed violation of this Ordinance:

A. **Ordinance provisions.** Failure to comply with any of the provisions of this Ordinance when required to do so;
B. **Permits or certificate.** Failure to obtain any required permit or certificate;
C. **Fee.** Failure to pay a required fee;
D. **False statements.** Making a false statement in any document required to be submitted under the provisions of this Ordinance; or
E. **License conditions.** Violating a condition of a license.

606.02 Injunctive relief and other remedies
In the event of a violation or a threat of violation of this Ordinance, the County Attorney may, as directed by the County Board, take appropriate action to enforce this Ordinance, including application for injunctive relief, action to compel performance, or other appropriate action in court, if necessary, to prevent, restrain, correct or abate such violations or threatened violations.

606.03 Remedies cumulative
No remedy set forth in this Ordinance is intended to be exclusive of any other remedy or remedies. No delay in the exercise of any remedy for any violation of this Ordinance shall later impair or waive any such right or power of the County.

606.04 Corrective actions
A. **Abatement.** In the event of an emergency abatement by the County, or if a property owner does not complete corrective actions ordered by the County under the provisions of this Ordinance, or in violation of a stipulation agreement or court order, the Department may abate the violations, and the Department has the authority to enter the property and perform the corrective actions and recover the costs of the same from the property owner.
B. **Cost as civil action or assessment.** If a person fails to comply with the provisions of this Ordinance, the County may recover the costs incurred for corrective action in a civil action in any court of competent jurisdiction or, at the discretion of the Board, the costs may be certified to the County Auditor as a Special Assessment against the real property.

606.05 Inspection
All property affected by this Ordinance shall be subject to inspection by the County in accordance with Minnesota Statutes. After presentation of credentials, the County may collect samples for evidence or laboratory examination as deemed necessary for enforcement of this Ordinance or in the interest of protecting the public health, safety, or welfare. No person shall interfere with the performance of the duties of the County officers or refuse to permit the County’s officers to inspect the property.
606.06 Administrative penalties

The Solid Waste Director may issue administrative fines or impose performance conditions upon any person who violates the terms of this Ordinance or who fails to abate the existence of a violation.

A. Citations. The Solid Waste Director or assignee may issue citations for violations of this Ordinance other than for violations resulting from failure to pay. The Director may not physically arrest or take into custody any violator.

   1. Citations shall contain at least the following:
      a. Name and address of the person charged in the violation, the owner or person in charge of the premises at which the violation occurs;
      b. The date and place of the violation;
      c. A short description of the violation followed by the Section of this Ordinance violated;
      d. The date and place at which the person receiving the citation shall appear and a notice that if such person does not respond, a warrant may be issued for such persons arrest;
      e. The name of the person issuing the citation; and
      f. Such other information as the Department may specify.

B. Citation issuance. The citation shall be issued to the person charged with the violation or in the case of a business entity, to any officer or agent expressly or impliedly authorized to accept such citation.

C. Appearance. The person charged with the violation shall report to the Department by the date set forth on the citation.

D. Fine or corrective action. The Director may require corrective actions and/or impose a fine for violations of this Ordinance as established by resolution of the Board.

E. Closure of an unlicensed site. No person shall operate a dump or any unlicensed solid waste disposal site. The owner of any unlicensed site shall cease operation and close such site in accordance with the following requirements:

   a. Close access to the site and erect signs indicating that dumping is not allowed.
   b. No burning shall be allowed.
   c. Remove all chemical containers.
   d. Eradicate all rodents.
   e. At the discretion of the Board, the owner shall conduct a water-monitoring program pursuant to Minnesota Rules 7035.2655 (Post closure Care and Use of Property) and 7035.2815, subd 3 (Hydrologic Evaluation). Plans to protect the ground and surface water shall be approved by the Department and MPCA prior to implementation.
   f. Divert surface water drainage around and away from the disposal area.
   g. Compact and cover all refuse with at least two feet of compact cover material.
   h. Seed cover material so that adequate turf is present and take all measures necessary prior to established vegetative cover to prevent erosion. Erosion control best management practices should be consistent with Minnesota Pollution Control Agency’s guidance document Protecting Water Quality in Urban Areas, or most recent version.
   i. Establish and maintain a grade sufficient to promote water runoff without erosion after the site is seeded.
   j. Place on record with the Rice County Recorder an instrument in a form described by the Department placing the public on notice of the existence and location of the illegal site and of the obligations placed upon the parties holding interest in the property and the restrictions which may affect the use of the property.
Chapter 607  Collection And Transportation

607.01  Collection services required
Every business and household in Rice County shall engage a hauler for collection of mixed solid waste and recyclables, except as provided below:
   A.  Business alternative collection. Every business that does not engage a hauler must obtain Solid Waste Department approval for alternative collection or transportation.
   B.  Households. Every household that does not engage a hauler must comply with the requirements of this Ordinance for alternative practices.
   C.  City and town collection. Cities and towns may organize collection services for households or businesses consistent with the Rice County Solid Waste Management Plan, as provided under Minnesota Statutes 115A.
   D.  County collection. Rice County may require cities and towns to organize collection services or may organize collection services for cities or towns that have not organized collection services, as provided in Minnesota Statutes 115A.94, subd. 5.

607.02  Mandatory residential recycling
An owner or occupant of a residential or multi-unit residential building shall separate recyclable material for collection and shall not deposit for collection mixed municipal solid waste which contains recyclable materials including corrugated cardboard, glass bottles and jars, high grade ledger paper, newspaper, metal cans, #1 and #2 plastic bottles or materials identified by resolution of the Board unless such waste is delivered or collected for direct delivery to a County-licensed facility for separation or recycling.

607.03  Mandatory commercial recycling
An owner or occupant of a commercial, industrial or institutional building shall not deposit for collection mixed municipal solid waste which contains recyclable materials including corrugated cardboard, glass bottles and jars, high grade ledger paper, newspaper, metal cans, #1 and #2 plastic bottles or materials identified by resolution of the Board unless such waste is delivered or collected for direct delivery to a County-licensed facility for separation or recycling.

607.04  Commingling prohibited
No hauler shall collect or transport any recyclable materials commingled with mixed municipal solid waste unless allowed by the terms of this Ordinance.
   A.  All recyclable materials shall be transported to an approved recycling facility.
   B.  All haulers must comply with all Rice County ordinances and applicable State and Federal laws.

607.05  Collection and hauling vehicle standards
Personal and commercial vehicles used for collection or transportation of solid waste must comply with state standards for the transportation of refuse or recyclables.

607.06  Vehicle equipment inspection
Solid waste vehicle equipment shall be subject to inspection by the Solid Waste Department.
607.07  Volume or weight based fees required
Collectors of solid waste shall charge for collection on the basis of the volume or weight of waste collected.

607.08  Recycling to be encouraged in fee structure
Haulers shall not impose greater charges on residences who recycle than those who do not recycle.

607.09  Same day service
Haulers shall provide same day collection services for mixed municipal solid waste and recyclables. If mixed municipal solid waste collection services do not occur weekly, the collection services for recyclables shall occur on the same day of the normal collection of mixed municipal solid waste.
Chapter 608  Residential Disposal Of Solid Waste On Farms

608.01  Burning

Owners of residential dwellings are prohibited from burning garbage except that person operating land defined as a farm may burn garbage generated from the person’s household or as part of the person’s farming operation without obtaining a license if:

A.  **Obtain permit.** A burn permit has been obtained and the burn area meets all applicable performance standards from the township or the Department of Natural Resources if the township does not regulate burning;

B.  **Burn barrel.** A burn barrel is used and located at least three hundred (300) feet from any residential dwelling not located on the site; or

C.  **Burn site monitoring.** The burning site is monitored from the commencement of the burning until the fire is completely extinguished, the prevailing wind is away from nearby residences and occupied buildings, and the burning is conducted as far away from a road as possible and controlled so that a traffic hazard is not created.

608.02  Yard waste

A.  **Burial.** Residential yard waste may be buried without obtaining a license.

B.  **Burning.** Residential yard waste may be burned without obtaining a license as long as the burn site is located so that prevailing winds are away from dwellings and roads, and the site is monitored.

608.03  Hazardous waste

All residential hazardous waste must be disposed at an approved hazardous waste facility.
Chapter 609  Hazardous Wastes

609.01  Hazardous waste generally
All waste defined as hazardous under Minnesota Statute shall be managed by the waste generator in accordance with MPCA rules, and the following standards.
   A. Burial or surface disposal of all hazardous waste is hereby prohibited; and
   B. All hazardous waste shall be disposed of at a licensed hazardous waste facility.

609.02  Special wastes
The following designated hazardous wastes shall be regulated as follows:
   A. Wet cell batteries.
      1. Batteries shall be stored to ensure that leakage is contained; and
      2. Batteries shall be disposed at an approved processing facility that recycles all battery components.
   B. Used motor oil.
      1. Burial or surface disposal of used motor oil is hereby prohibited;
      2. Used motor oil shall be disposed of at a resource recovery disposal facility approved by the MPCA; and
      3. Compliance with Minnesota Statutes signage requirements is mandatory.
   C. Other special wastes. Additional special waste identified by State Statute or MPCA agency rules may be subject to further regulation by the Rice County Board.
Chapter 610  Non-putrescible Materials

610.01  Consolidation required on site
In land use zones A (Agricultural) all non-putrescible materials, except for farm implements that are substantially intact and not commingled with other nonputrescible materials, must be consolidated to an area not to exceed one-half (½) acre or five percent (5%) of the parcel size, whichever is less.

610.02  Other districts
In all other zoning districts, all materials shall be consolidated to an area not to exceed one percent (1%) of the parcel size.

610.03  Responsible storage required
All non-putrescible materials shall be stored in a nuisance free and environmentally sound manner.
Chapter 611  Demolition Waste Facilities and Sites

611.01  License required
A license must be obtained from the Department for any of the following activities:

A.  **Disposal.** The disposal of demolition waste generated by construction or demolition of structures;
B.  **Fill.** The use of select demolition waste as fill for a specific land improvement project; or
C.  **Storage.** The storage of demolition waste intended for recycling or beneficial reuse.

611.02  Location requirements
Demolition waste facilities shall conform to all performance and site requirements of the County Zoning Ordinance, with location standards in Minnesota Rules (7035.2555 and 7035.2825) and shall not in any event be located on sites with the following features or characteristics:

A.  With karst features including sink holes, disappearing streams and cave;
B.  Within wetland areas;
C.  Within a flood plain;
D.  Within a shore land; or
E.  With a water table within five feet of the lowest fill elevation.

611.03  Design requirements
Demolition waste facilities shall be designed consistent with the requirements of Minnesota Rules 7035.2825 and the following:

A.  **Site preparation.** Site preparation must allow for orderly development of the site. Initial site preparation must include clearing and grubbing, top soil stripping and stock-piling, fill excavation, and if appropriate, drainage control structures and other design features necessary to construct and operate the facility.
B.  **Elevations.** The site must be developed in phases to achieve final fill elevations as rapidly as possible. The design of each phase must take into account weather conditions and site drainage and waste flow pattern into the site.
C.  **Surface water.** Surface water drainage must be diverted around and away from the fill areas.
D.  **Erosion prevention.** Slopes and drainage way must be designed to prevent erosion. Slopes longer than 200 feet must be interrupted with drainage ways.
E.  **Final slopes.** Final slopes for the fill area must be a minimum two percent (2%) and a maximum of twenty percent (20%).
611.04  Operation requirements

The following operation requirements, in addition to those requirements in Minnesota Rules 7035.2825, must be met at site where demolition waste is being stored:

A. **Certified operator.** A certified operator must be present at all times the facility is open to accept waste.

B. **Waste application.** The waste must be spread and compacted to the extent possible.

C. **Monthly coverage.** The site must be covered at least monthly.

D. **Cover material.** Suitable cover material must be maintained at the site.

E. **Phasing.** Each phase must be staked for proper grading and filling.

F. **Separation.** A minimum separation distance of 50 feet must be maintained between the fill boundaries and the site property line.

G. **Demolition waste only.** Only demolition waste may be placed in the fill area.

H. **Waste stored for reuse.** Waste at the site intended for reuse must be stored in accordance with Minnesota Rule 7035.2855, including preventing migration of contaminants into subsurface soils and waters, stormwater management sufficient to control runoff from a 24-hour, 25- year storm, management of particulate matter subject to wind dispersion, and other nuisance or potential nuisance conditions.

611.05  Site closure

The demolition waste facility must meet the requirements of Minnesota Rules 7035.2825 and the following closure requirements.

A. **Phase closure.** The owner or operator must close each phase as it reaches final waste elevation.

B. **Final cover.** Final cover must consist of at least two (2) feet of soil capable of sustaining vegetative growth and preventing erosion from a 24-hour 10-year storm.

C. **Inspections.** The site shall be inspected one (1) year after closure to determine if settlement and erosion problems exist.

D. **Timely remedies.** All problems at the site must be corrected within thirty (30) days of the inspection.

E. **Deed notation.** A notation must be placed on the property deed indicating the site use and location of the waste.
Chapter 612  Yard Waste Composting Facilities

612.01  License required

A license shall first be obtained from the Department before constructing, establishing, maintaining or operating a yard waste composting facility.

612.02  Backyard composting

Backyard composting sites are exempt from the provisions of this Chapter.

612.03  Location requirements

Yard waste composting facilities shall conform to all performance and site requirements of the County Zoning Ordinance, with location standards in Minnesota Rules (7035.2555 and 7035.2836) and shall not in any event be located on sites with the following features or characteristics:

- A. A site with karst features including sinkholes, disappearing streams and caves;
- B. Within wetland areas;
- C. Within a flood plain;
- D. Within a shore land; or
- E. With a water table within five (5) feet of the lowest fill elevation.

612.04  Operation requirements

Compost facilities must comply with the operation requirements in Minnesota Rule 7035.2836. Composted yard waste offered for use off-site or for the use of person other than the licensee must be produced by a process that encompasses turning of the yard waste on a periodic basis to aerate the yard waste, maintain temperatures, and reduce pathogens. The composted yard waste must contain no sharp objects greater that one (1) inch in diameter.
Chapter 613  Commercial Solid Waste Storage

613.01  License required
A license shall first be obtained from the Department before constructing, establishing, maintaining or operating a site that stores commercial solid waste for more than two (2) weeks, except as described in this Chapter.

613.02  State rule adopted
The owner and occupant of any premises, business establishment, or industry is responsible for the satisfactory storage of all solid waste accumulated at that premise, business establishment, or industry. Solid waste shall be stored in accordance with Solid Waste Rule 7035.0700. Solid Waste Rule 7035.0700 is hereby adopted by reference as part of this Ordinance.

613.03  Storing for reuse or recycling
Concrete, asphalt, or other material that has been separated for the purpose of recycling as part of the same project from which the material was demolished shall not be stored for more than six (6) months without obtaining a license from the Department.

613.04  Operation requirements
A.  **Certified operator.** A certified operator must be present at all times the facility is open to accept waste.

B.  **Performance requirements.** All performance requirements in other County ordinances must be met.

C.  **Reuse.** Waste at the site intended for reuse must be stored in accordance with Minnesota Rule 7035.2855 including preventing migration of contaminants into subsurface soils and waters, stormwater management sufficient to control runoff from a 24-hour, 25 -year storm, management of particulate matter subject to wind dispersion, and other nuisance or potential nuisance conditions.

613.05  Site closure requirements
Upon closure of a commercial solid waste storage site, the licensee shall be responsible for removal, recycling, or disposal of all solid waste from the site in accordance with the requirements of this Ordinance and the MPCA.
Chapter 614 Waste Tires

614.01 License required
A license shall first be obtained from the Department before the outside storage of waste tires in excess of five (5) waste tires within a parcel of ten (10) acres or less or twenty-five (25) waste tires within a parcel of more than ten (10) acres unless excluded as follows:

A. Retail operation. A tire retailer with a maximum of five hundred (500) tires on site;
B. Re-treading. A tire re-treading business if no more than three thousand (3000) waste tires are on site;
C. Motor vehicle service. Other business which remove tires from motor vehicles if no more than five hundred (500) waste tires are on site; and
D. Agricultural. A person using waste tires for agricultural use if kept on site.

614.02 Location requirements
Waste tire storage facilities shall conform to all performance and site requirements of the County Zoning Ordinance, with location standards in Minnesota Rules (7035.2555), and shall not in any event be located on sites with the following features or characteristics:

A. Wetlands. Waste tires shall not be stored within a thousand (1000) feet of intermittent or permanent wetlands, streams, ponds, and lakes including shore land and flood plain areas.
B. Wooded areas. Waste tires shall not be stored within a thousand (1000) feet of wooded acres and other areas in which trees, tree stumps and brush are located, which could harbor mosquito populations.
C. Health concerns. Waste tires shall not be stored within one-half (½) mile of a known or suspected endemic area of mosquito-born viral encephalitis or other diseases.
D. At risk residence, businesses. Waste tires shall not be stored within one-half (½) mile of susceptible persons, which shall include private residences, day care centers, schools, parks, and recreational facilities.

614.03 Operational requirements
Operational requirements shall meet the following standards, in addition to the requirements of Minnesota Rules 9220.0200-9220.0520.

A. Area. Waste tires shall be confined to as small an area as practicable, with individual piles not more than twenty-five hundred (2500) square feet in area and twenty (20) feet in height.
B. Separation. A minimum twelve (12) foot separation distance shall be provided between piles of waste tires to allow for truck and emergency vehicle access.
C. Fire prevention. Adequate measures shall be provided to minimize the potential for tire fires.
D. Minimize standing water. Waste tires shall be piled as to minimize the accumulation of stagnant water.
E. Adjacent property. Waste tires shall be stored a minimum of fifty (50) feet from the adjacent property line.
F. **Drainage.** Surface water drainage shall be diverted around and away from waste tire storage area.

G. **Screening.** Adequate visual screening of waste tire storage areas from housing or public right-of-ways shall be provided by use of natural objects, such as trees, berms, fences, or other means deemed acceptable by the Department.

H. **Removal and processing.** Collected and stored waste tires shall be removed for processing, reuse, and recycling, incineration, or final disposal on a regular basis to insure the total waste tire volume does not exceed the designated capacity or become a public health and safety hazard or nuisance.

I. **Records.** Complete and accurate records of waste tire management shall be maintained and submitted to the Department with the operational report.

J. **Burial prohibited.** Burial or surface disposal of waste tires is hereby prohibited.

**614.04 Site closure requirements**

Upon closure of a waste tire storage operation the licensee shall be responsible for removal of all waste tires and tire products from the site as approved by the Department and processed by an MPCA approved processing facility. A duplicate of MPCA approval shall be sent to the County Solid Waste Department.
Chapter 615 Appliances

615.01 License required
A license shall first be obtained from the Department before constructing, establishing, maintaining or operating an appliance storage facility for three or more appliances.

615.02 Location requirements
Appliance storage facilities shall conform to all performance and site requirements of the County Zoning Ordinance, with location standards in Minnesota Rules (7035.2555) and shall not in any event be located on sites with the following features or characteristics:

A. **OHWL.** Appliances or their components shall not be located closer than seventy-five (75) feet from the ordinary high water mark of a wetland.

B. **Shoreland.** Appliances or their components shall not be stored within three hundred (300) feet of any streams, ponds and lakes including shore land and flood plain areas.

615.03 Operation requirements
Appliance storage sites shall maintain the following minimum performance standards:

A. **Certified technicians required.** All recycling activities or removal of hazardous substances must be performed by an appliance technician certified consistent with Minnesota Rules 7027.1100;

B. **Prompt removal.** Refrigerants shall be properly removed upon arrival. Chlorofluorocarbon/Freon gases or other hazardous solutions or vapors used as refrigerants must be recycled or disposed of according to Minnesota Rules;

C. **Motors and hazardous waste.** Motors shall be properly removed upon arrival. Switches and temperature gauges containing mercury shall be removed and managed as a hazardous waste;

D. **PCBs.** Capacitors shall be properly removed upon arrival and polychlorinated biphenyls shall be removed and managed as a hazardous waste;

E. **Bonding.** A bond shall be required for storage facilities to guarantee any future environmental remediation costs;

F. **Time limit.** Storage shall not exceed six (6) months for any individual appliance; and

G. **Burial prohibited.** Burial or surface disposal of appliances is hereby prohibited.
Chapter 616  Recycling Facilities

616.01  License required
A license shall first be obtained from the Board before constructing, operating, or installing a recycling facility.

616.02  Location requirements
Recycling facilities shall conform to all performance and site requirements of the County Zoning Ordinance, Minnesota Rules 7035.2845, and shall not in any event be located on sites with the following features or characteristics:

A. A site with karst features including sinkholes, disappearing streams and caves;
B. Within wetland areas;
C. Within a flood plain;
D. Within a shore land; or
E. With a water table within five (5) feet of the lowest fill elevation.

616.03  Operation requirements
Recycling facilities shall meet the following standards, in addition to those established in Minnesota Rules 7035.2845.

A. **Signage.** A sign, subject to the approval of the Department, shall be posted on the premises indicating the facility name, schedule of days and hours it is open to the public, and prices for use.
B. **Records.** Records approved by the Department shall be maintained indicating the type and quantity of solid waste passing through the recycling facility.
C. **Minimize nuisances.** The recycling facility shall be so situated, equipped, operated, and maintained so as to limit interference with other activities in the area.
D. **Appearance.** The premises, entrances, and exits shall be maintained in a clean, neat, and orderly manner at all times.
E. **Traffic.** All incoming and outgoing traffic shall be controlled by the licensee in such a manner as to provide orderly and safe ingress and egress.
F. **Unloading.** All unloading of solid waste from contributing vehicles shall be conducted in such a manner as to eliminate odor and litter outside of the facility.
G. **Other regulations.** Such other regulations as may be established by the Board in order to protect the health, safety, and welfare of the public.
H. **Enclosed area.** All processing shall occur in an enclosed area.
Chapter 617  Commercial Tree And Brush Open Burning Sites

617.01  License required
A license shall first be obtained from the Department before operating a commercial tree and brush open burning site.

617.02  Location requirements
An open burning site shall conform to all performance and site requirements of the County Zoning Ordinance and township burning requirements and shall not in any event be located on sites within the following:
   A. 1,000 feet of an occupied building unless written permission is obtained from the building owner and occupant;
   B. 1,000 feet of a public roadway;
   C. One mile of an airport or landing strip unless written permission is obtained for the affected airport or landing strip;
   D. 300 feet of a stream, river, lake, or other water body unless berms or other measures are used to ensure that ash or organic material does not enter the water body; and
   E. 300 feet of a wetland as defined in Minnesota Rules 7035.0300, subpart 119.

617.03  Operation requirements
An open burning site shall be operated as follows:
   A. Attendant. A qualified attendant must be on duty at all times when the site is open for disposal of material to be burned and for the duration of any fire on the site;
   B. Access. Access to the site must be controlled through a gate that is locked when the attendant is not on duty;
   C. Burning. Burning and ash storage areas must be designated and maintained;
   D. Surface water. Surface water drainage must be diverted around and away from the burning and ash storage areas;
   E. Prevent traffic hazard. Burning must be conducted so that a traffic hazard is not created, prevailing winds are away from nearby residences and a nuisance does not result;
   F. Notification. Prior notice must be given to the local authority and if appropriate the DNR, of the time and duration of each burn;
   G. Control of fire. The fire must not be allowed to smolder with no flames present; and
   H. Dust. Fugitive dust emissions from access roads and the site must be controlled.

617.04  Site closure requirements
An open burning site shall be subject to the following closure requirements:
   A. Unburned materials. All unburned materials must be removed and disposed of through burning at another licensed burn site or by other methods allowed by applicable statutes, rules, and ordinances;
   B. Restoration. Areas affected by burning must be covered with soil and seeded to prevent erosion and to restore the site to a natural condition; and
   C. Ash disposal. All ash must be removed to a licensed or permitted solid waste land disposal facility or disposed of by other methods allowed by applicable statutes, rules, and ordinances.
Chapter 619  Prior Ordinance Repealed

619.01  Prior ordinance repealed
The prior Rice County Solid Waste Ordinance, dated December 22, 1992, is hereby repealed in its entirety.

Approved by the Rice County Board of Commissioners, this 8th day of November, 2005

Jim Brown
Chair, Rice County Board of Commissioners

ATTEST:
Gary Weirs
Rice County Administrator
APPENDIX E
Solid Waste Department
Operational Chart

Director
Waste Management

2-Clerks

Assistant Director
HHW and Education

Foreman / Landfill

Foreman / Recycling

Equipment Operator

Equipment Operator

Equipment Operator

Equipment Operator

Equipment Operator

Equipment Operator

Equipment Operator

Equipment Operator
ALTERNATIVES REVIEW PROCESS

A. TECHNICAL REVIEW

1. Does the project sponsor propose a well defined and viable overall systems approach?
   - specific technology
   - specific and well established markets for recovered materials (compost, RDF, steam, recyclables, etc.)
   - residuals disposal
   - compatibility with targeted waste stream

2. Does the proposed technology have a proven track record for meeting performance requirements?
   - overall operational reliability (minimal downtime)
   - quality/consistency of product stream
   - consistent compliance with appropriate regulatory requirements

B. ECONOMIC REVIEW

1. Is there detailed and realistic documentation of the proposed project economics?

2. What are potential ramifications of environmental and worker health/safety liability issues associated with wastes being processed or disposed of at a non-Rice County facility or facilities?

3. How do the proposed economics compare with the existing system economics?

C. ENVIRONMENTAL REVIEW

1. How much will the proposed project decrease the volumes of waste entering the Rice County Sanitary Landfill?

2. What impacts will the proposed project have on air/ground water/surface water?

3. Will significant traffic/odor impacts be associated with the proposed project?

D. INSTITUTIONAL ISSUES

1. Is there a clearly defined and administratively workable structure of contractual responsibilities and obligations for all participating entities?

2. Is there any legally viable and administratively workable mechanism available for meeting flow control requirements?

3. Would participation in the proposed project decrease incentives to continue aggressive source separation recycling efforts?