

Solid Waste Management Plan Update



August 16, 2011

Benton County
2011 Solid Waste management Plan Update

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2011 Benton County Solid Waste Management Plan Update

1. Executive Summary

Benton County, located in central Minnesota, has updated the 2004 Benton County Solid Waste Management Plan passed by resolution dated August 2, 2005 and approved by the state August 25, 2005. This document contains the Benton County Solid Waste Management Plan which includes Benton County's solid waste abatement programs.

This plan update was developed and completed by Benton County Department of Development staff, with assistance from Tri-County Solid Waste Management Commission and Minnesota Pollution Control Agency (MPCA) staff. The Benton County Board of Commissioners and the Tri-County Solid Waste Management staff have reviewed the plan.

This plan reviews the past and present solid waste management system, abatement programs and policies, and anticipated management activities. This update proposes continuation of the County's current solid waste programs, expanding and improving certain programs, with an emphasis on waste abatement.

Benton County has an integrated solid waste system. Approximately 50% of the County's waste is directed to resource recovery facilities for disposal, with the remaining waste being disposed of at regional landfills. The other components of this system are curbside recycling collection; recycling redemption and drop-off facilities, yard waste composting facilities, waste food recycling, HHW mobile/permanent collection facilities, and problem materials management. Most of the components of this system are done by the private sector with assistance from Benton County and Tri-County Solid Waste Management staff. The Solid Waste Budget (Appendix B) and Goal Volume Table (Appendix A) can be found on the pages following the Solid Waste Management Plan Update.

The future of solid waste management in Benton County will be to maintain the existing successful programs/practices while investigating ways to promote and implement programs which reduce the production of waste. Benton County in cooperation with MPCA and Tri-County will participate with the member counties to develop institutional/commercial/industrial programs to develop a comprehensive assessment of their MSW volumes and programs with the intent of developing best management practices to reduce/reuse recycle materials, with special emphasis on source reduction and organic waste. The hope of this type of program is to develop "pilot projects" which can be used to promote the

above-mentioned practices. Also, Benton County in cooperation with MPCA and Tri-County will continue to have discussion about siting and constructing its own Waste to Energy Facility.

2. Benton County Demographics

The State demographer's Office estimates that the 2010 population of Benton County is 43,730 which reflect an increase of approximately 27.7% since the 2000 census. It is estimated that the population of the County will increase to 51,490 by 2020. The working population of the County is employed primarily in retail trade and manufacturing followed by service industry, government and construction. In 2009 the State demographer's office estimated that the average annual unemployment rate to be 8.6%. Most recent data indicates that the median household income in Benton County is \$50,587. See Appendix C for more complete demographic information on Benton County.

3. Solid Waste Collection and Generation Information

According to the 2009 SCORE report data, 15,172 tons of municipal solid waste (MSW) was collected in Benton County. There was an estimated 2,700 tons or 3.98% of total MSW disposed of on site. In addition, 24,924 tons of recyclables were collected and about 684 tons of problem materials managed. Solid waste collection service is available in all seven incorporated cities in the County. There are currently fourteen licensed solid waste haulers in operation in Benton County. Of the fourteen, five collect demolition and construction materials and nine collect and dispose of Municipal Solid Waste (MSW). The MSW hauler sets rate structures. All rates for residential and non-residential are either volume or weight based as per Minnesota Statute. Typical rates for residential collection range from \$10 to over \$50 on a monthly basis, and include curbside collection of recyclables. Garbage collection is generally on a weekly basis and recyclables are typically collected every other week by private haulers. The most prevalent system for collection of residential recycling is single stream by the major haulers and they haul the collected recyclables to Materials Recycling Facilities (MRF's) in the Twin Cities metropolitan area.

An exception to that most common system is the City of St. Cloud. Their municipally run system services all single family residences in the city as well as duplexes and triplexes. Their rate system consists of a monthly 'drive-by fee' of \$7.48 which is collected with residents' utility bills and a \$2 per 30 gallon bag charge for MSW collection. The garbage bags are available for area residents to purchase in packs of ten at most grocery and convenience stores. They also provide an option for 90 gallon cart service for approximately \$34 per month. Recycling is a two sort program (containers and paper) collected in the same bin, but not mixed together.

Collection and recycling services for the commercial, industrial and institutional sectors are conducted entirely by private sector haulers. The range of prices for commercial/ industrial collection isn't made available to the Commission, haulers are free to make those bids for services directly to their potential customers.

Since 1989, as part of Tri-County Benton County had contracted with the Elk River Resource Recovery Facility (ERRRF) to provide a percentage of the 150 tons per day of MSW to the RDF (Refuse Derived Fuel) facility. In August of 2009 that 20 year agreement expired. Attempts to renew that contractual arrangement were unsuccessful. In 2009 the opportunity arose to deliver waste to the existing mass burn incinerator operated by Pope/Douglas Solid Waste Management Commission in Alexandria. Due to their expansion, capacity had become available. A more thorough discussion of that decision and details of arrangements with that facility are found in Section D of this document. At present, many of the larger licensed haulers have signed contracts with Tri-County to deliver waste to Pope/Douglas facility in Alexandria Minnesota. To assure deliverance to the Pope Douglas Facility to Benton County is considering a designation ordinance (a copy of the dormant ordinance can be found in Appendix H).

In 1993 and 1998, it was estimated that 95% of city residents and 80% of rural residents had MSW collection services. Based on conversations with haulers and complaints handled by the county the percentages remain the relatively the same with an estimated increase to rural collection approaching 85%. On-site disposal of MSW is dealt with on a complaint basis. Benton County Department of Development staff work closely with the Benton County Sheriffs Department, MPCA, and DNR to resolve these complaints in a timely manner.

The most common incentives for solid waste abatement are volume-based pricing, curbside recycling, and a positive market for some recyclables. Market prices for recyclables vary, and are established by economic conditions and redemption centers' discretion, as the county offers no price guarantee or subsidy.

No large scale waste composition studies have been conducted in the Tri-County including Benton County area since the Minnesota Solid Waste Composition Study was completed in 1999. Currently that study the March 2000 "Solid Waste Composition Study" published by the MPCA is the best available information regarding waste composition. Per Greater Minnesota Detailed Results Appendix C; the study estimated the following types and percentages of waste:

Paper	34.2%	Glass	3.0%
Food Waste	14.5%	Adult & Infant Diapers	2.7%

Plastic	11.7%	Other Organics	0.9%
Wood Waste	3.1%	Hazardous Waste	1.0%
Metal	6.0%	Small Appliances	1.9%
Demolition/Construction	3.2%	Oil Filters	0.1%
Yard Waste	1.8%	Major Appliances	<0.1%
Other Inorganics	5.8%	Textiles	3.4%

Estimates from haulers and transfer facilities describe the waste as 55% commercial/industrial and 45% residential. The percentage breakdown for recycling had a slightly higher bias towards commercial/industrial sources with haulers estimating as much as 70% coming from commercial/industrial and 30% from residences. It should be noted that those figures are only estimates. The estimates come from monthly hauler reports as well as discussions with haulers. The estimates cannot be verified through the above-mentioned Waste Composition Study. That study indicated that since there is such a large overlap of haulers hauling from both commercial/industrial and residential sites that an accurate breakdown could not be obtained, therefore; it should be noted that the goal volume table uses estimates of 60% for commercial/industrial and 40% for residential.

The following is a revised list of major solid waste generators found in Benton County:

Verso Sartell LLC, Quebecor, Inc., Jack Frost/Golden Plump, Inc., Roma of Minnesota, X-Cell Optical, Inc., Coborns, Inc., and Woodcraft Industries, Inc.

Benton County has a single Demolition Landfill, Henkemeyer Landfill, Permit# SW-188. In 2008 the landfill applied for a renewal of this permit. In February of 2010 The Minnesota Pollution Control Agency (MPCA) granted the renewal for the permit running from 6/2/2009 to 6/2/2014 a period of five years, additionally Benton County annually licenses and inspects this landfill. In calendar year 2009 the waste disposed of in the landfill was approximately 13,973.04 cubic yards.

4. Review of Planning History and Alternative Analysis

The Solid Waste Management Plan was last updated in August 2005. Complete planning history up to 2005 can be found in the Update and in a Summary provided by Tri-County "Solid Waste Planning History," Appendix D; since 2005, the major components of the system are intact. Ownership of some transfer stations, recycling facilities and haulers has changed, however.

In the last five years:

- The mobile HHW program has been ongoing;
- Amnesty Days program has been ongoing;

- Grants have been awarded to recycling facilities, processors, computer drop-off programs and businesses;
- A quarterly newsletter is sent to all 4th, 5th, and 6th graders;
- A bi-annual newsletter, entitled "Rubbish Review" has been distributed county wide.
- Videos from both State and local perspectives have been created and distributed.

Most of the recent efforts have involved regional cooperation. Benton, Sherburne, and Stearns County staff, as well as staff from Tri-County, which meet monthly. The regular meetings help encourage regional cooperation and resolve conflicting, duplicative or overlapping efforts.

Since 1989, Benton County through the Tri-County Solid Waste Management Commission had contracted with the Elk River Resource Recovery Facility (ERRRF) to deliver 150 tons per day of MSW to the RDF (Refuse Derived Fuel) facility. A description of the ERRRF and its operations are available at the Tri-County Offices. The ERRRF also had delivery agreements with Hennepin, Anoka and eastern Sherburne County. At full capacity that facility processed 1000 tons per day (tpd). Tri-County MSW accounted for approximately 15% of the total deliveries to the facility with Benton County contributing about 20% of this 15% or approximately 10,000 tons/yr. The RDF produced by the plant is hauled the short distance over to the Great River Energy (GRE) plant where it is combusted producing enough electricity for 30,000 homes. A description of the GRE facility and its operations are available at Tri-County Offices.

That 20 year agreement expired in August of 2009. Attempts to renew that contractual arrangement were unsuccessful. The Commission investigated the possibility of constructing a MSW incinerator in the Tri-County (the Feasibility Study and associated documents are available at the Tri-County offices??). The opportunity arose to deliver waste to the existing mass burn incinerator operated by Pope/Douglas in Alexandria. Due to their expansion, capacity had become available. A more thorough discussion of that decision and details of arrangements with that facility are found in Section 10 of this document.

At the outset of the agreement with the ERRRF, deliveries to the RDF plant in Elk River amounted to nearly 70% of the Tri-County's waste. Due to rising amounts of MSW, mostly due to population growth, that percentage had dropped to nearly 50% by the early 2000's.

With the new agreement with Pope/Douglas tipping fees have been reduced; however, costs of disposal will still be relatively high for disposal at Pope Douglas; therefore, Tri-County staff will carefully monitor waste deliveries. When weekly tonnage goals are met, haulers will be diverted to other disposal

facilities of their choice. The most common diversion disposal site is the Elk River Sanitary Landfill SW-074, although some haulers (Allied Waste and Veolia in particular) utilize: the Lakes Area Landfill in Sarona, Wisconsin and the Pine Bend Landfill in Dakota County, Minnesota. Both are licensed and regulated by their respective States. Further information on the MSW landfills can be found in Section 11 of this report and Appendix G.

It is important to remember that Benton County recycles about 78%, (including yard waste credit and source reduction credit) of MSW, as documented in the 2008 SCORE report, off the top. The County's task then becomes managing the remaining MSW, of which 50% is to be waste-to-energy (WTE) facilities with the remaining 50% being landfilled. Landfilled material includes unacceptable waste and ash. At this point recycling has leveled off but is still Benton County's best "pre-processing" waste abatement strategy; however, throughout the ten year planning period and beyond it will be Benton County Policy to work to develop strategies/programs which focus on the reduce/reuse source reduction options.

Throughout the planning period it is apparent that land disposal will to some extent be necessary. That portion of the MSW stream that is not recycled, incinerated or managed in some other way will continue to be landfilled. Although in the past composting has had limited success Benton County working with MPCA and Tri-County will actively promote programs to encourage composting of MSW especially in the commercial and institutional sectors. The landfills used by Tri-County haulers are typically the Elk River Landfill, Pine Bend Landfill and the landfill previously mentioned in Sarona, Wisconsin.

Ash from the Pope/Douglas incinerator will be landfilled at the Ash Monofill located in Section 6, Solem Township, Douglas County.

Benton County will continue to address on-site disposal with educational campaigns. Benton County aggressively promotes proper management and disposal of MSW generated in the County.

The agreements with NRG to incinerate 150 ton per day from Tri-County and 20 ton per day at the Perham Resource Recovery Facility expired in August 2009. Attempts to extend/renew the contract with Great River Energy (GRE) were unsuccessful as a result of this Tri-County Solid Waste Management Commission was forced to consider other options.

The Tri-County Solid Waste Management Commission is considering three basic options for the future of MSW management:

- Investigate the possibility of constructing a new waste-to-energy incinerator in the Tri-County;
- Allow haulers to take MSW to the licensed facility of their choice for

disposal;
Seek other waste-to-energy incinerator contractual options.

No further studies have been conducted by Tri-County to investigate the possibility of constructing a new waste-to-energy incinerator; however, in 2004/2005 the Tri-County hired Wenck and Associates, in conjunction with ARI. The firms completed a Feasibility Study for a 500-ton per day WTE facility in the Tri-County area. The Executive Summary of that report is attached as Appendix E, or the entire document is available from Tri-County.

Also, during this process the Commission had completed a "Critical Issues Study dated June 2004. This study included:

- A critical environmental issues assessment
- Further evaluation of energy markets to assess the viability of steam customers and market for electricity sales
- Consideration of locating the facility near a wastewater treatment plant, to provide for the use of wastewater treatment plant effluent as a water supply to the plant and consideration of co-firing sludge with municipal solid Waste Management
- Evaluation of potential grant opportunities to support project development
- Refinement of economic projections (tip fee)
- Initiation of public education efforts

The Executive Summary from the Waste to Energy Critical Issue Study is attached as Appendix F.

5. Solid Waste Reduction

The County proposes to maintain waste reduction programs, which include:

- Requiring that solid waste haulers use some form of volume-based pricing;
- Promotion of materials exchange program for businesses;
- Support of the Environmental Network of Central Minnesota – a group of businesses that meets regularly to discuss environmental issues;
- Site visits to businesses;
- Develop reduce/reuse programs through county SCORE grant program;
- Promote environmentally responsible purchasing, including at the County level;
- Work with MPCA/Tri-County to develop promote recycling markets

- Advertise waste reduction programs to reduce HHW;
- Promote waste reduction in schools through newsletters, and videos;
- Participate with cities and other counties regarding source reduction programs;
- Promote Minnesota Waste Wise;
- Become a member of Recycling Association of Minnesota (RAM)
- Communicate waste reduction activities to CCISRR.

The County proposes to continue existing programs, and implement additional source reduction activities consistent with the MPCA's criteria for the Source Reduction credit, throughout the planning period. The County hopes to achieve a 3% reduction rate in the production on MSW.

Besides maintaining the existing practices described above Benton County in cooperation with MPCA and Tri-County will participate with the member counties with a pilot school or schools for a comprehensive assessment of its MSW volumes and programs with the intent of developing best management practices to reduce/reuse recycle materials, with special emphasis on organic waste.

Also, Benton County plans to Participate with St. Cloud Area Joint Planning Sustainability Committee, a Committee focusing on sustainability in all areas of natural resource planning, from land use to solid waste; and work with Sustainability Committee to create educational information detailing the benefits of product stewardship, to develop a think before you buy promotional campaign and to offer tours demonstrating zero waste as a full life cycle model; Promote environmentally responsible purchasing; Refer to Appendix B for Solid Waste Reduction, program budgeting.

6. Solid Waste Education Programs

The County proposes to maintain for the ten year planning period the current programs in waste education which include:

- The activities listed in the previous section (Section 4);
- Distribution of "Trash Talk" a quarterly newsletter for all 4th, 5th, and 6th graders in the County;
- Publication of the County's biannual newspaper "Rubbish Review"
- Arranging speakers for schools and service clubs;
- Promotion of the MPCA's Waste Education Clearinghouse;
- County SCORE grants for educational activities;
- Arrange for performances of CLIMB Theatre Company at local schools;
- Provide handouts at local "clean-up" days regarding HHW;

- Quarterly advertising of the opportunity to recycle will be published in the county newspaper of record.
- Provide recycling directory on Benton County's web-site

It should be noted that solid waste education efforts are frequently made by solid waste haulers, retailers, non-profits, and schools with little or no assistance for Benton County; Refer to Appendix B for Budget for Solid Waste Education Programs.

7. Recycling Programs

Benton County has not made any changes to its recycling goals since 2004. According to the 2008 SCORE report the recycling rate is 78.6%. This includes a 5% credit for yard waste programs and a 3% source reduction credit. The general goal is to promote and maintain the existing system. The private sector runs nearly all programs. Some are occasionally supported by County SCORE grants. It is the County's intent to continue to support private sector activities. A citizens committee will review the grant program over the next year and recommendations will be made to the County Board. Market conditions continue to fluctuate. Local recycling sites are listed on Benton County website (Refer to Appendix I)

Curbside recycling services are provided in all incorporated cities and are generally available to individual households in the unincorporated areas of the County. Drop-off or redemption centers are located in numerous area locations and listed on the County's website (Refer to Appendix I). Also, for more specific information on Benton County's recycling program Refer to Appendices B-G for Recycling Program budget and 2005-2009 SCORE Reports.

The single largest change in our recycling system is the sort line for delivered MSW at the Pope/Douglas facility where deliveries will reach full volume in 2011. Staff will monitor volumes recycled from their process to assess the recovery rates of existing programs. The agreement with Pope/Douglas includes monthly summaries of recycling volumes recovered from their sort line. Any gains in the recovery of recyclables will be reported in the County's SCORE Report Form as "Mechanical or hand-sorted" and should be relatively easy to track.

Refer to Section 5 for a description of potential model schools project.

8. Yard Waste Management Programs

Benton County recognizes that State Statute disallows the disposal of brush/organic waste in landfills; therefore, in Benton County the predominant method of managing this type of waste are yard waste drop off programs, most

of these have been assisted from time to time with grants from the County. The County doesn't operate these programs but does assist them with grants which are considered on an annual basis. It is the intent of Benton County to continue the current program into the future.

Yard waste composting sites are operated by municipalities at the following sites:

- City of Foley
- City of Rice
- City of Saint Cloud
- City of Sartell
- City of Sauk Rapids

The finished compost from these sites is available for use by the residents that use the sites at no charge.

The City of St. Cloud offers curbside yard waste at the rate of \$1/bag. Most licensed haulers outside of the City of St. Cloud do not offer this service except on a call in basis and for an extra charge. The City of St. Cloud allows for the utilization the Plumb Creek Park composting site for its residents.

It is estimated that less than 1% of Benton County residents utilize "at home" composting; consequently Benton County will continue to work with the County Extension Service to provide educational opportunities and technical assistance to residents and businesses. This program is independent of solid waste programs; Refer to Appendix B for Yard Waste Budget.

9. MSW Composting Facilities/Source-separated Organic Material Composting

The composting of source separated organics composting isn't a large part of Benton County's integrated solid waste management system. This hasn't been a point of emphasis in the system since the failure of the ReComp MSW composting facility in St. Cloud in the 1990's. In the early 2000's the State Correctional Institute in St. Cloud had initiated a program however at the discretion of the Correctional Facility it was discontinued. Recent discussions with the staff at the Correctional Facility indicate that it may be reinstated.

The largest organic materials composter in the Tri-County is Mississippi Topsoils in Cold Spring, Stearns County. They compost biosolids from a nearby poultry plant together with yard waste. At its inception Mississippi Topsoils received some grant funds from the counties, but currently they receive no ongoing financial support from the public sector. They have successfully marketed the resulting compost at greenhouses, nurseries and retail outlets.

In cooperation with Tri-County Benton County will study the feasibility and reasonableness of instituting programs of source-separated organics in the

commercial and institutional sectors in conjunction with existing private sector operators and developers of composting facilities in the area.

10. Solid Waste Incineration and Energy Recovery

The Pope/Douglas facility with which the Tri-County has reached an agreement is owned and operated by a Joint Powers Board made up of two Pope County Commissioners and two Douglas County Commissioners and one outstanding member of the community. The facility is located at 2115 Jefferson Street in Alexandria, MN in close proximity to the 3M Manufacturing Plant, the Douglas County Hospital and the Alexandria Technical College. Much of the information required in this portion of the document is already contained in Section 4 and is not reiterated here.

The Pope/Douglas waste-to-energy facility began operations in 1987. The current plant capacity is 120 tons per day. The third unit expansion will increase capacity to 240 tons per day. In 1992, an Administration/Household Hazardous Waste facility was built at the same location as the Waste to Energy facility. Their Household Hazardous Waste (HHW) Drop-off/Reuse Center opened in 1993.

In 1994, an Ash Monofill was constructed in Section 6, Solem Township, Douglas County, MN. A Materials Recovery Facility (MRF) was constructed in 2003. This facility enables the removal of recyclable materials from the waste stream. Although the Tri-County will be delivering MSW from haulers who already provide curbside collection of recyclables, indications are that additional recyclables will be recovered through this process of hand-sorting MSW. From 2004 through 2009, the MRF processed 146,398.38 tons of MSW and removed 1,550.96 tons or 8% recyclable materials from the waste stream. Total volume of MSW moved through the plant from 2004-2009 was 187,468.25 tons. Total tons of commodities recovered and sold from 2004-2009 were 13,225.94 for a total income of \$1,581,658.49. The total steam sold to 3M and the Douglas County Hospital from 2004-2009 were 373,934.30 M lbs. for a total steam sale income of \$2,743,204.97.

In 1997 in order to meet EPA standards, Pope/Douglas replaced the combustors, boilers and air pollution equipment.

The Tri-County plans to deliver 160 tons per day on 306 delivery days per year to the Pope/Douglas facility beginning in June 2011 and continuing through the 10 year planning period. Of that, Benton County agreed to be responsible for 18% of the total or approximately 29 TPD. Assurance of deliveries of MSW will be achieved through contracts with the MSW haulers. Haulers are required to

deliver a prescribed tonnage per month based on their market share of waste collected. These prorated amounts are monitored monthly and adjusted as needed by Tri-County to ensure an equitable requirement between haulers. Hauler Contracts are negotiated through Tri-County example of a Hauler Contract can be found in Tri-County Solid Waste Management Plan.

The Tri-County plans to develop and adopt a Designation Plan and the counties may adopt a Designation Ordinance in addition to the contractual system listed above in the event that other methods of waste assurance fail. It should be noted that the participant counties each have their own mechanisms to assure waste delivery; Stearns County has a system in place where they are the 'owners' of the waste and haulers are contracted vendors. Sherburne County offers financial incentives to guarantee delivery to more expensive, but environmentally preferable disposal options. Benton County has in place a dormant Designation Ordinance; which the county will consider updating if Hauler Contracts become problematic.

Total deliveries from Tri-County to the Pope/Douglas facility may be adjusted annually. It is anticipated that delivered tons of Tri-County MSW will decrease over time; Refer to Appendices B-G for WTE Budget and MSW tonnages delivered to WTE facilities.

11. MSW Land Disposal Facilities

The County does not own or operate any MSW land disposal sites, but relies on privately owned land disposal sites, located outside of the County. The landfills that are used most frequently by Benton County haulers are the Elk River Landfill (owned and operated by Waste Management) and the Lakes Area Landfill in Sarona Wisconsin, the Pine Bend Landfill in Dakota County.

In addition, small amounts of MSW have occasionally gone to out-of-state landfills in North Dakota and Iowa. Haulers are allowed to landfill waste at the permitted facility of their choice if waste is being diverted from waste to energy facilities. In most cases, it hasn't proved to be economically advantageous to use out of state facilities. Details of the sites, permits, and the status of the two local landfills are available at the respective regulatory agencies.

The Elk River landfill began operating a methane gas recovery system, which is converting landfill methane gas to electricity. The system, which began operations in the fall of 1998, is expected to produce enough energy for 250 homes. In 2009 the Elk River Landfill requested a permit to expand the permit was denied by the city. Currently the decision to deny/allow the expansion is proceeding through the Court of Appeals process. Denial of the expansion

request may result in Benton County haulers having to look elsewhere for disposal.

Benton County had previously directed waste to the Morrison County landfill. The old site which is now closed had cleanup issues and Benton County was found to have partial financial liability for issues at the site. Morrison County currently operates a new landfill which may become a viable disposal option for Benton County haulers. Refer to Appendix G for tonnages of MSW going to landfills.

12. Special Wastes

The private sector programs listed below generally manage special wastes. Benton County has from time to time supported many of these programs with grant funds. Unless otherwise noted, policies and goals have stayed the same as stated in the 2004 Plan. There are no changes anticipated for this planning period.

The County provides information to the public as how best to manage and dispose of special (problem) wastes. Benton County has an active program to address problem wastes. The county is a participant in the Household Hazardous Waste Facility operated by Tri-County Solid Waste Commission (Benton County helped fund an expansion of the facility for FY1999).

Stearns County also operates a mobile household hazardous waste collection program. The Benton County, contracting with Stearns County, hosts 1 or 2 collections throughout the county annually. In 2008 the mobile household hazardous waste program served 185 households.

In 2010 Stearns County purchased ten acres in Waite Park Minnesota and currently is in the process of planning for the construction of a new 16,500 square foot facility. The facility will act as both the base for continued mobile collection throughout Tri-County area, as well as a permanent year round drop off facility. As proposed the facility will be large enough to potentially allow Tri-County Solid Waste Commission to move its operation into this new location. Benton County in cooperation with the Benton County Soil and Water Conservation District, Human Services, and law enforcement officials will study the feasibility and reasonableness of instituting programs to promote proper use and proper disposal of unneeded prescription and over-the-counter medications. The County will consider the feasibility of making available prescription/over-the-counter medication disposal sites for county residents.

The County operates amnesty day program(s), supports yard waste collection programs, and via SCORE fund used oil and oil filter collection

programs/facilities; Refer to Appendices A-B-G for Goal Volume Table Estimates, program budgeting and tonnages collected.

13. Tires

Waste tires are managed by the private sector at this time, with no County assistance required. Illegal storage or disposal of waste tires is dealt with on a complaint basis as a violation of the solid waste ordinance. At this time there are no waste tire dumps located in the County. Benton County holds an annual "clean-up" event called Amnesty Days, during the Event County residents may drop off up to four tires free of charge. Additional tires may be dropped off for a fee. Other municipal and private clean-up day events are held through out the County. Refer to Appendices B-G for funding support and tonnage of tires collected.

14. Major Appliance Management

Most appliance retailers in the county will accept used appliances with a new appliance purchase. In addition, Central Appliance Recyclers in St. Cloud offers drop-off or pick up services. Central Appliance also serves most public or private "clean-up" day programs. A single day collection event is conducted annually by United Cerebral Palsy with the cooperation of the Crossroads Mall in St. Cloud. The Waste Management transfer station in east St. Cloud (Benton County) also collects appliances for recycling. Compliance with federal and state regulations is the responsibility of the private sector. Refer to Appendices B-G for program funding and amounts of appliances collected.

15. Used Oil and Lead Acid Batteries

There are numerous opportunities for used oil drop-off at area service stations and retailers. The County provides information to the public on where to take used oil and oil filters for recycling. There are no publicly operated programs for used oil. Benton County will supplement opportunities for drop-off sites as needed with SCORE funds.

Lead acid batteries are recycled exclusively by the private sector without County involvement.

Benton County supports the continued proper disposal of used oil and lead acid batteries. The County maintains a list of dropoff sites on its website. No changes are anticipated for this planning period.

Refer to Appendices B-G for program funding and the amounts of used oil, used oil filters and lead acid batteries collected.

16. Household Hazardous Waste Programs (HHW)

Benton, Sherburne and Stearns Counties, cooperatively fund a permanent facility located at 601 N 20th Avenue in St. Cloud. Tuesday through Friday and offers Saturday dropoff hours once a month. Each county pays a prorated share based on usage. A summary of program cost and materials collected can be found at the Tri-County Solid Waste Commission offices.

In an attempt to better serve rural areas, Benton County contracts the use of a mobile HHW collection unit. The mobile collection unit makes one day collection events relatively easy for the County to provide. The County hosts one to two collections throughout the county annually. In 2004 the mobile household hazardous waste program served 221 households. The collection events and a list of materials collected can be found at the Benton County Department of Development. Refer to Appendices B-G for program funding and amounts of HHW collected.

It is anticipated that the permanent facility, as well as the mobile unit will be operated throughout the planning period. Recently Stearns County has expanded its program with the purchase of a new mobile HHW collection unit (semi-truck/trailer) as well as a ten acre parcel of property which they are in the process of constructing a new permanent HHW facility. A more thorough discussion of this can be found in Section 12 above.

17. Mercury Abatement Programs

Mercury abatement programs already exist in the Tri-County area. Thermometer exchanges are conducted at the HHW facility. Mercury and mercury containing products, including mercury switches are accepted at the HHW facility. Fluorescent tubes are accepted at area hardware stores and at collection events using the HHW mobile unit.

Education materials on the hazards of mercury are available through the HHW programs and County Solid Waste office and webpage. Also, information is available at events such as employee health fairs, Earth Day events, County Fairs, etc. It is anticipated that these activities will continue at the current level. Refer to Appendix B for program funding.

18. Electronics Management

Management of CRT's and other electronics will continue to be handled by the private sector with occasional County assistance through grants.

Local vendors such as Central Appliance Recyclers, St. Cloud, Waste Management, St. Cloud currently provide drop-off service for a fee. In addition, the United Cerebral Palsy has managed a one-day drop-off event with County grant assistance.

Under a two year grant from Blandin Foundation and In cooperation with non-profit "PC's for People" the County will provide an opportunity for residents businesses to donate used computers which will be refurbished and redistributed to county residents.

Some cities and townships also provide drop-off opportunities at "clean-up events" through contracts with Central Appliance or Waste Management. It is anticipated that Counties will assist expansion of these activities as needed through their competitive grant programs Refer to Appendices B-G for program funding and tonnages collected.

19. Demolition Debris Management

Benton County manages demolition debris in the county by directing demolition debris to permitted demolition landfills. Benton County anticipates there will be no policy changes during this planning period.

Benton County has a single Demolition Landfill, Henkemeyer Landfill, Permit# SW-188. In 2008 the landfill applied for a renewal of this permit. In February of 2010 The Minnesota Pollution Control Agency (MPCA) granted the renewal for the permit running from 6/2/2009 to 6/2/2014 a period of five years, additionally Benton County annually licenses and inspects this landfill. In calendar year 2009 the waste disposed of in the landfill was approximately 13,973.04 cubic yards. A copy of the permit and its conditions can be obtained at the Benton County offices.

The County does have several permit-by-rule recycling and storage facilities for the crushing and reuse of concrete and asphalt. The County also requires residents to obtain a demolition permit which is inspected by the County's building inspector Refer to Appendix B for program funding

20. Solid Waste Ordinance and Licensing

Benton County adopted Ordinance # 162, entitled Benton County Solid Waste Ordinance, on October 16, 1984. The County has also adopted Ordinance #187, entitled Benton County Solid Waste Designation Ordinance, on April 18, 1989 as well as the Benton County Solid Waste Service Fee Ordinance #252 of July 18, 1995. The above mentioned ordinances can be found at the Benton County Department of Development. These Ordinances can be found in Appendix H of this plan.

The Tri-County staff will be developing an overall Designation Plan during 2010-2011 to be prepared in the event that it is needed for waste assurance. Counties will make independent decisions whether to adopt such a plan. Upon completion of Tri-County's Designation Plan Benton County will consider updating its Designation Ordinance.

21. Solid Waste Staffing

The County has 0.5 full time equivalent (FTE) staff working on solid waste issues, to include illegal disposal, source reduction, waste education, recycling collection, HHW and problem materials, and administration and support staff. Also, through the Tri-County 4.5 FTE staff works on these same issues, concentrating more on regional issues. At this time, no staffing changes are anticipated for the ten-year planning period Refer to Appendices B-J for program funding and Tri-County Staffing.

22. Solid Waste Funding/Projected Ten Year Budget

Throughout the planning period Benton County plans to continue or possibly increase its level of commitment to solid waste management. The County's overall solid waste management program is comprehensive, integrated and proactive. Benton County will support its present programs and address new issues as they arise. Program funding is discussed below.

The Benton County budget assumes:

- increase in population as indicated on the Goal Volume Table.
- inflation rate as listed on the budget
- annual tipping fee increases
- continued Solid Waste Service fee
- continuation of the SCORE funding program
- minimal use of general revenue funds

The ten years Benton County Solid Waste Budget is attached as Appendix B.

23. Goal/Volume Table

See Appendix A, Benton County Goal Volume Table.

24. Alternatives to Proposed System

Alternatives to the existing system are examined in Section 3. As previously stated, In August of 2009 the 20 year agreement with NRG expired. Attempts to renew that contractual arrangement were unsuccessful. In 2009 the opportunity arose to deliver waste to the existing mass burn incinerator operated by Pope/Douglas Solid Waste Management Commission in Alexandria. Due to their expansion, capacity had become available. A more thorough discussion of that decision and details of arrangements with that facility are found in Section 10 of this document. At present, many of the larger licensed haulers have signed contracts with Tri-County to deliver waste to Pope/Douglas facility in Alexandria Minnesota. To assure deliverance to the Pope Douglas Facility to Benton County is considering a designation ordinance (a copy of the dormant ordinance can be found in Appendix H).

The Tri-Country Solid Waste Commission has investigated the feasibility of building a waste-to-energy facility outlined in Section 26.

In the event that the proposed system is not developed nor has major operational difficulties, Tri-County staff, with the assistance of the Solid Waste Administrators in Benton, Sherburne and Stearns Counties will develop both short-term and long-range plans to be presented to the Tri-County Solid Waste Management Commission followed by consideration by the individual County Boards. It is anticipated that if the Pope/Douglas Facility becomes inoperable for any reason, other nearby waste-to-energy facilities will be contacted regarding the possibility of MSW deliveries. Failing that option, licensed landfills in Sherburne, Dakota and Morrison counties would be contacted.

Annually during the duration of the Pope/Douglas agreement, the Tri-County will monitor available capacity in both the short term and long term. As that agreement anticipates decreasing Tri-County MSW deliveries throughout its term, it will be crucial that the delivered tons are monitored and alternative plans, including the possibility of construction of more processing capacity, be developed.

In sections 5-9 of this document some potential process improvements were discussed in detail; therefore, they will not be reiterated in great detail in this section; however, the following are some additional opportunities Benton County will consider to improve our system during the planning period:

- Promote more backyard composting-could be done as public education project in cooperation with Extension or by contracting with a particular system's distributor (i.e. Earth Machine).
- Promote the use of food waste as hog feed. There are several area restaurants using this program, further expansion of this program should be investigated.
- The County, in cooperation with the Tri-County Commission, will study and investigate the possibility of a program focusing on promotion of source-separated organic composting with an emphasis on the commercial and institutional sectors. Although the Elk River curbside program will serve as a model, there are no plans at this time to institute large scale residential collection programs in any other cities. Also, recent discussions with the staff at the Correctional Facility indicate that it may be interested in reinstating a source separated organics program.
- Investigate and Promote programs which focus on the upper echelon of the hierarchy of source reduction and reuse. See Section 5 of this document for more detailed discussion.

Although the County is part of a mature integrated solid waste management system, the County will consider alternatives to the existing system that focus on source reduction and recycling, including investigating ways to promote the development markets for such materials.

25. Mitigation of Environmental Risks

MPCA permitting and compliance programs are relied upon for mitigation of environmental risks. Permits and their status are on file with the MPCA.

On site disposal and mitigation of risks is done on a complaint basis, by working with current ordinances, cooperation with other agencies, and the County Attorneys office.

26. Solid Waste Facility Siting Program

The Tri- County Commission has started the initial siting process for a WTE facility. A WTE facility likely will be sited along I-94 or State Hwy 23 corridors due to site access considerations. In order to thoroughly investigate potential sites the Tri-County has notified mayors of all cities in the Tri-County regarding

potential siting.

The Tri-County has obtained consulting engineering services to assist in the site evaluation process. A Waste-to-Energy Critical Issues study was prepared for the proposed project.

Critical Siting issues included:

1. Availability of process water supply
2. Extend of wetlands
3. Floodplain review
4. Project impact on endangered species
5. Presence of archaeological, historical or architectural resources;
6. Conformance with FAA regulations
7. Environmental contamination assessment;
8. Zoning
9. Sensitivity to odorous
10. Potential transportation system improvements
11. Noise Area Classification
12. Evaluation of energy markets
13. Evaluate grant opportunities
14. Develop public education programs

27. Public Participation Program

The 2010 Solid Waste Plan Update largely encompasses the contents, directions and goals of the 2004 Update. This update will be distributed to local municipalities and public libraries to solicit public comment on the final draft of the 2010 Plan. In addition, a public hearing will be scheduled in front the Benton County Board of Commissioners. A Copy of this Solid Waste Plan is available at the Benton County Solid Waste Office.

28. Implementation

Although we do not anticipate any major changes to the solid waste system, the following is a tentative schedule for minor program changes.

- | | |
|------|--|
| 2011 | -Maintain Source Reduction Credit
-Promote backyard composting
-Promote food waste reuse programs
institutional/commercial
-Solid Waste Ordinance Amendments |
|------|--|

- 2012
 - Expand technical assistance to businesses
 - Promote programs focusing on waste reduction
 - Promote programs focusing on product purchasing (think before you buy)
 - Promote programs which focus on product stewardship
- 2013
 - Waste flow and Economic projections of new WTE facility
 - Seek expansion of reduce, reuse, recycling, markets
- 2014
 - Consider planning for potential new WTE facility coming online
 - Possible change to market demand waste disposal system

29. PLAN REVIEW AND TEN YEAR PLAN

A Plan containing overall Commission goals and polices will be drafted by Commission staff with assistance of the respective Counties' Solid Waste Administrators. That document will be reviewed and ultimately recommended to the member Counties by the Commission at a duly advertised public meeting.

Following that recommendation, the draft Plan will be forwarded to Benton, Stearns, and Sherburne Counties where staff will make county specific additions to the document. Each County will conduct a process of their choosing, in accordance with applicable statutes regarding public hearings. Each County, upon completion of that process and approval from their respective County Boards will forward their draft Plans to the MPCA for review and recommendations.

The County will continue to improve its solid waste management system in the future. These improvements are an ongoing process. Review of this plan to develop an annual work plan will occur during development of the County's annual solid waste budget. The County plans to begin work on an update to this plan nine years from the date of approval of this plan and will submit a draft update nine and one-half years from the approval of this plan. The County expects to complete the update with assistance of the Commission and the MPCA.