

SOLID WASTE PLAN UPDATE BECKER COUNTY, MINNESOTA

Chapter 1 EXECUTIVE SUMMARY

Introduction

Becker County, a moderately sized, rural county located in west central Minnesota has developed this update to the Becker County Comprehensive Solid Waste Management Plan dated November 1997. This plan update contains the policies and programs that will guide the development of solid waste programs within the county. It includes Becker County's description of the solid waste abatement programs commonly referred to as SCORE programs.

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Overview

This plan reviews Becker County's past and present solid waste management system, solid waste abatement programs, county policies and anticipated solid waste management system activities. This review can be found in Chapter 2. An assessment of alternatives to the existing solid waste management program can be found in Chapter 3. This assessment is an analysis of the environmental and economic issues of known alternatives for existing parts of the county's programs. Alternative disposal options of other landfills, waste processing, composting and incineration are considered. This update proposes the continuation of the county's present solid waste programs with some modifications.

Becker County has an existing integrated solid waste management system that includes the following programs.

- waste reduction program
- waste education program
- recycling program
- yard waste management program

- land disposal
- tire recycling program
- major appliance recycling program
- used oil, used oil filters, lead acid and dry cell battery recycling program
- household hazardous waste program
- demolition debris management and disposal program
- demolition debris recycling program
- Solid Waste Ordinance and licensing program

Program Goals

Becker County has established solid waste abatement goals for a 10 year period. The county's 10 year goals are contained in the goal volume table located in Appendix A.

Solid Waste Management Programs and Policies

Becker County generated approximately 20,479 tons of waste in 2001 as listed in the 2001 SCORE Report. This volume of waste has increased from 15,947 tons of waste in 1995. In 2001, 14,333 tons of MSW were landfilled and 5,204 tons of waste was recycled through a variety of waste abatement programs managed by the county. With the addition of Yard Waste Composting Credits and Waste Reduction Credits, the recycling rate for Becker County is 43.6% comparing recycled material to amount landfilled. It is estimated that 272 tons of the total waste generated was disposed of onsite or through unauthorized disposal. In addition to the above, beginning in 1999 and with data complete to December 2001, over 1000 cubic yards of clean wood waste, 1000 cubic yards of shingles and 1800 cubic yards of concrete were collected, processed and reused without documentation in the SCORE Report. This processing and reuse significantly decreased the volume of demolition waste buried at the county demolition site as measured by the extension of the life of a cell.

From the annual SCORE Report, the recycling percentages are calculated in a different fashion and give different results for the same data. The SCORE recycling percentage formula is as follows:

$$\text{Recycling Percentage} = \frac{[\text{Recycling tons} + \text{Problem Material Recycled}]}{[\text{MSW Landfilled} + \text{On Site Disposal} + \text{Problem Materials not Recycled}]} + \text{Yard Waste Credit} + \text{Source Reduction Credit}$$

Using the method of SCORE and the numbers for 2001 the recycling rate becomes 33.4%, but it has to be noted that there is no estimating of on site disposal nor problem materials not recycled because there does not exist an established method to do so for Becker County. Estimates are important, but there are not any statistically valid estimates for the solid wastes of Becker County other than the OEA's Goal Volume Table. Therefore this document will use the Goal Volume table estimates where it must.

The goal volume table located in Appendix A estimates that Becker County will need 222,854 cubic yards of land disposal over the 10 year planning period of 2001 to 2011.

Waste Reduction Program

Becker County has solid waste reduction as part of its strategy in solid waste management. By an education program and by example, the county will work to provide leadership to the businesses, other governmental units and residents of the county to reduce solid waste generation. Becker County will continue to use volume based pricing and service fees to provide an economic incentive to encourage waste reduction. Information of Becker County's waste reduction program can be found in Chapter 4, Section 1.

Waste Education Program

Becker County has public education as a primary element in the integrated solid waste program. Public education has been and will continue to be a vital component of management in each solid waste management area. It is through public education that solid waste management goals will be achieved for the county. Information of Becker County's Waste Education program can be found in Chapter 4, section 2 and education programs for specific programs can be found in those specific sections, i.e. waste tire management.

Yard Waste Composting Program

Becker County has banned yard waste from disposal with MSW that is landfilled. The county provides one [1] yard waste composting site plus assists three [3] townships that have a total of five [5] additional yard waste composting sites. Becker County works in cooperation with the City of Detroit Lakes with another yard waste collection site within the City of Detroit Lakes. Information, education and compost bins have been and will be provided to the residents for onsite composting or use of county yard waste composting sites. Information on Becker County's Yard Waste Composting program can be found in Chapter 4, section 3.

Recycling Program

Becker County has implemented programs to meet and exceed the goals for recycling in greater Minnesota. The county has an established program consisting of 47 drop off sites [Recycling Sheds], one [1] Recycling Center and works with two [2] municipalities on commingled recycling programs. Education, technical information and special programs are and will be used to strengthen both the residential and commercial recycling programs that will allow Becker County to meet and exceed the 35% recycling goal as calculated by the OEA. Information on Becker County's recycling program can be found Chapter 4, section 4.

Household Hazardous Waste Program

Becker County is the sponsoring county of the Regional Household Hazardous Waste Program. The Regional Household Hazardous Waste Coordinator is an employee of the Becker County, Environmental Services Department. One permanent Household Hazardous Waste Facility is located at the Becker County Transfer Station property to which residents may bring waste materials and participate in a product exchange. In addition, the permanent Household Hazardous Waste Facility at the Becker County Transfer Station property houses the Regional Household Hazardous Waste Program mobile unit. One day collection events are held with the mobile unit in Becker County and in Cosponsoring Counties. Information on Becker County's Household Hazardous Waste Program can be found in Chapter 4, section 9.

Other Abatement Programs

Information on Becker County's programs for the management of waste tires, waste major appliances, used fluorescent light bulbs, used oil, problem materials and related programs can be found in Chapter 4.

Solid Waste Program Budget

A detailed budget including estimated revenues and estimated costs for the 10 year planning period can be found in Appendix D.

Chapter 2. BACKGROUND INFORMATION

A. County Background Information

Becker County is a rural county located in West Central Minnesota about 40 miles east from the Minnesota - North Dakota border and about 240 miles northwest of the Twin Cities Metropolitan Area. The largest city in Becker County is the City of Detroit Lakes which is located in the southwest quadrant of the county. The City of Detroit Lakes has a 2000 population of 7,600 and is the County Seat. The 2000 census documents the total county population at 30,000. The largest proportion of the population of the county is found in Detroit Lakes and in the three surrounding townships.

Becker County is a transitional county with regards to land use. The western, north-central and southeastern parts of the county are predominantly agricultural. The central and northeastern parts are forested with intermittent agriculture. Extending diagonally from the southwest corner to the northeast corner of the county are numerous lakes of various sizes. This portion of the county has tourism as a predominant industry. This lake area has many resorts, cabins and year round homes. The lakes area has land usage that is predominately recreational because of the lakeshore and associated non-lakeshore properties.

The 2000 census reported a total population for the county 30,000 persons and 11,839 households. There are 2,236 Native Americans that are not included in the population figures for the purposes of this update, since they use the White Earth Reservation's solid waste management system. The population of Becker County used for projections in the goal volume table is 30,329 persons which is the figure given by the State Demographer for 2001

The State Demographers Office estimates that the population of Becker County is growing by (+)0.076% per year. Current projections show that the population of Becker County in the year 2005 will be 30,440, and in 2010 will be 31,219. This is a gain of 1,219 persons over the next ten years. The Goal Volume Table estimates population growth as well, but predicts that the 2010 population will be 32,468 for a net gain of 2,139 persons. Though these are projections and represent a not very large increase, it is noted here as part of the overall county information to consider in long term planning. With the increase in population is a shift to a more elderly population as the younger people move away to secure jobs and raise families. This increase in population is not as large as indicated by the Becker County Planning and Zoning Department where a survey of building permits demonstrates that the south-western lakes area of the county is currently experiencing a dramatic growth in year round dwellings. This may be attributable to the less than one-hour commute to the Fargo/Moorhead area. Because of this short commute, people are building new houses or remodeling cabins to become their primary residence.

Becker County's economic base is agricultural, forest products, some small business, light manufacturing and tourism. No rapid changes or shifts in employment are anticipated. In 1997, Becker County hired a regional economic developer. There has been only a small impact created by this position in the economic base of the county. The agricultural base to the county should remain stable but with a decrease in the number of farm families because of consolidation of existing farms. Tourism should remain stable without major gains or losses depending on the growth of the overall national economy. Some small resorts may be discontinued as businesses and converted into independent lake dwellings.

The tourism industry results in a large influx of seasonal residents to lakeshore properties and also a large number of vacationers to the many resorts in the area. This increased population causes a large increase in solid waste generation over the base solid waste generation of the residents of the county. The increased solid waste generation occurs during the late spring, summer and fall. There is only a mild increase above the base generation rate of the residents, in the winter season because of snowmobiling, skiing and ice fishing. In addition to the influx of seasonal residents, the area supports some of the major festivals of Minnesota, which draw very large crowds and which dramatically impact solid waste generation, collection, recycling and disposal for a few days at a time. The following events have large impacts on the waste stream. They are Spirit Fest - a July weekend Christian music festival that is growing and draws about 10,000 people for the three day weekend and WE Fest - country western festival in August that usually draws about 120,000 people for a four day weekend. When these events are in operation, they have major impacts on the collection, disposal and recycling facilities of the county during a short period, usually a week. These events are in addition to the usual increased activities of the holidays of Memorial Day, Fourth of July and Labor Day.

B. Solid Waste Collection and Generation Information

Solid waste generation is reviewed in the goal volume table in Appendix A. Waste generation considers the amount of waste landfilled, recycled, problem materials managed in an environmentally correct manner and materials disposed through the Household Hazardous Waste Facility. It is estimated that 20,479 tons of solid waste was generated in 2001. Of that amount approximately 70% was land disposed with 30% was recycled according to the Goal Volume Table [Appendix A]. About 11,744 cubic yards of demolition waste is included in the amount of solid waste which is land disposed. Data from the SCORE reports and the goal volume tables shows a trend to reduction in the amount of material landfilled with a significant increase in the amount of material recycled or removed from the waste stream by the Household Hazardous Waste Facility but the national, state and local trends of increased solid waste generation offset this reduction trend.

Most of the residents of the county have access to proper collection and disposal of their solid waste. The County estimates that 100% of city residents and 95% of rural residents

have access to solid waste collection service or transport their own waste to the Becker County Transfer Station. In 2001 it is estimated in the goal volume table that about 271 tons per year, of the total waste generated is disposed of onsite by generators.

In 2001 residents in the eastern part of the county were surveyed to determine specific needs for solid waste management. The county had considered in the past that these residents did not have proper services to manage their solid waste. Some do have collection and disposal by waste haulers from the neighboring county [Hubbard County]. This is illegal according to the ordinances of both Becker and Hubbard Counties and is being addressed by the appropriate offices of each county. The 2001 survey of solid waste needs demonstrated that 71% of the respondents were satisfied with waste management programs available to them which includes self hauling to the Becker County Transfer Station. The survey response rate was 32%. It was interesting that 32% of the respondents did not want any kind of solid waste service and only 29% wanted or would use additional service with the remainder 39% being neutral. One concept presented in the survey was to create a new transfer station in the eastern part of the county that would be accessible to all residents and manage MSW, demolition and problem materials. Based on the results of the survey that are inconclusive, the County Commissioners have not approved any funds for construction and operation of a transfer station serving this area and are not actively discussing this option.

Because a significant portion of the population is involved with agriculture, some of this segment of the population is managing its solid waste according to the MPCA Rules (Bergh Amendment) where onsite management is permitted. The Environmental Services Department of Becker County works with the Extension Service of the University of Minnesota with this segment of the county population on education. There are active, cooperative projects with the Extension Service of the University of Minnesota, Becker County Soil and Water District and the Minnesota Department of Agriculture to collect and remove waste pesticides and waste pesticide containers from the environment. Another part of this project is to educate this population on the proper management of all solid wastes. Education and changing methods of packaging pesticides continues to help to prevent the improper disposal of waste pesticides and their containers. However, there is a portion of the agricultural population that do use burn barrels. This method of disposal is discouraged, but not listed in the Becker County Solid Waste Ordinance as illegal. The county is promoting discontinuance of burn barrels by means of state statute and with the help of the MPCA.

Roughly 37% or about 5,303 tons of the waste generated in the county is from commercial establishments. The county has only a small number of industrial facilities which are located in the cities of Detroit Lakes, Audubon, Lake Park and Frazee. The generation of industrial solid waste from the few industrial facilities is minimal and the Becker County Landfill and Transfer Station does not treat wastes from these facilities separately under a special Industrial Waste Plan. Special wastes such as solvents etc. from industries such as Audubon Engineering are managed under Hazardous Waste Rules and company policies.

In the fall of 2000 and continuing through 2001 and 2002, Waste Management has been actively diverting waste away from the Becker County Transfer Station to a transfer station located in West Fargo. From West Fargo the waste was transferred to the Dakota Landfill at Gwinner, North Dakota and in late 2001 the waste was being landfilled at the Jahnke Landfill in Wishek, North Dakota. Waste Management owns all the facilities in this waste transfer and disposal scheme. Much of the waste diversion is an economic issue because Waste Management lost the Becker County Solid Waste Transportation Contract in July 2000 that it had held for 10 years. Since that time, there appears to be an effort by Waste Management to make Becker County lower its tip fee and to create a financial hardship for Becker County and its new Waste Transportation Contractor. The diverted waste is a large part of the commercial sector which is compacted MSW and about 40% of the total volume managed at the Becker County Transfer Station. During this time of waste diversion, Waste Management has increased customer fees and changed routes to be financially beneficial only to Waste Management. These route changes eliminate customers and other customers are quitting collection service because of the increasing costs to them. Many of those customers who were dropped or choose to drop waste collection service by Waste Management now bring their garbage directly to the Transfer Station. Others selected a different waste hauler if they were able. In 2001 the Transfer Station experienced an increase in individual customers by 701 compared to the year 2000. This averages to two more individual customer visits per day by individuals to the Becker County Transfer Station.

The following table lists businesses that are be considered large waste generators in the County. The type and quantity of waste they produce is Mixed Municipal Solid Waste and some Demolition Debris. Commercial waste generators pay a Service Fee to Becker County that is volume based. This volume based Service Fee provides an incentive for the generator to reduce the amount of waste generated by many different methods such as increased recycling and working with vendors to eliminate waste to be disposed by the business in Becker County. Becker County is working cooperatively with most of these generators to develop ways to reduce the quantity of waste produced.

Northwest Technical College	Holiday Inn
Detroit Lakes Public Schools	Main Street Restaurant
Frazer Public Schools	Burger King Restaurant
Lake Park/Audubon Public Schools	Perkins Restaurant
Lakeside 1891 [restaurant]	Audubon Manufacturing
Central Market	D.L. Manufacturing
St. Mary's Hospital	Snappy Inc.
Dakota Clinic	Dynamic Homes
Frazer Retirement Center	BTD
Sunnyside Nursing Center	St. Mary's Nursing Center
Emmanuel Nursing Home	MeritCare Clinic
Washington Square Mall	Wal-Mart
K-Mart	Dynamic Homes

A waste composition study has not been performed in Becker County. Numerous studies have been performed across the United States and in Minnesota in an attempt to quantify solid waste characteristics. What has been found is that the average or normal for one region or city can differ widely from a similar area in a different part of the country or state, even at the same location during different times of the year. Qualities and characteristics vary on a daily, weekly and seasonal basis depending on many different influences. While it is possible to characterize an area's waste, extensive sampling and classification must be performed on a daily basis for an extended period of time. The US EPA and the MPCA have performed detailed sampling for a number of US and Minnesota communities. From the sampling data, the agencies have compiled data for a number of the constituents of solid waste. This data provides an average composition of municipal solid waste that can be used for the purposes of this plan. Typical waste composition values are presented in the pie chart in Appendix H.

The collection portion of the solid waste system has remained basically unchanged for the past ten years with the exception of the recent waste diversion by Waste Management. The rates charged per customer vary depending on the system the customer elects to use with the hauler and the frequency of collection. There are bag systems, toter systems and dumpster systems collected weekly or more frequently. Typical residential charges range from \$5.00 per bag [includes bag] to \$67.00 per quarter for curbside toters. There are six [8] licensed haulers in the county. They are five [5] haulers who collect most of the MSW type of solid waste, two [2] haulers who have started recently and concentrate on demolition and one [1] hauler who is contracted by the county and collects all the recycling materials. There is a significant portion of the population that self hauls to the Becker County Transfer Station or to canister sites maintained by townships at the recycling sheds [drop off sites].

All portions of the county have access to a licensed hauler either by direct service to their residence or by service to the township canisters that if provided, are usually located near the recycling sheds in the township. The most rural areas of the county experience the most limited access to collection service. This is due to economic factors solely. Waste Management, the largest hauler in the county is consolidating and eliminating collection routes determined by them not to be profitable. Waste Management has become more aggressive in the elimination of non-profitable collection routes since 2000. Therefore, more residents, mostly in the eastern part of the county are losing garbage collection service and must self haul to the Becker County Transfer Station or to a local township site if available.

Becker County did participate in the Resort Recycling Pilot Program. There are still two resorts in the county that are actively working with this OEA program. Because of the rural location of many resorts, local haulers [mainly Waste Management] are not willing to invest the time and effort into having collection routes service the resort regularly and timely. Therefore, many resorts self haul their waste, both MSW and recycling, to the Transfer Station and the Recycling Center.

With the volatility of the solid waste business and the numbers of mergers and buyouts that are occurring at both the federal and state levels, it is conceivable that consolidation or direct purchase of some of the small haulers of Becker County could occur in the next few years as these merger processes proceed to the county level. Changes of this type are difficult to anticipate and may cause problems in waste flow. It is well documented in the county that Waste Management is diverting waste to their disposal facilities. Past history from 1996 to 2001 demonstrates the best way to control the waste flow is an economic one. In 2001, legal actions in appellate courts have provided flow control a window of opportunity for a publicly owned facility. It is now possible to put flow control language back into county ordinances with publicly owned facilities. State regulation has proven to be ineffective in controlling the flow of waste. In 2001, Becker County updated its Solid Waste Ordinance [Appendix G] and with that revision removed language of flow control. It is now possible with the recent Supreme Court and appellate court rulings that Becker County could revise its Solid Waste Ordinance adding back the language for flow control. With a change in the Solid Waste Ordinance it would then be possible to bring a legal action prohibiting Waste Management from diverting Becker County generated solid waste to its disposal facilities. The Becker County Board of Commissioners do not at this time, consider solid waste problems to be a top priority. 2002 is an election year and the political climate is not conducive to make this an issue.

Financial incentives are considered an important aspect of the solid waste management plan. When the Becker County Commissioners initially considered the institution of a Service Fee in 1986, the intent was to have a low Service Fee with a low tip fee at the Transfer Station. The rationale was to provide a financial incentive that would promote recycling and waste reduction and would reduce the volume of solid waste disposed through the Transfer Station. The Service Fee for residential is \$25.00 per year for year round household and \$20.00 per year for seasonal households with annual review. The commercial Service Fees are volume based [Appendix C]. A reduced volume of MSW recorded as disposed through the Transfer Station by a hauler would result in a lower Service Fee for a business. The yearly waste hauling license requirements for each hauler specify a number of issues including volume based pricing and reporting the volume of waste generated by commercial accounts. The annual license information is reviewed by Environmental Services staff. Data submitted by each hauler regarding the volume of generated waste from each commercial account is reviewed for calculation of the service fee. Therefore the hauler data is important for verification of the accuracy of the service fee and to track waste reduction education and programs. The current tip fee for commercial and walk in traffic at the Becker County Transfer Station is evaluated periodically to determine the effectiveness of a “pay as you throw” system.

The Becker County Transfer Station and Demolition Landfill is located three miles north of Detroit Lakes on Highway 59 and one-half mile west on County Road 144. Rates as of January, 2002, at the transfer station and demolition debris disposal facility are:

Compacted garbage	\$65.00/ton
Loose garbage	\$8.50/cubic yard + tax
Demolition	\$7.00/cubic yard
Fluorescent bulbs	\$0.60 to \$5.00 [dependent on size and type]

Mattresses/Box spring	\$3.00 + tax
Appliances	\$10.00 each
Yard waste	Free
Brush (residential)	Free
Brush (commercial)	\$15.00 per truck load
Tires	\$2.50 to \$15.00 per tire or \$0.10 per pound of tire for large tractor tires

C. Review of Planning History

Becker County is landfilling MSW collected at the Becker County Transfer Station in the Fargo Landfill that is a Subtitle D, lined landfill. The Fargo Landfill Contract that began in 1993 is an open ended contract with a one hundred and eighty [180] notification by either party. The tip fee set by the Fargo Landfill Contract is twenty five dollars [\$25] per ton delivered. Northern Waste Systems was under contract from 1990 to the year 2000 for hauling the waste from the Becker County Transfer Station to the Fargo Landfill. In July 2000 after winning the bid, Baer of Lake Park, Inc. began hauling the solid waste to the Fargo Landfill at a rate of \$1.34 per running mile plus a fuel adjustment when certain criteria are met. The Baer bid award is about one half of what the county was paying Waste Management in the previous 10 year period. The contract with Baer of Lake Park is a three year contract with an additional three years renewable for good performance. The contract was amended in 2001 because of the waste diversion that was started by Waste Management in 2000.

In addition to the landfilling, Becker County has an active Recycling Program, active yard waste compost sites, a permanent Household Hazardous Waste disposal facility with a mobile HHW unit and Problem Material Management areas. These operations reduce both the volume of material landfilled and the toxicity of the material landfilled. Recycling activities have steadily increased in tonnage [see Appendix B] since the inception of the SCORE Program in late 1989. The Household Hazardous Waste program has experienced significant growth patterns and it is anticipated that this trend will continue with further education and public familiarity with the program.

A yard waste composting site is located at the Becker County Transfer Station where residents can bring at no charge yard waste material and to remove finished compost at no charge when it is available. There are additional yard waste composting sites managed by three [3] townships one in the western part of the county and two in the populated areas near Detroit Lakes. In the fall of 2001, a large amount of cured compost was screened at the Transfer Station creating about 2500 cubic yards of good quality compost. The compost generated was given away to residents in the spring and summer of 2002. The compost screening program worked so well that it is anticipated that compost will be screened periodically and screening may be expanded to some township sites upon proper agreement with them.

The problem material management areas are located at the Becker County Transfer Station where materials such as tires, fluorescent light bulbs, major white goods

[appliances] are accepted for a fee. The problem materials are then recycled by certified contractors on a monthly or on an as needed basis. Waste oil and metal are collected for recycling at the Becker County Transfer Station for no charge to the residents. Waste oil filters were collected once per year during amnesty week for free. In 2002 a change in ownership of the oil filter recycling company contracted by the county has provided the opportunity to provide a constant collection of oil filters at the Transfer Station.

From the last five year plan update of November 1997, Becker County and Clay County did discuss a joint effort of managing solid waste which could become the primary option for both counties as the best future option for both counties. However, the economics and politics of the two counties prevented any agreement beyond that of the concept that was created by the staffs of each county.

Other options of the last five year plan did not come to fruition for a number of reasons. Incineration is a very low priority for the Becker County Commissioners. The Perham Incinerator [formerly Quadrant Company] was shut down for major renovation and in 2002 was just coming back on line for continuous operation. Disposal at a processing facility could not happen because of continuing problems at the S.W.I.S. PennCo facility at Thief River Falls. Disposal at other landfills is not a good option economically. Therefore, Becker County has remained landfilling at the Fargo Landfill.

Becker County is constantly considering options for all types of solid waste generated in the county. State activities with all types of solid waste management and ongoing rule revisions have county staff looking for future options that anticipate possible legislation or rules changes. Having county personnel actively involved with state organizations relating to solid waste including Household Hazardous Waste programs is instrumental to any planning processes. Becker County has two different staff persons actively involved with state solid waste organizations. Strong regional relationships with other counties also helps planning locally and regionally.

Becker County does not experience any problems with conflicting, duplicative or overlapping waste management efforts locally or regionally. Strong relationships exist between the county's Environmental Services Department and townships because of the recycling program. The recycling program has helped avoid conflicts and produced a system that encourages communication of successes as well as failures in waste management throughout the county. Semi annual meetings with the township officials are held with recycling as the basis for discussion, but other solid waste issues are always discussed. Likewise, Becker County has a good working relationship with other counties of our region.

Chapter 3. ASSESSMENT OF ALTERNATIVES

Introduction

Parts of this section were developed from a position paper developed by the Environmental Services Department for the Becker County Board of Commissioners in 1995, where the various solid waste options were considered by weighing the relative risk of the opportunity against the benefits to the county. The Becker County Environmental Services Department and Becker County Board of Commissioners have deep commitments to environmental impacts of projects resulting from county activity and from any projects that occur within the county. It is Becker County's position that landfilling and incineration are environmentally proper provided they be at permitted facilities. Waste processing and composting are considered to be better environmental alternatives because the solid waste is not removed from natural cycles and reuse of material should result in less depletion of natural resources. This view of the disposal of solid waste may not be identical to the state's [OEA's] view of the waste hierarchy set forth in the Waste Management Act, but Becker County's view of disposal is consistent with the concept. Becker County has not attempted to quantify the degrees of difference of the environmental correctness of each type of disposal alternatives, but has ranked landfilling and incineration as fair and composting and processing as good. This is intentional due to the subjectivity of the methods and the personal biases of individuals that influence the making such determinations. Variations of Becker County ranking will be noted in Table 3.1 on page 19 when other factors such as operations of the facility are known.

The economics of the various alternatives must be an important factor in the decision of the final disposal of solid waste. The economics of all the alternatives listed below in parts A, B, C and D of this chapter are summarized in Table 3.1 on page 19. This table also includes a column where the environmental impact is quantified by ranking the facility as good, fair or poor according to Becker County's perspective.

Table 3.2 summarizes the long term [10 year costs] of each of the below alternatives. This table is found at the end of this chapter on page 20.

A. Options Overview

The options are being considered for the solid waste that is currently being landfilled at the Fargo North Dakota Landfill and are listed below.

1. Landfilling at other landfills than Fargo, North Dakota. Various landfills from around the states of Minnesota and North Dakota have contacted the Becker County Environmental Services Department seeking our solid waste for their facility. There is no

change in environmental status as landfilling at other facilities is at the same status level on the state hierarchy. All landfills discussed later in this chapter are permitted facilities, either by the Minnesota Pollution Control Agency or by the State of North Dakota. Each landfill will be considered later on individual issues such as liability risks, past problems, financial assurance and current management and operations. There is a significant negative economic impact comparing the other landfills to the Fargo Landfill as the transportation costs become greater because of the increased distances. Besides the direct higher transportation costs, there is an increased potential for accidents and air quality concerns with more diesel smoke for longer periods because of increased travel times. Further discussion of Landfilling Options specifically are addressed in Section B. 1-4. of this chapter.

2. Incineration of the MSW is another option to consider particularly when dramatic shifts in waste flows are occurring. The Perham Incinerator [formerly the Quadrant Company] at Perham, MN has contacted Becker County seeking waste after the major rebuilding of the incinerator. The price quote of a higher tip fee than landfilling at the Fargo Landfill and severely restricted volumes of garbage make the Perham offer very unattractive. The Perham Incinerator wanted only to contract for small amounts of MSW during parts of the year which would require that Becker County would have to maintain the landfilling contract with the Fargo Landfill as well as being billed for bypass that could not be incinerated at any particular time. Past political differences have created barriers to this facility and to the possibility of incineration in general. Liability issues are less of a concern, as Becker County did bring waste to this facility in the past. Transportation is one issue favorable for this facility as it is one half the distance that is currently being traveled. Incineration is at a higher step in the state hierarchy but the county's hierarchy scheme considers it the same environmentally as landfill.

The Polk County Incinerator at Fosston, MN is another option for incineration. This facility is permitted, has been in operation for a number of years and has added processing at the front end since the last revision of the Becker County Solid Waste Plan. However, the history of the facility indicates that it is above capacity during the summer months and does send bypass to the Landfill at Gently. The summer months are when Becker County has its increased volume because of the increased tourism and events in the county. Bringing Becker County waste to this facility even though it is higher on the state hierarchy is not economically sound and some Becker County waste would be landfilled as bypass. Also, the tip fee if a contract could be written with the facility is substantially greater than what Becker County is currently paying at the Fargo Landfill and would not be a wise economic alternative. Therefore, this facility is not a good option for Becker County. Further discussion of Incineration options can be found in Section D of this chapter.

3. Hauling Becker County waste to a processing facility such as the S.W.I.S. PennCo. processing facility at Thief River Falls, MN. is another alternative. This alternative was considered in the past, but environmental and management problems with the S.W.I.S. PennCo facility have eliminated the option from consideration. Processing is an environmentally superior situation according to the county's ranking system and the

state hierarchy than the landfilling, but this facility is economically inferior because of higher tip fees and increased transportation costs. Discussion of Processing Options in detail can be found in Section C of this chapter.

Becker County does not have a large enough waste stream to economically support the construction of a processing facility, incineration facility or landfill. The current situation of diversion of waste by Waste Management makes consideration of options other than the current landfilling as not probable. Flow control issues make it unlikely that waste from other sources or counties could be contracted to create an economic situation that would allow for payment of Bonds and other financial liabilities. Therefore, the future of the solid waste management system for Becker County will depend on existing disposal facilities.

B. Landfilling with or without Processing.

1. Fargo Landfill [continue as we are currently doing]

The current tip fee is \$25.00 per ton with \$15.964 per ton transportation charge by Baer of Lake Park, Inc. At this point it is the most economical alternative as shown in Table 3.1 on page 19 and Table 3.2 on page 20. The Fargo Landfill is a Subtitle D Landfill with a liner and a financial assurance program. The Fargo Landfill is the most economical disposal alternative for the solid waste of the county as shown in Table 3.2 on page 20. The Landfill is managed by the City of Fargo and permitted by the North Dakota State Health Department. This landfill has had a good operational history. Becker County has an open ended contract with the City of Fargo that has a 180 day cancellation notice by either party. This facility is a long term option and to date, Becker County has a ten [10] year commitment at this facility.

Flow control legislation by federal or either state [Minnesota or North Dakota] on the interstate transportation of solid waste could have profound effects on current agreement but it is anticipated that any legislation would take time to pass and Becker County and the City of Fargo could reach some other type of agreements.

2. MarKit Landfill.

Becker County was originally contacted on June 19, 1995, with the proposition of a guaranteed constant price of \$45.00 per ton for 15 years but very little discussion since that time. A benefit for this landfill is the seasonal variation of Becker County's MSW volume. The MarKit Landfill would like to keep the volumes low in the winter when compaction is a problem because of the frozen state of the MSW. The MarKit Landfill is a MPCA permitted facility that meets all requirements, has a good operational history and has recently added processing of solid waste prior to landfilling which would place this landfill on an enhanced list by Becker County's perspective. The economics of higher tip fee and higher transportation costs have eliminated this alternative from near term consideration and are described in Table 3.1 on page 19 and Table 3.2 on page 20.

3. Dakota Landfill at Gwinner, North Dakota

This is an option from the past for Becker County, as Becker County did landfill waste at this facility in the early 1990's. Periodic contact with the management of the Dakota Landfill has kept Becker County informed of the changes and problems the facility has experienced during the past ten years. Currently, Waste Management has been putting pressure on Becker County to bring waste to this facility, even if it means that Becker County would have to split the waste between the Fargo Landfill and Dakota Landfill. It is apparent to Becker County that Waste Management is attempting to regionalize and consolidate its operations solely for the financial benefit of Waste Management. One tip fee offered to Becker County in the 2001 is \$20.00 per ton with waste delivered at the facility. When the cost of transportation is factored in, the cost of landfilling at the Dakota Landfill is higher than the Fargo Landfill because of the increased distance. This facility is permitted by the North Dakota State Department of Health, but has had a stormy political past and is currently close to creating a new lined cell and closing a long standing law suit. Because of these issues in addition to increased transportation costs, this facility is considered less favorable in the ranking of alternatives.

4. Other landfills

Becker County has had minimal contact from other landfills located in Minnesota. Discussions that have been held conclude with the economic considerations. The transportation issues plus tip fees always have the costs significantly higher than the costs of landfilling at the Fargo Landfill. No Minnesota landfills have ever been used by Becker County, therefore additional site liability is another concern.

C. PROCESSING

1. S.W.I.S. PennCo at Thief River Falls

This MPCA permitted processing facility became operational in the spring of 1996. This permitted facility has a capacity of up to 250 tons per day but has experienced numerous equipment failures, product failures, product sale problems and a fire. The facility was operating under stipulation from the MPCA and local MPCA personnel indicated that this facility was close to being closed because of problems. This facility has partial financial backing from the Red Lake Band of Chippewa [20%]. This department does not have any hard data on cost per ton currently, but in the past Becker County was offered a tipping fee of \$54.00 per ton delivered to the facility. This facility could have been an option in the past and would have been a consideration as it is more environmentally sound and higher on the hierarchy of the Waste Management Act. This facility is located in our region which also makes this option more desirable from transportation cost issues and location liability issues. However, the management and facility problems have removed it from consideration.

2. Becker County/Clay County Joint Cooperation

Work on this project was discontinued for a number of factors. One major factor was the lack of support and agreement between the county boards of Becker and Clay Counties. Staff level planning of both counties strongly supported the concept of a joint processing facility with composting of organics, a major commitment to waste reduction and recycling with landfilling of residuals in the Clay County Landfill. Lack of political support and review of the economics of the joint projects forced the termination of further planning. It is very unlikely that a joint processing operation between Becker and Clay Counties will be a consideration in the next five to ten years.

D. Incineration

1. Incineration at Perham, MN.

The Perham Incinerator [formerly known as the Quadrant Company] Mass Burn incinerator at Perham, MN is a permitted facility that did receive waste from Becker County for a short time in the early 1990's. The Quadrant Company discontinued operations in the late 1990's and Otter Tail County sought and was successful in obtaining a grant to upgrade the facility to meet current EPA Air Quality Standards. The facility has since been sold to the City of Perham to operate. In December 2001 and through the spring of 2002, test burns of garbage were conducted to assess the compliance of all factors of the incineration process to prove that all standards are being met. It was planned that May 1, 2002 is the target date for the facility to be certified and capable of receiving garbage for incineration. The actual operation of the facility began later. The City of Perham has been soliciting MSW for the test burns and for general operation. Becker County was contacted and a tip fee of \$49.50 per ton delivered to the facility was the quote initially. Recently, a tip fee of \$52.00 per ton has been mentioned. Although incineration is higher on the state hierarchy and is considered superior to landfilling in the Becker County perspective of environmental acceptability, the economics do not render this facility an option for disposal of solid waste generated in Becker County. Other factors influencing a decision to not use this facility is the past political disagreements between Becker and Otter Tail Counties and the fact that Perham would only sign a contract that restricted Becker County's waste to 20 tons per month in the summer when Becker County's generation is the greatest. This restriction forces Becker County to landfill all but one transfer trailer per month in the summer time. This restriction effectively eliminates incineration at this facility.

2. Incineration at the Polk County Incinerator at Fosston, MN.

This incinerator is a permitted facility that receives waste from a joint powers group located just north of Becker County. Upfront processing was added with the construction of a MRF before incineration. Waste is being landfilled at the Gently Landfill as bypass because the incinerator is at capacity with the existing contracts. Becker County has not had much discussion with the Fosston Incinerator because of the existing contracts for

MSW. Although contracts are expiring in 2004, regional solid waste administrator discussions indicate that most if not all existing contracts will be renegotiated and renewed. This does not seem to be a viable option because of the capacity limits of the facility are near or at maximum, the tipping fee is much higher than the landfilling at the Fargo Landfill and the transportation costs will be higher to this facility than to Fargo.

E. Conclusion

Landfilling at the Fargo Landfill is the first choice economically and economics are the driving force in solid waste in all parts of Minnesota. Other landfilling opportunities exist, but the transportation distances makes other landfills less competitive because of tip fee plus the transportation costs. Incineration is not a good option economically and Becker County would still be dependent on landfilling some of the MSW generated. There is not a processing facility near or operating in compliance with MPCA rules and regulations. A processing facility would be the prime option if the economics would support a decision to utilize a facility.

Becker County with its small quantity of MSW is not able to create any opportunities to construct a processing or composting facility of our own. It is not economically sound to construct that type of facility with today's political climate of flow control and financial liabilities. Therefore, Becker County will rely on existing facilities. Existing facilities have been and future facilities will be evaluated on the basis of environmental status and economic competitiveness of each facility. This evaluation has been and will be compared to the Fargo Landfill which at this point in time remains the best choice for Becker County.

Table 3.1 Economic of the Alternative Disposals

Disposal Facility	Tip Fee in dollars per ton	Mileage	Baer of Lake Park, Inc Transportation Costs [1]	Cost per trip using 2001 data – disposal and transportation [2]	Environmental impact [3]
FARGO LANDFILL	25.00	56	150.08	600.08	Good
GWINNER LANDFILL	20.00	150	402.00	762.00	Fair
MARKIT LANDFILL	45.00	165	442.20	1,252.20	good
PERHAM INCINERATOR	49.50	30	80.40	971.40	good

[1] Baer of Lake Park, Inc. has hauling contract starting in July, 2000 for 3 years with a 3 year extension for good performance at \$1.34 per running mile

[2] Cost per trip based on average 18 ton load and using current contract price of \$1.34 per running mile of Baer of Lake Park, Inc.

[3] Subjective ranking, attempting to quantify based on known facts or questions raised concerning facility

Table 3.2 Ten [10] Year Costs

Disposal Facility	Cost [\$] per trip	Cost [\$] 2001 Estimated for sites	Total Ten [10] Year Cost [\$] 2001 to 2011
FARGO LANDFILL	600.08	477,830	7,461,328
GWINNER LANDFILL	762.00	606,763	9,474,623
MARKIT LANDFILL	1252.20	997,099	15,569,715

Chapter 4. Solid Waste System evaluation and Five Year Implementation Plan

Introduction

The amount of MSW landfilled during the last five years has been steadily increasing as noted in the MPCA Annual Reports and SCORE Reports. The waste diversion by Waste Management has drastically affected the reported numbers that Becker County has landfilled at the Fargo Landfill, but it is estimated the waste generation continues to rise when the estimated volume of diverted waste is added. Waste Management has been very reluctant to give any information to Becker County so the county is only able to develop estimates based on decreased revenues particularly in the commercial sector and is able to project volumes based on discussions with waste generators with reliable record keeping. Becker County has completed and continues to implement educational programs that specifically target all aspects of solid waste management including Waste Reduction, Recycling, Household Hazardous Waste, Problem Materials Education and Yard Waste Composting. These programs have included and do include all types of news media and community programs. The total educational effort of the Environmental Services Department is an integrated and complete program which is described within each part of the following sections.

1. Waste Reduction

Policy and Goals

It is the policy of Becker County to reduce waste in the residential, business and institutional sectors of the County through planning and the implementation of education and information sharing programs. Becker County currently receives a 3% waste reduction credit, and intends to reduce waste by more than 3% by the ongoing and planned educational programs.

Existing Programs

Waste Reduction is one part of the total program with a portion of the SCORE budget designated for these activities. Commercial and business waste reduction has been a weak area for the department, but is being addressed with information to appropriate business with ways to reduce the garbage generation, increase recycling and to buy S.M.A.R.T. Waste Reduction Week activities have been and are planned and implemented. In the past there has been an emphasis on the residential sector and this planned to continue. The county has also implemented an internal source reduction program within all buildings and departments. A committee of employees promotes the

effectiveness of the program and does small group presentations in various departments to explain the overall goal and benefits to the county. It is intended that this program will be a role model for the community at large when successes are advertised and shared with the community. The county encourages all public agencies to adopt source reduction practices such as informed procurement practices.

Internal Programs

Becker County currently has a source reduction team that meets regularly and includes all county departments. Waste audits and surveys are used to target source reduction opportunities. This source reduction team has promoted desk side recycling; implemented a central paper collection and recycling system; provides ideas and implementation mechanics for the recycling of magazines and catalogs within the county structure; and promotes the concept of buying recycled to all departments including paper, recycled toner cartridges for copy machines, inkjet cartridges, etc. and promotes centralized purchasing. The Environmental Services Department also works with the Maintenance Department, Highway Department and Safety Committee evaluating products and procedures that are environmentally safe and will reduce waste.

Business and Institutional Programs

Becker County provides ongoing on-site and telephone assistance to businesses and distributes source reduction brochures, flyers and posters to businesses. Becker County also coordinates the recycling efforts of Minnkota Recycling and Waste Management. Becker County cooperatively works with Minnkota Recycling to work with business to increase recycling by increasing efficiencies of existing recycling programs or promoting alternative ideas that may produce greater efficiencies in particular applications. Becker County has begun working with the Regional Chamber of Commerce to provide education and information through this group to business community through out the county and region.

Residential Programs

As part of the educational program Becker County distributes an in-house developed Waste Guide for Residents and source reduction brochures, flyers, and posters to residents. This educational program utilizes materials from state agencies as well as materials developed by the Environmental Services Department. The education program is targeted for full time and seasonal residents. The education program uses radio, television, billboards and printed media such as newspapers, flyers and the annual Becker County Waste Guide that is distributed in the tax statements to all landowners in the county.

Becker County has promoted OEA's SMART Shopping Campaign by distributing SMART brochures. The brochures are available in a rack at the Becker County Environmental Office, taken to educational programs throughout the county and are used at the department's booth at the county fair which is staffed all days by staff

knowledgeable with the department's educational goals. These brochures are also distributed at the Becker County Transfer Station to the customers who self haul their waste.

Becker County participates actively in an annual Waste Reduction Week with programs directed to residential and business waste generators. Waste Reduction Week information and education is published in the Becker County Record and the Lakes Area Press which is a weekly newspaper distributed to all county residents.

Reuse programs have been developed, financed in part with some SCORE funds and advertised by Becker County. It is currently a short-term goal to increase the availability and effectiveness textile reuse programs in the county. This reuse program has the help of the local Disabled American Veterans organization, Seventh Day Adventist Church and the Anonymous Fire Project. A clean wood waste reuse program was instituted at the Demolition Landfill in 1999 where residents are not charged for good wood brought to the facility as demolition waste if they would separate the clean wood and place in a special area for reuse. Residents are encouraged to remove the clean wood waste for their personal use. This program is deemed very successful because very little clean wood waste is available for pickup at any one time because persons have taken the available material. Other reuse programs are being planned and debated that may operate at the Becker County Transfer Station where a drop off facility for small electrical appliances and other items is in a planning stage but does not have full political support at this time.

Becker County has and does twice yearly visit schools to promote source reduction and used OEA's *What-A-Waste curricula*. The schools include elementary, middle and senior high programs in Detroit Lakes and Frazee. Two staff persons from the Environmental Services Department work with the elementary program that includes a section on Household Hazardous Waste. The elementary program has the Environmental Services staff visiting the classroom and doing presentations, demonstrations, using a video, a clown and other ideas to stimulate discussion and help the teacher do a unit on solid waste. The elementary education program also includes an annual field day to a local farm where various agencies [DNR, Soil and Water, MPCA] have outdoor displays and educational area. The work in the middle schools and high school are programs where staff can help a teacher team teach waste issues and involve field trips to the Becker County Transfer Station, Demolition Landfill, Household Hazardous Waste facility and other nearby waste facilities.

Cooperative Programs

Becker County has developed formal partnerships with other counties to promote source reduction. This partnership is based on our regional Household Hazardous Waste Program. The Regional Household Hazardous Waste Coordinator is a staff person of the Becker County Environmental Services Department who has time and salary split between the Household Hazardous Waste Program and all aspects of the SCORE program which include waste reduction, composting, recycling, reuse and others.

Work with cities of the county involves them as partners in county activities and includes waste reduction, recycling, composting yard waste composting and lake weed [aquatic vegetation] composting. The aquatic vegetation composting is a joint effort between the county and Pelican River Watershed District, but also involves the city of Detroit Lakes which completely surrounds one of the lakes in the area.

The Environmental Services Department also works with and helps all townships in the county. As noted later in this section, townships are the base of the residential recycling program. The department has and will continue to have staff persons attend township meetings to perform educational programs, help work out problems with recycling and related waste problems and assist township supervisors with increasing the efficiency of the recycling program.

There is a functioning Environmental Services Department Advisory Committee in Becker County. This committee includes representatives from business, local government, environmental interest groups and citizens. The committee works to set goals, policies and strategies for recycling, waste reduction, waste education, waste reuse and household hazardous waste for the county with a regional perspective. Recent discussions are continuing on composting issues, the future options for Becker County MSW, better management of toxics, recycling options and management changes for problem materials.

Financial Incentive to Reduce Waste

Becker County uses a variety of ways to provide financial incentives to reduce waste. Some financial incentives for commercial activities were discussed previously in the Service Fees charged on Tax Statement where the fees are based on volume of waste generated. Disposal fees at the Becker County Transfer Station are volume based and apply to residents who self haul persons and commercial hauling accounts.

Proposed Programs

Becker County proposes to maintain the current service fee program that is administered as a fee on the tax statement. The fee structure is as such:

year round homeowner	-- \$25.00 per year;
seasonal residence	-- \$20.00 per year;
business and commercial	-- volume based chart found in Appendix C data for volumes generated by a business is supplied by haulers as part of county license agreement.

Service fees are evaluated annually by staff of the Environmental Services Department. This activity is mandated by the Becker County Solid Waste Ordinance. All parcels are checked by scanning information in the Integrated Tax Information Records managed by the Becker County Auditor. Data of the Tax Records surveyed in a manner that will suggest changes in waste generation, such as a change from seasonal to year round

residence. Each change detected is evaluated by staff using criteria developed and applied for the past ten [10] years that assess and make necessary changes in the service fee applied to the tax statement of a particular parcel. Business and Commercial parcels are evaluated yearly on the data supplied the solid waste haulers. Changes in waste volume generated detected by changing size of dumpsters or changes in frequency of pick ups or notations by solid waste hauler are used to calculate the service fee change for the commercial operation.

Some minor modifications in the service fee program and tip fees are anticipated. The changes are dependent on the political climate and election results of November 2002. It seems that economics are the only mechanism currently useful for designation of waste to the county's choice of final disposal. It is possible in the future that changes may be necessary to increase service fees while decreasing tipping fees to maintain the existing solid waste management system.

Responsible Persons and Staff Time

All staff persons of the Environmental Services Department work with waste reduction programs. The staff are at the Transfer Station educate one on one with self haul persons and by telephone with questions called in about all types of solid waste. The Central Office staff participate in education by answering the many questions received from the public and they also do the administration and planning for the whole program.

Within the last 5 years more staff time has been allocated to recycling and waste reduction education. Three staff people have job descriptions that have some work tasks in these areas. The department's contract with the Minnkota Recycling [the county's contracted recycler] includes a strong educational component where partnering increases the educational and informational impacts with more economy for both.

Staff time is difficult to quantify as many staff contribute during the course of their daily activities, it is estimated that about 1.5 FTE's are used in waste reduction programs.

Budget and Source of Financing

The solid waste budget including the sources of financing are included in Appendix D.

Implementation Schedule

Programs are ongoing and changes will occur as planning and programs evolve.

2. Waste Education

Policy and Goals

It is the policy and goal of Becker County to educate the residential, business and institutional sectors of the County through the implementation of sound education programs and information sharing programs. These programs involve all solid waste staff doing some education activity during the performance of their usual duties. Some staff specifically operate some educational programs and create opportunities to conduct educational activities. The education program is an integral portion of the total management of solid waste in Becker County. Throughout this entire document, each section has references to an educational component. Therefore specific questions about an educational program should be referred to the section of this document that outlines the program, i.e. waste reduction.

Existing Programs

The educational efforts of the Environmental Services Department are increasing yearly and reaching more people. More types of media are involved with radio, television, billboards, newspaper and presentations to groups and schools most commonly used. Three department staff have worked to make a coordinated effort at increasing education opportunities. Mass education is the most difficult and with the seasonal resorters and transient visitors to our county, we have worked with a number of educational presentations and media. A recent solid waste survey and other surveys indicate that most educational/informational programs [billboard, radio and newspaper ads] have had some impact. Waste education work with the schools with teachers is progressing on many different levels. Currently we have programs in area school districts in the elementary schools, middle schools and senior high schools. Educational activities are planned for the next expansion of the programs as money, staff and willing teachers are found. Targeted grades are second, fifth and ninth at this time. As presentations have occurred, more teachers are requesting our help and expertise to do “garbage or recycling” educational programs.

The department has an “environmental education spot” that runs daily during the morning drive time news on KDLM – AM, our local radio station. The plan is that by continuously running a spot at the same time with changing information on a weekly or timely basis, the general public will be influenced to make changes in their management of their own wastes or to increase recycling or to increase traffic at our household hazardous waste facility. A monthly radio talk show is done on the third Monday of each month. This show is a talk show format with the Administrator of the Environmental Services Department hosting the show along with the News Director of KDLM. A script is followed to introduce discussion topics but call in questions are welcomed and many times lead the discussion in a different path. The objective of the show is to educate on recycling, other solid waste issues and increase awareness of environmental issues.

Newspaper advertising and articles are published at least 4 times per month in the Detroit Lakes Tribune, Lakes Area Press and the Becker County Record. Articles in the past have had an educational component of waste reduction, recycling, household hazardous waste issues, composting and responsible waste management. The ads are targeted to all county residents, including farmers, lake property owners and businesses. Special holiday sections are published where the department will include articles on proper buying to avoid waste or alternatives to gift wraps and other waste reduction tips. Other times during the year such as spring or fall, articles about clean up or ads are created on proper management of problem materials, yard waste, HHW and other types of waste.

Proposed Programs

The educational program is constantly evolving. We are attempting to modify the program as information demonstrates that some goals of the department have been achieved. A plan to have some solid waste information available to the high school science teaching is currently being discussed. Some contacts have been made with the Detroit Lakes High School Biology staff and it is planned to have some type of waste education program introduced into the current curriculum. The visibility of the current educational opportunities has created increasing numbers of calls for speaker programs. These requests for programs include speaking at service clubs, township meetings, special interest group meetings and many types of youth groups.

Responsible Persons

Most all staff is involved in the various educational programs during the course of their duties. Landfill personnel discuss waste reduction, Household Hazardous Waste, problem materials waste management and yard waste composting with customers as loads are inspected and tips given to customer on management of their waste. Office staff answer questions by people who come to the office or call. The staff tries to be informative while answering a particular question. Three staff persons are directly involved with the planning and implementation of the formal education program of the department which has been discussed elsewhere.

Staff Time

This is difficult to quantify as a time motion study has not been performed on this department. Evaluation of the education program reveals more time is spent by more persons than is quantified in reports such as the SCORE report. Dedicated staff time is near 2.0 FTE's.

Budget and Source of Financing

SCORE funds, county match to SCORE funds and additional county funds are used finance the educational program. County funding is from the service fees and tip fees generated from solid waste management. The budget can be found in Appendix D.

Implementation Schedule

The education program is ongoing. New programs will be added as the contacts are established for the high school portion of the school education program. Existing programs of the radio, newspaper, TV, billboard and brochures are constantly being evaluated and modified or new ones created to increase effectiveness. The Becker County Waste Guide has worked well and is updated yearly with distribution as an insert in the Becker County Tax Statements, distribution at the Transfer Station and is distributed whenever department staff make presentations.

3. Yard Waste

Policy and Goals

It is the policy of Becker County to follow the Waste Management Act and the MPCA rules and regulations. Thus Becker County has established a program for the management of yard waste that is banned from landfilling.

Existing Program

It is very difficult to measure the amount of yard waste generated in Becker County because of the rural agricultural and seasonal recreational activities. It is estimated that yard waste consists of less than 5% of the waste generated in Becker County. Yard waste has always been collected and composted at the transfer station site. There are three townships and one city that operate a total of six [6] yard waste composting sites. These sites are managed by townships located in the western part and central part of the county. At the transfer station site, residents are encouraged to bring in the yard waste for free and each spring cured compost is available for free pick up by the residents until gone. Incoming loads to the Transfer Station are inspected and loads containing yard waste are pulled to the side where the persons are instructed on separation of the yard waste and why. The yard waste is then unloaded in the Yard Waste Composting area of the Transfer Station site. The yard waste is composted in windrows that are periodically turned with the landfill loader. In the past, much of the compost was used to provide topsoil during the closure of the old demolition landfill. In 2001 a large quantity of static piled compost, generated during a wind storm, was screened yielding about 1500 cubic yards of compost and about 1000 cubic yards of compost with mulch [large particles not yet completely disintegrated. In the spring of 2002 the screened compost product was given away to residents. Yearly, the county transfer station yard waste composting site cooperates with the City of Detroit Lakes for their spring clean up and year round park management. The City of Detroit Lakes collects yard waste at the Becker County Fairgrounds site continuously and periodically removes the yard waste collected to the county Yard Waste Composting site. The county Yard Waste Composting site also cooperates with the Pelican River Watershed District which has a lake weed removal plan. These weeds removed from area lakes are brought to the yard waste composting site and put with yard waste and allowed to compost.

Proposed Programs

No change in the program is envisioned as the current program is working well. Education will continue and will be modified to meet changing needs when appropriate. The actual management of the waste itself may change because of volumes or other factors as a result of a natural disaster. An example of which was experienced as a result of a major windstorm of July 13, 1995, that produced large volumes of damaged trees.

Responsible Persons

The Transfer Station Staff is responsible for the management of the Yard Waste Composting site at the facility. This management involves accepting yard waste, turning the windrows, monitoring the curing of the compost, processing and screening compost and making the resultant compost available to the citizens. In addition, the staff inspects loads and advises customers on proper management of their waste. This discussion with customers constitutes only a portion of solid waste education. There is a comprehensive waste education program created by the department and the yard waste education portion is only one part of the total program.

Staff Time

The Transfer Station Staff as part of their daily duties work with the yard waste management. Certain times of the year require more time managing yard waste than other times. Office staff spends time in the education program by answering telephone and walk in questions as well as planning and implementing the overall solid waste education program. In addition, the office staff spends time doing the necessary administrative work of tracking and monitoring volumes of yard waste managed.

Information is distributed about back yard composting to all people inquiring about our compost site. In 2001 a "backyard composting program" was held where over 250 backyard composting units were sold during a week long special composting week event. Also, information is made available by newspaper articles and the monthly radio show on back yard composting. No data is available to the department to identify and quantify the number of persons who do backyard composting as this is not information the department tracks for any purpose. For estimation, approximately 0.5 FTE is dedicated to yard waste composting although during some events, as many as 5 department staff persons have worked together an entire day processing compost or educating about yard waste.

Budget and Source of Financing

The yard waste composting education program is financed with SCORE funds and revenues generated from the Service Fee. The Transfer Station Staff manages the Yard Waste Composting site as part of the normal daily activities. The salaries for these staff are funded by the revenue generated by the tipping fees at the facility. The budget can be found in Appendix D.

Implementation Schedule

The Yard Waste Composting program is in place and functioning. Changes will be made only when the need arises. To date no problems have occurred at the compost site that is located on the southern portion of the Transfer Station property. The area is bermed to control storm water run off and spring run off. The facility is located on a clay soil base that varies in thickness of 35 to 60 feet. Water that is collected is channeled to the storm water drainage structures of the facility. The storm water management system consists of three interconnected settling basins and final drainage into an existing wetland. Compost sites managed by the townships have not experienced problems with run off from piles or odor. Residents who bring material to the compost sites always want to remove finished material as soon as it is deemed ready.

4. Recycling

Policy and Goals

Becker County has an active recycling program with a contracted recycling firm, educational program and participation from all cities and townships of the county. Becker County is meeting its goal for the opportunity to recycle, its recycling goal and other SCORE requirements. Becker County currently recycles cardboard; paperboard; office paper; newsprint; mixed paper; telephone books; magazines; plastics of type one [1] and two [2]; green, brown and clear glass; aluminum and steel cans; clean wood waste collected at the Demolition Landfill; shingles collected at the Demolition Landfill; and concrete collected at the Demolition Landfill. All of the recycled materials have been part of the recycling program except telephone books and paperboard that were added in 1996 and wood, shingles and concrete collected at the Demolition Landfill that were added in 2000. Becker County intends to improve an already successful program by working with the contracted recycling firm [Minnkota Recycling], the townships and Environmental Services Advisory Committee. Changes will be implemented as needed and feasible.

Existing Program

Recycling has been a success. The 2001 SCORE Report shows a county recycling rate of 33.4% [Note this is different from the Goal Volume Table in Appendix B. See page 2 for explanation]. Becker County has 47 recycling sheds [unmanned drop-off sites] which accept source separated recyclable materials. These recycling sheds are located around the county with each township maintaining a shed or sheds in their township. Most of the SCORE grant is dispersed to the townships for their use to maintain the recycling sheds and to educate citizens on recycling. This program was started in 1987 and has grown in numbers of sheds and types of materials to be recycled. Minnkota Recycling of Fargo, North Dakota has been contracted by the county since 1987 to collect, process and market the recyclables collected. Minnkota's current contract expires in 2003, but the

contract has a built in extension provided the county is satisfied with performance of the contract. Minnkota Recycling is also responsible for maintaining a Recycling Center at Detroit Lakes where citizens can bring their recyclables and receive payment for such items as aluminum cans and certain grades of paper. A complete list of what is recyclable is listed in the Becker County Waste Guide enclosed in the Appendix E. Future plans include working closely with Minnkota Recycling to add more recyclable materials to the mix as markets develop. Minnkota Recycling as part of a value added portion of their bid for the contract has offered a scholarship to graduating seniors from area school districts. There will be a minimum of one scholarship per year with the possibility more depending on the market fluctuations of aluminum cans. In 2000 and 2001 two \$250 scholarships were awarded each year to students entering into careers that relate to waste management or ecology.

In 1999 to assist the townships with maintenance of their recycling sheds, a program was developed to contract the cleaning of recycling sheds of non-recyclable materials, do litter control, mow grass and remove snow at selected sites. This program has produced some benefits such as increasing recycling because the recycling sheds are not cluttered with garbage and are generally more pleasant. The 2002 cutbacks in SCORE funds by the state legislature have caused discussions that indicate funding may not be available to continue this program. It is thought that the close working relationship between the county and Minnkota can produce a mechanism whereby Minnkota would notify the county of a problem or dirty recycling shed and county employees could be sent to manage the problem. Another scenario is to have the townships assume more responsibility for the recycling shed[s] in their jurisdiction. Final details have yet to be decided upon.

In addition to the countywide source separated recycling shed program there is a commingled curbside recycling program in the cities of Detroit Lakes and Frazee. This program is managed by Waste Management by agreements with both cities. Tonnage has reported to the county in the past for the purposes of SCORE reporting. Lately, Waste Management has been very difficult to work with because of the waste diversion to their landfills and as a result have withheld recycling information. The cities manage their programs without county help other than some SCORE funds that are from the same money distributed to the townships. There are no plans for any further commingled or curbside recycling programs as the remaining towns in the county are too small to support such a program and these same towns have access to the county recycling shed program. Figures for the amount of total recyclable material collected on a yearly basis is found in Appendix B in a spreadsheet of the Becker County Waste Stream.

Becker County has a successful in house recycling program with a Source Reduction Committee that works on Recycling as well as Source Reduction. Each employee work station is supplied with a recycling box for paper. Each office has a recycling area for computer paper, mixed paper, magazines and office paper. The recycled materials are collected periodically by maintenance staff and placed in a central location for pick up. Minnkota Recycling collects the paper from the central location. Centralized purchasing is planned to allow for the purchase of recycled paper and other recycled materials to be

used through out all county facilities. However, there have been problems with some departments requesting and receiving exemptions from the centralized purchasing so that its effectiveness has not been realized. A new attempt to implement centralized purchasing was started in 2002 with implementation scheduled for 2003. A member of the Environmental Services Department sits on the committee setting up the program and assisting with purchasing decisions to evaluate environmentally safe products and products where recycled content is important.

The business community has and is being educated with a cooperative educational program from Minnkota Recycling and the Environmental Services Department. Businesses recycle cardboard and paper by routine collections by Minnkota Recycling or their subcontractor. Other types of recycling being done by business include managing specialized wastes from some businesses. Examples are waste metal and pallets [wood and plastic] that are recycled by a manufacturing plant in Detroit Lakes. Special promotions such as a collection of spent fluorescent bulbs have been held. Since the one time, big collection event held to implement the fluorescent bulb recycling program, spent fluorescent bulbs can be brought to the Transfer Station where a continuous collection for both business and residential is held. Certification this department receives from the fluorescent bulb recycler is given directly to businesses. The department functions to get the appropriate information about all types of recycling opportunities to appropriate business.

Becker County because of its tourism business was a member of the Resort Recycling Pilot Project. One resort of the county has become a model to other resorts on how to manage recyclables in their business setting. We have worked with the regional Chamber of Commerce to inform resort owners of the program and to help implement more effective recycling at resorts throughout the county.

Three staff people currently are involved with the planning and implementation of the overall recycling education program. This involves advertising on the radio, in the paper and on billboards. Also included are programs for the schools of the area by staff presentations, Earth Week activities, Waste Reduction Week activities and special requests from teachers and principals. Much of the formal school recycling program occurs at the elementary level. A monthly radio talk show is held on the third Monday of each month with presentations on recycling and questions answered from listeners who call with questions or comments. In addition to the three staff working on the overall planning of the education program, all staff is involved with the implementation of education programs. Staff of the Transfer Station educate people while discussing the load of “garbage” brought to the facility to dump into the transfer trailers. The economic incentive is highlighted when appropriate to the customers by encouraging more recycling and waste reduction thus lessening the volume of trash for which the fee is paid on a volume basis. To provide a greater incentive at the Transfer Station, the Becker County Board of Commissioners voted to implement a policy proposed by the Environmental Service Department staff in which the fee for disposal in the transfer trailer for landfilling is three [3] times the normal charge if the load of waste contains more than 50% recyclable material. This extra fee has been implemented three [3] times

in the past three [3] years. Companies who have paid the extra fee have made changes in their internal operations to avoid the extra fees.

Proposed Programs

Changes will be implemented when needed and feasible. It is the intent that when changes are made, materials will be added to the list of recycled materials, but it will be difficult to remove materials from the list of recycled materials. The reasons for this are educational and habit. If materials are dropped from the list, it is intended not to reinstate, because the general public is not willing to make changes readily. To reverse a change in the future will be even more difficult and it may not be possible to achieve low levels of collection of the reinstated material.

Responsible Persons

All staff is involved with the recycling program at various levels. The administrative staff track and pay the contracted recycler and provide education on the telephone. The education and work done by the Transfer Station staff when advising people about the contents of loads to be dumped into the transfer trailers are all included in recycling program. Three department staff are responsible for the major effort of planning and execution of the overall recycling education program.

Staff Time

As stated in the Responsible Person portion, all staff spend some time each day with recycling. Three persons do have the major responsibility for the overall education program and oversight of the recycling contract. 2 ½ to 3 FTE's could be attributed to the staff time responsibility.

Budget and Source of Financing

The financing of the recycling program is all of the SCORE funds plus the 25% county matching funds, plus further county funding from the revenues generated at the Transfer Station and Service Fees. The transfer of funding from the Transfer Station revenue or Service Fee is necessary to balance the recycling program fund which is separated as an independent section of the Solid Waste Fund. The budget can be found in Appendix D.

Implementation Schedule

The recycling program is in place and successful. Changes will be made when needs dictate and economic factors indicate.

5. MSW Land Disposal

Policy and Goals

It is the intent of Becker County to provide an environmentally sound and economically feasible management of solid waste for the residents of the county.

Existing Program

Becker County currently landfills its solid waste at the Fargo, North Dakota Landfill. Landfilling is about 14,000 tons per year [2001] when Waste Management diverted waste is considered. The solid waste generation per year is increasing in spite of work of the county promoting waste reduction programs, an active recycling program, problem materials waste management program and a household hazardous waste program. The national trend indicates that waste generation is increasing on a per capita basis and the total volume of waste generated in Becker County mirrors this trend. Waste is collected by private, licensed haulers or waste is brought directly to the Transfer Station by the residents or businesses. One private hauler is Waste Management who is actively engaged in diverting waste away from the Becker County Transfer Station to a facility that landfills at a Waste Management facility. Approximately 45% of the MSW generated in Becker County is diverted by Waste Management. Most of this waste is from the commercial sector. At the Becker County Transfer Station the waste is placed into semi trailers where it is transported to the Fargo Landfill for disposal. Becker County has a long term disposal contract with the Fargo Landfill. In July 2000 Becker County entered into a new transportation contract with Baer of Lake Park, Inc. which is for three [3] years with a three [3] extension for good performance. Waste Management had previously held the hauling contract for the past 10 year period which was very beneficial to Waste Management. The new contract offers benefits to both Becker County and the contractor. There are no MSW landfills in Becker County. The old Becker County Landfill [SW - 99] has been turned over to the Minnesota Pollution Control Agency under the Closed Landfill Program [Alternatives to Superfund Act of 1994]. A Binding Agreement was signed and in August of 1996. The MPCA took control of the old landfill, current corrective actions and associated problems of future corrective actions.

Proposed Programs

There are no current changes anticipated in the landfilling of Becker County's solid waste at the Fargo Landfill. This decision is achieved by analysis of the environmental soundness of the facility and the economics when all transportation and disposal costs are compared. The Fargo Landfill offers an environmentally sound facility as it is a Subtitle D landfill operated by the City of Fargo and permitted by the State of North Dakota. It is competitive financially when comparing the tip fee and transportation charges of this facility with other landfills of the region and state of Minnesota. The Fargo Landfill has a good operational history and currently does have quality control measures in place that require load inspections and random complete load inspections, both of which have

financial penalties for infractions. The alternatives section has discussion of landfilling options for Becker County in Chapter 3.B.

Responsible Persons

There are 5 staff persons working at the Transfer Station. The Manager of the Transfer Station is responsible for the daily operations and safety program. All staff has proper MPCA training for operation of the Transfer Station and Demolition Landfill at the site plus all staff is cross-trained for the Household Hazardous Waste program. The staff inspect incoming loads, help and educate residents with separation of the loads with respect to problem materials, demolition, yard waste recycling, household hazardous wastes and MSW.

Staff Time

Only the Transfer Station Manager is full time. Four [4] other staff are part time at this facility. All are cross trained to work at the HHW facility part time and all are trained in the county's educational program. 4.5 FTE's are listed for MSW management when considering administrative staff doing the accounting and some educational activities.

Budget and Source of Financing

Tip fees for MSW and Demolition Debris are charged by tonnage to the licensed hauler with compactor trucks and on a volume based [per cubic yard] for self haulers and licensed haulers when MSW is non-compacted. Fees are charged for tires, appliances, fluorescent light bulbs to pay for the cost of managing and recycling these items. The fee schedule is shown in Appendix E [Waste Guide]. At this time the tip fee pays for the management and disposal costs. Budget data is in Appendix D.

Implementation Schedule

The program is active and ongoing. Changes will be made when the need arises or rules change. There is some discussion at the County Board level of changing the Service Fee and Tipping Fee Structure.

6. Waste Tires

Policy and Goals

Becker County's intent is to provide the county residents with an opportunity to recycle used tires in an economically feasible and environmentally sound fashion.

Existing Program

Becker County has collected waste tires as mandated by the MPCA and does have support for this in the current Becker County Solid Waste Ordinance. Waste tires are collected at the Becker County Transfer Station where a fee is charged for the processing and recycling of the tires. This fee collected is used by the county to pay for the disposal of the tires at a permitted tire recycling facility. In 1995, changes were made in the management of waste tires at the Transfer Station facility. Prior to 1994 waste tires were collected and periodically the waste tire pile was removed by contract and the tires recycled. In late 1994 and all of 1995, the large tire pile was removed by Smith Tire and Recycling of Park Rapids, now Tostenson Recycling. These tires were recycled at the Trash Depot in Moorhead, MN. Since the removal and clean up of the tire area, monthly removal of small tire amounts has created a manageable program for the tires. Becker County had an agreement with Tostenson Recycling, a waste tire hauler for monthly removal of tires who removes the tires to Monitor Tire for recycling. In 2001 with the closing of Trash Depot in Moorhead, tires collected at the Becker County Transfer Station are recycled at Monitor Tire in St. Michael, MN. In October, 2002, an agreement was signed with Green Man Recycling to periodically remove tires from the Transfer Station and recycle them. The removal of tires will be on an as needed basis.

Becker County is not aware of any unpermitted tire dumps in the county. There are some farmers who have a large quantity of tires on their property, but the tires are used to hold down plastic on silage pits. Eventually when farming techniques change or a farmer quits farming, the tires accumulated will have to be managed and recycled. Staff of the department along with an Agribusiness Committee of the Regional Chamber of Commerce talks with the farming community about waste management options including disposal of tires.

Tires were originally recycled at the Trash Depot in Moorhead and then Monitor Tire in St. Michael, MN where the tires are shredded and the crumb rubber generated is sold to be used as feedstock for consumer products or used as fuel. Beginning in late 2002 Green Man recycling will be taking the collected tires for shredding and use as fuel. Enforcement of illegal disposal is done jointly by the Becker County Environmental Services Department and staff of the Regional MPCA office in Detroit Lakes, MN.

Proposed Programs

Changes in the waste tire removal will be made if and when conditions indicate a need for such a change. A new agreement with Green Man Recycling should be long term, thus negating the need for change. Research will be ongoing however to always be considering the most environmentally correct and economically feasible alternatives.

Responsible Persons

The Transfer Station staff is responsible for the management of the waste tire area and the collection of fees from the residents disposing of the tires at the facility. The

administrative staff is responsible for education, the accounting of funds and the coordination of the disposal of the tires at a tire recycling facility.

Staff Time

All Transfer Station staff spend time with waste tires during the course of their normal daily activities. Also administratively, central office staff time is spent with accounting, education and oversight of contracts and agreements that deal with the waste tire issue. An FTE of 0.5 is estimated for waste tire and waste appliance management.

Budget and Source of Financing

Financing is in part done by the fees paid to the Transfer Station for the management of the waste tires and revenue collected from the Service Fee. The Transfer Station fees for tire recycling are shown in Appendix E [Waste Guide] is based on the type of tire. Revenues of Transfer Station are used to pay the contracted tire hauler. The budget is in Appendix D.

Implementation Schedule

The Waste Tire Program is in place and functioning successfully. Changes will be made when needs dictate.

7. Major Appliance Management

Policy and Goals

Becker County's intent is to provide the county residents with an opportunity to recycle used major appliances in an economically feasible and environmentally sound fashion.

Existing Program

Becker County has a continuous waste appliance collection at the Transfer Station facility. The MPCA rules mandate that counties manage waste appliances. Appliances are collected for a fee to provide financing for the proper management and disposal of the appliances. Appliance disposal is by a certified contractor with whom the county contracts for the removal of freon, PCB's and other hazardous materials. The subsequent recycling of the appliances is managed by the same contractor.

Education of the public about the waste appliance management of the county is one part of the overall solid waste education program. This education is done in part by newspaper articles and advertisements, a monthly radio show and department staff presentations to various civic groups. The Becker County Waste Guide [Appendix E] has information on this problem material management as well.

Proposed Programs

No further changes are proposed currently. Periodic to yearly management of the waste appliances by the contracted recycler should provide an adequate method to safely manage the waste appliances accumulated at the Transfer Station.

Responsible Persons

The Transfer Station staff is responsible for the management of the waste appliance area and the collection of fees from the residents disposing of the appliances at the facility. The administrative staff is responsible for the accounting of funds and the coordination of the disposal of the appliances with a contracted recycler.

Staff Time

All Transfer Station staff spend time in the waste appliance area during the course of their normal daily activities as well as educating and collecting the fees from the residents when appliances are brought to the facility for disposal. Also administratively, central office staff time is spent with accounting, education and oversight of contracts and agreements that deal with the waste appliance issue. An FTE of 0.5 is estimated for the management of waste tires and waste appliances.

Budget and Source of Financing

Financing is in part done by the fee paid to the Transfer Station for the management of the waste appliances. This fee is shown in Appendix E [Waste Guide]. Revenues of Transfer Station and of the Service Fee are used to pay the contracted appliance recycler. The budget can be found in Appendix D.

Implementation Schedule

The waste appliance program is functioning and successful. Changes will be implemented when needs indicate.

8. Used Oil and used Oil Filters; Lead Acid and Dry Cell Batteries

Policy and Goals

Becker County's intent is to provide the county residents with education and an opportunity to recycle used oil, lead acid batteries and to provide education on the proper disposal of lead acid and dry cell batteries.

Existing Program

Waste oil is collected from residents, free of charge. The Transfer Station has a 1000 gallon tank which is periodically emptied by a firm from Moorhead who recycles the oil. There is also a waste oil collection tank at the recycling shed on the edge of Frazee, MN, which is open to the public and staffed by members of the township. This tank is emptied periodically when needed.

Used oil filters from passenger vehicles have been periodically collected during the county's annual Amnesty Week. In 2002, an agreement was reached with a waste oil filter recycler located in the county, to have continual collection of waste oil filters to complement the waste oil collection. Used oil filters are collected in barrels supplied by the contractor and removed periodically for recycling.

Waste lead acid batteries are collected at the Transfer Station, properly stored in a small building and periodically transported to Wadena Metals for recycling. The transportation is done by an employee of Waste Management. In 2002 Becker County has begun working on an agreement with the Interstate Batteries Warehouse in Moorhead, MN to periodically stop and pick up the collected batteries at the Transfer Station. When this agreement is in place, an educational campaign will be initiated to inform residents of this service. Currently, the Transfer Station only accepts lead acid batteries that residents bring to the Transfer Station thinking that the batteries can be disposed in the MSW. Transfer Station staff continually inspect incoming loads for banned materials such as lead acid batteries. If spotted the batteries are removed from the loads.

Education of the general public is provided through the comprehensive solid waste education program on the proper disposal of oil, oil filters, lead acid and dry cell batteries. Work with retailers on the proper management and disposal of waste oil, oil filters and batteries is ongoing and part of the comprehensive educational program.

Proposed Programs

Planning is in progress to create a program for disposal of dry cell batteries. It is planned that this program may work through the existing Household Hazardous Waste Facility

Responsible Persons

Transfer Station staff is responsible for the management of the waste oil tank at the facility and to inspect all incoming loads for banned materials. Use oil filters are collected and stored in barrels supplied by the contractor in a small building at the Transfer Station. Lead acid batteries are removed from loads, stored in a separate shed within plastic containers and periodically removed from the facility. Some batteries are collected at the Household Hazardous Waste facility during its hours of operation as well and moved to the battery shed at the Transfer Station. The staff of this facility cooperates with the Transfer Station staff in the overall management of batteries.

Staff Time

All Transfer Station staff spend time inspecting loads and monitoring the waste oil tank. Central office staff is currently researching the possibility of implementing a dry cell battery recycling program. Both Transfer Station staff and Central Office staff spend time in education processes whether it be answering questions or preparing some educational tool for the education program of the department.

Budget and Source of Financing

Waste oil is accepted for free and the waste oil is disposed through Randt Oil in Moorhead, MN. The oil is removed for free by the company. Lead acid batteries are accepted for free and the current system of payment by Wadena Metals pays for the transportation. The proposed agreement with Interstate Batteries will be similar as the batteries will be accepted from residents for free and Interstate Batteries will pick up the collected batteries for free provided the county has met certain requirements. Staff time devoted to waste oil and waste lead acid batteries is part of the Transfer Station staff's normal daily activities and the Central Office staff considering a new program for dry cell batteries is part of their normal activities. Budget information can be found in Appendix D.

Implementation Schedule

The Waste Oil collection and waste oil filter collection is functioning and successful. The waste lead acid battery collection and management will be changing when an agreement with Interstate Battery is complete. An education program will begin with the agreement in force. Implementation of the dry cell battery program will begin when the staff determines the economic and environmental qualities and how the proposed program will function within the parameters of the department.

9. Household Hazardous Waste

Policy and Goals

Becker County's intent is to provide the county residents with education concerning Household Hazardous Wastes and to provide an opportunity to properly dispose of Household Hazardous Wastes in an environmentally sound and economically feasible manner. Becker County has a strong educational program to inform the public on how to reduce the toxicity of materials that are landfilled so as to have minimal environmental impacts now and in the future.

Existing Program

Becker County is the sponsoring county of a six county regional Household Hazardous Waste Region. The coordinator for the region is an employee of Becker County and works with the member counties Boards of Commissioners and Solid Waste staff to provide a liaison with education, Household Hazardous Waste collections and all the planning necessary to make the entire program functional and successful.

Becker County has a permanent Household Hazardous Waste facility at the Becker County Transfer Station that operates on a seasonal basis by providing residents with 4 daily opportunities per month to drop off waste from April to October. The Transfer Station facility also collects HHW from residents at any time they come to the Transfer Station. Staff of the Transfer Station bring materials collected to the HHW facility for processing on a daily basis. Becker County does have annual one-day collections located in the rural parts of the county to provide service to residents who would not otherwise bring their waste to the HHW facility. The volume of waste collected is increasing yearly which is interpreted as increased awareness due to the educational programs for HHW.

Education for HHW is part of the Becker County Waste Guide [Appendix E] and is part of the integrated department educational program with articles and advertisements in the newspaper and radio advertising, designated sections of the monthly radio show which are devoted solely to HHW information and staff presentations to various groups. Special events such as mercury thermometer exchanges have been held at health fairs and county fairs.

In addition to the household hazardous waste collection at the HHW facility, a product exchange program is in place to reuse products that capable of being given out, thus reducing the volume of material that is disposed through the state certified, contracted hauler.

Business waste is not collected at the Detroit Lakes HHW Facility, but the department works with businesses to insure the proper disposal of hazardous materials. Educational materials are given directly to businesses. Educational work through the regional Chamber of Commerce also helps to disseminate information to the business community.

Agricultural waste pesticides are collected specially and separately by a joint effort of the Environmental Services Department, the Becker County Extension Office, Becker County Soil and Water District and the Minnesota Department of Agriculture. This department supports this program with education, manpower during the days of collection and the planning processes necessary to insure a successful collection event.

Fluorescent light bulbs are collected continuously from businesses and residents. The bulbs are collected at the Transfer Station. There is a small fee for the fluorescent bulb recycling which pays for the contracted price from the transporter who brings the bulbs to Minneapolis to be recycled. Becker County has had a one day collection of bulbs from businesses. In 1994, there were 10,000 bulbs were collected and recycled at the last one

day collection. With the continuous collection opportunity at the Transfer Station, no large event collections are planned for the future.

Proposed Programs

Program changes will be instituted when there is a need. Monitoring of problem materials is ongoing and planning is currently underway for the management of antifreeze, electronic materials and discussion is occurring on the consideration of a VSQG [Very Small Quantity Generator] portion to the HHW program.

Responsible Persons

The Household Hazardous Waste facility is managed by one staff person with help of 4 staff persons from the Transfer Station who have the proper training and certifications. This cross training enables department staff to work at each facility and makes staff better equipped to handle problem situations at the Transfer Station. One-day collection events utilize these staff plus volunteers from the area of the county where the collection is occurring. These volunteers are placed in positions where they will have some training prior to the event, but will not be involved with the actual handling of incoming materials. All of the solid waste staff are involved with education. Transfer Station staff educate persons at that facility when inspecting loads. Questions are answered in the central office on HHW when persons call or stop at the office. Accountability for the HHW received by the staff is done by the one staff person who manages the HHW facility. Budget and other administrative duties are done by central office staff. FTE of 1.5 is estimated.

Staff Time

One staff person is assigned as the Regional Household Hazardous Waste Coordinator and this person spends approximately half time with the HHW program. This involves planning, education, coordination of regional activities, facility operation and oversight of disposal of material. Four part time staff persons are assigned to work at the HHW facility when needed with the rest of the time spent at the Transfer Station. These persons are responsible for the intake, bulking, lab packing and other duties at the facility. Education is by all staff as part of the comprehensive education program.

Budget and Source of Financing

Funding for the Household Hazardous Waste program is from the MPCA stipend and MPCA disposal assistance the county receives as the sponsoring county for the regional program. Revenues from the Service Fee are used to supplement the stipend to balance the budget. The budget information is located in Appendix D.

Implementation Schedule

Becker County has a successful Household Hazardous Waste program and will work to maintain the program as such. Changes will be made as needs and MPCA decisions dictate.

10. Demolition Debris Management

Policy and Goals

It is the policy and goal of Becker County to provide the opportunity for an environmentally safe, economical, and convenient disposal site for demolition debris within the County.

Existing Program

Becker County maintains a Demolition Debris Landfill on the Becker County Transfer Station site. This landfill is in Phase I, cell 3 of a 7 cell development. Each cell was planned to have an operating time frame of about 2 years of demolition and intermediate cover at the rate of disposal at the time it was designed in 1993. In 1999 the implementation of recycling clean wood waste, clean concrete and shingles has extended to active operation of a cell by about 1.5 additional years. The clean wood waste is set aside at no disposal charge and residents can remove this clean wood waste for no charge. Clean concrete is stockpiled near the demolition landfill in an area of the composting site which is bermed. In the fall of 2000 a contractor was hired to crush the concrete pile. Approximately 1500 cubic yards of crushed concrete was generated. Some of the crushed concrete has been used for the aggregate base of the parking lot of the HHW Building and the County Highway Department has used some. The shingles are being stockpiled near the demolition landfill. It is planned that grinding of the shingles will occur in the winter of 2003 when sufficient quantities make the grinding economically sound. The ground shingle material will be used on roads within the Transfer Station and Demolition facility and may be sold to a local asphalt contractor for recycled content use in batches of asphalt.

The Transfer Station staff operate the Demolition Landfill as part of their daily activities. Demolition material is received and inspected at the Transfer Station where the disposal charge is calculated by volume of material. The customers are then directed to the Demolition Landfill area to dump the loads. Intermediate cover is applied at least monthly and the permanent cover material is applied during the capping of the cell. The Demolition Landfill is regularly inspected along with the Transfer Station by the county staff and by the MPCA to insure compliance with regulations and the permit. The Demolition Landfill is surrounded by monitoring wells. These monitoring wells were installed for the purpose of monitoring the ground water around the old, closed, capped MSW landfill immediately to the west of the Demolition Landfill. The old, closed,

capped MSW was turned over to the MPCA in 1996 under the Alternatives to Superfund Act of 1994.

Becker County works with the regional MPCA office located in Detroit Lakes for the purposes of allowing Permit-by-rule Demolition Landfills within the county. These sites are for small amounts of material and a one-time projects. There is also a private demolition landfill known as Lakes Area Demolition Landfill, that operates in the Detroit Lakes area.

Proposed Programs

There are few changes proposed for at least ten years when planning must begin to open a new site if the County Board intends to continue operation of a demolition landfill. Some changes are being considered for the recycling of clean concrete to increase the efficiency of the project. These changes may have some clean concrete loads diverted directly to a local contractor who will grind and recycle the material at the contractors gravel mining operation site. The separation of clean wood waste does not keep up with the demand for reuse, so this program will continue unabated. A possible change for the future is to grind most wood waste currently being buried. This ground wood waste material could be composted with yard waste. More research on this must occur before implementation. Other changes will be made as need arises or MPCA rule changes occur.

Responsible Persons

The Transfer Station staff maintains and operates the Demolition Landfill as part of their daily activities. Education is done with customers as part of the comprehensive educational program.

Staff Time

Five staff of the Transfer Station share in the maintenance and operation of the Demolition Landfill. Central Office staff time is in accounting and education. An FTE of 1.5 is estimated for the Transfer Station staff time and Central Office staff time spend managing this portion of the solid waste.

Budget and Source of Financing

Revenues for staff, the operation of equipment, opening and closing phases [cells] is derived from the tip fees on the volume based fee schedule and from revenues generated by the Service Fee. Budget information is found in Appendix D.

Implementation Schedule

Becker County has a successful Demolition Debris Landfill operation and Demolition Debris recycling program. It is intended that the current demolition site should be in existence for 12 more years at the present site.

11. Ordinance and Licensing

Becker County Solid Waste Ordinance was originally adopted in 1986. The ordinance while crude by the standards of today, functioned satisfactorily. In November 2001 a new Becker County Solid Waste Ordinance was adopted. The current ordinance removed designation language and incorporates all solid waste changes in Minnesota Statutes and Minnesota Pollution Control Agency Rules to October 2001. The current ordinance has the provision for easy amendment to meet the changing needs of the county in responding to changes in state and federal laws. Licensing is well explained in the ordinance and its implementation has not been a problem. The county relies on help from the MPCA with enforcement on illegal dumpsites which have problems due to limited MPCA solid waste staff regionally. The current Becker County Solid Waste Ordinance is found in Appendix G.

Responsible Persons

The Administrator of the Environmental Services Department is responsible for bringing any ordinance changes to the Solid Waste Advisory Committee. Central Office staff will do much of the research and preparation of the document. Proper procedure of public hearings and informational meetings will be held before bringing any changes before the County Board. The County Attorney will be consulted on an as needed basis.

Staff Time

To effectively administer, enforce and monitor the effectiveness of the Solid Waste Ordinance requires considerable staff time. Solid waste personnel are listed in the following section number 12. Responding to complaints of illegal dumpsites and coordination with the regional MPCA staff involves one or more staff.

12. Solid Waste Staffing

Becker County Environmental Service Department existing solid waste staff includes 9 persons. They are three full time and 6 part time personnel. The position titles are Administrator of the Department, Regional Household Hazardous Waste Coordinator and Recycling Coordinator, Manager of the Transfer Station, Solid Waste Secretary/Bookkeeper, Department Secretary/Receptionist, 4 part time Landfill Operators. The Administrator of the Department is ½ time Solid Waste and ½ time Emergency Management. The Department Secretary/Receptionist is budgeted ½ time Solid Waste and ½ time Planning and Zoning although her daily duties are dependent on the most pressing needs of the department that day. All Landfill Operators are cross-trained in Household Hazardous Waste and are competent to work at both the Transfer Station and Household Hazardous Waste Facility.

Becker County estimates that the staffing level over the next ten years will remain about constant.

13. Solid Waste Program Funding

It is the policy and goal of Becker County to maintain adequate program funding. The solid waste budget, including revenues and expenditures is included in Appendix D. Existing funding sources are the Landfill Receipts [volume based tipping fees, recycling and disposal fees for some problem materials, volume based demolition disposal fees, Service Fee on tax statement, SCORE block grant, Household Hazardous Waste grant and MPCA funding for part of HHW disposal costs.

Future funding needs for programs are expected to remain adequate. Adjustments in revenues can be made by altering the Service Fee and the tipping fees for some materials where appropriate to cover increasing county expenditures caused by changing technologies or state mandates. The development of any waste processing in the County is dependent on Capital Assistance Funds from the OEA if the county determines that processing will be more environmentally correct and financially feasible.

14. Plan Review and Five Year Update

Becker County will work with the OEA and the Becker County Solid Waste Advisory Committee to develop the next Solid Waste Plan update. Becker County will provide a draft of the update four and one-half years after the approval of this update.

15. Goal Volume Table

Becker County has prepared a goal volume table using the OEA format. The goal volume table is included in Appendix A

16. Solid Waste Program Budget

Becker County has prepared a ten-year solid waste budget. Financial assumptions used in preparing the ten year budget are based on the following: costs of operation will remain constant except for inflation and that the revenues will remain constant. The tip fee of \$65 per ton [includes sales tax] or \$8.50 per cubic yard [plus sales tax] may change a little in the next five years. If a decrease in tip fee occurs, a subsequent increase in Service Fee would be expected to keep revenues constant. The cost per household made by comparing expenses [projected] divided by the number of households is expected to remain constant. The calculations made for the period of 1996 extending to 2015 demonstrate a cost per household per year of \$39.79 and for 2001 demonstrate a cost per household per year of \$39.54. The actual cost per household is a variable because of additional charges the hauler adds for collection. This cost will increase as the cost of business for the haulers increases. This budget projection is found in Appendix D.

17. Alternatives to Proposed System

If the primary disposal system chosen in the alternatives section of this plan should fail for any reason, Becker County will use the following process to evaluate, identify and implement alternatives to the proposed system:

- Becker County has and will continue to talk with operators of other disposal facilities with the intention of evaluation for future options;
- Becker County will contact alternatives to determine the economic and environmental status of the alternative facility at the time;
- The Becker County Environmental Services Department will make a recommendation to the Becker County Board of Commissioners;
- The Becker County Board of Commissioners will determine the fate of the solid waste for Becker County.

18. Mitigation of Environmental Risks

Becker County is working towards mitigating the risks posed by onsite and illegal disposal. The County is mitigating the impacts to air, surface water, ground water and avoiding nuisance conditions of onsite disposal by educating and encouraging all residents to use the collection and disposal systems currently available. The new solid waste ordinance has provisions that include penalties and proper enforcement tools to aid in prosecuting persons who have disposed of solid waste illegally. The County is mitigating the impacts to air, surface water, ground water and avoiding nuisance conditions of illegal disposal by working with the MPCA.

19. Public Participation

Becker County utilizes the following methods of public participation in the continued development and evolution of its solid waste plans and programs. There has been an Environmental Services Advisory Committee in place since 1990, which functions to advise the department and recommend to the Becker County Board of Commissioners on solid waste issues. This committee meets quarterly or more frequently if need requires. The membership is comprised of a township official, a member of the Detroit Lakes City Council, private citizens [one appointed from each county commissioners district], two solid waste haulers [one garbage hauler and one recycler], the Transfer Station Manager, the Regional Household Hazardous Waste Coordinator and the Administrator of the Environmental Services Department. The department staff are voting members of the committee but do not hold office other than secretarial. The meetings are open, posted and advertised to promote public participation.

Documentation of public input by interested parties, including citizens, public advisory groups, regional authorities, adjacent counties, local governments, and solid waste service companies providing service in the county is located in and maintained by the Becker County Environmental Services Department.

The County is involved with an ongoing process to ensure that all the groups listed above are either involved or invited to provide input into the County's solid waste management programs. That process is done through the Environmental Services Advisory Committee that is discussed above.

APPENDIX F

BECKER COUNTY WASTE STREAM DATA

YEAR	TONS LANDFILLED	TONS RECYCLED
1987	23,116	
1988	24,068	
1989	19,419	
1990	13,585	
1991	15,130	
1992	11,406	2141.81
1993	10,959.21	3,618.17
1994	11,138.25	4,587.94
		includes one time large business recycling effort
1995	10,671.37	3,774.26
1996	11,926.00	4,264.96
1997	12,554.96	4,231.00
1998	13,410.19	4,406.98
1999	14,325.69	4,427.39
2000	13,083.13*	5,359.74
	Estimated total 15,000	
2001	7,333.07*	5,147.75
	Estimated total 14,333	

*Waste diversion by Waste Management. Figures are volume landfilled at the Fargo Landfill. Waste Management is landfill at Gwinner, North Dakota and Wisek, North Dakota.