

the
next **150**



St. Louis County
**SOLID WASTE DEPARTMENT
BUSINESS PLAN
2008-2010**

Acting in a leadership capacity to ensure a sustainable integrated waste management system.

Leading by developing public and private partnerships to focus resources on areas of greatest impact to the environment and economy of the county.

Ted Troolin, Solid Waste Director



EXECUTIVE SUMMARY

Few aspects of County government have changed as significantly in the past 25 years as has waste management. In that time period we have gone from a system based on numerous open dumps and unlined landfills to a system incorporating environmentally appropriate management options for a variety of individual waste streams. We are transitioning from a disposal based system to a system that encourages waste reduction practices, recycling, and resource recovery through programs that recognize the material and energy values embodied in waste. We have gone from minimal recycling programs to programs that lead the country. These changes have been spurred by recognition of environmental problems created by past management practices and by realization of economic benefits provided by improved systems.

St. Louis County's geographic situation provides special challenges due to its large size, distance from markets, and relatively low population densities in much of the County. At the same time, its situation affords the County opportunities with respect to the development of advanced systems. As a result, the County has developed a comprehensive waste collection and disposal system that incorporates the only lined mixed municipal solid waste landfill in Northeastern Minnesota, comprehensive collection and haulage programs, extensive recycling programs, and management opportunities for household hazardous waste, appliances, electronic waste, mattresses, tires, batteries, and many other materials.

In the future, the County will continue to improve its waste management programs by seeking to develop systems to recover the energy value of waste. Other goals will include improving our recycling programs, increasing participation in household hazardous waste programs, and encouraging our residents to reduce, reuse and recycle.

The Department's financial position is sound. The Department operates through an Enterprise Fund that is not dependent upon the General Levy but is instead based upon user fees. Over the next several years expenditures will be somewhat higher than in previous years due to landfill construction costs. However, overall the Enterprise Fund is positioned to meet future development needs and address unforeseen potential environmental problems.

WHO ARE WE?

OUR MISSION:

To act in a leadership capacity to ensure a sustainable integrated waste management system.

Further, to lead by developing public and private partnerships to focus resources on areas of greatest impact to the environment and economy of the County.

STATUTES

The State of Minnesota has enacted legislation to govern solid waste management through the following State Statutes and Rules:

- §115A establishes a state-wide framework for the development of integrated county solid waste management systems.
- §400 which declares that it is in the public interest that counties conduct solid waste management programs, and lays out authorized activities to carry out those programs.
- §375.18 allows regulation of unauthorized waste disposal and established authority to seek civil penalties and collect damages from responsible parties.
- §383C.807 allows the County to acquire real property, negotiate contracts for solid waste management operations and services by any means available and in any manner with or without advertisement for bids.
- Other laws related to source reduction, environmental purchasing, environmental enforcement, and program funding.



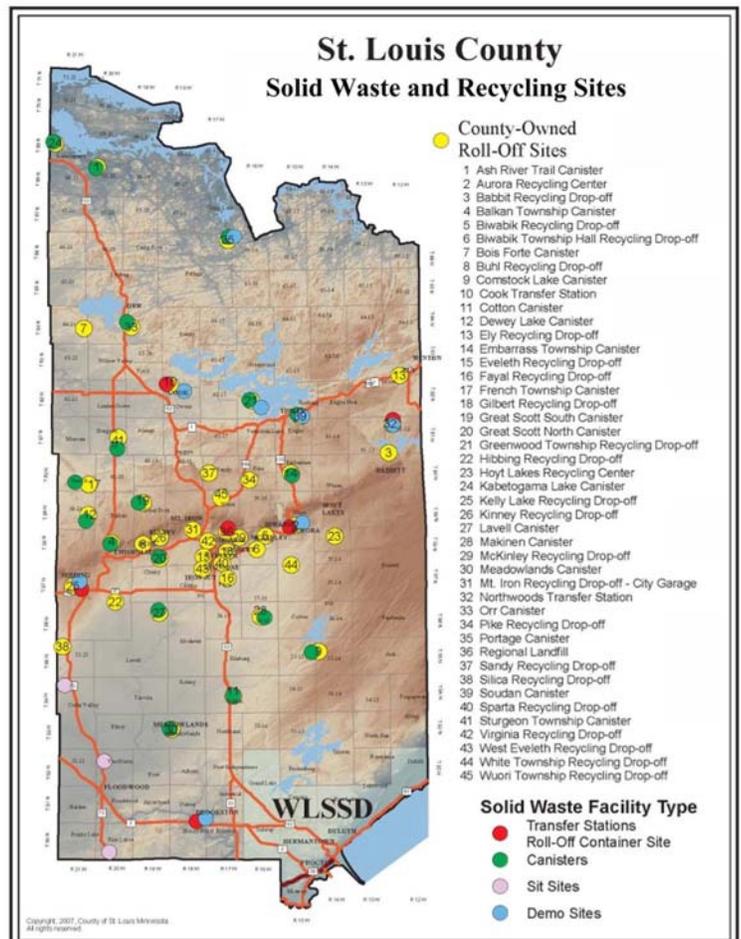


WHO ARE WE? (continued)

OUR BUSINESS:

The St. Louis County Solid Waste Department provides waste management programs. Our Solid Waste Management Area (SWMA) includes all areas of the County outside of Duluth and surrounding communities. We do this for the following waste streams with the described programs:

- **Municipal Solid Waste (MSW) consists of household and commercial garbage.**
 - We own and operate a network of disposal sites consisting of 20 canister sites, 5 transfer stations and the Regional Landfill which serve individuals and municipal and private MSW haulers.
- **Demolition waste**
 - We provide disposal opportunities for building construction and demolition debris at 10 facilities including two demolition landfills.
- **Recyclable materials and special wastes**
 - We provide recycling drop off opportunities at 47 locations.
 - We accept recyclables from 5 municipal curbside collection programs including, Cook, Eveleth, Hibbing, Mt. Iron and Virginia.
 - We own and contract for operations of a recycling processing facility.
 - We provide opportunities for recycling scrap metal, antifreeze, appliances, lead acid batteries, waste tires, waste oil, oil filters, fluorescent tubes, mattresses and video display devices throughout our SWMA.
 - We provide and manage yard waste disposal at seven sites.
 - We provide and manage disposal of brush and branches at 10 sites.
- **Household Hazardous Waste (HHW) and Minimal Quantity Generator (MQG) Hazardous Wastes**
 - We accept hazardous wastes free of charge from households at two permanent facilities located at the Regional Landfill near Virginia, and at the Hibbing Transfer Station.
 - We provide 16 free remote HHW collections throughout our SWMA during the summer months.
 - We serve as a collection point for Minimal Quantity Generator businesses at market cost.
 - We contract for collection events for Very Small Quantity Generator businesses.
- **Enforcement**
 - We oversee Solid Waste



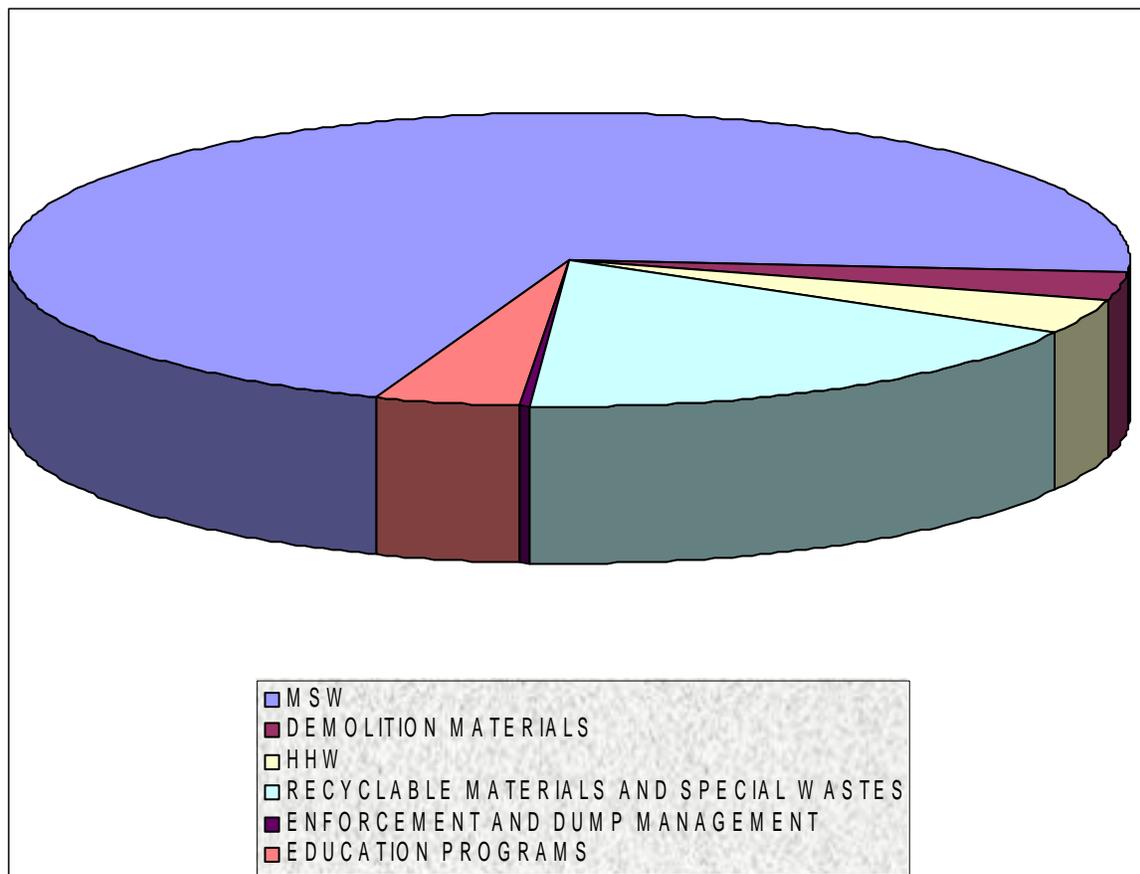


WHO ARE WE? (continued)

Ordinance 45 which includes authority for licensing waste haulers and private disposal facilities, and for encouraging proper waste disposal activities.

- We coordinate with the County Sheriff and Land Department to investigate complaints of illegal storage and disposal and with the Deputy County Attorney to take any needed legal action.
- **Education Programs**
 - We provide public information on our programs and services through the use of flyers, brochures, a county fair booth, and paid advertising in 16 local newspapers throughout our SWMA.
 - We coordinate education efforts with the Minnesota Pollution Control Agency, the other six counties and the Western Lake Superior Sanitary District in our region.
 - We offer an annual opportunity for SWMA residents to purchase backyard compost bins.
 - We provide technical and grant assistance to local units of government to facilitate recycling and proper waste management.

ALLOCATION OF FUNDS

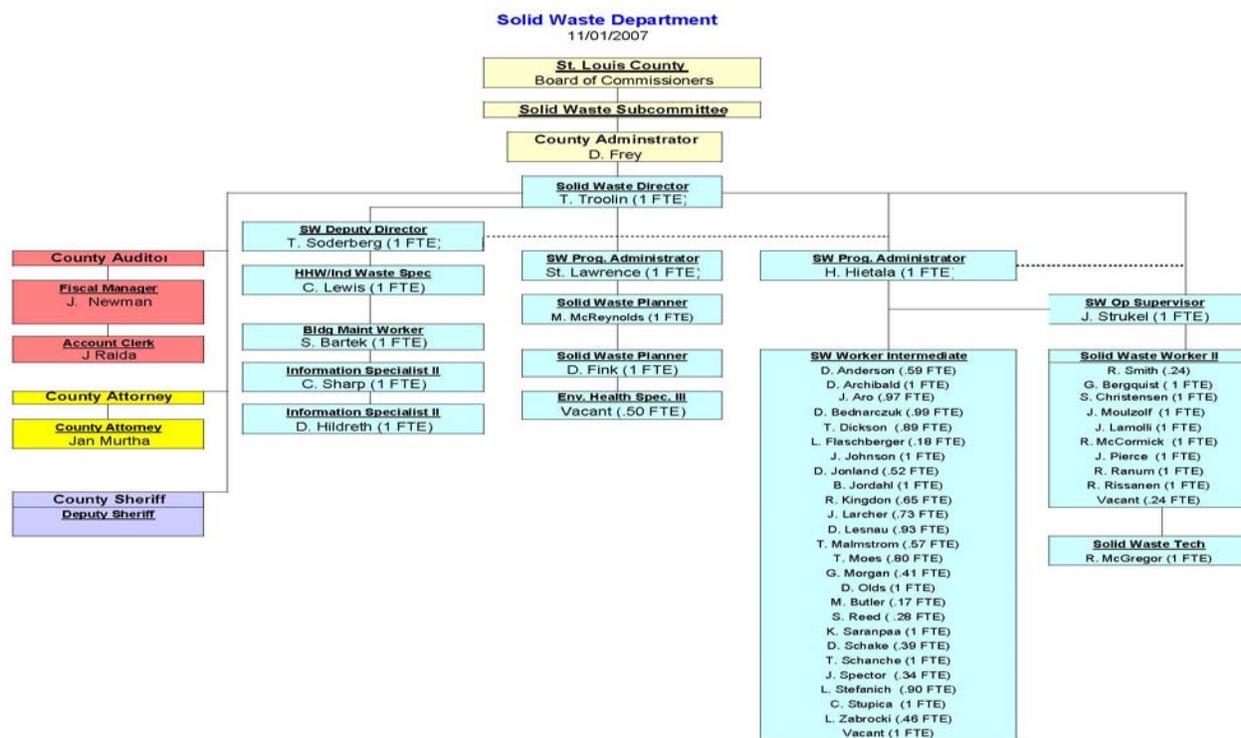




WHO ARE WE? (continued)

ORGANIZATION CHART

The Solid Waste Department currently operates with 48 part-time and full-time employees equaling 40 FTEs, and with the cooperation of personnel from the County Sheriff, County Attorney, County Auditor, Purchasing and MIS Departments.



SIGNIFICANT TRENDS AND CHANGES

Within our SWMA we anticipate a significant growth in industrial development during the next decade. Several major projects are currently well into development including existing mine expansions, new ferrous and non-ferrous mining and processing plant construction activities, and energy plant projects. There will be anticipated growth of 6,000 to 9,000 construction jobs and approximately 1,400 permanent positions for these jobs, plus unknown others for related service businesses. This development will bring associated demographic changes.

The Department also recognizes other external factors including:

- Ongoing increases in per-capita waste generation;
- Increased demand for solid waste management services and programs;
- Upcoming changes in State disposal facility requirements making disposal facility construction more costly;
- Ongoing State mandates requiring special management for various waste streams;
- Significant increases in fuel costs which necessitate elevated expenditures for operations and haulage contracts; and
- Strain on local units of government to continue level of funding for existing waste management programs.



WHO ARE WE? (continued)

The Solid Waste Department has an established network of facilities which need ongoing upgrades. The pressure of increased usage will require major modifications at some locations. These may include expansion at two transfer stations and installation of improved scale equipment. The Department is scheduling additional compactor installation at canister sites to respond to escalating customer use.

Other internal factors that affect our future include:

- An experienced and invested work force and increased ability to complete projects in-house;
- Key staff approaching age of possible retirement;
- Good cooperative relationship with other county departments and local and state government agencies; and
- Strong support of the County Board's Solid Waste Subcommittee.



Top: Hibbing Demolition Landfill. Middle: Cathode Ray Tube recycling collection; Burn Barrel billboard; Hibbing Transfer Station. Bottom: Illegal disposal on County land; Installation of waste compactor at French Canister Site.



WHAT DO WE WANT TO ACHIEVE?

VISION FOR THE SOLID WASTE DEPARTMENT

Recognizing the trends and changes that will effect solid waste management in our area, the Department envisions improvements to programs and expanded partnerships to foster a sustainable waste management system. These include:

- Partnerships to recover energy and materials from waste;
- Improved recycling programs with County facilities and throughout our SWMA;
- Ongoing improvements to special waste (appliances, tires, waste oil, etc.) programs;
- Expanded diversion of MSW and demolition wastes through reuse and composting;
- Facilitating a County Environmentally Preferable Purchasing Program to reduce waste generation and toxicity at County facilities;
- Continued successful operation of Regional Landfill and upstream MSW facilities;
- Efficient collaboration in environmental enforcement activities;
- A cost-effective haulage system; and
- Expanded public education and information programs.

Commissioner Priority Area (1-5)	Department Goal	Related Department Objective(s)	Tactics, Initiatives, Action Steps	Measures (KPIs or internal measures)
Health and Well-being of County Citizens	Increase customers using the hazardous waste program	Increase public education efforts	Advertising	Annual tonnage and participant reports
	Provide quality customer service	Reduce illegal disposal	Training programs Succession planning	Reduced need for enforcement actions
Strong County Infrastructure	Maintain recycling levels at or above 50% of the total waste stream.	Maintain or increase state SCORE* funding levels	Public education Support local collection efforts	Annual tonnage reports
	Extend the life of the Regional Landfill by reducing annual tonnages	Increase diversion through reuse, composting and recovery	Increased review of resource recovery options	Utilize consultant services
	Reduce accounts receivable and increase collection of unpaid fees	Increase use of personal check, credit and purchasing card and Solid Waste coupons	Advertising Recruit new coupon sales vendors	
Healthy, Viable Ecosystem	Increase customers using the hazardous waste program	Increase number of households utilizing remote collections	Advertising	Annual tonnage and participant reports
	Reduce the amount of problem materials in the waste stream	Increase public awareness of disposal options	Public information Enforcement activities	Decrease calls to investigate illegal dumping
	Increase the tonnage processed and recycled at the County Recycling Facility	Reduce landfill use	Public information Support local collection efforts	Monthly reports
	Maintain recycling levels at or above 50% of the total waste stream.	Protect groundwater, produce less landfill gas	Maintain reporting levels Public information	Annual reports
	Extend the life of the Regional Landfill by reducing annual tonnages	Protect groundwater, produce less landfill gas	Increase waste reduction education efforts	Annual reports
Healthy local economy	Increase the tonnage processed and recycled at the County Recycling Facility	Support public/private partnership with contractor	Public information	Monthly reports
Efficient, Effective Government	Reduce the amount of problem materials in the waste stream	Provide convenient low-cost disposal options	Customer service Public information	Reduced need for enforcement actions
	Reduce accounts receivable and increase collection of unpaid fees	Provide convenient payment options		

*Select Committee on Recycling and the Environment



WHAT DO WE WANT TO ACHIEVE? (continued)

MAJOR ISSUES AND RECOMMENDED SOLUTIONS

Issue: Need to continue successful expansion of Regional Landfill

Solutions:

- Ongoing successful relationship with landfill operations contractor.
- Develop and close landfill cells in a timely fashion, including construction planned for 2008 and 2011 and closure activities in 2010 and 2012.
- Secure adjacent properties for landfill expansion
- Ongoing successful regulatory compliance and relationship with Minnesota Pollution Control Agency

Issue: Need to increase waste resource recovery and minimize land disposal

Solutions:

- Explore and where feasible develop landfill gas to energy options
- Review potential waste to energy partnerships with local and regional utilities
- Follow and where feasible develop alternative waste conversion technologies
- Explore other options for waste processing prior to disposal

Issue: Need to improve County recycling programs

Solutions:

- Develop long term recyclables haulage and processing contract
- Aggressive recyclables marketing strategy
- Take steps to improve recycling haulage tonnages
- Consider opportunities for recycling new materials
- Upgrade support for city recycling programs

Issue: Need to improve County demolition waste management programs

Solutions:

- Partner with other jurisdictions on demolition recycling programs
- Secure long-term demolition waste disposal capacity at either county or private facilities
- Work with area utilities to explore options for energy recovery from demolition waste
- Encourage building deconstruction for materials reuse and recycling

Issue: Desirability of developing multi-county regional solutions to waste management problems

Solutions:

- Continue working with North East Waste Advisory Commission
- Conduct evaluation of joint project between County and Western Lake Superior Sanitary District

Issue: Need to improve waste reduction programs

Solutions:

- Partner with other County Departments on overall reduction programs
- Develop a one-time grant program to encourage improved reduction and recycling activities by local units of government
- Ongoing technical assistance to local businesses and government

Issue: Need to continue successful environmental enforcement programs

Solutions:

- Continued cooperation with County Attorney and County Sheriff
- Partnership with other County Departments on illegal dump cleanup on all County Lands
- Ongoing education on proper disposal
- Develop improved relationships with local units of government on joint enforcement

Issue: Need for innovative solutions to address rising fuel costs

Solutions:

- Increase use of waste compactors where feasible
- Pursue opportunities for local reuse of materials to avoid need for haulage
- Conduct evaluation of individual haulage programs to encourage efficiencies
- Purchase more fuel efficient vehicles where feasible



WHAT RESOURCES ARE WE GOING TO USE?

SOLID WASTE DEPARTMENT RESOURCES

FINANCE PLAN

The Solid Waste Department operates through an enterprise fund. Programs and services are financed through the Solid Waste Service Fee placed on all improved properties within the SWMA, and through tipping fees placed on disposal of MSW and demolition wastes, and other revenues including materials market revenue and state grants.

CONTINGENCY PLAN

Solid waste management facilities are required to have a contingency action plan and provide financial assurance. The Department's financial assurance requirements for the Regional Landfill have been accumulated and are held in a special reserve fund that both the MPCA and St. Louis County must approve disbursement for closure, post closure, and contingency actions. Fires, theft and accidents are covered under through the County's self-insurance policies and paid from Department reserves.

WORKFORCE PLAN

Resources used:

- The Department anticipates meeting needs with current workforce level.
- The Department needs to upgrade certain staff positions to reflect ongoing mission challenges, foster retention, and retain its investment in current employees.
- The Department needs to upgrade training programs to stay current on technological and regulatory changes.

Gaps and surpluses:

- The Department intends to continue to utilize private service providers where appropriate.
- The Department projects no gaps for County staff that will have a critical impact on the organization's goals.

Other Issues:

- The Department intends to continue to encourage and support diversity in its workforce.
- While the Department anticipates minimal retirement-based turnover in the next budget cycle, more significant turnover is expected in the next five to ten years and the Department will need to plan for this.

TECHNOLOGY PLAN

INTER-DEPARTMENT SERVICES

The Department utilizes the services of the Management Information System (MIS) Department to cover the support of core Department computing and telecommunication services as well as the computerized Landfill Management System (LMS).

The LMS program records relevant data from every customer transaction at the Regional Landfill and the five transfer stations. This data includes the waste type, quantity, tipping fee, taxes, total cost, date, and time of each transaction. This information is essential for the Department's reporting needs.

All PC support is provided through the MIS Help Desk accessible by all employees. This support covers the LMS at the six weigh scale sites, the main office, and overall telecommunications support.

Since 2005, the Solid Waste Department has prepared and submitted an annual list of services needed from MIS during the upcoming three year period. This list of "Tactical Deliverables" is prepared with the assistance of MIS personnel to assure use of the latest technologies and compatibility with the County database system.

The Department, with assistance from MIS, will continue to maintain and enhance the LMS program. Plans are in place to have the Regional Landfill and five transfer stations updated with a web based LMS application.

Personal computers are replaced approximately every four or five years in the main office, and every three to four years at the LMS sites. The PC's at the LMS sites are replaced more frequently because of the



WHAT RESOURCES ARE WE GOING TO USE? (continued)

more demanding conditions at weigh scale sites.

Staff will continue to monitor technology changes and work with MIS and other departments to ensure use of the latest technologies in the most cost effective and efficient manner.

Currently, the department utilizes computer course offerings through the County's Employee Safety and Development Department. LMS training for Solid Waste Workers is accomplished through on the job training. Other specific computer training is provided on an as needed basis.

An Environmental Liability Fund is also managed by the County Auditor as part of the Department's Fund Balance.

EXTERNAL TECHNOLOGY NETWORKS

The Department accepts credit card payments for solid waste tipping fees at all of the LMS sites and for solid waste purchasing cards and compost bin sales at the mail office. The equipment utilized for this is purchased and serviced through Nova Networks Merchant Connect.

PURCHASING PLAN

Major purchases within the 2008-2010 budget cycle include the following:

Bids through County Purchasing Department

- Landfill construction during 2008
- Landfill gas collection system during 2009
- Vehicles - 1 during 2009 and 1 during 2010
- Transfer trailers - 1 during 2009 and 1 during 2010
- Landfill road pavement during 2010
- Landfill cell closure during 2010

MIS assisted

- Computers - six PC systems for computerized solid waste sites during 2008

In-house purchase/bid under authority of §383C.807

- Skid Steer Loaders - 1 during 2008, 1 during 2009, 1 during 2010
- Fork lift - 1 during 2008
- Demo haulage boxes - 2 during 2008, 2 during 2009, 2 during 2010
- HazStor structure- 1 during 2008
- Waste compactor - 1 during 2009

SPACE PLAN

The main offices for the Solid Waste Department are in Suite 115 of the Northland Office Building, Virginia. The 1,850 square foot space houses 10 staff members, records and supply storage. The Department also has a small conference/storage room, and a small storage space elsewhere in the building. There are no foreseen changes in administrative staff space needs.

Waste management buildings include:

- Attendants shacks at 18 sites.
- Garage/office at 2 sites
- Household Hazardous Waste Facilities at the Regional Landfill near Virginia, and the Hibbing Transfer Station.
- Two hazardous waste storage containers
- Four 1-bay transfer facilities (Aurora, Cook, Brookston and Ely.)
- One 6-bay transfer facility (Hibbing)
- Two 2,400 s.f. cold storage buildings
- 18,630 square foot recycling processing facility
- Leachate pond blower building

Currently the Department has plans within the next 10 years to construct an office facility at the Regional Landfill which would house administrative staff, records and supply storage, and meeting and training space.



2008 - 2010 Solid Waste Department Budget

	2008	2009	2010
<u>MUNICIPAL SOLID WASTE (MSW)</u>			
Regional Landfill (RLF) Capital	\$ 1,085,569.	\$ 273,745	\$1,356,504
Landfill Operations	\$ 708,665.	\$ 1,049,956	\$ 784,709
Transfer Station Capital	\$ 272,009.	\$ 171,472	\$ 220,206
Transfer Station Operations	\$ 1,386,848.	\$ 1,582,244	\$1,334,453
Canister Site Capital	\$ 10,927.	\$ 54,510	\$ 23,186
Canister Site Operations	\$ 631,625.	\$ 599,961	\$ 637,656
Haulage Contracts	\$ 382,510.	\$ 386,335	\$ 397,927
Operations Administration	\$ 1,587,573.	\$ 1,897,882	\$2,093,056
MSW Processing Capital	\$ 51,500.	\$ 53,045	\$ -
TOTAL MSW EXPENDITURES	\$ 6,117,226.	\$ 6,069,150	\$6,847,697
MSW REVENUE (Tipping fess, Service Fees and Landfill Fund)	\$ 6,220,263	\$ 6,175,493	\$ 6,959,955
<u>DEMOLITION PROGRAMS</u>			
Demolition Landfill Capital	\$ 54,636	\$ 69,255	\$ 61,000
Demolition Transfer/Processing Capital	\$ 53,086	\$ 13,476	\$ 2,319
Demolition Operations	\$ 23,315	\$ 49,766	\$ 70,939
Demolition Haulage	\$ 134,000	\$ 135,846	\$ 140,000
TOTAL DEMOLITION MATERIALS EXPENDITURES	\$ 265,037	\$ 268,343	\$ 274,258
DEMOLITION MATERIALS REVENUE (Tipping fees)	\$ 162,000	\$ 162,000	\$ 162,000
<u>HOUSEHOLD HAZARDOUS WASTE (HHW)</u>			
HHW Capital and non-typical	\$ 17,500	\$ 8,000	\$ 23,185
HHW Operations	\$ 303,103	\$ 323,328	\$ 317,416
TOTAL HHW EXPENDITURES	\$ 320,603	\$ 331,328	\$ 340,601
HHW REVENUE	\$ 320,603	\$ 331,328	\$ 340,601
<u>RECYCLABLE MATERIALS AND SPECIAL WASTES</u>			
Recycling Facility and Equipment	\$ 51,284	\$ 50,450	\$ 21,438
Special Waste Programs Capital	\$ 16,000	\$ -	\$ -
Recyclable Materials and Special Waste Programs Operations	\$ 1,459,795	\$ 1,511,891	\$1,578,726
TOTAL RECYCLABLE MATERIALS AND SPECIAL WASTES EXPENDITURES	\$ 1,527,079	\$ 1,562,343	\$1,600,164
TOTAL RECYCLABLE MATERIALS AND SPECIAL WASTES REVENUE	\$ 1,527,079	\$ 1,562,343	\$1,600,164
<u>ENFORCEMENT AND DUMP MANAGEMENT</u>			
Capital and Clean-up	\$ 12,530	\$ 6,530	\$ 6,572
Enforcement and Dump Management Program Operations	\$ 27,470	\$ 34,970	\$ 36,428
TOTAL ENFORCEMENT AND DUMP MANAGEMENT EXPENDITURES	\$ 40,000	\$ 41,500	\$ 43,000
ENFORCEMENT AND DUMP MANAGEMENT REVENUE (Service Fees)	\$ 40,000	\$ 41,500	\$ 43,000
<u>EDUCATION PROGRAMS</u>			
Materials, Advertising, Grants to LUGs in 2008	\$ 211,600	\$ 37,000	\$ 38,500
Education Programs Operation	\$ 140,000	\$ 140,000	\$ 140,000
TOTAL EDUCATION PROGRAMS EXPENDITURES	\$ 351,600	\$ 177,000	\$ 178,500
TOTAL EDUCATION PROGRAMS REVENUE	\$ 351,600	\$ 177,000	\$ 178,500
Total Expenditures	\$ 8,621,545	\$ 8,449,664	\$ 9,284,220
Total Revenue	\$ 8,621,545	\$ 8,449,664	\$ 9,284,220

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November 9, 2007