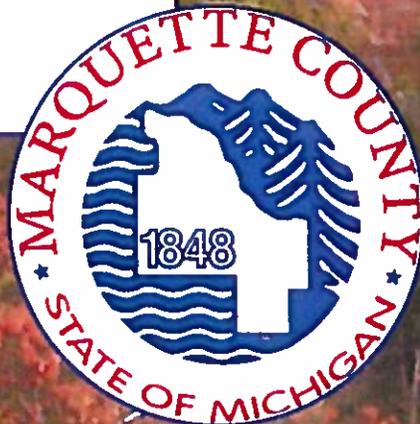
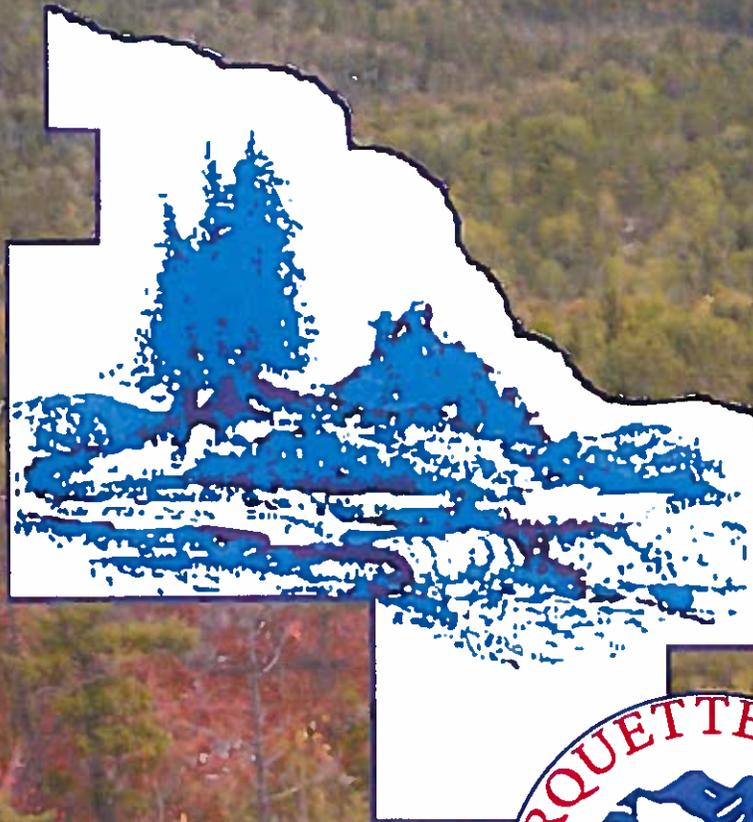
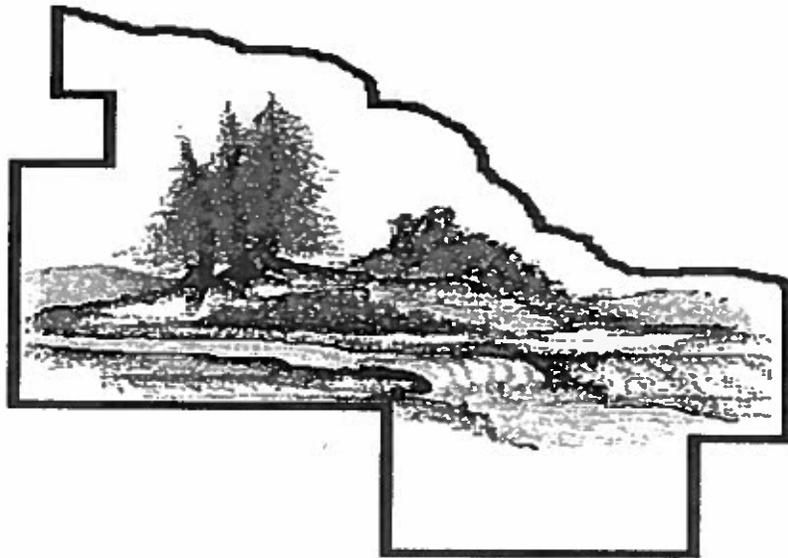


# 2014 Annual Report of the Marquette County Solid Waste Management Authority



# MARQUETTE COUNTY SOLID WASTE MANAGEMENT AUTHORITY



## Mission Statement

*To operate the landfill at the least financial cost while operating the landfill in an environmentally sound manner. The Authority shall concentrate its efforts on a cost efficient landfill operation while attempting to implement resource recovery projects and diverting hazardous waste from disposal in the landfill. The Marquette County Solid Waste Management Authority shall set solid waste management policy and solid waste system implementation in consultation with the Marquette County Board of Commissioners and the Marquette County Planning Commission.*

MARQUETTE COUNTY SOLID WASTE MANAGEMENT  
 AUTHORITY  
 2014  
 BOARD OF TRUSTEES,  
 EXECUTIVE DIRECTOR  
 &  
 AUTHORITY STAFF

Board of Trustees

Randall Yelle, Chairperson  
 Jorma Lankinen, Vice-Chair  
 Amy Manning, Treasurer  
 Deborah Pellow, Secretary  
 Fred Benzie  
 Carr Baldwin  
 Dennis Honch

Appointed by

Sands Township  
 Marquette County  
 City of Marquette  
 Marquette County  
 City of Marquette  
 Marquette County  
 Board of Trustees

Executive Director

Richard Aho

Authority Staff

Landfill Supervisor  
 Clerk  
 Scale Operator/Office Manager  
 Mechanic/Operator 3.5 Teamleader/Freon  
 Extraction/Facility Electrical Maint  
 Tech I & Crane Operator  
 Labor/Operator III  
 Labor/Operator III /HHW Tech/  
 Biological Treatment 2.5/Groundwater  
 Operations Technician II/Crane Op Trainee  
 Electrician  
 Mechanic/Operator II  
 Labor/Operator I  
 Labor/Operator I/Bio-treatment trainee  
 Labor/Operator I/Bio-treatment trainee  
 Labor/Operator I/Maint Tech/Recycling Tech I  
 Labor/Operator I/Maint Trainee

Brad Austin  
 Sue Eggleston  
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 Kyle Mackey  
 Bob Holmes  
  
 Justin Eyler  
 Josh Wales  
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 Ben Koepp  
 Bobby Wales  
 Joe Nowicki  
 Shane Spencer  
 Brian Schuhmacher  
 Dan Vrieland

## THE AUTHORITY

### Origin

The Authority was established in 1988; at that time unlicensed and unlined landfills dominated the Upper Peninsula. State efforts to close these landfills prompted local communities to cooperatively develop state of the art waste management systems. All of Marquette County's 22 constituent municipalities are now members of the Authority. The Authority operates under terms specified in an *Intergovernmental Agreement* and its bylaws. The landfill opened for business in late December 1989 and a total of 1,411,229.48 tons of waste has been placed in the landfill through December 31, 2014.

### Board of Trustees

A Board of Trustees governs the Authority. The Board is comprised of seven members. Appointments to the Authority are made by: the Marquette County Board of Commissioners (3), City of Marquette (2), Sands Township (1), and the Board of Trustees (1)-must be a resident of the City of Marquette. Board members have strong backgrounds in engineering, business, education and government. The Board meets once a month.

Past members of the Board of Trustees are as follows:

Earl Yelle	Ed Kinkella	Dawson Carriere
Joe Constance	Loretta Acocks	Tom Knauss
Gary Walker	Robert Clark	George Collins
Tom Griffith	James Kizer	Leonard Parker
Dave Kallio	Donald Wickstrom	Michael Twohey
Edward J. Keto	L. Stan Walker	William Gordon
Donald Potvin	James Hartwig	Ivan Fende
Judith Mattord	Robert Berube II	Rickey Wilson
Gail Griffith	Richard Hendricksen	John Marshall
Sam Elder	Leighton Carlisle III	Rob Schmeling II
Larry Arsenault		

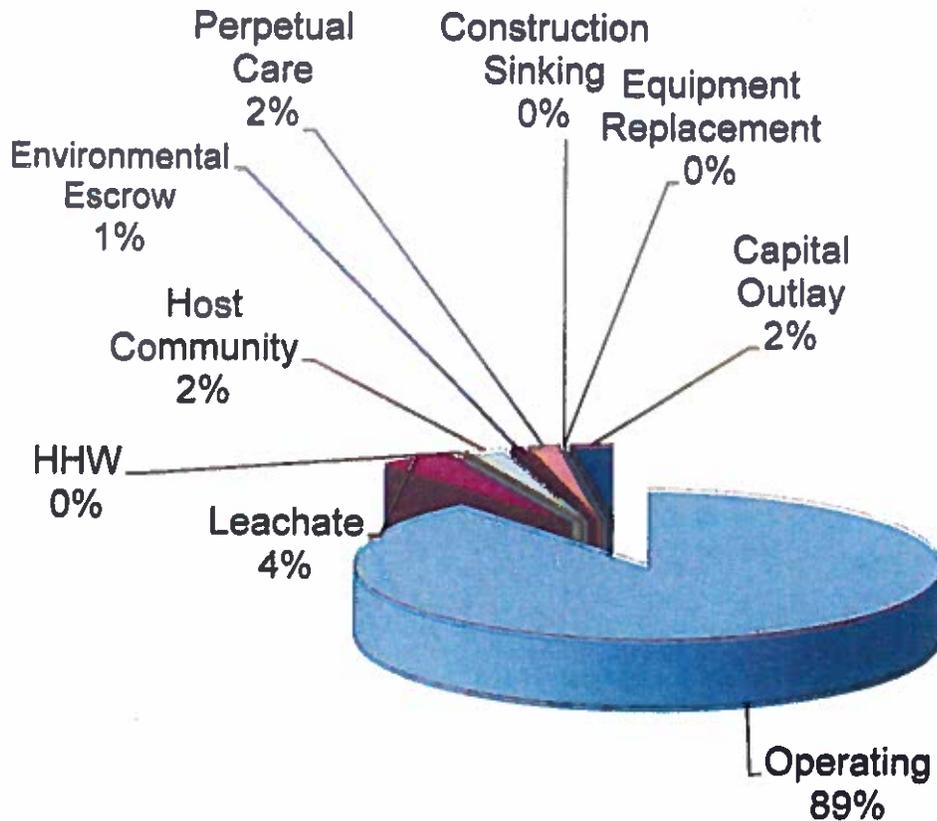
### Budget and Finance

Tipping fees had not been increased for the past 22 years due to improved efficiency in Authority operations. The current plan of financing is being evaluated.

Budgeted FY 2014-2015 tipping fees are presented in Table 1.

**TABLE 1. TIPPING FEE BUDGET FY 2014-2015**

Tipping Fee Components	Budget	Cost/Ton
Operating Expenses	\$2,231,000	\$38.47
Leachate Expense	\$102,000	\$1.76
Household Hazardous Waste	\$0.00	\$0.00
Host Community Fee	\$58,000	\$1.00
Environmental Escrow Fund	\$14,500	\$0.25
Perpetual Care Fund	\$43,500	\$0.75
Construction Sinking Fund	\$0.00	\$0.00
Equipment Replacement	\$0.00	\$0.00
Capital Outlay	\$58,000	\$1.00
Past Year Deferral	(278,000)	(\$4.80)
Total:	\$2,229,000	\$38.43



- Annual tonnage, fees, special/surcharges and amounts of contaminated soils from each user municipality are presented in Table 2.

**TABLE 2. 2014 TONNAGE, REVENUES & CONTAMINATED SOIL BY MUNICIPALITY**

Municipality	Tonnage	\$Fee	\$Special/ Surcharge	Contaminated Soil Tonnage
*City of Marquette	39,725.13	\$1,578,163.17	\$33,705.45	
City of Negaunee	2,570.56	\$107,606.04	\$1,505.96	
*City of Ishpeming	5,395.50	\$242,458.58	\$8,908.49	
Champion Township	11.24	\$648.81		
*Chocolay Township	2,273.55	\$100,273.93	\$295.00	
Ely Township	45.09	\$3,345.80		
Ewing Township	39.05	\$1,505.75		
Forsyth Township	4,499.46	\$183,673.20	\$2,185.00	
Humboldt Township	994.84	\$39,931.59	\$1,245.00	
Ishpeming Township	470.20	\$26,391.52	\$3,506.40	
Marquette Township	3,166.66	\$134,320.70	\$3,833.50	
Michigamme Township	394.28	\$16,049.92	\$500.00	
Negaunee Township	1,764.62	\$80,511.53	\$689.60	
Powell Township	400.17	\$16,877.68	\$75.80	
Republic Township	522.97	\$21,372.80	\$220.00	
Richmond Township	1,324.47	\$64,271.05	\$5,226.00	
Sands Township	1,058.51	\$42,608.27	\$40.00	
Skandia Township	31.90	\$1,830.50		
Skandia/West Branch	458.97	\$17,766.34	\$65.00	
*Tilden Township	937.43	\$53,402.46	\$16,623.30	
Turin Township	73.11	\$3,088.48		
Wells Township				
West Branch Township	200.66	\$8,499.47		
*West Transfer Station	3,281.60	\$127,799.51	\$330.00	
Marquette County Road Commission	20.30	\$832.30	\$20.00	
KI Conversion Authority	7.84	\$301.85		
<b>TOTAL:</b>	<b>69,668.11</b>	<b>\$2,873,531.25</b>	<b>\$78,974.50</b>	<b>0</b>

\*Municipality's totals include another municipality(s)' tonnage



The Authority has several dedicated accounts that provide for future expenses, ensure adequate funding in case of an emergency and provide economic and environmental stability to the organization. Some of these funds are required by statute. Year-end fund balances in these accounts for 2013 and 2014 are presented in Table 3.

**TABLE 3. AUTHORITY FUND BALANCES YEAR END 2013 and 2014**

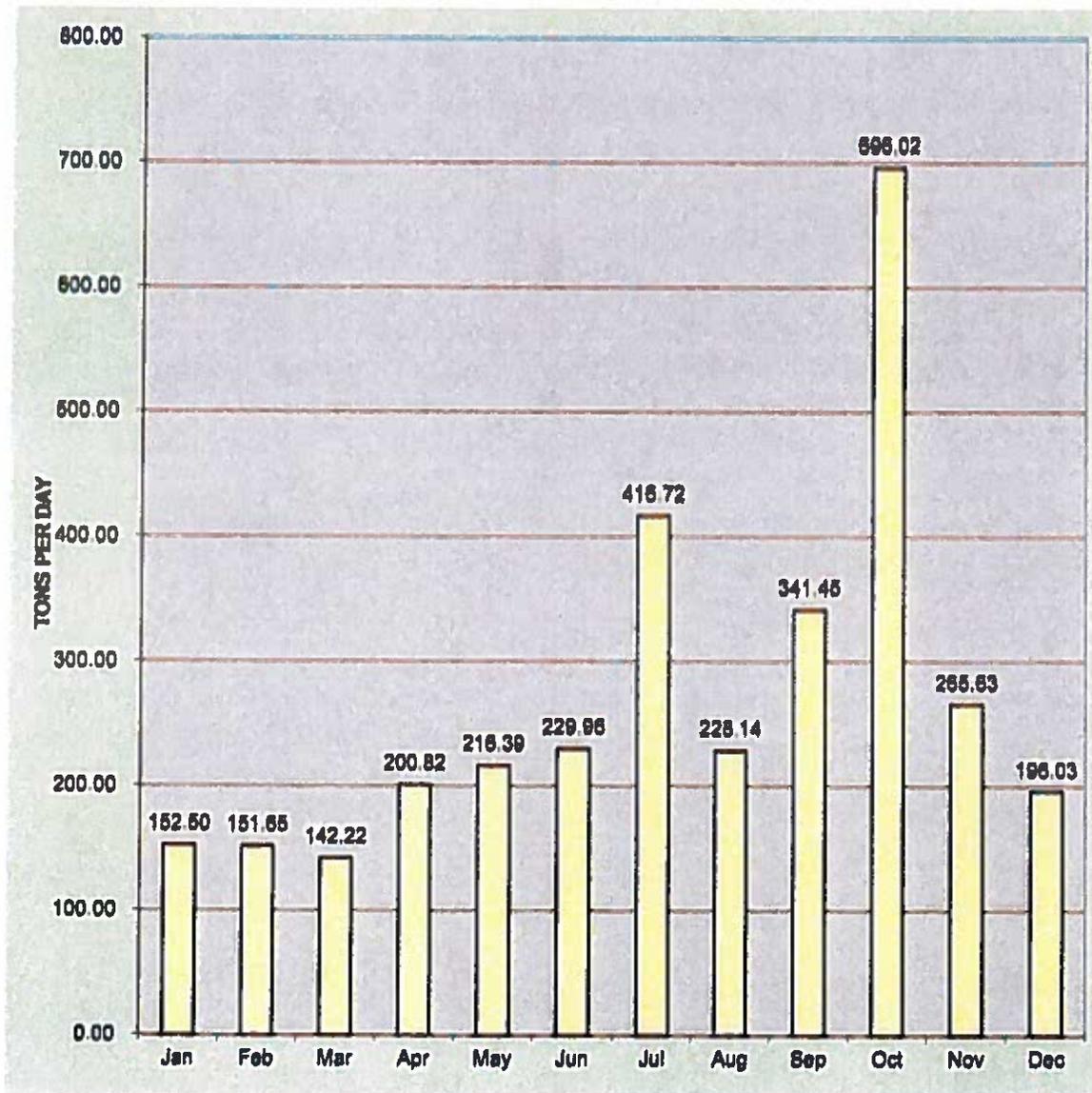
<b>Fund</b>	<b>December 2013 Balance</b>	<b>December 2014 Balance</b>
Construction Sinking	\$827,961	\$572,794
General Cash Account	(\$127,271)	(\$15,220)
Equipment Replacement	\$2,065,445	\$976,637
Contaminated Soil	\$1,243,275	\$867,980
*Perpetual Care	\$1,497,523	\$1,642,441
Environmental Escrow	\$490,034	\$545,746
Household Hazardous Waste	\$212,150	\$180,260
Capital Outlay	\$68,528	\$86,538
Sick Accrual	\$87,624	\$94,408
Host Community	\$26,207	\$44,397
Payroll Checking Account	\$15,633	\$69,517
Petty Cash	\$200	\$200
Recycling (x-fer station)	-0-	\$285,970
<b>Total:</b>	<b>\$6,407,309</b>	<b>\$5,351,667</b>

\*State mandated fund in restricted trust.

## OPERATIONS

### Tonnage

A total of 53,179.17 of Type II and III waste were processed at the facility during Fiscal Year 2013-14. During calendar year 2014, a total of 69,668.11 tons of Type II and III waste was land-filled. The most tonnage received on any single day occurred on October 14, 2014 with 1,497.83 tons land-filled. The average daily tonnage for 2014 was 274.28 tons versus 209.14 in 2013. Forty-six percent of the material the landfill received was Type II material (household waste) and 54 percent was Type III material (bulky construction debris). The average daily tonnage in months during 2014 is presented in Figure 2.



**FIGURE 2. AVERAGE DAILY TONNAGE BY MONTH: 2014**

### Website

The Authority has a main website to increase communication with our constituents and we continue to improve it. The site provides answers to frequently asked questions. It also contains schedules, fees, general information, links and other pertinent information. It can be found at [www.mcswma.com](http://www.mcswma.com).

### Leachate

Leachate is the water that enters the waste pile and is contaminated by the waste. Leachate must be collected and treated before it can be released to the environment. The Authority treated and discharged about 11 million gallons of leachate in 2014. Trucking the leachate to a waste treatment facility and treating it is a very expensive process.

### Construction

The Authority continued to perform significant construction of roads and other routine projects with its own employees, equipment, and engineering.

### Construction of Facility Access

The Authority continued to perform significant construction with its own employees and equipment. The access into the landfill and the gate area are major projects as is the completion of Cell 3. Cell construction requires rock ripping and the final grades being built into the geologic features of the site. The liner was installed and sand placed on the drainage system. The continued use of Authority manpower and equipment minimized expenses during construction.

### Mobile Equipment Purchases

The acquisition of additional mobile equipment increased our efficiency and will impact on our long-term costs. Purchasing of quality equipment at bargain prices assists the Authority in its efforts to avoid increases in the tipping fee. Items acquired include:

2015 Silverado	Peterbilt
Lead trailer	Pup
Separator	Terex Skidster
Cat 330D Excavator	

## Tires

The Authority processed 7,883 tires in 2014, providing an inexpensive outlet for discarded tires in the community. The program helps keep tires out of the woods and the shredded tires are used for daily cover and roads. The rate of \$1.00 per car tire charged by the Authority is the lowest in Marquette County.

## RESOURCE RECOVERY

The Authority continues to serve as an information center, answering questions from the public while working with the public schools and Northern Michigan University to promote public awareness, educational programs, household hazardous waste diversion and recycling. The Authority will continue to promote recycling as a cost effective option to landfilling.

As time permits we will continue to expand our recycling program to better serve our constituents.

The shingle recycling program was a success with the vast majority of the shingles produced in Marquette County being diverted from the general waste stream. The Authority spent significant time and effort to develop a positive relationship with the customers. The customers appreciated the effort to minimize any negative aspects of the system that were inherent to the operations at the work site and at the Authority facility.

The sharps recovery program continues to be a great success as it cost effectively diverts medical waste away from our employees, haulers, and the general public.

The Household Hazardous Waste (HHW) Collection Program has two collection sites throughout Marquette County: West End Transfer Station (*north side of US 41 west of Ishpeming*) and the Marquette Service Center (*850 W. Baraga Ave, Marquette*). The HHW collections were held from May through October in 2014. Table 4 summarizes total HHW collected in 2014 versus 2013.

**TABLE 4. HHW COLLECTED DURING 2013 AND 2014**

<b>Item</b>	<b>2013 Collection</b>	<b>2014 Collection</b>
General HHW	7,131 pounds	16,067 pounds
Car Batteries	88 each	71 each
Motor Oil	2,710 gallons	2,805 gallons
Antifreeze	275 gallons	450 gallons
Oil Filters	1,200 pounds	1,380 pounds
Mercury	51 pounds	54 pounds
Pesticides	1,395 pounds	2,326 pounds
Fluorescent Bulbs		4,662 each
<b>Total Deliveries</b>	<b>701</b>	<b>888</b>

(Aerosols are not included)

Waste Oil collected at the HHW sites is used to heat landfill facilities. The Authority initiated its HHW program from a grant it received in 1991. The Authority now funds all costs except collection staffing. The cost of staffing HHW sites is financed by a surcharge on municipalities that are not directly providing staffing of a HHW collection. A ten-year grant to the Authority in 2000 from the Michigan Department of Agriculture is partially funding disposal of pesticides, herbicides and elemental mercury. This grant does not require matching local funding or continuation of the project after the grant money is depleted. The Authority does, however, hope to continue with these programs after the grant agreement has expired. As of this writing the grant was to continue as the EPA funding was being supplied to the Michigan Department of Agriculture.

The Authority has been working on diverting fluorescent lights and the associated mercury from the landfill. The Authority is focusing on the diversion of pesticides, mercury and oil based paint from the waste stream that goes in to the landfill. These materials are the biggest treatment, contamination and regulatory problems that the Authority is currently facing. We have been assisting Conditionally Exempt Small Quantity Generators with the optimum disposal of waste materials that we don't want in the landfill. These small producers are not obligated to divert materials such as fluorescent bulbs from the landfill but do so because they can with the Authority's assistance.

## Highlights for 2014

The Authority has improved efficiency in its recycling program. We have focused on education of our program. In addition, equipment upgrades have increased production of recyclable materials.

We started the process of implementing a new leachate treatment system. The new system will reduce energy costs and allow the Authority to allocate a significant number of labor hours to other critical landfill tasks.

We evaluated our current operational status and began focusing our efforts on projects that will save the Authority money.

## **Summary**

*The Marquette County Solid Waste Management Authority (Landfill) continues to be a well-managed waste system designed to serve its constituents' needs well into the future. The Authority operates a state of the art landfill that is environmentally and fiscally sound, and the site has a projected capacity of 60+ years.*

Current funding levels are being assessed to determine if they are adequate to support costs of future cell construction, equipment replacement, and cell closure. Improvements in operational efficiency and leachate treatment have offset other cost increases. The landfill continues to provide its constituents with cost effective, environmentally sound solid waste disposal.

## **2015 AND BEYOND**

### **Cell and Site Construction**

The Authority construction plan for all future development of the landfill is being evaluated. An air space calculation survey is being performed.

### **Household Hazardous Waste**

The HHW Program will continue to focus on removing mercury from our environment. After mercury, chlorinated solvents and waste oil will be emphasized as the greatest threats to the Marquette County environment. By expanding our services, improving our training, and implementing various site and equipment upgrades, the program is expected to continue to improve at a constant cost. Diversion of prescription medications from the landfills and sewer systems keeps the environmental harm caused by these materials to a minimum.

### **Grants**

The Authority will continue to search for and pursue cost effective Federal and State of Michigan grants. Areas to fund include sustainable solid waste management, green industrial processes, and clean non-hazardous schools. The meds diversion, orphan tires, and beverage container grant are great illustrations of the efforts of the Authority.

### **Financial**

The Authority finances are currently being reassessed by our auditor.

### **Personnel**

Each employee at the Authority has an achievable goal that will be of significant benefit to the employee and the Authority. These “steps” define the investment of the Authority and are prioritized to the needs of the Authority.