



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



STEVEN E. CHESTER  
DIRECTOR

May 23, 2007

Mr. Gerald O. Corkin, Chair  
Marquette County Board of Commissioners  
234 West Baraga Avenue  
Marquette, Michigan 49855

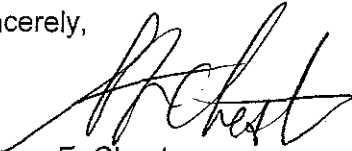
Dear Mr. Corkin:

The locally-approved Amendment to the Marquette County Solid Waste Management Plan (Plan) Amendment received by the Department of Environmental Quality (DEQ) on April 23, 2007, is hereby approved.

The Plan Amendment adds a note to the Marquette County Landfill facility description to clarify that the maps of the landfill included in the plan are for informational purposes and not to be used to determine consistency with the Plan. The amendment also changes the siting review process not to allow new landfill sites to be sited by the Plan and adds that the Marquette County Landfill is allowed to site unlimited expansions within the 210-acre facility property identified in the facility description, as long as it meets the siting criteria set forth in the Plan. The DEQ has determined that the Plan Amendment complies with the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules.

The DEQ would like to thank Marquette County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Rhonda Oyer Zimmerman, Chief, Solid Waste Management Unit, Storage Tank and Solid Waste Section, Waste and Hazardous Materials Division, at 517-373-4750.

Sincerely,

  
Steven E. Chester  
Director  
517-373-7917

cc: Senator Michael Prusi  
Representative Michael Lahti  
Representative Steven Lindberg  
Mr. Alan Feldhauser, Senior Planner, Marquette County  
Mr. Jim Sygo, Deputy Director, DEQ  
Ms. JoAnn Merrick, Senior Executive Assistant to the Director, DEQ  
Ms. Carol Linteau, Legislative Liaison, DEQ  
Mr. George W. Bruchmann, DEQ  
Mr. Steven Sliver, DEQ  
Mr. Robert Schmeling, DEQ  
Ms. Rhonda Oyer Zimmerman, DEQ  
Ms. Becky Beauregard, DEQ  
Marquette County File

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill

Facility Name: Marquette County Landfill

County: Marquette Location: Town: 47N Range: 25W Section(s): 5 & 6Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Mqt. Co. Solid Waste Management Authority

## Operating Status (check)

- ☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

## Waste Types Received (check all that apply)

- ☒ residential  
☒ commercial  
☒ industrial  
☒ construction & demolition  
☒ contaminated soils  
☒ special wastes \*  
☐ other: \_\_\_\_\_

## 6. Explanation of special wastes, including a specific list and/or conditions:

Medical

Site Size:

Total area of facility property:

210 acres

Total area sited for use:

62 acres

Total area permitted:

62 acres

Operating:

15 acres

Not excavated:

47 acres

Current capacity:

5,750,000 ☐ tons or ☒ yds<sup>3</sup>

Estimated lifetime:

58 years

Estimated days open per year:

250 days

Estimated yearly disposal volume:

44,000 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:

N/A megawatts

Waste-to-energy incinerators:

\_\_\_\_\_ megawatts

\* All of the Marquette County Landfill maps contained in the Appendix section of the Plan are for informational purposes only and are not to be used in the consistency review for any future expansion.

**SITING REVIEW PROCEDURES****DISPOSAL AREA TYPES NOT AUTHORIZED**

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

***New Landfill Sites*****DISPOSAL AREA TYPES AUTHORIZED**

- Transfer stations, processing facilities.
- Wisconsin Electric may site a coal ash landfill on their property located in the N ½ of the SE ¼ of Section 6, Township 48N, Range 25W in Marquette Township.
- ***The Marquette County Landfill may site unlimited expansions within the 210 acre facility property as identified on the facility descriptions on pages II-15 and III-5 so long as it meets the siting criteria set forth by the Plan.***


The Marquette County Landfill has capacity in excess of ten years negating the requirements to include a siting mechanism in this plan update. Though no ***new*** landfills will be sited by this plan (with noted exception), other disposal area types may be sited in accordance with the criteria provided.

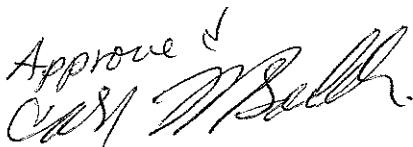
**SITING PROCESS**

**MARQUETTE COUNTY SOLID WASTE PLANNING COMMITTEE  
MINUTES  
FEBRUARY 8, 2007**

1. CALL TO ORDER – The regular meeting of the Marquette County Solid Waste Planning Committee was called to order by Chairperson Baldwin at 7:00 p.m.
  2. ROLL CALL – Committee members present were Donald Pyle, Kurt Simandl, Dave Allen, Michael Twohey, Denise Beauchamp, Carr Baldwin, Glen Adams, Bob Pliska, and Gerald Corkin. Staff members present were Al Feldhauser and Cathy Smith.
  3. APPROVAL OF MINUTES – A motion was made by Committee Member Beauchamp, supported by Committee Member Adams to approve the October 26, 2006 minutes as presented.
  4. PUBLIC COMMENT – There was none.
  5. APPROVAL OF AGENDA – Mr. Feldhauser requested the communication from the Planning Commission be added to the agenda as item 6a. A motion was made by Committee Member Corkin and supported by Committee Member Twohey to approve the agenda as amended.
  6. COMMUNICATIONS
    - a. Memo from the Marquette County Planning Commission (DPA) – Chairperson Baldwin read the memo into the record. It was the consensus of the Committee file the communication.
  7. OLD BUSINESS – There was none.
  8. NEW BUSINESS
    - a. Plan Amendment – Chairperson Baldwin read the proposed amendments to the Solid Waste Management Plan. A motion was made by Committee Member Adams, supported by Committee Member Allen and passed by a 9-0 vote, to approve and accept the amendments as presented.
- Mr. Feldhauser advised the recommendation to approve from the Committee will go the County Board Committee of the Whole meeting on February 13<sup>th</sup> and to the full County Board of Commissioners on February 20<sup>th</sup>. It will then require a two-thirds local approval by the 22 municipalities.
9. PUBLIC COMMENT – There was none.
  10. ADJOURNMENT – At 7:15 p.m., a motion was made by Committee Member Twohey, supported by Committee Member Pyle and carried unanimously to adjourn.

Respectfully Submitted,

  
Cathy Smith  
Administrative Aide

Approve ✓  


*The attached minutes are subject to correction and approval*

Chairperson Corkin opened the meeting for public comment, none was forthcoming.

It was moved by Comm. Arsenault, seconded by Comm. Pellow, and carried by voice vote 7 Ayes to 1 Abstention (Comm. Bergdahl) that Claims and Accounts for the period March 3, 2007 through March 16, 2007 in the amount of \$458,393.74, including expenditure check No. 81302 in the amount of \$877.75 made payable to Bergdahl's (Affidavit of Disclosure follows), and bi-weekly payroll for the period ending March 10, 2007 in the amount of \$606,324.66 be approved.

*AFFIDAVIT OF DISCLOSURE*  
PURSUANT TO MCL 15.323(2)(a)

COUNTY OF MARQUETTE            )  
STATE OF MICHIGAN            )SS

Charles Bergdahl, a Marquette County Commissioner, being duly sworn, hereby submits this Affidavit pursuant to the provisions of MCL 15.323(2)(a):

1. The Final Disbursement List submitted for approval at this March 20, 2007 meeting of the County Board of Commissioners includes Check No. 081302, dated March 2, 2007, payable to Bergdahl's, Inc. in the amount of \$877.75, in payment for Community Correction supplies;
2. I hereby disclose that I have a personal financial interest in Bergdahl's, Inc., which is as follows:  
  
90% Shareholder
3. I hereby certify that any direct benefit I personally will receive from this payment to Bergdahl's Inc. will be less than \$250.00, and will be less than 5% of the total payment of \$877.75.

Dated this 20<sup>th</sup> day of March, 2007.

/S/

## Charles Bergdahl

It was moved by Comm. Cihak, seconded by Comm. Heikkila, and unanimously carried by voice vote that the agenda be approved with the addition of Item 11a) Pathways Appointments.

## INFORMATIONAL ITEMS

There were no informational items for approval.

## ACTION ITEMS

10a) The County Board considered a memo from Carr Baldwin, Chair, Solid Waste Management Planning Committee, regarding an Amendment to the County of Marquette Solid Waste Management Plan. Ar Feldhauser, Senior Planner, was present and explained that the Solid Waste Management Planning Committee (SWMPC), working in conjunction with the Marquette County Planning Commission, had created a text amendment to the Plan to facilitate a minor expansion at the Marquette County Landfill. The text was released for a 90-day public review/comment period which concluded with a public hearing held February 7, 2007. The amendment was released for an additional 30-day comment and subsequent hearing scheduled for Monday, March 19, 2007.

Mr. Feldhauser further stated that the SWMPC has approved the text. He explained that should the County Board concur, the proposed Amendment will be distributed to all municipalities within the County. It

*The attached minutes are subject to correction and approval*

will require two-thirds local approval by the 22 member municipalities before subsequent submittal to the Department of Environmental Quality for final approval.

It is the recommendation of the Solid Waste Management Planning Committee that the Marquette County Board of Commissioners approve the proposed Amendment.

It was moved by Comm. Bergdahl, seconded by Comm. Arsenault, and unanimously carried by voice vote that the County Board approve the proposed Amendment to the County of Marquette Solid Waste Management Plan.

10b) The County Board considered a Loan Renewal Request from Robert C. Adams, Regnos, LLC. Scott Erbisch, Sawyer Operations Manager, was present and explained that the IRP Loan Committee met on March 12, 2007 to review the loan renewal request, and recommends that the County Board approve the terms as follows:

Borrower: Robert C. Adams, Regnos, LLC.  
Purpose: Renewal of existing loan since alternative/traditional financing not approved.  
Amount: Approximately \$112,000.  
Purpose: Renewal of existing loan. Mr. Adams attempted to refinance the loan as per the existing loan conditions, but was subsequently denied funding.  
Rate: 10.5% (prime plus 2 points, plus Wells Fargo Fee). Loan based on seven years with a 2-year payback. Final payment to be a balloon payment.  
Terms: Monthly payments of principal and interest.  
Collateral: Same as current loan – personal guarantees of those owning 20% or more of the business and a position on equipment.

Mr. Erbisch further explained the project summary:

On December 14, 2001, Regnos, LLC, now Alta Surgery, closed on a 5-year \$200,000 IRP loan. A lump sum final payment was due December 14, 2006. Regnos, LLC, has kept their loan current.

In December, 2006, Regnos, LLC, requested a 60-day extension of their loan to seek alternative funding so that the lump sum payment could be made. The County Board granted the extension request with a requirement that Regnos, LLC, continue to make monthly payments on the loan.

Regnos, LLC, did seek alternative financing but was subsequently denied a loan. Since alternative financing has been denied, the IRP Loan Committee has reviewed the request for a renewal of the outstanding loan balance of approximately \$112,000. This renewal is not providing Regnos, LLC, with additional funding. Since Alta Surgical is not located at Sawyer, it would not be eligible for additional funding.

It was moved by Comm. Arsenault, seconded by Comm. Pellow, and unanimously carried by voice vote that the County Board approve the renewal of the IRP Loan to Robert C. Adams, Regnos, LLC, according to the terms outlined above.

10c) The County Board considered a memo from Scott Erbisch, Sawyer Operations Manager, regarding an IRP Loan to Stop N' Shop Convenience Store. Mr. Erbisch explained the IRP Loan Committee met on March 12, 2007, to discuss a \$50,000 loan request from Ted Finco, owner of ACA & Associates, Ltd, a/k/a Stop N' Shop, and recommends that the County Board approve the terms as follows:

Borrower: Ted Finco, Stop N' Shop.  
Amount: \$50,000.  
Purpose: Expand inventory, safety, and security updates; update video rental equipment, repayment of current IRP loan, working capital.

# CERTIFICATION

I Janice R. Mason, Deputy Clerk of the County of Marquette, State of Michigan, do hereby certify that the attached minutes (March 20, 2007) were adopted by the Marquette County Board of Commissioners at their Regular Meeting held on the 3<sup>rd</sup> day of April, 2007.

Sworn to by me on this 9<sup>th</sup> day of April, 2007

  
Janice R. Mason, Deputy County Clerk



JOHN ENGLER, Governor

**DEPARTMENT OF ENVIRONMENTAL QUALITY***"Better Service for a Better Environment"*

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

September 6, 2000

Mr. Gerald Corkin, Chairperson  
Marquette County Board of Commissioners  
County Courthouse  
Marquette, Michigan 49855

Dear Mr. Corkin:

The Department of Environmental Quality (DEQ) received the locally approved update to the Marquette County Solid Waste Management Plan (Plan) on June 8, 1999. Except for the items indicated below, the Plan is approvable. As outlined in the April 3, 2000 letter to Mr. Alan Feldhauser, Senior Planner, Marquette County Planning Commission, from Mr. Matt Staron, DEQ, Waste Management Division, and as confirmed in your letter of May 17, 2000, to Mr. Staron, the DEQ makes the following modifications to the Plan.

Pages III-47 contains siting criteria that are to be used to evaluate information provided by the developer and to determine consistency of the proposed facility expansion or proposed new facility with the Plan. Two of these criteria need to be modified and/or deleted. Siting Criterion 1 requires that the proposed facility be located in an industrial zoning district, or a zoning district that permits such a facility (if the community has adopted a zoning ordinance). The second part of Criterion 1 is too vague and requires a potentially non-objective judgement to be made. Section 11538 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, requires siting criteria to be objective and not subject to discretionary acts. This criterion does not comply with that requirement. Therefore, Siting Criterion 1 is hereby modified to read as follows: "Will the facility be located in an industrial zoning district or in the Public Lands District in Ely Township?"

Siting Criterion 3b requires that the proposed facility meet anticipated needs. This criterion is too vague and appears to subject consistency with the Plan to a subjective, discretionary judgement. Therefore, Siting Criterion 3b is hereby deleted from the Plan.

Page III-53 lists local zoning ordinances for transfer stations and processing centers. The scope of local authority intended to be enforced through inclusion of these ordinances in the Plan is unclear. As a result, the DEQ is unable to determine if these ordinances will impermissibly impact consistency decisions controlled by the Plan's siting criteria or if they otherwise impermissibly conflict with or hinder the DEQ

regulatory authority. Therefore, Local Ordinances 2A and 2B are hereby deleted from the Plan.

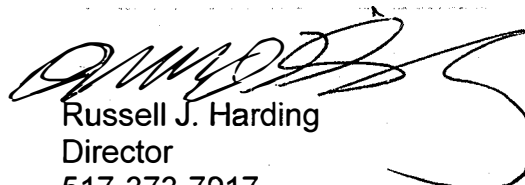
[Page III-54](#) contains a list of seven general areas of regulation for which local units of government would be authorized to enforce local ordinances. Two of the items on the list, Fees and Demolition Debris, authorize overly broad and unspecified local regulatory power over disposal areas. These items need to be deleted from the Plan. Deletion of these items from the Plan will prohibit any local unit of government from enforcing any such ordinance, as it would pertain to a solid waste disposal area. If local governments have the legal authority to adopt any of these ordinances to regulate activities in areas other than solid waste disposal areas, deletion of these items from the Plan will not impact those local authorities. Therefore, the areas of regulation regarding Fees and Demolition Debris are hereby deleted from the Plan.

By approving the Plan, the DEQ has determined that it complies with the provisions of Part 115 and the Part 115 administrative rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms that authorize the state, a county, a municipality, or a person to take legal action to guarantee compliance with the Plan, as required by Part 115. The Plan is enforceable, however, only to the extent Marquette County (County) properly implements these enforceable mechanisms under applicable enabling legislation. The Plan itself does not serve as such underlying enabling authority, and the DEQ approval of the Plan neither restricts nor expands the County authority to implement these enforceable mechanisms.

The Plan may also contain other provisions that are neither required nor expressly authorized for inclusion in a solid waste management plan. The DEQ approval of the Plan does not extend to any such provisions. Under Part 115, the DEQ has no statutory authority to determine whether such provisions have any force or effect.

With these modifications, Marquette County's updated Plan is hereby approved and the County now assumes responsibility for the enforcement and implementation of this Plan. If you have any questions, please contact Mr. Seth Phillips, Chief, Solid Waste Management Unit, at 517-373-4750.

Sincerely,



Russell J. Harding  
Director  
517-373-7917

cc: Senator Donald Koivisto  
Representative Michael A. Prusi  
Mr. Arthur R. Nash Jr., Deputy Director, DEQ  
Mr. Timothy R. Sowton, Legislative Liaison, DEQ  
Mr. Jim Sygo, DEQ  
Ms. Joan Peck, DEQ  
Mr. Robert Schmeling, DEQ - Marquette  
Mr. Seth Phillips, DEQ  
Mr. Matt Staron, DEQ  
Marquette County File

# COUNTY OF MARQUETTE SOLID WASTE MANAGEMENT PLAN

June 26 , 1999



LOCAL APPROVAL

June 26, 1999

# 1999 PLAN UPDATE COVER PAGE

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each County have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available a standardized format for the preparation of these Plan updates.

DATE SUBMITTED TO THE DEQ: July 16, 1999

If this Plan includes more than a single County, list all counties participating in this Plan.

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The following lists all the municipalities from outside the County who have requested and have been accepted to be included in the Plan, or municipalities within the County that have been approved to be included in the Plan of another County according to Section 11536 of Part 115 of the NREPA. Resolutions from all involved County boards of commissioners approving the inclusion are included in Appendix C.

<u>Municipality</u>	<u>Original Planning County</u>	<u>New Planning County</u>
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None		
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## DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Marquette County Planning Commission

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CONTACT PERSON: Alan Feldhauser

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ADDRESS: County of Marquette

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234 W. Baraga Avenue/Resource Management Development

---

Marquette, MI 49855

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PHONE: 906/225-8180

---

FAX: 906/225-8203

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CENTRAL REPOSITORY LOCATION(S) County Courthouse Resource  
Management/Development Department. Peter White Library.

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## EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage solid waste within Marquette County. In case of conflicting information between the executive summary and the remaining contents of the Plan update, the information provided in the main body of the Plan update found on the following pages will take precedence over the executive summary.

Pursuant to Section 1153a of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the County of Marquette has undertaken this update of the County's Solid Waste Management Plan.

The Marquette County Planning Commission, the Marquette County Board of Commissioners Designated Planning Agency (DPA), was charged with production of this plan. The Commission produced this document with the cooperation of the Solid Waste Management Planning Committee which was appointed by the Marquette County Board to assist in this process.

The contents of the plan are specified in Public Act 451. Further, a plan format was provided by the Department of Environmental Quality to facilitate uniformity of reporting by Marquette County and all other entities preparing solid waste management plans in Michigan. The purpose of this plan is to provide guidance as relates to solid waste management decision making and practices in Marquette County.

This summary is comprised of pages II-1 through II-6. Page II-4 (Conclusions) of this summary provides the basis upon which decisions were made that resulted in the Selected Alternative being chosen. A synopsis of component parts of the Selected Alternative can be found on pages II-4 and II-5.

# OVERALL VIEW OF THE COUNTY

Township or Municipality Name	Population	TABLE 1 % Land Use		% of Economic Base*				
		Rural	Urban	Ag	For	Ind	Com	Oth
<u>Champion Township</u>	<u>342</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Chocolay Township</u>	<u>6,102</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Ely Township</u>	<u>1,991</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Ewing Township</u>	<u>149</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Forsyth Township</u>	<u>3,061</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Humboldt Township</u>	<u>501</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Ishpeming Township</u>	<u>3,619</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Marquette Township</u>	<u>2,729</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Michigamme Township</u>	<u>360</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Negaunee Township</u>	<u>2,435</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Powell Township</u>	<u>714</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Republic Township</u>	<u>1,129</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Richmond Township</u>	<u>1,103</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Sands Township</u>	<u>2,695</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Skandia Township</u>	<u>988</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Tilden Township</u>	<u>946</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Turin Township</u>	<u>148</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Wells Township</u>	<u>288</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>West Branch Township</u>	<u>612</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Ishpeming City</u>	<u>7,281</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Marquette City</u>	<u>21,808</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
<u>Negaunee City</u>	<u>4,919</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
County Totals	63,920	98.5	1.5	.16	.25	20.87	25.25	53.45

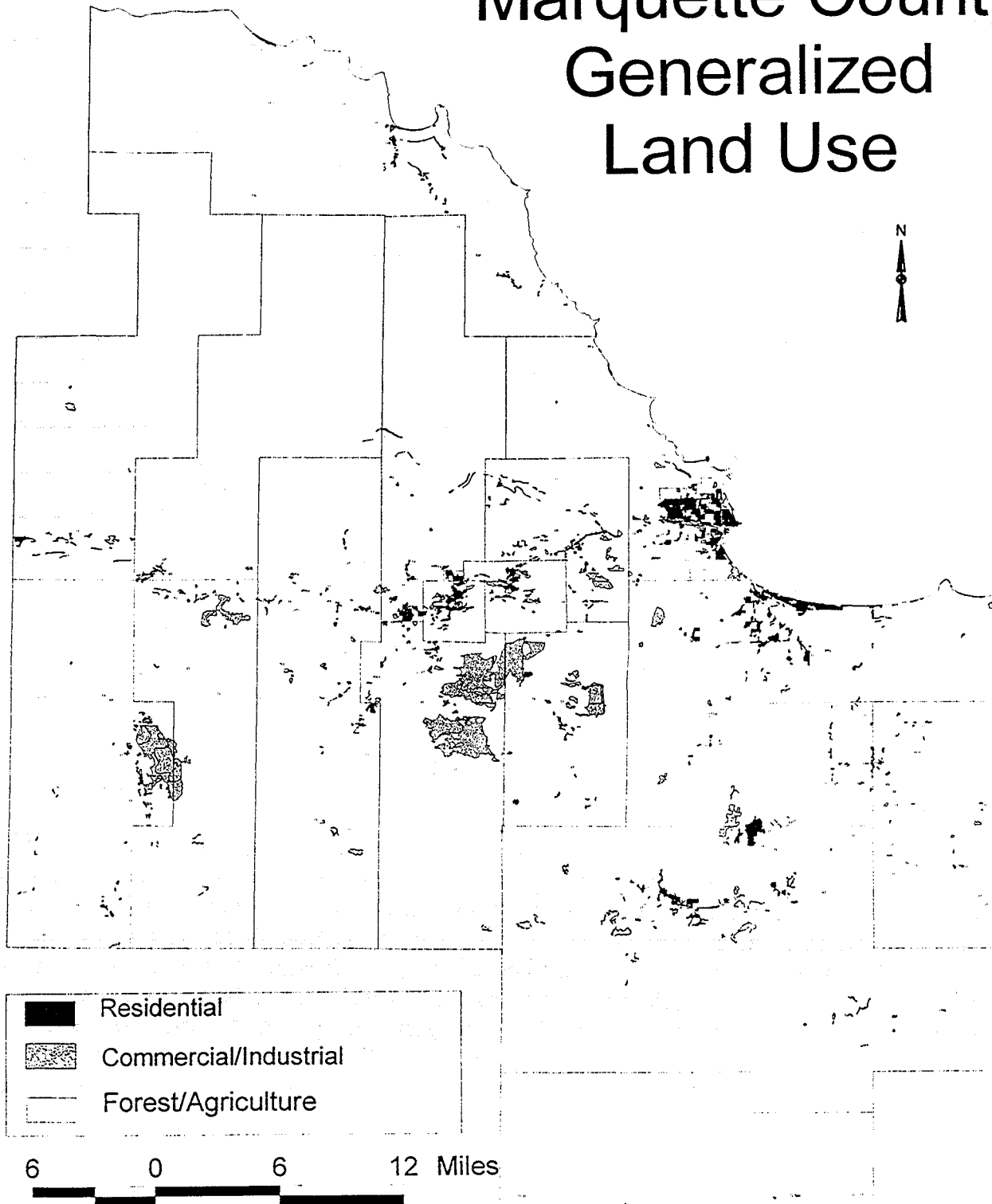
\*Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases

\*\* See Figure 1 "Marquette County Generalized Land Use"

Source: 1997 Est. -  
Marquette County Resource Management/Development Department

Figure 1

# Marquette County Generalized Land Use



Source: Marquette County  
RM/D Department

## CONCLUSIONS

The drafters of this plan considered alternatives that could be implemented in lieu of the present system or partially implemented as enhancements to the existing system. Alternatives ranged from the export of all waste to maintaining the current system.

Alternatives were assessed as to their consistency with solid waste management goals and objectives stated in this plan as well as the economic feasibility of proposals and the likelihood of obtaining and maintaining general public and municipal support for the system selected.

A substantial public investment has been made in our current system. Local investment has resulted in the development of a single landfill site which has in excess of 50 years of remaining capacity. Under the present development plan, additional bonding is not anticipated, making the continued use of this single landfill site the most feasible alternative. Based upon investment to date and bonded indebtedness into the future resulting from the design, construction, and operation of the Marquette County Landfill, a strong incentive exists to continue utilization of the existing landfill site.

Another significant reason to continue use of the Marquette County Landfill is the Intergovernmental Agreement for the Disposal of Solid Waste (Agreement, pursuant to Act 233 of 1955 for the Disposal of Solid waste and the Establishment of a Joint Solid Waste Management Authority) entered into by all 19 townships and 3 cities of the County. The Agreement obligates the signatories to participate in the landfill and dispose of all Type II and Type III waste there. Obtaining unanimous support for the Agreement was a noteworthy accomplishment, one that is unlikely to be duplicated in support of another alternative. Amendments to the Agreement require approval of  $\frac{3}{4}$ 's of the municipalities in the County and, with support for the landfill being strong, any substantial deviation from the current system would likely meet with resistance.

The continued disposal of a consistent volume of solid waste is critical to the efficient and cost effective operation of the Marquette County Landfill (selected final disposal alternative). Reductions in the monthly tonnage processed at the facility may effect an increase in the cost per ton to cover expenses. At the same time, a consistent reduction in waste volume will benefit County residents economically and environmentally. Improvements in the waste management system such as reduction, reuse and recycling are strongly encouraged by the Solid Waste Management Authority and this Plan.

Import and export of waste is not desired. Importation of waste will shorten the life of the landfill and cause the County to accept some risk for wastes generated outside County borders. The County has little influence over the manner in which waste is collected in other counties. The Marquette County Landfill operates in an environmentally responsible manner (eg. Household hazardous waste collection program). Receiving of imported waste may jeopardize that standard. Export of waste has the potential to undermine the financial stability of the Marquette County Landfill and expose the County to environmental risk at more than one facility. The Intergovernmental Agreement obligates waste generated in the County to the Marquette County Landfill. Therefore, a delicate balance exists between the amount of waste generated and disposed, the revenues needed to operate, the preservation of disposal capacity, and minimization of environmental risk.

## SELECTED ALTERNATIVE

The selected solid waste management system for Marquette County is facilitated by both the public and private sectors and consists of seven independent features which are integrated into one system. A description of each of these features follows.

**Source reduction** – Source reduction (or waste prevention) is the best point to begin waste management. By avoiding the generation of waste, the burden on disposal facilities and all other components of the system are diminished. An additional benefit is the conservation of natural resources that would otherwise have been wasted. Education regarding reduction techniques and initiatives that implement them are supported by this plan.

**Reuse** – Reuse is another method of preventing materials from prematurely entering the waste stream. Material that can be utilized in its present form or without reprocessing saves disposal and conserves resources. Bringing grocery bags back with you on your next shopping trip exemplifies this technique.

**Collection** – Materials not addressed by either of the previous techniques are collected. This can be accomplished at curbside or transfer sites. Material may be waste or recyclables.

All haulers to the County landfill are registered with the landfill and may be publicly or privately operated. To be registered, they must be authorized by each municipality from which they haul. There are currently in excess of 100 registered haulers. Most of these, however, haul only waste generated by their own activities (such as construction or demolition debris) while the bulk of collection is done by a small number of haulers.

**Recycling** – Recycling is encouraged and anticipated to increase during this planning period. Successful public education has enhanced the acceptance of recycling. With the “willingness to participate” that currently exists, providing public education regarding recycling will show the public how to participate. Additionally, improved access to recycling and increased cost of disposing of material as waste adds additional incentive for participation. Public demand for recycling will require improved efficiencies to offset additional handling costs.

**Composting** – For those individuals and businesses that cannot or will not compost yard waste in their own “backyard”, alternatives must be maintained for their disposal needs. Municipal composting programs will be maintained or enhanced through the duration of this plan.

Utilization of municipal wastewater treatment sludge (biosolids) as a soil amendment versus waste requiring landfilling is preferred.

**Transfer** – Both Type A (receives waste from mechanically unloaded vehicles) and Type B (receives waste unloaded by hand) transfer facilities are, and will continue to be, utilized under the selected system. Type A facilities are operated by Peninsula Sanitation and the West Marquette County Sanitation Authority. Type B facilities are located in Ewing, Powell, Republic, Sands, Skandia/West Branch, Turin, and Wells Townships.

**Landfilling** – All Type II (garbage, rubbish, refuse) and Type III (construction debris) material generated in Marquette County and remaining in the system after applying the previously described techniques, is to be disposed at the Solid Waste Management Authority’s landfill in Sands Township.

Fuel impacted soils, after characterization to establish they are not hazardous (Type I), will be disposed at the landfill and can be utilized as daily cover.

The segregated waste (ash) resulting from electrical generation is being disposed at Wisconsin Electric’s monofill located in Marquette Township. This practice will continue at the current site

or adjacent site when permitting is completed. The Pinehill Landfill, which had previously been operated by the Marquette Board of Light and Power, is currently closed. Future disposal needs may make this site a viable option again some day. Potential also exists for disposal at the County Landfill. This option, however, would substantially reduce the "useful life" of that facility.

This plan was developed by the Marquette County Planning Commission with assistance of the Solid Waste Management Planning Committee (SWMPC). Following are significant dates in the planning process.

Public Review	September 17, 1998 through December 15, 1998
Public Hearing	December 2, 1998
Public Review	January 7, 1999 through March 7, 1999
Public Hearing	March 3, 1999
SWMPC Approval	March 17, 1999
County Board Approval	April 13, 1999
Local Municipality Approval	June 26, 1999

Responses were received from 16 of the 22 municipalities (73%) and all were approvals. They are copied in Appendix C (pg. 26).

# INTRODUCTION

## GOALS AND OBJECTIVES

To comply with Part 115 and its requirements, each Plan must be directed toward goals and objectives based on the purposes stated in Part 115, Sections 11538(1)(a), 11541(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 711(b)(i) and (ii). At a minimum, the goals must reflect two major purposes of Solid Waste Management Plans:

- (1) To utilize to the maximum extent possible the resources available in Michigan's solid waste stream through source reduction, source separation, and other means of resource recovery and;
- (2) To prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

This Solid Waste Management Plan works toward the following goals through actions designed to meet the objectives described under the respective goals which they support:

### Goal 1: PRESERVATION OF PUBLIC HEALTH AND THE ENVIRONMENT

Objective 1a: Adhere to those standards promulgated pursuant to the Natural Resources and Environmental Protection Act (PA 451 of 1994).

Objective 1b: Adhere to recommendations in the Regional Water Quality Plan (208 Planning.)

Objective 1c: Design solid waste facilities and practices to prevent or reduce erosion and sedimentation.

Objective 1d: Maintain healthful, sanitary conditions at points of solid waste collection, transfer, and disposal/recovery.

Objective 1e: Encourage restoration of previous solid waste disposal sites to as nearly a natural state as possible/permitted for the beneficial use of future generations.

Objective 1f: Ensure proposed facilities are consistent with existing and proposed adjacent uses and with applicable land use and comprehensive plans.

Objective 1g: Improve enforcement against illegal dumping of waste in unauthorized areas by encouraging enactment of local ordinances which provide for fines and other penalties and encourages witnesses to report illegal dumping by offering cash rewards.

Objective 1h: Continue the household hazardous waste collection program.

**Goal 2: PROVIDE SOLID WASTE MANAGEMENT SYSTEMS AT REASONABLE FINANCIAL COST**

Objective 2a: Consider expenditures by all system users when estimating operating costs.

Objective 2b: Strive for Countywide, accurate cost reporting practices.

Objective 2c: Operate collection/transfer/processing/disposal systems in the most efficient manner possible.

**Goal 3: MAXIMIZE THE RECOVERY OF MATERIAL RESOURCES CONSISTENT WITH PRECEDING GOALS.**

Objective 3a: Promote public awareness of solid waste issues.

Objective 3b: Encourage reduction of waste volumes at source of generation.

Objective 3c: Encourage collection, transfer, and processing facilities which allow for separation of materials.

Objective 3d: Consider the energy potential in the waste stream to the extent:

- a. Environmental standards can be maintained; and
- b. The cost of producing the energy is not prohibitive

Objective 3e: Continue support for existing composting and recycling operations and promote their expansion where it can be shown to be cost effective through curbside or drop-off programs.

Objective 3f: Identify and develop markets for recyclables.

Objective 3g: Encourage manufacturers in the County to use reclaimed materials from the County's waste stream in their production process.

**Goal 4: INFORM CITIZENS ABOUT SOLID WASTE MANAGEMENT ISSUES AND CONCERNS**

Objective 4a: Encourage availability of informational and educational materials relating to solid waste management.

Objective 4b: Provide opportunities to tour existing solid waste management facilities and provide information regarding those facilities.

Objective 4c: Provide clear, concise information to the public about disposal options for all potential waste products.

Objective 4d: Include information regarding solid waste management on County website.

# DATA BASE

Identification of sources of waste generation within the county, total quantity of solid waste generated to be disposed, and sources of the information.

Volumes listed on the following table reflect material generated prior to recycling, reuse, and hazardous waste extraction. Totals were derived from information provided by these entities.

Household and commercial solid waste - Marquette County Solid Waste Management Authority, Recycling Entities

Industrial solid waste - Wisconsin Electric (Presque Isle Plant),  
Marquette City Board of Light & Power

Municipal sludge - City of Ishpeming, Ishpeming Township, K I Sawyer, City of Marquette, City of Negaunee

Construction/demolition - Marquette County Solid Waste Management Authority (estimated as percentage of total waste disposal)

**TABLE 2**

Marquette County	Waste Type	Current Annual Volume (tons)	Five-year Annual Volume	Ten-year Annual Volume
	Household/Commercial solid waste	94,304	97,626	101,484
	Industrial solid waste	200,000	205,069	213,300
	Municipal sludge	920	942	980
	Construction/demolition	11,350	11,670	12,138

The County of Marquette is not currently experiencing any difficulties in managing the volume of solid waste that is being generated within its borders. Similarly, it is anticipated that the duration of this plan and for the foreseeable future, sufficient disposal capacity exists to support growth in both population and industry. A new construction permit, approved March 6, 1996, substantially increased landfill volume. By utilizing 1997 disposal tonnage for projection, it is estimated that the life expectancy of the landfill is about 58 years or the year 2055. Increased participation in recycling, composting, and hazardous waste programs, as well as improvements in waste management technologies, will all contribute to a reduction in per capita disposal volumes and help offset estimated disposal caused by increases of population and industry.

The industrial solid waste that appears in the table is coal ash produced from fossil fuel electrical power generation. The portion of this material which requires disposal is currently going to a private monofill in Marquette Township. The landfill is owned and operated by Wisconsin Electric. The estimated life of the landfill is approximated at six to eight years which is sufficient for this planning period. Preliminary work regarding future landfill space is underway. Should it become desirable or necessary, the ash could be disposed at the Marquette County Landfill.

**TOTAL QUANTITY OF SOLID WASTE GENERATED:**

306,574 ☒ Tons or ☐ Cubic Yards annually

**TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:**

241,586 ☒ Tons or ☐ Cubic Yards annually

## DATA BASE

### WASTE GENERATION

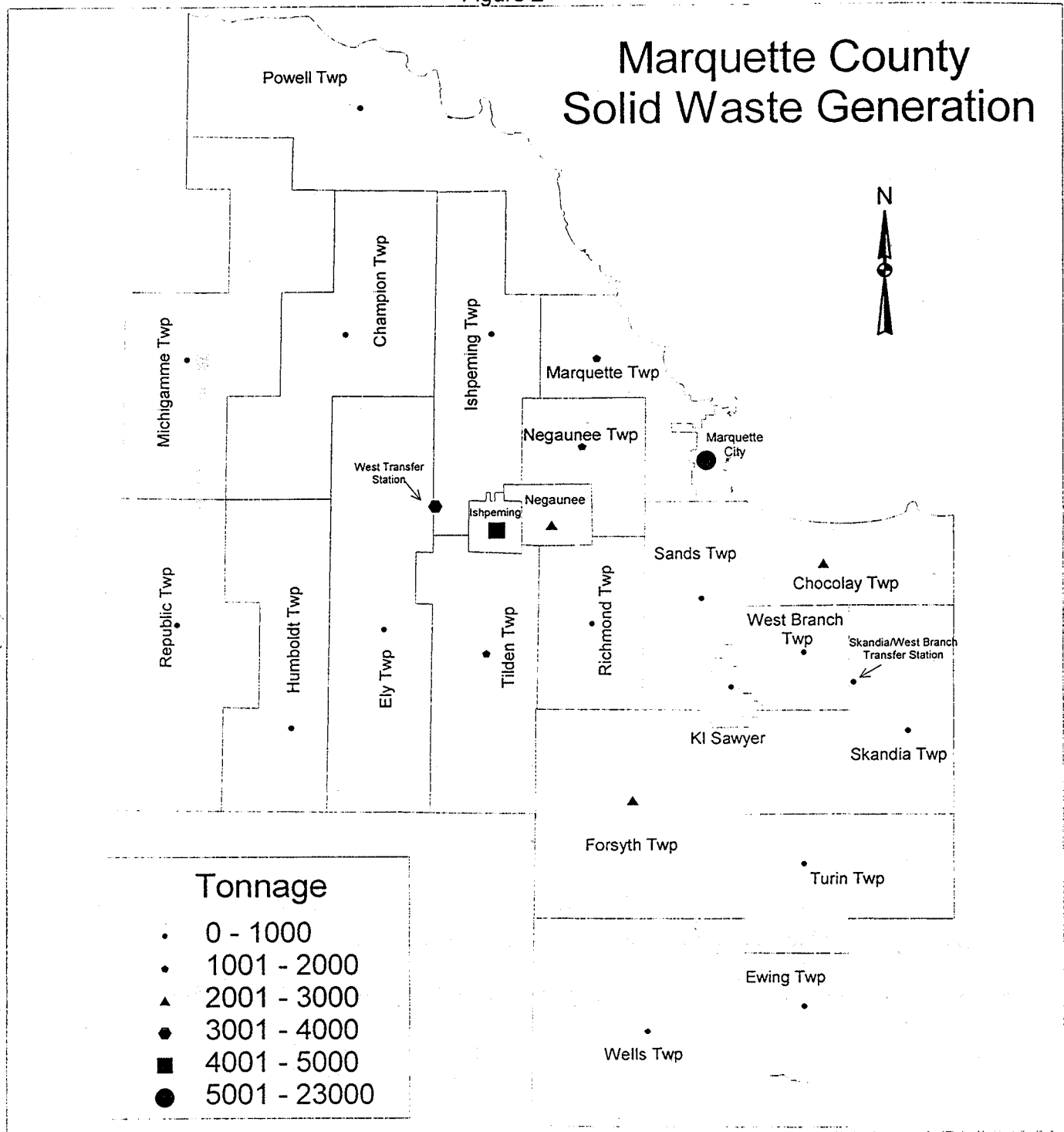
Data was collected pertaining to waste generated in the County as well as volumes diverted from the waste stream by recycling, composting, and our household hazardous waste program. Also collected was information regarding annual tonnage disposed at the landfill. Volume data was obtained from the Department of Environmental Quality "Report of Solid Waste Landfilled in Michigan dated February 19, 1997: which provided disposal volumes for other counties throughout the state.

Population data was also valuable in preparation of this plan. Numbers from the last several census counts and sub-county population estimates for 1990 - 1996 provided by the State Demographics Office contributed to our baseline information.

By relating volumes generated, diverted, and disposed to population, per capita figures were derived for these activities. Population trend data allowed us to estimate future population numbers, and, by applying the per capita figures, anticipate future waste volumes and disposal needs. With landfill capacity being known, we are able to assess the adequacy of the landfill to meet our current as well as long-term needs.

The following tables show 1997 waste disposal by municipality in Marquette County and how it compares with other Upper Peninsula counties, similar size counties throughout the state and national averages. Table 8 on page II-31 shows projections of population and waste volumes anticipated for disposal at the landfill.

Figure 2



Source: Marquette County  
RMD Department

10 0 10 20 Miles

TABLE 3

**WASTE DISPOSAL BY MUNICIPALITY**  
**MUNICIPAL, COMMERCIAL, INDUSTRIAL**

UNIT OF GOVERNMENT	1997 POPULATION	1997 TONNAGE	POUNDS/CAPITA/DAY
Marquette City	21808	22018.14	5.53
Negaunee City	4919	2522.19	2.81
Ishpeming City	7281	4159.25	3.13
Champion Twp. **	342	160.14	2.57
Chocolay Township	6102	2033.38	1.83
Ely Township **	1991	996.20	2.74
Ewing Township	149	32.27	1.19
Forsyth Township***	3061	2303.01	4.12
Humboldt Twp. **	501	220.86	2.42
Ishpeming Twp. **	3619	1660.32	2.51
Marquette Township	2729	1711.90	3.44
Michigamme Twp. **	360	201.86	3.07
Negaunee Township	2435	1454.57	3.27
Powell Township	714	219.61	1.69
Republic Township	1129	726.41	3.53
Richmond Township	1103	891.10	4.43
Sands Township***	2695	1238.64	2.51
Skandia Township	988	295.15	1.64
Tilden Township* **	946	2224.19	12.81
Turin Township	148	57.99	2.15
Wells Township	288	120.96	2.30
West Branch Twp. ***	612	164.72	1.47
Total	63,920	45412.86	

\*Approximately 90 percent of volume is industrial waste (Cleveland Cliffs, Inc.)

\*\* Tonnage from the west end transfer station was assigned to participating municipalities on a per capita basis and added to reported disposal by each municipality.

\*\*\* Sawyer waste is distributed between Forsyth, Sands, and West Branch Townships.

SOURCE: Marquette County Solid Waste Management Authority  
Resource Management/Development Department

**TABLE 4**  
**WASTE VOLUME - U P COUNTIES**  
**1996**

County	Population	Type II (cu. yd.)	Tons	Pounds/day/capita
Alger	9971		N/A	N/A
Baraga	8472		N/A	N/A
Chippewa	37289	68295	22765	3.35
Delta	39047	80628	26876	3.77
Dickinson	27285	58618	19538	3.92
Gogebic	17704	41463	13821	4.28
Houghton	36230		N/A	N/A
Iron	13121	29193	9731	4.06
Keweenaw	2010		N/A	N/A
Luce	6180	13606	4636	4.02
Mackinac	11096	41218	13739	6.78
Marquette	62017	144681	48227	4.26
Menominee	24551		N/A	N/A
Ontonagon	8405		N/A	N/A
Schoolcraft	8653	29940	9980	6.32

**TABLE 5**  
**WASTE VOLUME - SIMILAR SIZE COUNTIES**  
**1996**

County	Population	Type II (cu. yd.)	Type III (cu. yd.)	Total	Tons	Pounds/day/ capita
Clinton	62239	65751	18516	65751	21917	1.93
Ionia	60379	102925	15163	103925	34308	3.11
Marquette	62017	102896	41785	144681	48227	4.26
Montcalm	58969	259553		259553	86518	8.04
St. Joseph	60977	165312		165312	55104	4.95
Tuscola	57837	64020	2024	64020	21340	2.02

**TABLE 6**  
**POUNDS/DAY/CAPITA**

Marquette County	4.26
U P Counties Average	4.53
Similar Size County Average	4.05
State Average	6.10
National Average	4.50

- Source: DEQ Report of Solid Waste Landfilled in Michigan 10/1/95 - 9/30/96

## DATA BASE

Inventory and description of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

### Type II Landfill

Marquette County Landfill

### Type III Landfill

Wisconsin Electric - PIPP Coal Ash  
Pine Hill - Coal Ash Monofill

### Type A Transfer Facility\*

Peninsula Sanitation  
West Marquette County Transfer Station

### Type B Transfer Facility\*\*

Ewing Township  
Powell Township  
Republic Township (Type III only)  
Sands Township  
Skandia/West Branch Townships  
Turin Township  
Wells Township

\* Type A- A facility that is designed and operated to receive solid waste primarily from mechanically unloaded vehicles.

\*\* Type B- A facility that is designed and operated to receive domestic and commercial solid waste from vehicles unloaded by hand.

## DATA BASE

### FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill

Facility Name: Marquette County Landfill

County: Marquette Location: Town: 47N Range: 25W Section(s): 5 & 6

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Mqt. Co. Solid Waste Management Authority

#### Operating Status (check)

☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

#### Waste Types Received (check all that apply)

☒ residential  
☒ commercial  
☒ industrial  
☒ construction & demolition  
☒ contaminated soils  
☒ special wastes \*  
☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:  
Medical

#### Site Size:

Total area of facility property:	<u>210</u>	acres
Total area sited for use:	<u>62</u>	acres
Total area permitted:	<u>62</u>	acres
Operating:	<u>15</u>	acres
Not excavated:	<u>47</u>	acres
Current capacity:	<u>5,750,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>58</u>	years
Estimated days open per year:	<u>250</u>	days
Estimated yearly disposal volume:	<u>44,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

#### Annual energy production:

Landfill gas recovery projects:	<u>N/A</u>	megawatts
Waste-to-energy incinerators:	_____	megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type III lined solid waste disposal facility

Facility Name: Wisconsin Electric Power Company Coal Ash Dispos.: Site No. 2

County: Marquette Location: Town: 48N Range: 25W Section(s): 6 - NE 1/4

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☐ Public ☒ Private Owner: Wisconsin Electric Power Company

Operating Status (check)

- ☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

- ☐ residential  
☐ commercial  
☒ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:

1400 acres

Total area sited for use:

25 acres

Total area permitted:

25 acres

Operating:

7 acres

Not excavated:

8 acres

Current capacity:

2,000,000 ☐ tons or ☒ yds<sup>3</sup>

Estimated lifetime:

\* 6-8 remaining years

Estimated days open per year:

365 days

Estimated yearly disposal volume:

200,000 ☐ tons or ☒ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:

n/a megawatts

Waste-to-energy incinerators:

n/a megawatts

\* The estimated life of the landfill is approximated at 6 to 8 years which is sufficient for this planning period.

Preliminary work regarding future landfill space is underway. Should it become desirable or necessary, the ash could be disposed at the Marquette County Landfill.

## FACILITY DESCRIPTIONS

Facility Type: Type III Coal Ash Monofill

Facility Name: Pine Hill

County: Marquette Location: Town: 48N Range: 26W Section(s): 25-----

Map identifying location included in Attachment Section: ☐ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Wisconsin Electric Power Company

### Operating Status (check)

☐ open  
☒ closed  
☐ licensed  
☒ unlicensed  
☒ construction permit  
☐ open, but closure pending

### Waste Types Received (check all that apply)

☐ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☒ other: Coal Ashes-----

\* Explanation of special wastes, including a specific list and/or conditions:

### Site Size:

Total area of facility property: 120 acres  
Total area sited for use: 60 acres  
Total area permitted: 60 acres  
Operating: 7 acres  
Not excavated: 53 acres

Current capacity: 1,700,000 ☐ tons or ☒ yds<sup>3</sup>  
Estimated lifetime: 26 - 30 years  
Estimated days open per year: \_\_\_\_\_ days  
Estimated yearly disposal volume: 15,000 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production: \_\_\_\_\_ megawatts  
Landfill gas recovery projects: \_\_\_\_\_ megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility

Facility Name: Peninsula Sanitation

County: Marquette Location: Town: 48 Range: 27 Section(s): 16 -----

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Solid Waste Management Authority

☐ Public ☒ Private Owner: Peninsula Sanitation

Operating Status (check)

- ☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure pending

Waste Types Received (check all that apply)

- ☒ residential  
☒ commercial  
☒ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: -----

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:

2 acres

Total area sited for use:

n/a acres

Total area permitted:

n/a acres

Operating:

n/a acres

Not excavated:

n/a acres

Current capacity:

200 ☒ tons or ☐ yds<sup>3</sup> per day

Estimated lifetime:

unlimited years

Estimated days open per year:

312 days

Estimated yearly disposal volume:

n/a ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:

n/a megawatts

Waste-to-energy incinerators:

n/a megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility

Facility Name: West Marquette County Transfer Station

County: Marquette Location: Town: 47N Range: 27W & 28W Section(s): 6 & 7 and 1 & 12

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: West Marquette County Sanitation Authority

### Operating Status (check)

- ☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure pending

### Waste Types Received (check all that apply)

- ☒ residential  
☒ commercial  
☐ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: -----

\* Explanation of special wastes, including a specific list and/or conditions:

### Site Size:

Total area of facility property:	<u>125</u>	acres
Total area sited for use:	<u>10</u>	acres
Total area permitted:		acres
Operating:	<u>n/a</u>	acres
Not excavated:	<u>n/a</u>	acres
Current capacity: transfer station	<u>n/a</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>50</u>	years
Estimated days open per year:	<u>162</u>	days
Estimated yearly disposal volume: 1997	<u>2,917.44</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

### Annual energy production:

Landfill gas recovery projects:	<u>n/a</u>	megawatts
Waste-to-energy incinerators:	<u>n/a</u>	megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Ewing Township Transfer Station

County: Marquette Location: Town: 43N Range: 24W Section(s): 36

Map identifying location included in Attachment Section: ☐ Yes ☒ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Ewing Township (Transfer Station)

### Operating Status (check)

- ☒ open
- ☐ closed
- ☐ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but closure
- ☐ pending

### Waste Types Received (check all that apply)

- ☒ residential
- ☐ commercial
- ☐ industrial
- ☐ construction & demolition
- ☐ contaminated soils
- ☐ special wastes \*
- ☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:  
No special wastes handled at Transfer Station

### Site Size:

Total area of facility property: 1/2 acres  
Total area sited for use: \_\_\_\_\_ acres  
Total area permitted: \_\_\_\_\_ acres  
Operating: \_\_\_\_\_ acres  
Not excavated: \_\_\_\_\_ acres

Current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>  
Estimated lifetime: \_\_\_\_\_ years  
Estimated days open per year: \_\_\_\_\_ days  
Estimated yearly disposal volume: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production: \_\_\_\_\_  
Landfill gas recovery projects: \_\_\_\_\_ megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Powell Township (Peninsula Sanitation)

County: Marquette Location: Town: 51 Range: 27 Section(s): 16

Map identifying location included in Attachment Section: ☐ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Solid Waste Management Authority

☐ Public ☒ Private Owner: Peninsula Sanitation

### Operating Status (check)

- ☒ open
- ☐ closed
- ☐ licensed
- ☒ unlicensed
- ☐ construction permit
- ☐ open, but closure pending

### Waste Types Received (check all that apply)

- ☒ residential
- ☒ commercial
- ☐ industrial
- ☒ construction & demolition
- ☐ contaminated soils
- ☐ special wastes \*
- ☐ other: limited recycling

\* Explanation of special wastes, including a specific list and/or conditions:

### Site Size:

Total area of facility property:

n/a acres

Total area sited for use:

n/a acres

Total area permitted:

n/a acres

Operating:

n/a acres

Not excavated:

n/a acres

Current capacity:

less than 200 /day ☐ tons or ☒ yds<sup>3</sup>

Estimated lifetime:

unlimited years

Estimated days open per year:

104 days

Estimated yearly disposal volume:

n/a. ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:

n/a megawatts

Waste-to-energy incinerators:

n/a megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Republic Township Transfer Station

County: Marquette Location: Town: 46N Range: 29W Section(s): 19

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Republic Township

Operating Status (check)

☒ open  
☐ closed  
☐ licensed  
☒ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☒ other: Tires - hauled to County Landfill by Republic Twp.  
D.P.W.

\* Explanation of special wastes, including a specific list and/or conditions:  
All waste dumped into open top roll off boxes hauled to Marquette County Landfill

### Site Size:

Total area of facility property: 1 acres  
Total area sited for use: 2 acres  
Total area permitted: \_\_\_\_\_ acres  
Operating: 2 acres  
Not excavated: 2 acres

Current capacity: 50 ☐ tons or ☒ yds<sup>3</sup>  
Estimated lifetime: 20 years  
Estimated days open per year: 15 days  
Estimated yearly disposal volume: 250 ☐ tons or ☒ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: \_\_\_\_\_

Waste-to-energy incinerators: \_\_\_\_\_

\_\_\_\_\_ megawatts  
\_\_\_\_\_ megawatts

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Sands Township Transfer Station

County: Marquette Location: Town: 46N Range: 25W Section(s): 3

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Sands Township

Operating Status (check)

- ☒ open  
☐ closed  
☐ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

- ☐ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☒ other: Type III

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property: 5 acres

Total area sited for use: 1 acres

Total area permitted: \_\_\_\_\_ acres

Operating: \_\_\_\_\_ acres

Not excavated: \_\_\_\_\_ acres

Current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

Estimated lifetime: \_\_\_\_\_ years

Estimated days open per year: 24 days

Estimated yearly disposal volume: 65 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: \_\_\_\_\_ megawatts

Waste-to-energy incinerators: \_\_\_\_\_ megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Skandia/West Branch Transfer

County: Marquette Location: Town: 46N Range: 23W Section(s): 31\_\_\_\_\_

Map identifying location included in Attachment Section: ☐ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Skandia/West Branch Townships

### Operating Status (check)

☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
pending

☒  
☐  
☐  
☒  
☐  
☒  
☐

### Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☒ construction & demolition (small amounts)  
☐ contaminated soils  
☒ special wastes \*  
other:

\* Explanation of special wastes, including a specific list and/or conditions:

Glass, newsprint, metal, plastic, magazines, tires, oil, recycled materials, HHW collection site

### Site Size:

Total area of facility property:

40 acres

Total area sited for use:

5 acres

Total area permitted:

\_\_\_\_\_ acres

Operating:

\_\_\_\_\_ acres

Not excavated:

\_\_\_\_\_ acres

Current capacity:

\_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

Estimated lifetime:

\_\_\_\_\_ years

Estimated days open per year:

104 days

Estimated yearly disposal volume:

436.15 ☒ tons or ☐ yds<sup>3</sup> (1996-97)

(if applicable)

Annual energy production:

Landfill gas recovery projects:

\_\_\_\_\_ megawatts

Waste-to-energy incinerators:

\_\_\_\_\_ megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Turin Township Transfer Station

County: Marquette Location: Town: 44N Range: 23W Section(s): 25

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☐ Public ☐ Private Owner: Turin Township

### Operating Status (check)

- ☒ open
- ☐ closed
- ☒ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but closure
- ☐ pending

### Waste Types Received (check all that apply)

- ☒ residential
- ☐ commercial
- ☐ industrial
- ☐ construction & demolition
- ☐ contaminated soils
- ☐ special wastes \*
- ☐ other:

\* Explanation of special wastes, including a specific list and/or conditions:

### Site Size:

Total area of facility property: 2 acres  
Total area sited for use: 1 acres  
Total area permitted: 1 acres  
Operating: 2 acres  
Not excavated: \_\_\_\_\_ acres  
Current capacity: 5 ☒ tons or ☐ yds<sup>3</sup>  
Estimated lifetime: indefinitely years  
Estimated days open per year: 52 days  
Estimated yearly disposal volume: 136 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:  
Landfill gas recovery projects: N/A megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

## FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Wells Township

County: Marquette Location: Town: 42N Range: 24W Section(s): 16

Map identifying location included in Attachment Section: ☐ Yes ☒ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Wells Township

### Operating Status (check)

- ☒ open
- ☐ closed
- ☐ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but closure
- ☐ pending

### Waste Types Received (check all that apply)

- ☒ residential
- ☐ commercial
- ☐ industrial
- ☐ construction & demolition
- ☐ contaminated soils
- ☐ special wastes \*
- ☐ other:

\* Explanation of special wastes, including a specific list and/or conditions:

### Site Size:

Total area of facility property:

1 acres

Total area sited for use:

1/4 acres

Total area permitted:

\_\_\_\_\_ acres

Operating:

\_\_\_\_\_ acres

Not excavated:

\_\_\_\_\_ acres

Current capacity:

\_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

Estimated lifetime:

\_\_\_\_\_ years

Estimated days open per year:

\_\_\_\_\_ days

Estimated yearly disposal volume:

\_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:

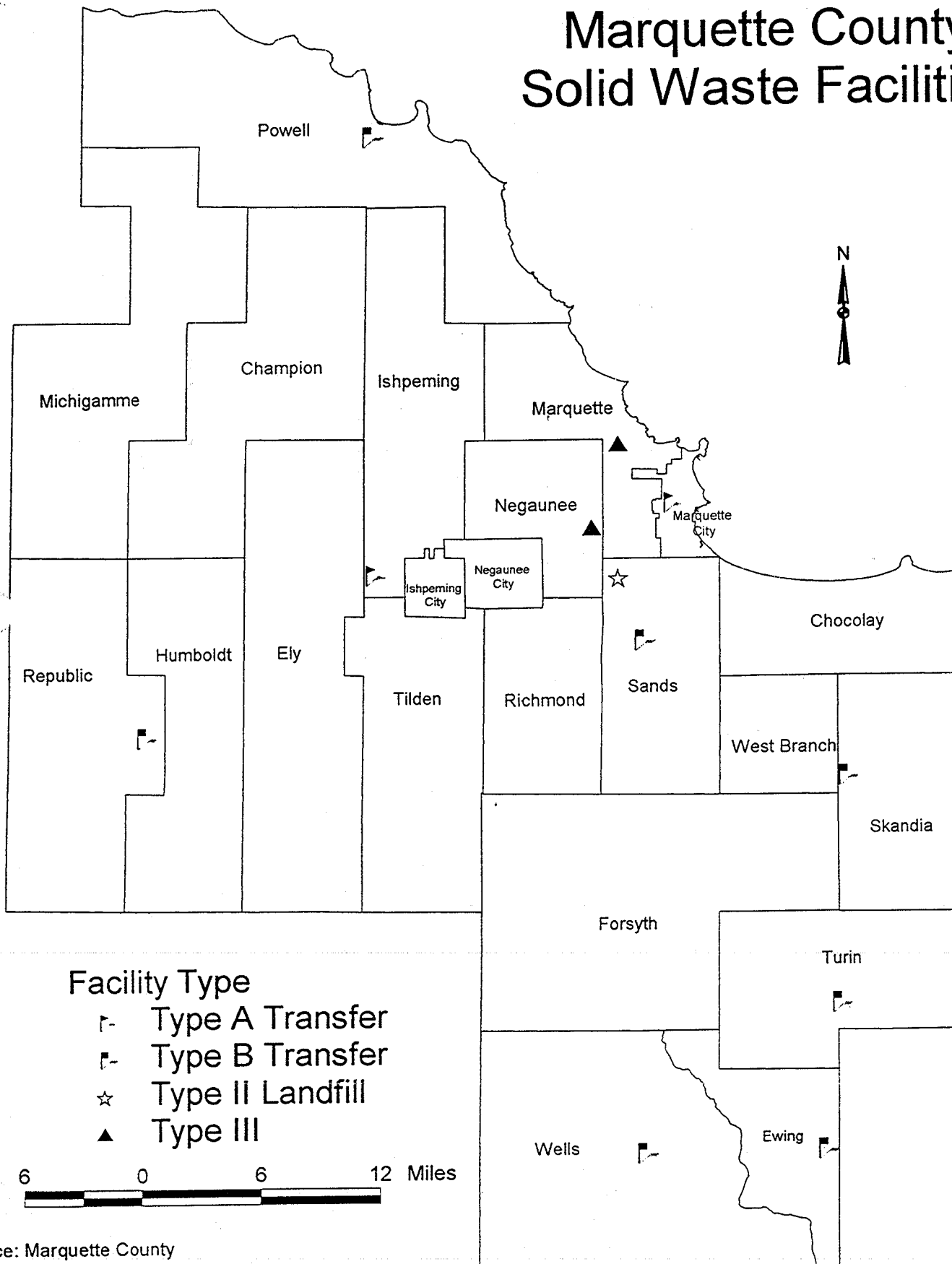
N/A megawatts

Waste-to-energy incinerators:

\_\_\_\_\_ megawatts

Figure 3

# Marquette County Solid Waste Facilities



## DATA BASE

### **SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE**

The following describes the solid waste collection services and transportation infrastructure that will be utilized within the County to collect and transport solid waste.

Collection services within Marquette County are provided primarily by the private sector. These entities handle a variety of residential, commercial, and industrial waste consisting of both Type II and Type III waste.

All waste haulers in the County are registered with the landfill and may be publicly or privately owned and operated. To be registered, they must be authorized by each municipality from which they haul. When the hauler arrives at the landfill, the load is weighed, and the municipality that authorized the load is billed.

There are currently in excess of 100 registered haulers in the County. Most of these, however, haul only waste generated by their own activities (such as construction or demolition debris). The majority of residential and commercial waste is handled by three private entities represented in the table on the following page.

All Type II and Type III solid waste generated in the County is either direct hauled to the landfill or brought to previously identified transfer stations where it is collected, compacted, and brought to the landfill. The only exception is the coal ash produced in electrical generation at the Wisconsin Electric and Marquette Board of Light and Power plants. This material is hauled to Wisconsin Electric's Type III monofill in Marquette Township.

**TABLE 7**  
**MARQUETTE COUNTY**  
**RESIDENTIAL/COMMERCIAL WASTE HAULERS AND SERVICE AREAS**

Township or Municipality	Chick's Sanitation	Northern Refuse	Peninsula Sanitation	Other
Champion Twp	X			
Chocolay Twp		X	X	
Ely Twp	X			
Ewing Twp				1
Forsyth Twp			X	
Humboldt Twp	X			
Ishpeming Twp		X		
Marquette Twp		X	X	
Michigamme Twp		X		2
Negaunee Twp	X	X	X	
Powell Twp			X	
Republic Twp		X		
Richmond Twp				3
Sands Twp			X	4
Skandia Twp		X		5
Tilden Twp				6
Turin Twp				1
Wells Twp			X	
West Branch Twp		X		5
Ishpeming City		X	X	
Marquette City		X	X	
Negaunee City		X	X	

- 1 - Brian Lancour
- 2 - Michigamme Township Municipal
- 3 - Richmond Township Municipal
- 4 - Sands Township Municipal
- 5 - James Warren
- 6 - Robert "Dave" Armstrong

## DATA BASE

### EVALUATION OF DEFICIENCIES AND PROBLEMS

The following is a description of problems or deficiencies in the existing solid waste system.

- Problems with providing service to tourists and camp owners which is necessary to prevent woods dumping of waste.
- High cost of disposal of demolition debris.
- Need for expanded recycling of construction material.
- Systems for recycling and composting vary from municipality to municipality and proves confusing to citizens.
- As the cost of disposal increases it provides incentive to do the "wrong thing" such as woods dumping and home incineration to reduce home disposal volume.
- High cost of leachate disposal.
- Potential liability of biosolid application.

## DATA BASE

### DEMOGRAPHICS

The following presents the current and projected population densities and centers for five and ten year periods, identification of current and projected centers of solid waste generation including industrial solid waste for five and ten year periods as related to the Selected Solid Waste Management System for the next five and ten year periods. Solid waste generation data is expressed in tons or cubic yards, and if it was extrapolated from yearly data, then it was calculated by using 365 days per year, or another number of days as indicated.

**TABLE 8**

Township or Municipality Name	Population 1998	Waste Generation (Tons)	Population 2003	Waste Generation (Tons)	Population 2008	Waste Generation (Tons)
Champion Township	352	165	408	191	473	222
Chocolay Township	6,163	2058	6,606	2206	6,943	2319
Ely Township	2,041	1021	2,309	1155	2,612	1306
Ewing Township	153	33	175	38	200	43
Forsyth Township	3,142	2236	3,826	2723	4,021	2862
Humboldt Township	515	227	590	261	675	298
Ishpeming Township	3,718	1703	4,259	1951	4,877	2234
Marquette Township	2,702	1696	2,754	1729	2,895	1817
Michigamme Township	363	203	382	214	401	225
Negaunee Township	2,445	1459	2,494	1488	2,545	1519
Powell Township	721	222	758	234	797	246
Republic Township	1,123	723	1,094	705	1,166	751
Richmond Township	1,104	893	1,110	897	1,116	902
Sands Township	2,722	1142	2,860	1200	3,006	1259
Skandia Township	996	298	1,036	310	1,078	323
Tilden Township	937	446	912	429	897	422
Turin Township	147	58	140	55	133	52
Wells Township	289	121	295	124	300	126
West Branch Township	687	446	1,007	654	1,058	687
Ishpeming City	7,161	4090	7,015	4007	6,970	3981
Marquette City*	21,427	19895	21,077	19570	21,732	20178
Negaunee City	4,780	2451	4,420	2267	4,280	2195
County Totals	63,688	41586	65,527	42408	68,175	43967

\*City of Marquette adjusted for implementation of recycling program (-8% of 1997 per capita rate). Resource Management/Development Department Estimates

## DATA BASE

### LAND DEVELOPMENT

The following describes current and projected land development patterns, as relates to the selected solid waste management system, for the next five and ten year periods.

Land uses in Marquette County are typical of those found throughout the Upper Peninsula. It was primarily mining and forestry activities that attracted early settlers to the area. Towns grew up near resource production centers and transportation facilities such as Marquette's harbor. The growing population prompted land uses such as farming, commercial, industrial, and others. Mining and lumbering still remain as viable land uses in Marquette County.

The County performed a "windshield survey" in 1973 and a much more comprehensive survey in the early 1980's under the provisions of Part 609, Resource Inventory, of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended which was enacted to obtain land use information on a statewide basis. The maps produced through this project made up the Michigan Resource Information System (MIRIS) which have been very useful in state and local planning efforts.

Using the MIRIS data from the mid 1980's and comparing it with the land use data of the comprehensive plans of 1982 and 1974, the areas used for commercial/industrial (primarily mining) and residential use grew with the forest/agricultural lands decreasing to accommodate growth.

Residential land use has also steadily occurred throughout the County. Most of the growth has been in the urban corridor (Marquette, Negaunee, Ishpeming). Other areas with residential expansion are the Harvey area, Gwinn, along County Road 550 towards Big Bay, and County Road 553 in northern Sands Township. There also seems to be a significant amount of development associated with water bodies throughout the County.

The current down trend in population we are experiencing in the County (\*1980 - 74,101; 1990 - 70,887; 1998 - 63,688 est.) probably will prevent any significant land use changes in the County over the next five to ten years.

\*Source: U S Census, 1980, 1990  
Resource Management/Development Department est. 1998

## DATA BASE

### SOLID WASTE MANAGEMENT ALTERNATIVES

The following briefly describes all solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section. Details regarding each non-selected alternative are located in Appendix B.

Alternatives considered in this process all "share" some mutual components of the existing solid waste system. The alternatives can be "plugged in" to replace part of the system or added as a new component of the system. Each system alternative begins with the individual resident or business and ends with some volume of waste being landfilled.

#### ALTERNATIVE #1

##### Single County Landfill

The single county landfill is a continuation of the selected alternative of the 1989 Marquette County Solid Waste Management Plan. Previous plans had analyzed a "two landfill" system, one serving the east end and the other the west. Construction and operation of two engineered landfills, however, would have been cost prohibitive. From this situation, an "alliance" was formed under the "Intergovernmental Agreement for the Disposal of Waste" to which all municipalities in the County are a party. This agreement has bound the municipalities to a long-term financial and organizational commitment to a single landfill system.

This alternative maintains the current system with enhancement/expansion of some of the component programs. Source reduction and material reuse will be encouraged to minimize material volume that must be collected and disposed. Collection will be continued in its current form. Individual municipalities will continue to provide service as economically as possible either with municipal or private collection. Recycling programs will expand through public education/awareness with "pay-to-throw" (per bag disposal fees) adding incentive to participate in some areas. Two type A transfer stations (West End Transfer and Peninsula Sanitation) will continue operation. Type B transfer stations in Ewing, Republic, Sands, Powell, Skandia/West Branch, Turin, and Wells Townships will also be utilized. Additional type B stations are optional for outlying units of government. The ultimate disposal site under this alternative will be the Marquette County Landfill.

#### ALTERNATIVE #2

##### Incineration (waste to energy)

This proposed alternative utilizes all components of the solid waste management system that currently operates in Marquette County. Waste materials that cannot be reduced, reused, or recycled would be separated into combustible and non-combustible materials. Combustibles would be incinerated in a waste to energy facility. The only materials requiring landfilling would be incinerator ash and non-combustibles such as concrete rubble.

Nationally, about 14 percent of municipal solid waste is incinerated which indicates it is still a viable option in some areas. In Michigan, however, due largely to increased regulation of air emissions, the popularity of incineration has declined and the cost of operation risen.

Previous Marquette County plans had considered this option because a number of benefits do exist. The primary benefit is the preservation of landfill space through a significant reduction in the amount of material being disposed. Secondary benefits are: availability of an alternate fuel for energy production, greater attention to recycling, and hazardous waste removal from the waste stream.

Challenges facing an incineration alternative include locating a market for the energy produced, complying with air emission standards, and existing financial commitments to the landfill .

### **ALTERNATIVE #3**

#### Discontinue landfill operation

Under this alternative, operation of the Marquette County Landfill would cease. All waste generated in the County (with the exception of coal ash from electric generation which will continue to be disposed at the Wisconsin Electric Landfill) will be shipped out of the County for disposal.

All components of our current system except landfilling, would be utilized in this alternative. As volume of material becomes a critical feature due to transportation costs and tipping fees, volume reduction both in size and weight must be accomplished through enhancement of current activities and system innovation. Programs which encourage source reduction and reuse before material reaches the waste stream would be stressed. Recycling efforts and goals would be increased. Elimination of all hazardous waste would be pursued to reduce liability associated with waste export.

Volume reduction of Type III waste would be necessary through grinding or other techniques to conserve shipping space. Waste collection could potentially remain as it is now if the facility at the landfill were converted to a transfer station to accommodate those who currently direct haul to the landfill. Otherwise, the direct haul material would need to be re-routed to the West End Transfer or Peninsula Sanitation's transfer station. Direct haul to out of County landfills would be inefficient for most waste transporters because of partial loads and lack of compaction. Sufficient capacity exists at the transfer stations to accommodate the annual volume being handled.

## THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal areas locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies. Detailed information on recycling programs, evaluation, and coordination of the Selected System is included in Appendix A. Following is an overall description of the Selected System:

The major components of this system (Alternative 1) include enhanced resource recovery and disposal of Type II and Type III waste at a single County landfill.

Under this system, generally, existing collection systems continue. Two type A transfer stations are located in Ishpeming Township and the City of Marquette bypass Industrial Park respectively. Additional Type B transfer stations are located in Ewing, Powell, Republic, Sands, Skandia/West Branch, Turin, and Wells Townships. The Marquette County Landfill is the ultimate disposal site for Type II waste which is not reduced, recycled, separated or composted. Type III solid waste is to be disposed of at the Marquette County Landfill site. Type III waste resulting from electrical power generation will be disposed at the Wisconsin Electric monofill in Marquette Township. Disposal of coal ash could also take place at the Marquette County Landfill if necessary.

SELECTED SYSTEM

**IMPORT AUTHORIZATION**

If a Licensed solid waste disposal area is currently operating within the County, disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 1-A.

**TABLE 9**  
**Table 1-A (format)**  
**CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE**

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME <sup>1</sup>	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
Marquette	Alger	Marquette County Landfill			C*
Marquette	Chippewa	Marquette County Landfill			C*
Marquette	Delta	Marquette County Landfill			C*
Marquette	Ontonagon	Marquette County Landfill			C*

\* Condition listed in Attachment D-11

<sup>1</sup> Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

<sup>2</sup> Authorization indicated by P = Primary Disposal; C = Contingency Disposal; \* = Other conditions exist and detailed explanation is included in the Attachment Section. D-11

SELECTED SYSTEM

**EXPORT AUTHORIZATION**

If a Licensed solid waste disposal area is currently operating within another County, disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 2-A if authorized for import in the approved Solid Waste Management Plan of the receiving County.

**TABLE 10**

**Table 2-A (format)**

**CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME <sup>1</sup>	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
Marquette	Alger	Wood Island Waste Management Inc.			C*
Marquette	Chippewa	Dafter Sanitary Landfill			C*
Marquette	Delta	Delta Solid Waste Mgmt.			C*
Marquette	Ontonagon	K and W Landfill Inc.			C*

\* Conditions listed in Attachment D-11

<sup>1</sup> Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

<sup>2</sup> Authorization indicated by P = Primary Disposal; C = Contingency Disposal; \* = Other conditions exist and detailed explanation is included in the Attachment Section. D-11

SELECTED SYSTEM  
**SOLID WASTE DISPOSAL AREAS**

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the next five years and, if possible, the next ten years. Pages III-5 through III-15 contain descriptions of the solid waste disposal facilities which are located within the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan.

Type II Landfill:

Marquette County Landfill

Type A Transfer Facility:

Peninsula Sanitation

West Marquette County Transfer Station

Type B Transfer Facility:

Ewing Township

Powell Twp

Republic Twp.

Sands Twp.

Skandia/West Branch Twps.

Turin Twp.

Wells Twp.

Type III Landfill:

Wisconsin Electric - PIPP Ash

Processing Plant:

Incinerator:

Waste Piles:

Waste-to-Energy Incinerator:

Other:

A letter from the Marquette County Landfill Director stating facility capacity and willingness to accept the County's solid waste is in the Attachments Section D.

\*\*Letters from Marquette County Solid Waste Management Authority

ELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill  
Facility Name: Marquette County Landfill  
County: Marquette Location: Town: 47N Range: 25W Section(s): 5&6

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Marquette County Solid Waste Management Authority

Operating Status (check)

☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☒ commercial  
☒ industrial  
☒ construction & demolition  
☒ contaminated soils  
☒ special wastes \*  
☐ other: \_

Explanation of special wastes, including a specific list and/or conditions:  
Medical

Size:

Total area of facility property: 210 acres  
Total area sited for use: 62 acres  
Total area permitted: 62 acres  
Operating: 15 acres  
Not excavated: 47 acres

Current capacity: 5,750,000 ☐ tons or ☒ yds<sup>3</sup>  
Estimated lifetime: 58 years  
Estimated days open per year: 250 days  
Estimated yearly disposal volume: 44,000 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:  
Landfill gas recovery projects: N/A megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type III Landfill  
Facility Name: Wisconsin Electric Power Company Coal Ash Disposal Site No. 2  
County: Marquette Location: Town: 48N Range: 25W Section(s): 6-NE 1/4

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes :

☐ Public ☒ Private Owner: Wisconsin Electric Power Company

Operating Status (check)	Waste Types Received (check all that apply)
<input checked="" type="checkbox"/> open	<input type="checkbox"/> residential
<input type="checkbox"/> closed	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> licensed	<input checked="" type="checkbox"/> industrial
<input type="checkbox"/> unlicensed	<input type="checkbox"/> construction & demolition
<input type="checkbox"/> construction permit	<input type="checkbox"/> contaminated soils
<input type="checkbox"/> open, but closure	<input type="checkbox"/> special wastes *
<input type="checkbox"/> pending	<input type="checkbox"/> other:

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u>1400</u>	acres
Total area sited for use:	<u>25</u>	acres
Total area permitted:	<u>25</u>	acres
Operating:	<u>7</u>	acres
Not excavated:	<u>8</u>	acres
Current capacity:	<u>2,000,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>*6-8 remaining</u>	years
Estimated days open per year:	<u>365</u>	days
Estimated yearly disposal volume:	<u>200,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:	
Landfill gas recovery projects:	<u>n/a</u> megawatts
Waste-to-energy incinerators:	<u>n/a</u> megawatts

\* The estimated life of the landfill is approximated at 6 to 8 years which is sufficient for this planning period. Preliminary work regarding future landfill space is underway. Should it become desirable or necessary the ash could be disposed at the Marquette County Landfill.

ELECTED SYSTEM  
UTILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility  
Facility Name: Peninsula Sanitation

County: Marquette Location: Town: 48 Range: 25 Section(s): 22

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Solid Waste Management Authority

☐ Public ☒ Private Owner: Peninsula Sanitation

Operating Status (check)	Waste Types Received (check all that apply)
<input checked="" type="checkbox"/> open	<input checked="" type="checkbox"/> residential
<input checked="" type="checkbox"/> closed	<input checked="" type="checkbox"/> commercial
<input checked="" type="checkbox"/> licensed	<input checked="" type="checkbox"/> industrial
<input checked="" type="checkbox"/> unlicensed	<input checked="" type="checkbox"/> construction & demolition
<input type="checkbox"/> construction permit	<input type="checkbox"/> contaminated soils
<input type="checkbox"/> open, but closure	<input type="checkbox"/> special wastes *
<input type="checkbox"/> pending	<input type="checkbox"/> other: <u>  </u>

Explanation of special wastes, including a specific list and/or conditions:

Size:

Net area of facility property:	<u>2</u>	acres
Total area sited for use:	<u>n/a</u>	acres
Total area permitted:	<u>n/a</u>	acres
Operating:	<u>n/a</u>	acres
Not excavated:	<u>n/a</u>	acres
Current capacity:	<u>200</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>unlimited</u>	years
Estimated days open per year:	<u>312</u>	days
Estimated yearly disposal volume:	<u>n/a</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>
If applicable)		
Annual energy production:		
Landfill gas recovery projects:	<u>n/a</u>	megawatts
Waste-to-energy incinerators:	<u>n/a</u>	megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility

Facility Name: West Marquette County Transfer Station

County: Marquette Location: Town: 47N Range: 27W & 28W Section(s): 6 & 7 and 1 & 2

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes : Marquette County Landfill

☒ Public ☐ Private Owner: West Marquette County Sanitation Authority

Operating Status (check)

- ☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

- ☒ residential  
☒ commercial  
☐ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u>125</u>	acres
Total area sited for use	<u>10</u>	acres
Total area permitted:	_____	acres
Operating:	<u>n/a</u>	acres
Not excavated:	<u>n/a</u>	acres
Current capacity: transfer station	<u>n/a</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>50</u>	years
Estimated days open per year:	<u>162</u>	days
Estimated yearly disposal volume: 1997	<u>2,917.44</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:	<u>n/a</u>	megawatts
Waste-to-energy incinerators:	<u>n/a</u>	megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility  
Facility Name: Ewing Township Transfer Station  
County: Marquette Location: Town: 43N Range: 24W Section(s): 36

Map identifying location included in Attachment Section: ☐ Yes ☒ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Ewing Township (Transfer Station)

Operating Status (check)

☒ open  
☐ closed  
☐ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:  
No special wastes handled at Transfer Station

Facility Size:

Total area of facility property: \_\_\_\_\_ acres  
Total area sited for use: \_\_\_\_\_ acres  
Total area permitted: \_\_\_\_\_ acres  
Operating: \_\_\_\_\_ acres  
Not excavated: \_\_\_\_\_ acres  
Current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>  
Estimated lifetime: \_\_\_\_\_ years  
Estimated days open per year: \_\_\_\_\_ days  
Estimated yearly disposal volume: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production: \_\_\_\_\_  
Landfill gas recovery projects: \_\_\_\_\_ megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Powell Township (Peninsula Sanitation)

County: Marquette Location: Town: 51 Range: 27 Section(s): 16-----

Map identifying location included in Attachment Section: ☐ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Solid Waste Management Authority

☐ Public ☒ Private Owner: Peninsula Sanitation

Operating Status (check)

- ☒ open  
☐ closed  
☐ licensed  
☒ unlicensed  
☐ construction permit  
☐ open, but closure pending

Waste Types Received (check all that apply)

- ☒ residential  
☒ commercial  
☐ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: limited recycling ---

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property: n/a acres  
Total area sited for use: n/a acres  
Total area permitted: n/a acres  
Operating: n/a acres  
Not excavated: n/a acres  
Current capacity: less than 200 /day ☐ tons or ☒ yds<sup>3</sup>  
Estimated lifetime: unlimited years  
Estimated days open per year: 104 days  
Estimated yearly disposal volume: n/a ☐ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: n/a megawatts

Waste-to-energy incinerators: n/a megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Republic Township Transfer Station

County: Marquette Location: Town: 46N Range: 29W Section(s): 19

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Republic Township

Operating Status (check)

- ☒ open  
☐ closed  
☐ licensed  
☒ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

- ☒ residential  
☐ commercial  
☐ industrial  
☒ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☒ other: Tires - Hauled to County Landfill by Republic Township D.P.W. \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:

Waste dumped into open top roll off boxes hauled to Marquette County Landfill

Site Size:

Total area of facility property:	<u>1</u>	acres
Total area sited for use:	<u>2</u>	acres
Total area permitted:	<u>    </u>	acres
Operating:	<u>2</u>	acres
Not excavated:	<u>2</u>	acres
Current capacity:	<u>50</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>20</u>	years
Estimated days open per year:	<u>15</u>	days
Estimated yearly disposal volume:	<u>250</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:	<u>    </u>	megawatts
Landfill gas recovery projects:	<u>    </u>	megawatts
Waste-to-energy incinerators:	<u>    </u>	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Sands Township Transfer Station

County: Marquette Location: Town: 46N Range: 25W Section(s): 3

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Sands Township

Operating Status (check)

- ☒ open  
☐ closed  
☐ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

- ☐ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☒ other: Type III

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property: 5 acres  
Total area sited for use: 1 acres  
Total area permitted: \_\_\_\_\_ acres  
Operating: \_\_\_\_\_ acres  
Not excavated: \_\_\_\_\_ acres  
Current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>  
Estimated lifetime: \_\_\_\_\_ years  
Estimated days open per year: 24 days  
Estimated yearly disposal volume: 65 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: \_\_\_\_\_ megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Skandia/West Branch Transfer

County: Marquette Location: Town: 46N Range: 23W Section(s): 31

Map identifying location included in Attachment Section: ☐ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

☒ Public ☐ Private Owner: Skandia/West Branch Townships

Operating Status (check)

☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☒ construction & demolition (small amounts)  
☐ contaminated soils  
☒ special wastes \*  
☐ other: \_\_\_\_\_

Explanation of special wastes, including a specific list and/or conditions:

Glass, newsprint, metal, plastic, magazines, tires, oil, recycled materials, HHW collection site

Facility Size:

Total area of facility property: 40 acres  
Total area sited for use: 5 acres  
Total area permitted: \_\_\_\_\_ acres  
Operating: \_\_\_\_\_ acres  
Not excavated: \_\_\_\_\_ acres  
Current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>  
Estimated lifetime: \_\_\_\_\_ years  
Estimated days open per year: 104 days  
Estimated yearly disposal volume: 436.15 ☒ tons or ☐ yds<sup>3</sup> (1996-97)

If applicable)

Annual energy production: \_\_\_\_\_ megawatts  
Landfill gas recovery projects: \_\_\_\_\_ megawatts  
Waste-to-energy incinerators: \_\_\_\_\_ megawatts

SELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Turin Township Transfer Station

County: Marquette Location: Town: 44N Range: 23W Section(s): 25

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☐ Public ☐ Private Owner: Turin Township

Operating Status (check)

☒ open  
☐ closed  
☒ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: \_\_\_\_\_

\* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property: 2 acres

Total area sited for use: 1 acres

Total area permitted: 1 acres

Operating: 2 acres

Not excavated: \_\_\_\_\_ acres

Current capacity: 5 ☒ tons or ☐ yds<sup>3</sup>

Estimated lifetime: indefinitely years

Estimated days open per year: 52 days

Estimated yearly disposal volume: 136 ☒ tons or ☐ yds<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: N/A megawatts

Waste-to-energy incinerators: \_\_\_\_\_ megawatts

ELECTED SYSTEM  
FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Wells Township

County: Marquette Location: Town: 42N Range: 24W Section(s): 16

Map identifying location included in Attachment Section: ☐ Yes ☒ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Marquette County Landfill

☒ Public ☐ Private Owner: Wells Township

Operating Status (check)

☒ open  
☐ closed  
☐ licensed  
☐ unlicensed  
☐ construction permit  
☐ open, but closure  
☐ pending

Waste Types Received (check all that apply)

☒ residential  
☐ commercial  
☐ industrial  
☐ construction & demolition  
☐ contaminated soils  
☐ special wastes \*  
☐ other: \_\_\_\_\_

Explanation of special wastes, including a specific list and/or conditions:

Size:

total area of facility property: 1 acres  
total area sited for use: 1/4 acres  
total area permitted: \_\_\_\_\_ acres  
Operating: \_\_\_\_\_ acres  
Not excavated: \_\_\_\_\_ acres  
current capacity: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>  
estimated lifetime: \_\_\_\_\_ years  
estimated days open per year: \_\_\_\_\_ days  
estimated yearly disposal volume: \_\_\_\_\_ ☐ tons or ☐ yds<sup>3</sup>

If applicable)

annual energy production:

Landfill gas recovery projects:

Waste-to-energy incinerators:

N/A megawatts  
\_\_\_\_\_ megawatts

# SELECTED SYSTEM

Current collection and transportation services are anticipated to continue in essentially the same form under the selected alternative. Service will be provided primarily by the private sector and be either direct haul or transferred to the Marquette County Landfill.

**TABLE 11**  
**SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:**

Township of Municipality Name	Hauled By	Hauled To
Champion Township	Chick's	West End Transfer
Chocolay Township	Northern Refuse	Landfill
Ely Township	Chick's	West End Transfer & Landfill
Ewing Township	Peninsula	Landfill
Forsyth Township	Peninsula	Landfill
Humboldt Township	Chick's	West End Transfer
Ishpeming Township	Northern Refuse	West End Transfer & Landfill
Marquette Township	Peninsula	Peninsula Transfer & Landfill
Michigamme Township	Township	West End Transfer
Negaunee Township	Chick's	Landfill
Powell Township	Peninsula	Peninsula Transfer
Republic Township	Northern Refuse	Landfill
Richmond Township	Township	Landfill
Sands Township	Township	Landfill
Skandia Township	Individual/Northern Refuse	Skandia-West Branch Transfer and Landfill
Tilden Township	Robert Armstrong	West End Transfer
Turin Township	Peninsula	Landfill
Wells Township	Peninsula	Landfill
West Branch Township	Individual/Northern Refuse	Skandia-West Branch Transfer and Landfill
Ishpeming City	Peninsula	Landfill
Marquette City	Peninsula	Peninsula Transfer
Negaunee City	Northern Refuse	Landfill

**ELECTED SYSTEM**  
**SOURCE CONSERVATION EFFORTS:**

**ELECTED SYSTEM**  
**SOURCE CONSERVATION EFFORTS:**

The following describes the selected system's proposed conservation efforts to reduce the amount of solid waste generated throughout the County. The annual amount of solid waste currently or proposed to be diverted from landfills and incinerators is estimated for each effort to be used, if possible. Since conservation efforts are provided voluntarily and change with technologies and public awareness, it is not this Plan update's intention to limit the efforts to only what is listed. Instead citizens, businesses, and industries are encouraged to explore the options available to their lifestyles, practices, and processes which will reduce the amount of materials requiring disposal.

TABLE 12

[illegible]

☒ Additional efforts and the above information for those efforts are listed on an attached page.

## SELECTED SYSTEM

### Source Reduction

The optimum technique for managing solid waste is to reduce the quantity of waste generated. Of solid waste management activities, source reduction occupies the top of the hierarchy followed by recycling (including composting) and disposal (including combustion and landfilling). The U.S. Environmental Protection Agency defines source reduction as "activities designed to reduce the volume or toxicity of waste generated including the design and manufacture of products with minimum toxic content, minimum volume of material, and/or a longer useful life".

Source reduction differs from all other solid waste management activities. Recycling and disposal options all come into play after goods have been produced. Source reduction takes place before materials have been identified as waste. Four basic methods for achieving this have been identified:

Reduced Resource Used Per Product - This is source reduction through redesigning of products and packaging. Several products such as autos, newspapers, steel cans, glass bottles, and corrugated packaging have illustrated this.

Increased Product Lifetime - More durable and longer-lived products increases the time from purchase to disposal and decreases the number of items to be disposed.

Products Reuse - This concept is to reuse a product without changing its original form. Bringing bags back to the grocery store to use again exemplifies this type of source reduction. There are also some types of beverage containers that are returned, washed and refilled.

Decreased Consumption of Consumer Products - This is the logical elimination of unnecessary products which become solid waste. One example of unnecessary consumption is the bagging of single items in a retail store.

Though source reduction is probably the best place to manage solid waste, initiating a program at the local level would be difficult. To have much effect, these programs need implementation at the state or national level.

# SELECTED SYSTEM

## WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

### Volume Reduction Techniques

The following describes the techniques utilized and proposed to be used throughout the County which reduces the volume of solid waste requiring disposal. The annual amount of landfill air space not used as a result of each of these techniques is estimated. Since volume reduction is practiced voluntarily and because technologies change and equipment may need replacing, it is not this Plan update's intention to limit the techniques to only what is listed. Persons within the County are encouraged to utilize the technique that provides the most efficient and practical volume reduction for their needs. Documentation explaining achievements of implemented programs or expected results of proposed programs is attached.

**TABLE 13**

Technique Description	Est. Air Space Conserved Yds <sup>3</sup> /Yr		
	<u>Current</u>	<u>5th yr</u>	<u>10th yr</u>
Waste Compaction	53,182	54,689	56,884
Recycling	199,545	205,068	213,300
Composting	8,450	8,690	9,038
Hazardous Waste Extraction	20	23	26

☒ Additional efforts and the above information for those efforts are listed on an attached page.

SELECTED SYSTEM  
Volume Reduction Techniques

WASTE COMPACTION

Waste compaction is a practice whereby the physical volume of the waste is reduced through compression of the material. The importance of compaction as it relates to this plan's selected alternative is in the preservation of capacity at the final disposal site - the Marquette County Landfill.

Two basic techniques are utilized for compaction at landfills. One involves loose waste which is compacted in place, and the other is baled (compacted) and brought to the disposal cell. The latter technique (baling) is utilized at the County Landfill. A description and comparison of the two methods follows.

Loose waste landfill - This type of landfill consists of layers of waste (lifts) between two and three feet in thickness depending on the amount of waste brought to the landfill on a given day and the size of the working face. This material is compressed by driving track type tractors, track loaders, or steel wheeled equipment over the waste. Compaction densities vary from 800 to 1,400 lbs./cu. yd. Typical of the equipment at smaller landfills is 800 to 1,000 lbs./cu. yd. Each day, the lift will be covered with six inches of soil.

Baled waste landfill - With a baling operation, loose waste is brought to the landfill and dumped on a tipping floor where the load is inspected. At this point, undesirable/hazardous materials can be removed. The waste is then run through a compactor, compressed to densities ranging from 900 lbs./cu. yd. to 1,600 lbs./cu. yd. depending on the size of equipment. The unit at the County Landfill produces a density of 1,100 lbs./cu. yd. Bales are transported to the cell and stacked into a nine foot lift. Six inches of soil cover is placed on the daily.

Comparison - In comparing the two techniques, bale fills appear to hold the edge. While loose waste fills have lower start up costs, greater disposal speed, and economy of daily operation, bale fills have longer useful "lives", improved biodegradation, hazardous waste removal, and long term economics.

The primary advantage of bale fills is the greater lift thickness (9 feet -vs- 3 feet). This results in a sizeable volume difference caused by the daily cover requirements for the working face of the cell. A loose waste fill results in a waste-to-soil ratio of approximately 3.5:1. This translates into 78 percent of a cell consisting of waste and 22 percent soil. Baled waste results in a 9:1 ratio, and 90 percent waste to 10 percent soil in the cell. To exemplify this point, a loose waste cell that lasts 15 years would last 17.5 years as a bale fill.\*

Though equipment and maintenance costs (baler, tipping floor, etc.) are higher for a bale fill, the extended life (2.5 years in our example) allows that much longer over which tipping fees can be collected to recoup costs.

The opportunity for biodegradation to take place is also enhanced through a bale system. Though the bales themselves are dense, the spaces between and around bales allows better leachate circulation than a homogenous layer.

As long as extending the "life" of the landfill continues as a priority for managers of solid waste in Marquette County, baling waste will continue as the preferred technique until a superior alternative is developed. In place compaction of loose waste will be used when the baler is unavailable or when it is advantageous to the landfill to operate in this mode or revert to a compacted fill.

\*Source - Waste Age, January, 1998

## ELECTED SYSTEM

### Review of Resource Recovery Programs:

The following describes the type and volume of material in the County's waste stream that may be available for recycling or composting programs. How conditions in the County affect or may affect a recycling or composting program and potential benefits derived from these programs is also discussed. Impediments to recycling or composting programs which exist or which may exist in the future are listed, followed by a discussion regarding reducing or eliminating such impediments.

A variety of materials exist in the County's waste stream that can be reduced through recycling, composting, and hazardous waste management programs. Currently, programs addressing all three areas are in operation within the County.

## RECYCLING

Marquette County's waste stream is typical of waste generated throughout the country. Materials such as metals, corrugated cardboard, magazines, newspapers, glass, and plastics which are commonly recycled are being extracted here, too. Recyclables are picked up curbside or dropped off at specific "holding" areas. The relationship that exists between market price of recyclables and cost of collection, processing and transportation exert limitations on the extent or enthusiasm with which recycling programs are pursued. Lacking strong markets, increased efficiency is necessary to hold down costs. An increased "environmental awareness" by the general public has created demand for recycling service that not only will continue but will grow.

## COMPOSTING

Yard waste, though not a threat to landfill space (because not legal to landfill), represents a volume of material that, by many, is considered waste. In rural areas, more options exist for the disposal of yard waste than in urban areas where small, fully developed lots are common. Composting programs, therefore, occur only in the urbanized areas of the County. Always a consideration is the cost of material handling versus the benefit received and the public's willingness to financially support this activity. The more composting done "in your own backyard", the smaller the management problem becomes. Expanded education towards volume reduction is the best solution. Regardless, due to lack of interest or capability on the part of residents, there will always be some volume of material requiring handling.

## HOUSEHOLD HAZARDOUS WASTE

Eliminating household hazardous waste from our waste stream is a very important management goal. Though resulting in conservation of landfill space, the greatest value in the program operating in this County is the protection from future liability that could result from environmental impacts of landfilling hazardous wastes. The program has been effective in providing a disposal option for residents. There is great potential for increased awareness and participation.

#### SELECTED SYSTEM

- ☒ Recycling programs within the County are feasible. Details of existing and planned programs are included on the following pages.
- ☐ Recycling programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

It has been estimated that through the combination of composting and recycling, more than 70 percent of our garbage could be kept from landfills and incinerators throughout the country. Though a variety of factors described in the following discussion will keep us below that percentage, there are efforts underway in the County that are having a notable impact.

#### RECYCLING

Recycling materials that were once considered waste has become an accepted component of integrated solid waste management and is practiced across the country and throughout the world. Around for decades, recycling has its roots in the "environmental movement". Originally considered to be just a "feel good" activity, recycling gained more attention in the 1980's when a "landfill crisis" was considered imminent. Recycling was considered critical to avoid the huge expense and environmental burden of additional landfill construction.

Today, the recycling rate in the U S is greater than 25 percent. It is estimated that some 9,000 communities in the country offer curbside collection programs. This represents a two-fold increase over just a decade ago. Numerous other communities offer drop-off sites where residents have access to recycling.

Recycling activity has steadily increased in Marquette County as well. Improved access, either through curbside recycling or drop-off, both of which are utilized in the County, has boosted recycling even in light of declining population. Public education has increased "awareness" of environmental concerns with waste disposal and the positive impacts of recycling. Additional "incentive" to recycle is provided in those areas where fees are charged per bag of refuse disposed.

Recycling has been made available by municipalities through private contractors with the exception of the City of Ishpeming which provides a public recycling program. The primary privately held providers of residential recycling in the County are Chick's, Northern Refuse, and Peninsula Sanitation. A combined volume of 2,447 tons was recycled in Marquette County by these entities in 1997. Additionally, a number of businesses that may be considered "industrial recyclers" which deal primarily (but not exclusively) with mixed metals remove considerably more material from the waste stream.

The following table combines data from Chick's, Northern Refuse, and Peninsula Sanitation and shows local recycling efforts by these companies over the last five years. A number of variables including fluctuations in markets for recyclables, other companies participating in recycling, and declining population in the County all impact tonnage totals.

**TABLE 14**  
**RECYCLING VOLUMES OF MAJOR COLLECTORS**  
(in tons)

Commodity	1993	% of total	1994	% of total	1995	% of total	1996	% of total	1997	% of total
Corrugated cardboard	986	33.9	871	32.1	953	32.7	908	35.7	675	27.6
Newsprint	352	12.1	243	8.9	367	12.6	215	8.5	405	16.6
Glossy magazines	179	6.2	405	14.9	312	10.7	201	7.9	286	11.7
HDPE natural plastic	95	3.3	54	2.0	54	1.9	56	2.2	57	2.3
Clear glass	322	11.0	168	6.2	234	8.0	119	4.7	131	5.4
Mixed metal	974	33.5	972	35.9	991	34.1	1044	41.0	893	36.4
Total	2,908		2,713		2,911		2,543		2,447	

The ability to market recovered materials is still key to a successful recycling program. The paper markets, for example, were severely depressed in 1996. The preceding table shows how this impacted recycling of newsprint and magazines locally. To help match "suppliers" with consumers, the State of Michigan Department of Environmental Quality publishes a recycled materials market directory. The directory includes listings of companies and organizations that collect and process recyclables and the types of materials that are available to manufacturers that utilize them. Through the planning period the Designated Planning Authority will monitor recyclers in the County and provide updates on markets.

The table on the following page lists Marquette County recycling entities and materials handled by each.

**TABLE 15**  
**RECYCLED MATERIAL PROCESSORS**  
**MARQUETTE COUNTY**

Company	Material	Annual Volume (tons)
A&L Iron & Metal	Mixed metal	12,000
Kallioinen Scrap Metal	Tin	1,300
	Aluminum/Brass	85
	Ferrous	1,615
K-Mart	Corrugated cardboard	59
Mattson's Auto Salvage	Mixed metal/ferrous	630
Menard's	Corrugated cardboard	365
	Wood scrap	82
	Clear plastic	5
N&N Trucking/Recycling	Ferrous	310
	Aluminum/Copper	5
Pamida	Corrugated cardboard	72
Sands Auto	Part salvage/Ferrous	130
Shopko	Corrugated cardboard	390
Star Industries	Oil filters	68
	Paper	120
	Corrugated cardboard	20
Super Markets (various totaled)	Corrugated cardboard/Paper	926
Superior Auto Parts	Part Salvage/Ferrous	685
Wal-Mart	Corrugated cardboard	176
	Paper	11
	Metal	14
Wisconsin Electric	CoalAsh	45,000
<b>TOTAL</b>		<b>64,068</b>

**TABLE 16**  
**RECYCLING AVAILABILITY**  
**(by municipality)**

Township or Municipality Name	Curbside	Drop off	Unavailable
Champion Township		WMCTS ITFD	
Chocolay Township	X	CTH	
Ely Township	X	WMCTS ITFD	
Ewing Township			X
Forsyth Township			X
Humboldt Township		WMCTS ITFD	
Ishpeming Township	X	WMCTS ITFD	
Marquette Township		PSTS	
Michigamme Township		CC	
Negaunee Township	X		
Powell Township		TT	
Republic Township	X		
Richmond Township		PSTS	
Sands Township			X
Skandia Township		S/WBTS	
Filden Township		WMCTS ITFD	
Orin Township			X
Wells Township			X
West Branch Township		S/WBTS	
Ishpeming City	X	IRC	
Marquette City	X	PBTS	
Negaunee City	X	NR	

WMCTS - West Marquette County Transfer Station

S/WBTS - Skandia/West Branch Transfer Station

NR - Northern Refuse

PSTS - Peninsula Sanitation Transfer Station

CTH - Chocolay Township Hall

CC - Community Center

TT - Township Transfer

IRC - Ishpeming Recycling Center

ITFD - Ishpeming Township Fire Department

Recycling is by far the most significant method available to us for reduction of material volume requiring disposal at the landfill. With the importance placed locally on preserving landfill capacity for as long as practical, the more material that can be diverted from disposal, the better local goals are served.

## SELECTED SYSTEM

☒ Composting programs within the County are feasible. Details of existing and planned programs are included on the following pages.

☐ Composting programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

### COMPOSTING

Essentially any organic material has potential for composting. National estimates indicate that about 35% of the waste stream consists of organic material. This material will be addressed in three categories; municipal organic waste (food waste and paper), yard waste (grass, leaves, and branches), and biosolids (wastewater treatment residue).

#### Municipal organic waste

Municipal composting is being promoted as a solid waste tool. Removing the organics from the waste stream significantly reduces the amount of material requiring landfilling. The preservation of landfill capacity by keeping out material that can be "disposed" by other means is desirable if feasible. An additional benefit is the compost itself which is an excellent soil amendment or, at the very least, is suitable for use as daily landfill cover.

Composting of municipal solid waste is a relatively new approach to waste reduction and faces many challenges. One of the larger problems is the amount of handling the waste requires. Because of the variety of materials in the municipal solid waste stream a separation of the organics from other materials must be achieved. Source separation is probably the most effective method of accomplishing this. Residents would need to separate food scraps just as they would recyclables from their trash. The organics would have to be collected and kept separate from other solid waste.

Another consideration is the composting site. A fairly large site is necessary for this process. In a typical operation, the waste is piled in rows approximately eight feet high and sixteen feet wide. The rows must be "turned" a number of times to add oxygen to the material to facilitate decomposition. The low pile height and turning both require space. The site would also require a degree of isolation as the process is notorious for creating odors.

In our region, the climate may also play a part in whether municipal organic waste composting is feasible. For decomposition to take place, the material must reach temperatures between 130° and 150° for a period of nearly two weeks. Attaining and maintaining these temperatures during winter months would be difficult, slowing or stopping decomposition. Unlike yard waste, municipal organic waste material is produced year-round.

Composting of municipal solid waste is also expensive due largely to the amount of material handling that is required. Many of the facilities, which are utilizing this process, have developed markets for the compost product or utilize the material in place of purchasing daily cover. In any case, this is by no means a money making venture. The real value is the landfill capacity that is preserved.

#### ELECTED SYSTEM

Presently, off-site composting (location other than residence) of food waste is illegal in Michigan. There is ongoing discussion regarding changing this status. If sufficient benefit can be identified, change will occur. Should composting of municipal waste become acceptable and if the County of Marquette were to pursue this technology, the best location to carry it out would be at the current landfill where there is sufficient space, isolation from residential areas, and a use for the compost product for establishing vegetation or as daily cover.

#### Yard Waste

Yard waste such as grass, leaves, and branches are another component of the waste stream that can be composted. Though an alternative that has always been available, most composting has been of the "backyard" variety with few large-scale "municipal" programs operating. Pressure exerted by the "environmental movement" and an increased environmental awareness on the part of the general public has accelerated the acceptance of composting. Adding real impetus to the program in Michigan was the banning of yard waste from landfills through legislative initiatives in 1993 and 1995. Though eliminated from landfills, yard waste still represents a volume of material that needs to be addressed in some manner.

Marquette County has a mixture of rural and urban settings. The manner of dealing with yard waste is different in both. Rural areas generally consist of larger properties where residents typically dispose of yard waste on their own property. This may result in composting practices that produce a usable soil amendment or gardening or landscaping use or clippings simply dumped and permitted to "return to nature". In urban areas, however, where parcels are small and fully developed, "home composting" is not always practical, and disposal problem results.

The amount of composting that occurs in Marquette County is difficult to assess. Composting done by individuals "at home" is known to occur but nearly impossible to measure. Most public access composting or those that can't or won't compost at home takes place in the "urbanized" portions of the County though the West End Transfer does handle some township yard waste. Programs are offered in the cities of Sault Ste. Marie, Marquette, and Negaunee as well as Chocolay Township. The table on the following page provides information related to these programs.

TABLE 17

## COMPOSTING PROGRAMS

PROVIDER	SERVICE AREA	ANNUAL VOLUME RECEIVED	COLLECTION	FEES (PER TON)	COMPOST USE
Chocolay Twp.	Chocolay	Unavailable	Drop off	None	Golf course*
City of Ishpeming	Ishpeming	750 Cu. Yd.	Drop off	None	Residents
City of Marquette	Marquette	6,000 Cu. Yd.	Spring/fall curbside. Drop off	None	City and residents
City of Negaunee	Negaunee	325 Cu. Yd.	Drop Off	None	Currently not utilized
Marquette County Landfill	County-wide	500 Cu. Yd.	Transfer	\$15 - \$31.50**	Vegetate Landfill
West End Transfer	Ishpeming Tilden, Ely Michigamme Champion & Humboldt Twps.	250 Cu. Yd.	Drop off	None	Residents

\* Yard waste dropped off at private site for use at their discretion

\*\* \$15 for grass and leaves, \$31.50 for brush

A USEPA report estimated that 29.8 million tons of yard trimmings were generated nation wide in 1995. That translates into about 220 pounds per person. Applying this number to the County's urban population (Ishpeming, Marquette, Negaunee) indicates that roughly 3,800 tons of yard waste was generated in those areas. When compared to the 1,700 tons that were received at composting sites it becomes apparent that a substantial amount is not accounted for. Some portion of this is, of course, the "backyard composting" which can't be accurately measured. More of the "missing tons" may be accounted for because we are using an average generation rate. Our climate probably puts us below average with a shorter growing season. Some material is probably disposed in other manners such as "out at camp", illegal woods dumping, and homeowners mixing it with regular residential waste and eventually being landfilled.

People participate in composting programs for a variety of reasons from environmental concern to disposal necessity. Whatever a persons reason, convenience, and economy are critical features of a successful program. As the preceding table indicates, most compost sites operate free of charge. Individuals typically drop off their own yard waste and are welcome to take finished compost. Utilization of the finished compost has also been encouraging. The City of Ishpeming, for example, has no carry over from year to year. Virtually all the compost is being utilized by residents. The City of Marquette also provides access to their compost by residents and about 1,000 cubic yards is taken annually. The majority of the compost that remains is used in City projects, and as a result, the City does not buy any topsoil. The landfill is also taking advantage of the compost produced there. Currently, the compost is used in promoting vegetation. It can also be used as daily cover but is too valuable in its present capacity and sand is still available for cover purposes.

## ELECTED SYSTEM

ough the availability of compost has many advantages, the costs associated with material handling and production still makes composting a disposal problem. The ideal situation would be for composting to take place "in our own backyards" and for yard trimmings never to enter the waste stream. Education is having some effect in this regard. There will always be, however, due to practicality and the large volumes involved, a need to provide a disposal alternative.

### Biosolids

Biosolids are nutrient-rich organic materials produced during the biological and physical treatment of wastewater. This material is both a component of the waste stream and an opportunity for composting. In Marquette County there are currently four facilities that produce biosolids (sludge) as a by-product of wastewater treatment. The table that follows provides information regarding production and disposal at these facilities.

**TABLE 18**  
**Wastewater Treatment Facilities**

Location	Annual Biosolid Volume (dry tons)	Disposal
Ishpeming - City/Ishpeming Township	190	Landfilled
W I Sawyer	80	Land applied
Marquette	450	Land applied
Negaunee	45	Land applied

As can be seen from the table, the majority of biosolids in the County are land applied (63%). This is an approach that has long been practiced in resource conscious parts of the world such as Europe, where it is referred to as "black gold". Utilization in the U.S. is beginning to increase with 25% of all municipal biosolids that are generated being applied to farmlands. Other uses, though accounting for a smaller percentage, are mine reclamation and forest application.

Biosolids in this County are being used in all these ways. Material from Marquette is currently being used at the Empire Mine and Gribbens Tailing Basin for land reclamation. Negaunee's biosolids are applied to farm fields and Sawyer's material is sprayed on timberland.

There is room for expansion of biosolid land application particularly in the areas of mine reclamation and forest application. There is also a need for disposal on the part of the wastewater facilities. The most practical and economical disposal method will be sought.

Referring back to the table it will be noted that over a third of the volume produced is being landfilled at this time. With the value of biosolids as a natural fertilizer /soil amendment and the value the County places on prolonging the "life span" of the landfill, efforts must be made to divert the balance of this material.

#### SELECTED SYSTEM

☒ Programs for source separation of potentially hazardous materials are feasible and details are included on the following pages.

☐ Separation of potentially hazardous materials from the County's waste stream has been evaluated and it has been determined that it is not feasible to conduct any separation programs because of the following:

#### HOUSEHOLD HAZARDOUS WASTE

The Marquette County Solid Waste Management Authority provides a household hazardous waste collection program for residents of the County.

The program began in October, 1991, with funding provided through a Solid Waste Alternative Program grant from the State of Michigan. Though the grant has expired, the Authority has continued the program and absorbs all costs except collection. These costs are covered by the municipalities either through providing staff at collection sites or by a \$0.15 per ton surcharge. Maintaining this "cooperative effort" is essential to continuing the program.

The Household Hazardous Waste Program's goal is to enable County residents to identify, separate, and properly dispose of the hazardous waste found in their homes. The program is designed to minimize the long-term environmental impact on the Marquette County Landfill as well as impacts on the wastewater treatment plants where leachate from the landfill is processed. The following table summarizes amounts of HHW collected over the five year period (1993 - 1997).

**TABLE 19**  
**HOUSEHOLD HAZARDOUS WASTE COLLECTION**  
**(1993 - 1997)**

	1993	1994	1995	1996	1997
General HHW (lbs)	6,567	7,281	7,315	11,817	10,218
HH Batteries (ea)	2,627	3,212	2,987	5,329	3,990
Car Batteries (ea)	82	121	72	51	96
Motor Oil (gal)	3,704	3,749	1,274	3,808	6,641
Antifreeze (gal)	152	365	229	300	223
Photofixer (gal)	3	8	20	4	1
Oil Filters (ea)	166	517	233	322	392
Total Deliveries	814	902	542	549	589

The general household hazardous waste category on the preceding table serves as a "catch all" for a variety of materials that you would find "under the kitchen sink" or in the garage. Items typically in this category are paint, stains, varnish, flammables, cleaners, polishes, and pesticides. Other categories listed do not indicate the total rate of waste generated, just what has been received at drop-off locations.

#### SELECTED SYSTEM

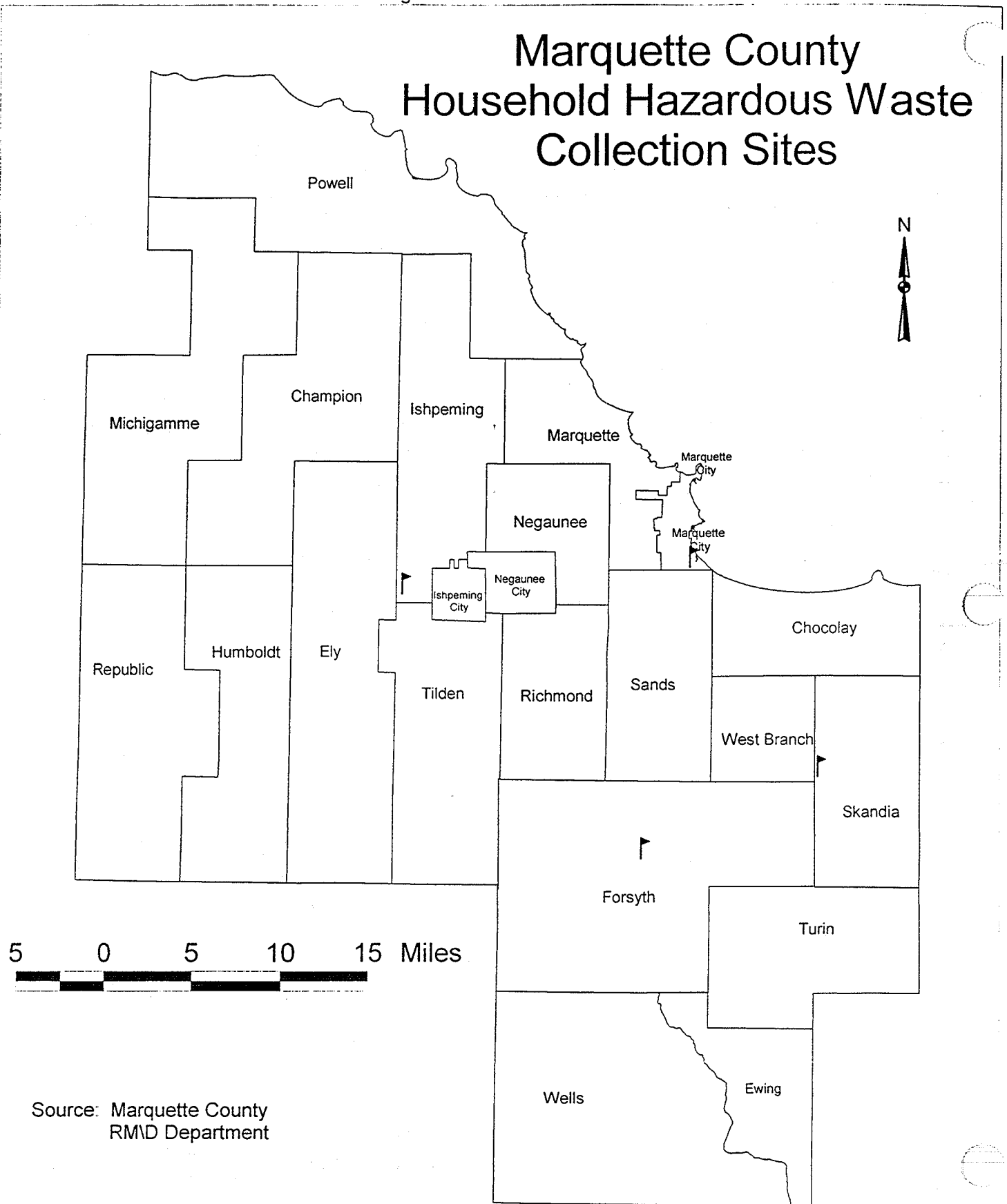
One of note from the table is the large reduction in total deliveries. This reduction may be due in part to auto quick lube businesses which have proliferated. These businesses take care of disposal of used oil and filters for the individuals which previously would have had to do it themselves. Though deliveries are down, volumes are up.

The program provides four collection sites throughout the County. Sites include: West End Transfer Station north side of U S 41 west of Ishpeming), Marquette Area Wastewater Treatment Plant (U S 41 south of Marquette), Forsyth Township Public Works Garage (192 West Depot Road, Gwinn), and Skandia/West Branch Transfer Station (1/4 mile west of intersection of M-94 and U S 41 on Carlshend Road).

Household hazardous waste collections take place one Saturday per month from May through October. The Express Lube Department at Wal-Mart will also take used oil and oil filters year-round during regular business hours.

The program has had good success to this point, meeting or exceeding its goals in most categories each year. Further, materials that were once hazardous wastes have been separated from the waste stream. Used oil now heats landfill buildings, and oil filters are being processed to recover steel. Probably the single category where most improvement could occur is in the area of general HHW. This can only improve through education and public awareness which should be promoted through this and future planning efforts.

Figure 4



CYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis the tables on pages III-34, 35, & 36 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-37, 38, & 39 list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

Recycling

In a general sense, recycling is available to everyone in the County as it is acceptable for anyone to drop-off materials at Peninsula Sanitation or the West Marquette County Transfer Station. A variety of options including curbside, drop-off or a combination of the two exist in most municipalities (see Table 16, Page III-25). These programs should be continued and expanded where possible. Increased awareness and improved access/convenience will contribute to continued success.

Five municipalities in the County do not offer recycling. Ewing, Turin, and Wells Townships attribute their lack of recycling to their low population and corresponding low waste generation (about 200 tons/year combined). Forsyth and Sands Townships, however, generated 2,179 and 1,130 tons of waste, respectively, during 1997. Recycling programs should be initiated and collection sites identified in both Townships.

Composting

Composting relates to the conversion of organic waste to a useable soil amendment. Materials typically composted are yard waste (grass, leaves, branches) and the residual solids from wastewater treatment (biosolids). Volumes of these materials are typically associated with the "urbanized" portions of the County.

Yard waste programs exist in the cities of Ishpeming, Marquette, and Negaunee, Chocolay Township, the West End Transfer, and the County Landfill.

Wastewater facilities require disposal of biosolids. As these facilities are interested in developing additional disposal options, efforts to beneficially utilize this material should be sought. Discussion has been initiated with the Marquette County Forestry Commission for land application to jackpine plantation land in the County Forest.

SELECTED SYSTEM

TABLE 20  
TABLE III-1 (format)

RECYCLING:

Program Name	Service Area <sup>1</sup>	Public or Collection		Collection	Materials	Program Management Responsibilities <sup>2</sup>		
		Private	Point <sup>3</sup>	Frequency <sup>4</sup>	Collected <sup>5</sup>	Development	Operation	Evaluation
Chicks	Ely, Negaunee Twps	Pri	c	b	A,B,C,	6	5	6
Chocolay Township	Chocolay Township	Pub	c,d		B,C	6	5	6
Ishpeming Recycling Ctr	Ishpeming City	Pub	c,d		A,B,C,	6	3	6
					D,E,F			
Michigamme Township	Michigamme Township	Pub	d		B,E,F	6	3	6
Northern Refuse	Chocolay & Ishpeming Twp & Republic Twp., Negaunee City	Pri	c	w	A,B,C,D,E	6	5	6
					D,E,F			
	Marquette City & Twp	Pri	c	w	C	6	5	6
	Negaunee City & Twp							
Peninsula Sanitation	Marquette City	Pri	c	w	A,B,C,	6	5	6
					D,E,F			
	Marquette Township	Pri	d		A,B,C,	6	5	6
					D,E,F			
	Powell Township	Pri	d		C, F	6	5	6
Powell Township	Powell Township	Pri	d			6	3	6
Skandia/West Branch	Skandia/West Branch Twps	Pub	d		A,B,D,	6	5	6
					E,F,K			
IshpemingTownship Fire Dept	Ishpeming Township	Pub	d		B	6	5	6
West Transfer Station	Champion, Ely, Humboldt, Ishpeming, Michigamme, & TildenTwps	Pub	d		A,B,C,	6	6	6
					D,E,F, K			

☐ Additional programs and the above information for those programs are listed on an attached page.

1 Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other (Identified on page 40). Program Development - Local Municipality, Program Evaluation - Local Municipality.

3 Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

4 Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

5 Identified by the materials collected by listing of the letter located by that material type. Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 40.

SELECTED SYSTEM

**TABLE 21**  
TABLE III-2 (format)

COMPOSTING:

Program Name	Service Area <sup>1</sup>	Public or Collection		Collection Frequency <sup>4</sup>	Materials Program Management Responsibilities <sup>2</sup>			Evaluation
		Private	Point <sup>3</sup>		Collected <sup>5</sup>	Development	Operation	
Chocolay Township	Chocolay Township	Pri	d		G,L	5	5	5
City of Ishpeming	Ishpeming	Pub	o		G,L,W	3	3	3
City of Marquette	Marquette	Pri	d		G,L,W	3	5	3
	Marquette	Pri	c	Sp, Fa	G,L,W	3	5	3
City of Negaunee	Negaunee	Pub	o		G,L,W	3	3	3
Marquette County Landfill	Marquette, Marquette Twp	Pub	O,other		G,L,W	3	3	3
West End Transfer		Pub	o		G,L	6	6	6

☐ Additional programs and the above information for those programs are listed on an attached page.

<sup>1</sup> Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

<sup>2</sup> Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other (Identified on page 40).

<sup>3</sup> Identified by c = curbside; d = drop-off; o = onsite; and if other, explained. Yard waste from City of Marquette can be brought to Peninsula Sanitation.

<sup>4</sup> Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

<sup>5</sup> Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; L1, L2 etc. = as identified on page 40.

SELECTED SYSTEM

TABLE 22  
TABLE III-3 (format)

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Since improper disposal of nonregulated hazardous materials has the potential to create risks to the environment and human health, the following programs have been implemented to remove these materials from the County's solid waste stream.

Program Name	Service Area <sup>1</sup>	Public or Collection		Collection Frequency <sup>4</sup>	Materials Collected <sup>5</sup>	Program Management Responsibilities <sup>2</sup>		
		Private	Point <sup>3</sup>			Development	Operation	Evaluation
Household Hazardous Waste Program	County wide	Pub	d	m	B1,B2, AN,U,OT	6	6	6
				May-Oct				
UP Pesticide/Waste Collection Program	County wide	Pub	d	m	AR,AN, B1,B2,C,H, OF,P,PS,U	6	6	6
				May-Oct				
Oil Recycling Programs		Pri	o	d	U,OF	5	5	5

☐ Additional programs and the above information for those programs are listed on an attached page.

<sup>1</sup> Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

<sup>2</sup> Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other (Identified on page 40). Performed by Solid Waste Management Authority.

<sup>3</sup> Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

<sup>4</sup> Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

<sup>5</sup> Identified by the materials collected by listing of the letter located by that material type. Aerosol Cans; A = Automotive Products except Used Oil, Oil Filters & Antifreeze; AN = Antifreeze; B1 = Lead Acid Batteries; B2 = Household Batteries; C = Cleaners and Polishers; H = Hobby and Art Supplies; OF = Used Oil Filters; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; OT = Other Materials and identified.

SELECTED SYSTEM

TABLE 23  
TABLE III-4 (format)

PROPOSED RECYCLING:

Program Name (if known)	Service Area <sup>1</sup>	Public or Collection		Collection Frequency <sup>4</sup>	Materials Program Management Responsibilities <sup>2</sup>			Evaluation
		Private	Point <sup>3</sup>		Collected <sup>5</sup>	Development	Operation	
Forsyth Township	Forsyth Township			d		6	3.5	6
Sands Township	Sands Township			d		6	3.5	6

☐ Additional programs and the above information for those programs are listed on an attached page.

<sup>1</sup> Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

<sup>2</sup> Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other (Identified on page 40). Development and Evaluation performed by local municipality.

<sup>3</sup> Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

<sup>4</sup> Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

<sup>5</sup> Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 40.

SELECTED SYSTEM

TABLE 24  
TABLE III-5 (format)

PROPOSED COMPOSTING:

Program Name, (if known)	Service Area <sup>1</sup>	Public or Collection		Collection Frequency <sup>4</sup>	Materials Program Management Responsibilities <sup>2</sup>			Evaluation
		Private	Point <sup>3</sup>		Collected <sup>5</sup>	Development	Operation	

None proposed

☐ Additional programs and the above information for those programs are listed on an attached page.

<sup>1</sup> Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

<sup>2</sup> Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other.

<sup>3</sup> Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

<sup>4</sup> Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

<sup>5</sup> Identified by the materials collected by listing of the letter located by that material type. Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste, L1, L2 etc. = as identified on page 40.

SELECTED SYSTEM

TABLE 25  
TABLE III-6 (format)

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

<u>Program Name, (if known)</u>	<u>Service Area<sup>1</sup></u>	<u>Public or Collection</u>		<u>Collection</u>	<u>Materials Program Management Responsibilities<sup>2</sup></u>			
		<u>Private</u>	<u>Point<sup>3</sup></u>	<u>Frequency<sup>4</sup></u>	<u>Collected<sup>5</sup></u>	<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>

No new programs proposed.

Businesses are encouraged to use the same waste handlers as the Authority for economy of scale.

NONE

☐ Additional programs and the above information for those programs are listed on an attached page.

1 Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 39); 5 = Private Owner/Operator; 6 = Other.

3 Identified by c = curbside; d = drop-off; o = onsite; and if other, explained..

Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

5 Identified by the materials collected by listing of the letter located by that material type. AR = Aerosol Cans; A = Automotive Products except Used Oil, Oil Filters & Antifreeze; AN = Antifreeze; B1 = Lead Acid Batteries; B2 = Household Batteries; C = Cleaners and Polishers; H = Hobby and Art Supplies; OF = Used Oil Filters; Filters; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; OT = Other Materials and identified.

## SELECTED SYSTEM

Other:

Table 20    Program Development, Local municipality  
              Program Evaluation, Local municipality  
              West Transfer Station, Program operation, West Marquette County Sanitation Authority

Table 21    Marquette County Landfill

Table 21    Drop-off is permitted at the site by any municipality authorized and registered hauler

Other – yard waste from the City of Marquette can be brought to Peninsula Sanitation which transfers to the Landfill compost site

Table 21    West End Transfer – other – West Marquette County Sanitation Authority

Table 22    Program Development, Operation and Evaluation are performed by the  
              Solid Waste Management Authority

Table 23    Program Development, Local municipality

SELECTED SYSTEM

TABLE 26

PROJECTED DIVERSION RATES:

The following estimates the annual amount of solid waste which is expected to be diverted from landfills and incinerators as a result of the current resource recovery programs and in five and ten years.

Collected Material: Diverted: **TONS	Projected Annual Tons Diverted:			Collected Material:	Projected Annual Tons		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Yr
A. TOTAL PLASTICS:	62	66	67	G. GRASS AND LEAVES:	1,750	1,795	1,866
B. NEWSPAPER:	405	429	440	H. TOTAL WOOD WASTE:	82	84	87
C. CORRUGATED CONTAINERS:	2,683	2,844	2,953	I. CONSTRUCTION AND DEMOLITION:			
D. TOTAL OTHER PAPER:	131	139	140	J. FOOD AND FOOD PROCESSING:			
E. TOTAL GLASS:	131	139	140	K. TIRES:			
F. OTHER MATERIALS:				L. TOTAL METALS:	17,667	18,160	18,884
F1. HHW	5	6	7	F3. OIL FILTERS	68	70	72
F2. ASH	45,000	46,275	48,132	F4. BIOSOLIDS	575	942	973

TABLE 27

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

The following identifies how much volume that existing markets are able to utilize of the recovered materials which were diverted from the County's solid waste stream.

Collected Material:	In-State Markets	Out-of-State Markets	Collected Material	In-State Markets	Out-of-State Markets
A. TOTAL PLASTICS:	70%	30%	G. GRASS AND LEAVES:	100%	
B. NEWSPAPER:	100%		H. TOTAL WOOD WASTE:	100%	
C. CORRUGATED CONTAINERS:		100%	I. CONSTRUCTION AND DEMOLITION:		
D. TOTAL OTHER PAPER:	70%	30%	J. FOOD AND FOOD PROCESSING		
E. TOTAL GLASS:		100%	K. TIRES:	5%	95%
F. OTHER MATERIALS:			L. TOTAL METALS:	80%	20%
F1. HHW		100%	F3. OIL FILTERS	100%	
F2. ASH	19%	81%	F4. BIOSOLIDS	100%	

SELECTED SYSTEM

**EDUCATIONAL AND INFORMATIONAL PROGRAMS:**

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participate in such programs as waste reduction and waste recovery. Following is a listing of the programs offered or proposed to be offered in this County.

**TABLE 28**

<u>Program Topic<sup>1</sup></u>	<u>Delivery Medium<sup>2</sup></u>	<u>Targeted Audience<sup>3</sup></u>	<u>Program Provider<sup>4</sup></u>
1, 2, 3, 4	f	p	Ex MSU Extension
1, 2, 3	r, t, n, o, f	p, b, i, s (all)	O Peninsula Sanitation
1, 2	t, n, f, e	p	O Solid Waste Management Authority
1, 2, 3, 4, 5	w, o	p	EG UP Recycling Coalition

<sup>1</sup> Identified by 1 = recycling; 2 = composting; 3 = household hazardous waste; 4 = resource conservation; 5 = volume reduction; 6 = other which is explained.

<sup>2</sup> Identified by w = workshop; r = radio; t = television; n = newspaper; o = organizational newsletters; f = flyers; e = exhibits and locations listed; and ot = other which is explained.

<sup>3</sup> Identified by p = general public; b = business; i = industry; s = students with grade levels listed. In addition if the program is limited to a geographic area, then that county, city, village, etc. is listed.

<sup>4</sup> Identified by EX = MSU Extension; EG = Environmental Group (Identify name); OO = Private Owner/Operator (Identify name); HD = Health Department (Identify name); DPA = Designated Planning Agency; CU = College/University (Identify name); LS = Local School (Identify name); ISD = Intermediate School District (Identify name); O = Other which is explained.

☐ Additional efforts and the above information for those efforts are listed in Appendix E.

## SELECTED SYSTEM

### TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implement components of the Selected System. The Timeline gives a range of time in which the component will be implemented such as "1995-1999" or "On-going." Timelines may be adjusted later, if necessary.

**TABLE 29**  
**TABLE III-7 (format)**

Management Components	Timeline
Source Reduction	Ongoing
Reuse	Ongoing
Collection	Ongoing
Recycling	Ongoing
Forsyth Township	1998-2002
Sands Township	1998-2002
Composting	Ongoing
Transfer	Ongoing
Landfilling	Ongoing

## SELECTED SYSTEM

### SITING REVIEW PROCEDURES

#### DISPOSAL AREA TYPES NOT AUTHORIZED

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

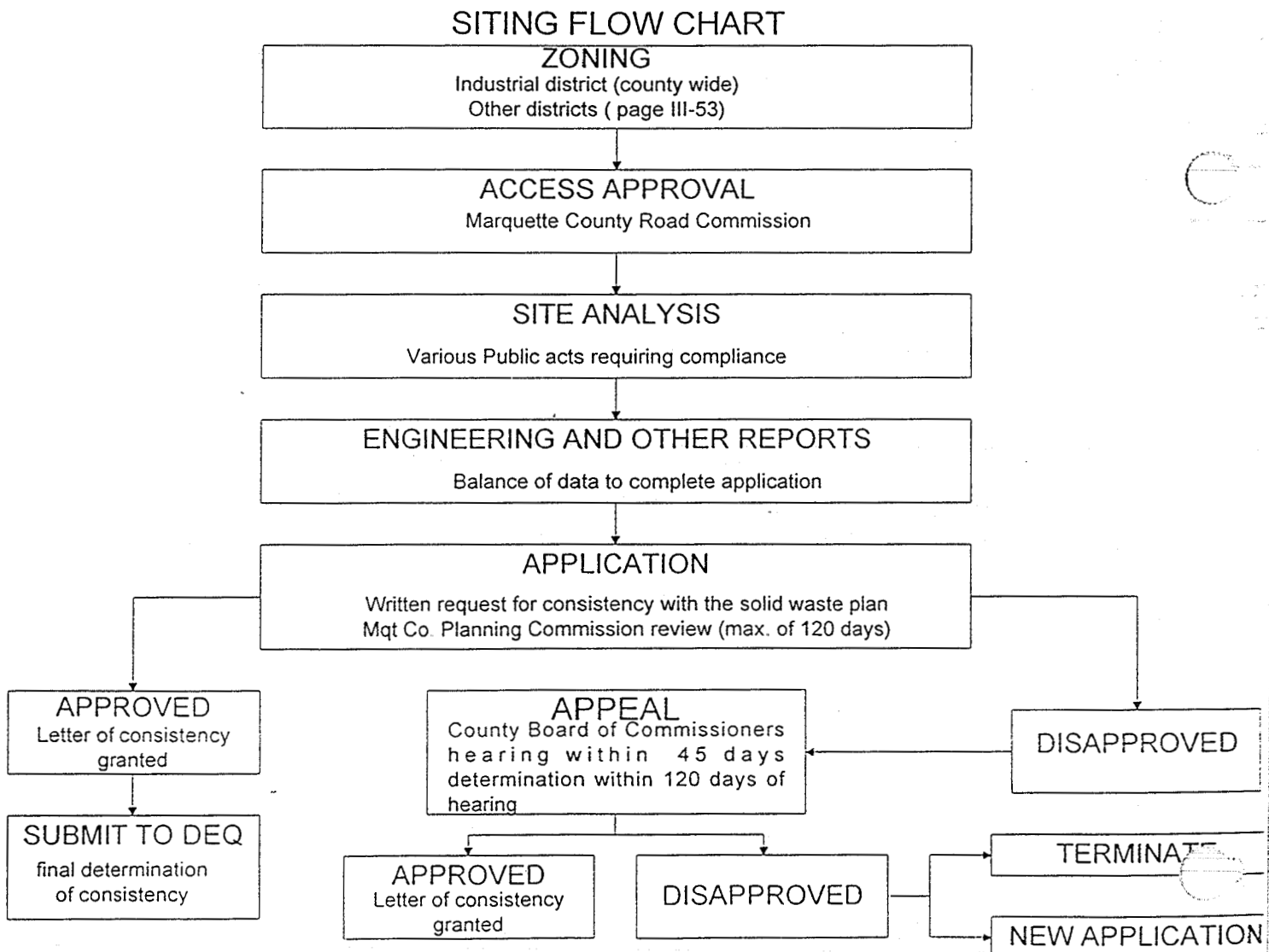
Landfill

#### DISPOSAL AREA TYPES AUTHORIZED

- Transfer stations, processing facilities.
- Wisconsin Electric may site a coal ash landfill on their property located in the N ½ of the SE ¼ of Section 6, Township 48N, Range 25W in Marquette Township.

The Marquette County Landfill has capacity in excess of ten years negating the requirement to include a siting mechanism in this plan update. Though no landfills will be sited by this plan (with noted exception), other disposal area types may be sited in accordance with the criteria provided.

### SITING PROCESS



## ELECTED SYSTEM

### ING OF NEW OR EXPANDED SOLID WASTE FACILITIES

The Marquette County Planning Commission is responsible for reviewing proposals from proponents of new or expanded facilities and for making a determination of "consistency with the Solid Waste Plan". The Commission shall use the following information, criteria and process when reviewing proposals and determining consistency.

#### *Information Required:*

The developer of a proposed new or expanded facility shall submit the following information to the Planning Commission.

1. The developer shall provide written documentation from the local municipality (township/city) that the location of the facility will be in an industrial zoning district and/or other district where it is a permitted use.
2. The developer shall provide written documentation from the Marquette County Road Commission that the proposed facility will be located on an all-season (County primary) road or road built to all-season standards.
3. The developer shall provide documentation demonstrating:
  - a. The source of the waste stream – quantified by point of origin – coming to the facility from within the service area authorized by this Plan.
  - b. Existing or proposed permitted capacity of the facility and the potential for future expansion.
4. The developer shall provide written documentation that the proposed location of the facility is:
  - a. Not located in a designated historic or archaeological area as defined by the State historical preservation officer.
  - b. Not located in an area of groundwater recharge as defined by the United States Geological Survey or in a wellhead protection area as approved by the Department of Environmental Quality.
  - c. Not located in an area defined in Section 32301 of Part 323, Shorelands Protection and Management, of Act 451, or in areas of unique habitat as defined by the Department of Natural Resources, Natural Features Inventory.
  - d. Not constructed on lands enrolled under Part 361, Farmland and Open Space Preservation, of Act 451.
5. The developer and engineer shall provide a written and signed statement that the proposed development is consistent with all statutory changes to and requirements of Part 115.
6. The developer shall provide a written and signed statement that:
  - a. The proposed development is consistent with proven technologies.
  - b. The developer shall provide a list (minimum of two if available) of communities where technology is being utilized.

SELECTED SYSTEM

7. The developer shall provide information and details about the facility in the form of:



- a. Engineering reports and draft plans specific to the proposed site including, but not limited to, a map of the site with the following requirements:
  - i. A scale of not more than one inch equals 100 feet.
  - ii. Date, north point, and scale.
  - iii. Dimensions of all lot and property lines for the subject property and all adjacent parcels.
  - iv. Location of all existing structures on the subject property.
  - v. Location of all existing access roads.
  - vi. Location and right-of-way widths of all abutting roads.
  - vii. Proposed boundaries of solid waste processing plant or transfer facility areas.
  - viii. Locations of all residential dwelling within 500 feet of the site.
  - ix. Location of all public and private water supplies within the zone of influence.
  - x. Location of all-season (County primary) roads associated with facility.
- b. Description of system for collection, disposal, and containment of all liquid generated or handled at the site.
- c. Description of system for collection, disposal, and containment of solid waste handled at the site.

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ELECTED SYSTEM

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The following criteria will be used to evaluate the information provided by the developer and to determine consistency of the proposed facility expansion or proposed new facility with the Marquette County Solid Waste Management Plan.

		YES	NO
	<b>ZONING COMPLIANCE*</b>  <p>Will the facility be located in an industrial zoning district or a zoning district that permits such a facility (if the community has adopted a zoning ordinance)?</p>	_____	_____
	<b>ROAD ACCESS</b> <p>Will the facility be located on an existing all-season (County primary) road or a road provided at the developers expense that meets these standards and can be adopted into the County's road system as an all season (primary) road?</p>	_____	_____
	<b>WASTE STREAM SOURCE/FACILITY CAPACITY</b> <p>Waste stream originates within service area of plan?</p> <p>Does proposed permitted capacity of facility meet anticipated needs? </p>	_____ _____	_____ _____
	<b>GENERAL LOCATIONAL DATA</b> <p>Will the facility not be located in a designated historic or archaeological area defined by the state historical preservation officer?</p> <p>Will the facility not be located in an area of groundwater recharge as defined by the United States Geological Survey or in a wellhead protection area as approved by the DEQ.</p> <p>Will the facility not be located in an area defined in Section 32301 of Part 323, Shorelands Protection and Management, of Act 451, or in areas of unique habitat as defined by the Department of Natural Resources, Natural Features Inventory?</p> <p>Will the facility not be constructed on lands enrolled under Part 361, Farmland and Open Space Preservation, of Act 451?</p>	_____ _____ _____ _____	_____ _____ _____ _____

SELECTED SYSTEM

		YES	NO
5.	COMPLIANCE WITH PART 115		
a.	Did the developer provide written and signed statement that the initial hydrogeological study of the proposed development indicates probable compliance with statutory requirements?		
b.	Did the engineer include as part of the signed engineering reports and draft plans a statement that the initial hydrogeological study indicates probable compliance with statutory requirements?		
6.	PROVEN TECHNOLOGY		
a.	Did the developer provide documentation that the proposed facility uses proven technology?		
b.	Has a list of communities where this technology is utilized been provided?		
7.	FACILITY AND LOCATIONAL DETAIL		
a.	Engineering reports, draft plans, and a map were provided?		
b.	Description of system for collection, disposal, and containment of all liquid generated or handled at the site was provided.		
	Description of system for collection, disposed, and containment of all solid waste handled at the site was provided.		

If all of the above criteria are answered "yes", the proposed facility is consistent with the Marquette County Solid Waste Management Plan.

Commission Determination of Consistency

The developer shall provide a written request for "consistency with the solid waste plan", along with the required information to the Designated Planning Agency. If incomplete information is received from the developer the "request for consistency determination" will be returned to the developer along with a list of additional information required. Within 120 days of receipt of the written request and all required information, the Planning Commission will determine if the proposed development is, or is not, consistent with the Marquette County Solid Waste Management Plan. The Commission must provide to the developer a written determination of consistency or inconsistency and include the reasons and facts supporting their decision. If the Commission fails to make a determination within the 120 days, the proposal shall be deemed consistent with the Marquette County Solid Waste Management Plan. Final determination of consistency shall be made by the director of the Department of Environmental Quality upon receipt of a construction permit application.

Appeal Process - To the County Board of Commissioners

If, and only if, a proposed development is found to be inconsistent with the Marquette County Solid Waste Management Plan by the Planning Commission, an appeal by the developer may be made to the County Board of Commissioners. The appeal hearing between the developer and the County Board of Commissioners must be held within 45 days of receipt of the request by the County Board Chairperson.

The appeal process before the County Board of Commissioners shall be identical to the Planning Commission review process in terms of information considered and criteria used to determine consistency. The developer, however, may provide additional information to the Board.

Within 120 days of the appeal hearing, the County Board of Commissioners must provide a written determination of consistency or inconsistency to the developer. This determination must include the reasons and facts supporting their decision. If the County Board of Commissioners upholds the determination of inconsistency rendered by the Planning Commission, the developer may address the deficiencies identified by the Board of Commissioners and the Planning Commission and resubmit the project proposal to the Planning Commission for subsequent review for consistency. If the County Board of Commissioners fails to make a determination within 120 days of the appeal hearing, the proposal shall be consistent with the Marquette County Solid Waste Management Plan. Final determination of consistency shall be made by the Director of the Department of Environmental Quality upon receipt of a construction permit application.

SELECTED SYSTEM  
**SOLID WASTE MANAGEMENT COMPONENTS<sup>1</sup>**

The following identifies the management responsibilities and institutional arrangements necessary for the implementation of the Selected Waste Management System. Also included is a description of the technical, administrative, financial and legal capabilities of each identified existing structure of persons, municipalities, counties and state and federal agencies responsible for solid waste management including planning, implementation, and enforcement.

Responsibility for implementing the Solid Waste Management Plan rests with the Marquette County Board of Commissioners as part of its duties of general governance.

The Marquette County Solid Waste Management Authority as empowered by all municipalities through the Intergovernmental Agreement for the Disposal of Solid Waste will continue its role of managing waste generated in the County. In addition to operation of the landfill, the Authority monitors waste import/export, negotiates contingency agreements with other counties, provides for household hazardous waste collection, operates a compost site and provides educational information regarding solid waste, recycling, composting and similar topics related to integrated management.

The Marquette County Planning Commission will serve as the Designated Planning Agency which is responsible for plan development and implementation. Determination of consistency and facility siting are Commission tasks. Full applications for construction permits will be submitted to the Commission for pre-consistency review before submittal to the Department of Environmental Quality. The Commission will also perform annual monitoring of recycling efforts in the County.

Individual municipalities will determine the means by which waste is collected and transported to the disposal site. Recycling opportunities are also provided on a local basis.

The Intergovernmental Agreement for the Disposal of Solid Waste and Public Act 451 of 1994 Part 115 will provide enforcement for Plan compliance. In addition to these instruments, a solid waste management ordinance is being considered for implementation. The object of this ordinance is further enforcement of waste flow control promoted by this Plan. The ordinance, if enacted, will be enforceable without amendment to this Plan.

ELECTED SYSTEM

**IDENTIFICATION OF RESPONSIBLE PARTIES**

Document which entities within the County will have management responsibilities over the following areas of the Plan.

**Resource Conservation:**

Source or Waste Reduction – The effectiveness of a small community to impact these issues is limited. Federal or State initiatives to prevent the production of undesirable waste in the first place is necessary to effectively impact the waste stream.

Product Reuse – \*\*

Reduced Material Volume – \*\*

Increased Product Lifetime – \*\*

Decreased Consumption – \*\*

**Resource Recovery Programs:**

Composting – City of Ishpeming, City of Marquette, City of Negaunee, Marquette County Landfill, West End Transfer.

Recycling – Authority retained by individual municipalities.

Energy Production – Individual users. Burning of waste oil or wood scraps in building heating.

**Volume Reduction Techniques:** Solid Waste Management Authority. Waste compaction and baling. Wet cell process.

**Collection Processes:** Authority retained by individual municipalities. Wisconsin Electric controls coal ash.

**Transportation:** Individual municipalities and Solid Waste Management Authority license haulers.

SELECTED SYSTEM

**Disposal Areas:**

Processing Plants – Solid Waste Management Authority

Incineration - N/A

Transfer Stations – Peninsula Sanitation (Powell Township & City of Marquette), West Marquette County Sanitary Authority, Ewing Township, Skandia/West Branch Townships, Turin Township, Sands Township, Republic Township, Wells Township.

Sanitary Landfills – Solid Waste Management Authority  
Wisconsin Electric Power Company Coal Ash Disposal Site

**Ultimate Disposal Area Uses:** Solid Waste Management Authority

**Local Responsibility for Plan Update Monitoring & Enforcement:**

Marquette County Planning Commission

**Educational and Informational Programs:**

Solid Waste Management Authority  
MSU Extension  
Peninsula Sanitation  
U.P. Recycling Coalition

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DEFLECTED SYSTEM

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

This Plan update's relationship to local ordinances and regulations within the County is described in the option(s) marked below:

☐ 1. Section 11538.(8) and rule 710 (3) of Part 115 prohibits enforcement of all County and local ordinances and regulations pertaining to solid waste disposal areas unless explicitly included in an approved Solid Waste Management Plan. Local regulations and ordinances intended to be part of this Plan must be specified below and the manner in which they will be applied described.

☒ 2. This Plan recognizes and incorporates as enforceable the following specific provisions based on existing zoning ordinances:

A. Geographic area/Unit of government: All municipalities in the County

Type of disposal area affected: Transfer Stations and Processing Centers

Ordinance or other legal basis: Zoning Ordinance

Requirement/restriction: May be sited in all industrial zoning districts.

B. Geographic area/Unit of government: Ely Township

Type of disposal area affected: Transfer Station

Ordinance or other legal basis: Ely Township Zoning Ordinance

Requirement/restriction: Public Lands District

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☒ 3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the indicated units of government without further authorization from or amendment to the Plan.

Collection program

Demolition debris



Vehicle licensing

Yard debris disposal

Franchise Agreement

Fees

Waste Reduction Initiatives

An ordinance which prohibits export of solid waste generated in the County.

## CAPACITY CERTIFICATIONS

Every County with less than ten years of capacity identified in their Plan is required to annually prepare and submit to the DEQ an analysis and certification of solid waste disposal capacity validly available to the County. This certification is required to be prepared and approved by the County Board of Commissioners.

☒ This County has more than ten years capacity identified in this Plan and an annual certification process is not included in this Plan.

☐ Ten years of disposal capacity has not been identified in this Plan. The County will annually submit capacity certifications to the DEQ by June 30 of each year on the form provided by DEQ. The County's process for determination of annual capacity and submission of the County's capacity certification is as follows:

# **APPENDIX**

## **ADDITIONAL INFORMATION**

### **REGARDING THE**

### **SELECTED**

### **SYSTEM**

## EVALUATION OF RECYCLING

The following provides additional information regarding implementation and evaluations of various components of the Selected System.

Marquette County's waste stream is typical of waste generated throughout the country. A variety of materials such as metals, corrugated cardboard, magazines, newsprint, plastic and glass are typical of "household recycling". Most common at the commercial level are corrugated cardboard and metals.

There is clearly an opportunity for increased recycling in the County. Our statistics indicate a steady improvement in material volumes being diverted from the landfill but the full potential has not been realized. Education is one of the keys and programs are being introduced to increase public awareness of their access to recycling options. The tougher obstacle is not a lack of available material but is in the economics of recycling and is tied to developing markets for materials collected.

During this planning period a system of monitoring recycling in the County will be implemented. A survey form, to be completed annually, will be circulated to businesses that participate in recycling indicating the types of material they recycle, volumes, and markets they have identified. The Designated Planning Authority will also monitor the Michigan Recycled Materials Market Directory which is published by the Environmental Assistance Division of the DEQ for markets of which local recyclers may not be aware.

## DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

Below the types and volumes of material available for recycling or composting.

Essentially any organic material has potential for composting. Materials in Marquette County can be divided into three categories; municipal organic waste (food waste and paper), yard waste (grass, leaves and branches), and biosolids (wastewater treatment residue). As off-site composting (other than residence) of food waste is illegal in Michigan, yard waste and biosolids still have composting potential.

Since landfilling of yard waste was banned in 1993, a number of composting sites have been developed (Chocoley Township, Cities of Ishpeming, Marquette, and Negaunee, County landfill site and West End Transfer). Through this planning cycle operation of these sites is encouraged to continue and public access improved. Home composting is an even better solution and encouraged. Educational materials are available to get people started.

Biosolids have proven effective as a soil amendment and vegetative growth enhancer. Land application of this material has proven beneficial in fertilization of agricultural lands and for reclamation of mining lands within the County. The County Forestry Commission is evaluating application of biosolids to jackpine plantations in the County Forest. At present, about one-third of the County's biosolid volume (345 dry tons) is being landfilled. An alternative to landfilling will be identified during this planning period.

The following briefly describes the processes used or to be used to select the equipment and locations of the recycling and composting programs included in the Selected System. Difficulties encountered during past selection processes are also summarized along with how those problems were addressed:

### Equipment Selection

#### Existing Programs:

##### Recycling

Green boxes, curbside bins, collection vehicles, compaction equipment.

##### Composting

Front-end loader (utilized at all facilities), other equipment includes bucket loader, bulldozer, wood chipper, and screen plant.

#### Proposed Programs:

Windrow turner.

## Site Availability & Selection

### Existing Programs:

#### Recycling

Recycling is available either as drop off or curbside in all but five of the twenty-two municipalities in the County. Of those five, three have low populations that translates into limited financial resource and small volume of potential recyclables. The other two, Sands and Forsyth Townships have sufficient volumes that sites should be established.

#### Composting

Composting sites are found in Chocolay, Ishpeming and Sands Townships and also in the cities of Ishpeming, Marquette, and Negaunee. These townships and cities make up most of the "urbanized" municipalities in the County and account for about 70% of the population.

### Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.

#### **Existing Programs:**

<u>Program Name:</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
Chocoday Township	No parameters			
City of Ishpeming	No parameters			
City of Marquette	No parameters			
City of Negaunee	No parameters			
Marquette County Landfill	No parameters			
West End Transfer	No parameters			

#### **Proposed Programs:**

<u>Program Name</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
None				

## COORDINATION EFFORTS:

Solid Waste Management Plans need to be developed and implemented with due regard for both local conditions and the state and federal regulatory framework for protecting public health and the quality of the air, water, and land. The following states the ways in which coordination will be achieved to minimize potential conflicts with other programs and, if possible, to enhance those programs.

It may be necessary to enter into various types of agreements between public and private sectors to be able to implement the various components of this solid waste management system. The known existing arrangements are described below which are considered necessary to successfully implement this system within the County. In addition, proposed arrangements are recommended which address any discrepancies that the existing arrangements may have created or overlooked. Since arrangements may exist between two or more private parties that are not public knowledge, this section may not be comprehensive of all the arrangements within the County. Additionally, it may be necessary to cancel or enter into new or revised arrangements as conditions change during the planning period. The entities responsible for developing, approving, and enforcing these arrangements are also noted.

Ultimate responsibility for implementing the Solid Waste Management Plan rests with the Marquette County Board of Commissioners as part of its duties of general governance. The County Board appoints a County Planning Commission which monitors planning and zoning efforts of townships and cities within the County as well as a variety of land use and environmental issues that may impact implementation of the solid waste plan. The Planning Commission, also the Designated Planning Authority for the Solid Waste Management Plan, will be well positioned to assess how proposed activities within the County will impact the Plan. The Marquette County Solid Waste Management Authority has the role of direct management of waste disposed in Marquette County as granted by the municipalities through the Intergovernmental Agreement for the Disposal of Solid Waste.

## **COSTS & FUNDING:**

The following estimates the necessary management, capital, and operational and maintenance requirements for each applicable component of the solid waste management system. In addition, potential funding sources have been identified to support those components.

<b>System Component<sup>1</sup></b>	<b>Estimated Costs</b>	<b>Potential Funding Sources</b>
<u>Resource Conservation Efforts</u>		
<u>Resource Recovery Programs</u>	128,000	General Fund User Fees
<u>Volume Reduction Techniques</u>	202,500	Tipping Fees
<u>Collection Processes</u>	1,126,000	General Fund User Fees
<u>Transportation</u>	Unavailable	General Fund User Fees
<u>Disposal Areas</u>	1,700,000	Tipping Fees Bond
<u>Future Disposal Area Uses</u>		
<u>Management Arrangements</u>		
<u>Educational &amp; Informational Programs</u>	Unavailable	Environmental Protection Agency Department of Environmental Quality

These components and their subcomponents may vary with each system.

## EVALUATION SUMMARY OF THE SELECTED SYSTEM:

The solid waste management system has been evaluated for anticipated positive and negative impacts on the public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production which would occur as a result of implementing this Selected System. In addition, the Selected System was evaluated to determine if it would be technically and economically feasible, whether the public would accept this Selected System, and the effectiveness of the educational and informational programs. Impacts to the resource recovery programs created by the solid waste collection system, local support groups, institutional arrangements, and the population in the County in addition to market availability for the collected materials and the transportation network were also considered. Impediments to implementing the solid waste management system are identified and proposed activities which will help overcome those problems are also addressed to assure successful programs. The Selected System was also evaluated as to how it relates to the Michigan Solid Waste Policy's goals. The following summarizes the findings of this evaluation and the basis for selecting this system:

As the selected system is a continuation of the selected system of the previous plan, evaluation of this alternative has been, essentially, an ongoing process. Service provision continues to be a mix of public and private entities driven primarily by cost efficiency. The landfill, being owned by the citizens of Marquette County, represents a sizeable public investment in solid waste disposal. The long term advantages of having made this investment, however, are already paying off. The tipping fee of \$38.43 has remained constant since 1992. Fifty-seven years of estimated capacity remains. An intergovernmental agreement signed by all municipalities in the County requires all Type II and Type III waste generated within their boundaries go to the County landfill. This high degree of flow control insures sufficient volumes of waste to protect the economic viability of the facility. The household hazardous waste program which is currently operating reduces the "risk" of environmental/licensing difficulties in the future. Allowing waste import only on a contingency (emergency) basis from other countries provides further confidence in the "quality" of waste being disposed at the landfill.

Though there are deficiencies that exist in the selected system, it was concluded that enhancement and improvement of the current system was more economically attainable, had greater public support, and provided longer term management benefit than the other alternatives.

## **DVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:**

A solid waste management system has pros and cons relating to its implementation within the County. Following is an outline of the major advantages and disadvantages for this Selected System.

### **DVANTAGES:**

- . Fifty-seven (57) years of capacity is available.
- . Cost savings associated with not developing additional sites.
- . Intergovernmental agreement (all County municipalities) provides broad based economics.
- . Construction of cells can continue without sale of bonds.
- . Local ownership contributes to environmentally sound management.
- . Current site is isolated from majority of population.
- . Single landfill provides economy of scale.

### **ADVANTAGES:**

- . Transportation costs due to large geographic area of County.
- . Lack of competition/choice of final disposal site.
- . Lack of flexibility.
- . High cost of leachate disposal.

## **NON-SELECTED**

## **SYSTEMS**

Before selecting the solid waste management system contained within this Plan update, the County developed and considered other alternative systems. The following section provides a brief description of these non-selected systems and an explanation why they were not selected.

**SYSTEM COMPONENTS:**            **Alternative #2 Waste to Energy Facility**

The following briefly describes the various components of the non-selected system.

**RESOURCE CONSERVATION EFFORTS:**

Programs of this sort would be most successfully implemented on a State or National level. Opportunities for reuse such as bringing grocery bags back to the store on the next trip are practiced on a small scale.

**VOLUME REDUCTION TECHNIQUES:**

Combustibles would be eliminated from the waste stream. The only materials requiring landfilling would be incinerator ash and non-combustibles.

**RESOURCE RECOVERY PROGRAMS:**

Sorting of waste into combustible/non-combustible materials would provide an opportunity to perform a much more intensive recycling and household hazardous waste program.

**COLLECTION PROCESSES:**

Collection could still be performed by public or private entities. Separation of combustible/non-combustible material will complicate collection.

**TRANSPORTATION:**

Keeping combustible/non-combustible material separate will potentially increase transportation costs. Siting of the incinerator (near an energy market) would have an impact based on location.

**DISPOSAL AREAS:**

Processing centers, which currently do not exist in the County, would be necessary to sort materials. Existing transfer stations will require modification to keep materials separated. Less landfill space will be required.

### INSTITUTIONAL ARRANGEMENTS:

Intergovernmental agreement for all municipalities to direct Type II and Type III waste to the landfill would no longer be valid. A similar agreement to bring waste to the new facility would be required. Agreements with other counties may be necessary to assure sufficient volumes for operation.

### EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste stream more compatible with incineration.

### CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Costs associated with a waste to energy facility would be incurred for land acquisition, facility construction, and processing facility construction. Ongoing costs for waste separation. Some disposal will still be required.

### EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

The non-selected system was evaluated to determine its potential of impacting human health, economics, environmental, transportation, siting and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation why this system was not chosen to be implemented.

Human health - There may be additional health risks associated with more extensive waste handling to accomplish the amount of sorting necessary for this alternative.

Michigan has strict regulations related to air emissions. The emissions created by the proposed waste to energy system will exceed those resulting from traditional power generation techniques.

Economics - A small waste to energy facility (30 tons/day) can cost nearly \$3 million to construct. Marquette County generates approximately 125 tons per day and it is assumed that a larger scale facility will be more expensive. Land acquisition will be another component of start up costs as a site near an "energy market" will be needed. There will also be costs associated with making the necessary connections to the consumer in order to utilize energy produced. Increased handling/sorting of material will be expensive.

Some cost recovery will result from the sale of energy.

Environmental - The smaller amount of material requiring final disposal (at the landfill) will result in a smaller landfill being required and less "greenfield" being impacted by the facility.

Popularity of waste to energy facilities is limited because of difficulties in complying with air emission standards.

There is concern over the higher toxicity of ash resulting from waste combustion being buried in the landfill.

Transportation - Impacts on transportation are difficult to assess. Location of the facility will be based on the energy market which is developed.

Siting - Siting criteria for this type of facility do not currently exist. As this plan also allows for local land use controls (zoning) to be operative, there will be limitations regarding facility location.

Energy Resources - A waste to energy facility would tap a fuel source currently not used for energy production and preserve other fuels for the future.

Technical Feasibility - Modular facilities, sized to accommodate the amount of waste generated in the County and in compliance with emission standards are available.

Public Support - There has always been some level of support for deriving benefit from solid waste, if possible, rather than just burying it in the landfill. A waste to energy facility would be a means of accomplishing this.

As the selected alternative, in light of the substantial public investment in our landfill, the "environmentally friendly" aspect of keeping "useful" material out of the landfill would succumb to cold, hard economics. There is also an "if it's not broke, don't fix it" mentality towards the current selected alternative of landfilling.

## **EVALUATION SUMMARY CONTINUED:**

### **SYSTEM COMPONENTS:           Alternative #3 Discontinue Landfill Operation**

The following briefly describes the various components of the non-selected system.

### **RESOURCE CONSERVATION EFFORTS:**

Programs of this sort would be most successfully implemented on a State or National level. Opportunities for reuse such as bringing grocery bags back to the store on the next trip are practiced on a small scale.

### **VOLUME REDUCTION TECHNIQUES:**

This alternative involves export of all waste. With transportation being a significant component of cost for this alternative, grinding, and compaction would be utilized to maximize loads.

### **RESOURCE RECOVERY PROGRAMS:**

As relates to export of collected material, separation of recyclables to make sure only waste is being exported would be enhanced.

### **COLLECTION PROCESSES:**

Collection could still be performed by public or private entities. More attention to source separation of recyclables during collection.

### **TRANSPORTATION:**

Transportation is a significant factor in this alternative. Direct haul to the landfill which currently occurs would be expensive and inefficient due to partial and "loose" loads.

### **DISPOSAL AREAS:**

Utilization of transfer stations would increase. It may be feasible to convert the baling facility at the landfill into an additional transfer station.

### **INSTITUTIONAL ARRANGEMENTS:**

Intergovernmental agreement for all municipalities to direct Type II and Type III waste to the landfill would no longer be valid. Documentation guaranteeing capacity from another county would be necessary.

### **EDUCATIONAL AND INFORMATIONAL PROGRAMS:**

Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste volume requiring final out-of-county disposal as small as possible.

### CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Costs associated with this alternative would be primarily out-of-county tipping fees and transportation. Eliminate investment in landfilling equipment but increase transportation and volume reduction equipment.

### EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

The non-selected system was evaluated to determine its potential of impacting human health, economics, environment, transportation, siting and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation why this system was not chosen to be implemented.

Human health - There may be additional health risks associated with increased waste handling to accomplish the extraction of recyclables, grinding, and compaction desirable before export takes place.

There would be none of the health risks associated with operation of a landfill.

Economics - Essentially all the facilities required for this alternative are currently in place. The West Marquette County Transfer Station and the Peninsula Sanitation Transfer Station have sufficient capacity to handle waste volumes currently being generated and anticipated through this planning period. Facilities at the landfill may be utilized for recycling and volume reduction. Transportation costs and tipping fees will be increased under this proposal. The chart below reflects cost calculations.

LOCATION	TIPPING FEE (TON)***	TIPPING FEE (TOTAL)*	TRANSPORTATION **	TOTAL COST (EST)
Alger Co.	55.00	745,650	148,850	894,500
Chippewa Co.	55.00	745,650	496,125	1,241,775
Delta Co.	48.00	430,650	215,000	645,650
Menominee Co.	67.00	1,285,650	396,900	1,682,550
Ontonagon Co.	63.00	1,105,650	380,350	1,486,000

\* rate in excess of Marquette County Landfill (\$38.43/ton)

\*\* .0735/ton mile Peninsula Sanitation est.

\*\*\* lower rate can be negotiated "gate fee"

Environmental - Greater attention to recycling and reduction of household hazardous waste which may otherwise be landfilled is advantageous. Not burying any waste in Marquette County would be better for the local environment but viewed differently in Delta County.

Transportation - With waste exportation, this component would be significantly impacted under this alternative. Not only would hauling distances be increased substantially but, direct haul by individual businesses would also cease.

Siting - Siting would not be a factor as current facilities could be utilized under this alternative. A processing facility, if necessary, could be sited under the mechanism currently being proposed.

Energy Resources - Increased transportation aspects of this alternative would consume additional energy.

Technical Feasibility - This alternative can be facilitated with existing resources. The Delta County Solid Waste Plan, however, limits imports to 24,000 tons from all out county sources which is slightly more than half what Marquette County currently generates per year.

Public Support - The substantial public investment in our current selected alternative, the Marquette County landfill, and the nearly 60 years of estimated capacity that exists there makes abandonment of the facility unlikely. This alternative, in case unforeseen circumstances such as equipment failure or licensing problems force short-term closure of the Marquette County Landfill would be considered as a contingency disposal option.

## **ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:**

Each solid waste management system has pros and cons relating to its implementation within the County. Following is a summary of the major advantages and disadvantages for this non-selected system.

### **Alternative #2 – Incineration (Waste to Energy)**

#### **ADVANTAGES:**

1. Small volume of residuals requiring landfilling.
2. Enhanced participation in recycling.
3. Production of energy from an otherwise "wasted resource".
4. Enhanced opportunity for hazardous waste control.

#### **DISADVANTAGES:**

1. Compliance with Michigan Air Quality Standards difficult/expensive to achieve.
2. An energy market must be located.
3. Existing financial commitment to the landfill.
4. Construction and on-going operational costs of an incinerator are greater than construction and operation of a landfill.
5. Waste volume generated in Marquette County may not be sufficient for economic operation of an incinerator.
6. Toxicity of residue is high.
7. Community opposition due to public investment in current alternative.

## **ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:**

Each solid waste management system has pros and cons relating to its implementation within the County. Following is a summary of the major advantages and disadvantages for this non-selected system.

### **Alternative #3 - Discontinue Landfill**

#### **ADVANTAGES:**

- 1. Enhanced participation in recycling.
- 2. Reduced environmental impact on Marquette County.

#### **DISADVANTAGES:**

- 1. Increased transportation costs.
- 2. Increased tipping fees.
- 3. Liability associated with waste export.
- 4. Loss of control over costs.
- 5. Community opposition due to public investment in current alternative.

## PUBLIC PARTICIPATION AND APPROVAL

The following summarizes the processes which were used in the development and local approval of the Plan including a summary of public participation in those processes, documentation of each of the required approval steps, and a description of the appointment of the solid waste management planning committee along with the members of that committee.

### APPENDIX C INDEX

	<u>Page</u>
Notice to adjacent counties	C-3 and C-7
Notice to municipalities	C-4 through C-6
Mailing list	C-8
Public review notice	C-9 and C-15
Public hearing notice	C-9 and C-15
Public hearing	C-10 through C-14 and C-16 through C-19
Meeting attendance	C-10
DPA and Committee Approval	C-20 through C-22
County Board Approval	C-23 through C-25
Municipal Approvals	C-26 through C-48
Committee Appointment	C-49 through C-55

## PUBLIC PARTICIPATION

PUBLIC INVOLVEMENT PROCESS: A description of the process used, including dates of public meetings, copies of public notices, documentation of approval from solid waste planning committee, County board of commissioners, and municipalities.

Public participation was encouraged throughout the plan update process. Initial "awareness" was created through solicitation of committee members both through direct contact and publication in the *Mining Journal*, a newspaper of county-wide circulation as a "Local Briefing".

Meeting schedules were adopted by both the Solid Waste Management Planning Committee and the Marquette County Planning Commission (the DPA). Meetings of each body are held in accordance with the Open Meetings Act. Meeting time and location are posted in the Courthouse on the day of each meeting. All adjoining counties and municipalities within Marquette County received meeting schedules for both bodies more than 10 days in advance of the first meeting. Municipalities were asked to include the Solid Waste Plan Update as an agenda item at their meetings.

Two public comment periods 9/17/98 through 12/15/98 and 1/7/99 through 3/7/99 were provided to gather public reaction to the draft Plan. Noticed public hearings were held 12/3/98 and 3/3/99.

Minutes of meetings and draft plan material were available at the Peter White Library for public review.



# County of Marquette

RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855

Construction Codes 906/225-8180  
Planning 906/225-8182  
FAX 906/225-8203

August 26, 1997

Dear Commissioners:

The Marquette County Planning Commission, Designated Planning Agency for the County, wishes to inform you that the Marquette County Board of Commissioners has filed a Notice of Intent with the State of Michigan Department of Environmental Quality indicating the County will be preparing an update to the County's Solid Waste Management Plan. The planning process will begin January 1, 1998 with plan submittal to the DEQ by December 1, 1998.

As these plans will be requiring contingency options in case of loss of primary disposal for the County, these plans are required to identify and authorize all disposal of solid waste between counties within Michigan. Further, there are some solid waste issues that may be best approached on a multi-county or regional basis.

Please advise as to the Designated Planning Agency and contact person for your County. Marquette County staff as well as the Solid Waste Management Planning Committee and County Planning Commission will be looking forward to working with you in this effort. Should you have any questions or require further information in regard to this communication, please contact me at the number above.

Sincerely,

*Norman Holmes, Chair*

Norman Holmes, Chair  
Marquette County Planning Commission

AF/cas

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Communication Sent To:

Alger, Baraga, Delta, Dickinson, Iron and Menominee Counties

I:\PLAN\COMMISH.AF

January 2, 1998

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Dear 5~:

In August of 1993, the County of Marquette, as you are already aware, filed a Notice of Intent to prepare a County Solid Waste Management Plan update. Preparation of the update is to begin this month with the organizational meeting of the Solid Waste Management Planning Committee on January 15, 1998. Meetings of this committee as well as Marquette County Planning Commission meetings will be subject to the provisions of the Open Meetings Act. Your participation is welcomed and encouraged. Tentative meeting schedules for both bodies are attached. You will be appraised of any changes in these schedules.

A draft plan will be available in late spring with the final proposed plan done by the end of October, 1998. Before a plan can be submitted to the Department of Environmental Quality, 67 percent of the municipalities in the County must approve the plan (in writing) to the County. Further, a "non-response" would be considered a disapproval. If 67% approval is not attained, the State will prepare a plan which requires no local approvals. It is imperative, therefore, that interests and concerns of your municipality be expressed during formulation of the plan rather than opposing it in the end. We anticipate the local approval period to be from November 4, 1998 through November 24. Please keep these dates in mind for your local meeting schedule.

Should you have any questions relating to the planning effort, please contact me at the number listed above.

Sincerely,

Alan Feldhauser  
Planner

AF:ls  
Enc.

# Meeting Schedule

January	February	March	April	May	June	1998
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July	August	September	October	November	December	1998
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## Marquette County Planning Commission Meeting Schedule

January	February	March	April	May	June	1999
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1998  
Marquette County Solid Waste Planning Committee  
Meeting Schedule

January 1998	February 1998	March 1998	April 1998	May 1998	June 1998
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1999  
Marquette County Solid Waste Planning Committee  
Meeting Schedule

January 1999	February 1999	March 1999	April 1999	May 1999	June 1999
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
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July 1999	August 1999	September 1999	October 1999	November 1999	December 1999
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11 12 13 14 15 16 17	15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16	14 15 16 17 18 19 20	12 13 14 15 16 17 18
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# County of Marquette

RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855

Construction Codes 906/225-8180  
Planning 906/225-8182  
FAX 906/225-8203

January 7, 1998

Dear Commissioners:

This communication is to serve as a follow up to a letter sent last August regarding Marquette County's intent to update our Solid Waste Management Plan. The process is scheduled to begin with the Solid Waste Management Planning Committee meeting to be held January 15, 1998, at 7:00 p.m. in room 231 of the Henry Skewis Annex, 234 West Baraga Avenue, Marquette.

Our plan will contain contingency options in case of loss of primary disposal for the County. Options may include out-of-county disposal which would require intercounty agreements to be in place. Further, some solid waste issues may be best addressed on a multi-county or regional basis. As a result, there may be opportunities for cooperative effort during the planning process.

I will be providing staff support to Marquette County's committee and will serve as a contact point between counties. A more complete meeting schedule will be provided to you after the first meeting. I would be interested in receiving your meeting schedule and the name of a contact person if you have not already provided same.

Should you have any questions or require further information regarding our plan update, please contact me at the number above.

Sincerely,

Alan Feldhauser  
Planner

AF/las

Communications Sent To:

Alger, Baraga, Delta, Dickinson, Iron and Menominee Counties

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PUBLIC PARTICIPATION

Mailing List  
Plan Information Requests

Wisconsin Electric  
800 Industrial Park Drive  
Iron Mountain, MI 49801  
Attn: Rodney K. Miller (906/779-2478)

Board of Light and Power  
2200 Wright Street  
Marquette, MI 49855  
Attn: David E. Hickey (906/228-0320)

Mead  
Publishing Paper Division  
Post Office Box 757  
Escanaba, MI 49829  
Attn: Kathy Jacobi (906/786-1660)

Krist Oil Company  
303 Selden Road  
Iron River, MI 49935  
Attn: Donn Atanasoff (906/265-4495)

## **NOTICE OF PUBLIC HEARINGS**

- Solid Waste Management Plan

The draft Marquette County Solid Waste Management Plan was released for a 90-day public comment period on September 17, 1998. This plan will direct decision making related to solid waste in this County for the next five years.

- 1998 Marquette County-Owned Lands Plan  
Amendment

Marquette County proposes to amend its land management plan adopted earlier this year. The amendment presents management issues and makes ownership recommendations regarding a 3.7 acre parcel in Negaunee Township.

Public hearings regarding both plans will be held by the Marquette County Planning Commission at 7:00 PM, Wednesday, December 2, 1998 in Room 231 of Henry A. Skewis Annex, 234 W. Baraga Avenue, Marquette, Michigan 49855.

Copies of the plans are available for viewing in the Resource Management/Development Department at the previous address. Questions can be directed to the Department by phone at 906-225-8182.

MARQUETTE COUNTY PLANNING COMMISSION  
PUBLIC HEARING  
SIGN-IN SHEET

Meeting Date: December 2, 1998

NAME \_\_\_\_\_

ADDRESS

Ernest Johnson

Pl 2 w. Fair/Marquette township trust.

EARL VELLE

455 VELLER D GWINN SANDS TOWNSH.

William Pyle

318 E. Crescent Mkt

Jack Aho

## 2-Specker Circle MOT

Ben Tammim

1526 Co. R.E.P. champion in 4981 y

Kirk Page

161 Co. R.L. 492

## MARQUETTE COUNTY PLANNING COMMISSION

### MINUTES

December 2, 1998

1. CALL TO ORDER - The regular meeting of the Marquette County Planning Commission was called to order by Chairperson Holmes at 7:01 p.m.

2. ROLL CALL - Commissioners present were Ken Salo, Les Thatcher, Lynn Coehoorn, and Norman Holmes. Commissioners absent were Charles Bergdahl and Mike Touchinski. Staff members present were Al Feldhauser, Ken Kaiser and Lori Syrjala.

3. APPROVAL OF MINUTES - A motion was made by Commissioner Coehoorn, supported by Commissioner Thatcher and carried unanimously to approve the minutes of 10/7/98 as presented.

4. PUBLIC COMMENT - Earl Yelle requested permission to speak during the public hearing on the Solid Waste Plan. Commissioner Holmes informed Mr. Yelle that he would have a chance to speak at the public hearing.

5. APPROVAL OF AGENDA - A motion was made by Commissioner Salo, supported by Commissioner Coehoorn and carried unanimously to approve the agenda as presented.

#### 6. PUBLIC HEARINGS

a. Solid Waste Management Plan - Commissioner Holmes opened the public hearing for the Solid Waste Management Plan at 7:05 p.m. Al Feldhauser offered a summary of the Solid Waste Plan. He informed the Board that the plan has been sent out for 90 day review to the municipalities. The public hearing currently being held was another opportunity for public input. The Solid Waste Planning Committee will forward the final draft plan to the County Board for approval. 2/3 of the municipalities must approve of the Plan. The end result of this process will be a Solid Waste Plan for Marquette County. At this time, Commissioner Holmes requested any public comment regarding the Solid Waste Management Plan.

Earl Yelle, Sands Township Supervisor, spoke on behalf of Sands Township and requested that a compacted fill be made an option along with baled fill on Section 3, Page 20, Paragraph 9 of the proposed Solid Waste Plan.

Ernie Johnson, Marquette Township Trustee, spoke on behalf of Marquette Township and stated that the Plan is approved in concept at the Township level but is concerned with fly ash from Wisconsin Electric. He requested that the Plan read that a special use permit be obtained at the Township level. He stated that if this request is worded properly, that it could protect all municipalities in the County. Mr. Johnson also expressed a request that loose fill be considered an option along with baled fill.

Ken Tuominen, Chairman of the Marquette County Solid Waste Management Committee commented that the Committee has agreed to wait for Marquette Township to hold a hearing before making a recommendation. He also mentioned that the type of fill option will be discussed at their next scheduled meeting of December 16.

A motion was made by Commissioner Coehoorn, supported by Commissioner Salo to forward comments to the Planning Committee. Motion passed 4-0.

Commissioner Holmes closed the public hearing of the Solid Waste Management Plan at 7:15 p.m.

b. Amendment to County-Owned Lands Plan Commissioner Holmes opened the public hearing for an Amendment to the County-Owned Lands Plan at 7:16 p.m. Al Feldhauser reviewed stating that when the Lands Plan was written the Road Commission property was not included. It was assumed that the Road Commission owned the property where the Health Department is (3.9 acres located south of U.S. 41) but it was discovered that the County Board owns this property. As the Lands Plan was recently adopted, an amendment to the Plan was requested. The County Board asked that the Plan be amended to include the Health Department acreage. No public comment was heard with regards to the addendum. A motion was made by Commissioner Thatcher, supported by Commissioner Coehoorn and approved unanimously to adopt the amendment to the County-Owned Lands Plan.

Commissioner Holmes closed the public hearing of the Amendment to County-Owned Lands Plan at 7:20 p.m.

7. COMMUNICATIONS - A motion was made by Commissioner Salo, supported by Commissioner Coehoorn and carried unanimously to file the communications.

8. MONTHLY REPORTS - It was the consensus of the Commission to file the monthly reports.

9. OLD BUSINESS

a. Block Grant

(1) Update Ken Kaiser advised that out of 23 projects, seven were done, four nearly completed, two have requested additional funding, three withdrew from program, one was denied due to high repair costs and the remaining six were unable to be done under this grant due to expenditure of grant funds. These six were asked to reapply in January, 1999. Staff also handled eight emergency repairs, one down-payment assistance with closing costs and five out of six LAUNCH projects are complete.

b. GIS Plan Update Ken Kaiser reviewed stating that November 6 a meeting between staff, municipalities and private organizations in the area was held to discuss the results of the GIS survey. He discussed the road addressing layer, soils layer, zoning layer and parcel layer as the four areas of need in the County. Ken also stated that digital ortho-photos were discussed and as a result, a sub-group formed to consider this possibility.

c. LS&I Railroad Abandonment Al Feldhauser reviewed stating that this is an amendment to the request heard in August. LS&I are requesting an abandonment of 3.54 miles of railroad from Hampton Street to Hawley Street in the City of Marquette. The original request extended to the Welcome Center but revised it because of a previous abandonment on file. No action by the Board was necessary.

10. NEW BUSINESS -

a. A-95: Marquette Business District Regeneration Ken Kaiser advised that this A-95 request is for the City of Marquette to make infrastructure improvements and construction of two parking lots in the Central Business District. A motion was made by Board Member Coehoorn, supported by Commissioner Salo and approved unanimously to support staff recommendation and approve the A-95 request.

b. Negaunee Township Comprehensive Plan Review Ken Kaiser reviewed stating that Negaunee Township did an excellent job on their Comprehensive Plan. His review included some suggestions regarding layout of the Plan, general comments and some editing errors. Mr. Kaiser feels the Township

met the statutory requirements of the Township Planning Act. Staff review of the plan finds it to be generally consistent and compatible with the County Comprehensive Plan. A motion was made by Commissioner Coehoorn, supported by Commissioner Thatcher and approved unanimously to support staff's recommendation to approve the plan and forward staff and Commissioner comments to the Township.

c. Ishpeming Township Rezoning Ken Kaiser reviewed the request stating that the owner of the parcel in question is requesting a change in zoning from RR-2 to RP. The owner's reasoning for this is so they can have an archery range at the site. Commissioner Holmes questioned whether a special use permit was suggested. Mr. Kaiser explained that it was determined by the interpretation of the zoning administrator and that the rezoning was what was requested. A motion was made by Commissioner Coehoorn, supported by Commissioner Thatcher and approved 4-0 to support the rezoning request.

11. ANNOUNCEMENT - An announcement was made by staff member Lori Syrjala informing the Planning Commission that the next meeting is scheduled for January 13, 1999. Commissioner Coehoorn stated that she will not be in attendance at that meeting.

12. PUBLIC COMMENT - There was none.

13. ADJOURNMENT - At 7:50 p.m., a motion was made by Commissioner Coehoorn, supported by Commissioner Thatcher, and carried unanimously to adjourn.

Respectfully Submitted,



Lori Syrjala  
Unit Secretary II

SOLID WASTE PLAN HEARING  
12/2/98

COMMENTS:

Earl Yelle - Sands Township Supervisor

Mr. Yelle stressed the importance of not "locking in" the County to the current system of baling waste at the landfill. It is his contention that a compacted fill would be more economical to operate and provide substantial savings to the people of Marquette County. It is his recommendation that the plan allow a compacted fill as an option. A letter from Mr. Yelle was submitted at the hearing and will accompany this summary.

Ernest Johnson - Marquette Township Trustee

Mr. Johnson indicated the Township is concerned with the Wisconsin Electric ash landfill (located in Marquette Township) and its potential expansion. He said the utility should be required to obtain a special use permit from the Township and that it should be stated as such in the plan. He further stated that the option to convert to a compacted fill (versus bale) should be provided in the plan.

Ken Tuominen - Chair, Solid Waste Management Planning Committee

Mr. Tuominen stated that it was the unanimous consensus of the Solid Waste Committee to delay action on finalizing the Plan until the coal ash disposal issue was resolved. He also commented that a letter had been sent from the Solid Waste Management Authority suggesting amendment to the Plan to accommodate a compacted landfill as an option.

The public hearing was closed and a motion made and unanimously approved to forward comments received to the Solid Waste Management Planning Committee.

AF:ls

*Mining Journal*  
*1/29/99*

## **NOTICE OF PUBLIC HEARING**

### **Solid Waste Management**

The draft Marquette County Solid Waste Management plan was released for a second public comment period which concludes March 8, 1999. This plan will direct decision-making related to solid waste in this County for the next five years.

A public hearing regarding the plan will be held by the Marquette County Planning Commission at 7:00 PM Wednesday, March 3, 1999 in Room 231 of the Henry A. Skewis Annex, 234 W. Baraga Ave., Marquette, Michigan 49855.

Copies of the plan are available for viewing in the Resource Management/Development Department at the previous address or the Peter White Public Library. Questions can be directed to the Department by phone at 906/225-8182.

MARQUETTE COUNTY PLANNING COMMISSION

AGENDA

MARCH 3, 1999

1. CALL TO ORDER - The regular meeting of the Marquette County Planning Commission was called to order by Chairperson Holmes at 7:00 p.m.

2. ROLL CALL - Commissioners present were Ken Salo, Lynn Coehoorn, Mike Touchinski, Les Thatcher, Charles Bergdahl, and Norman Holmes. Staff members present were Ken Kaiser, Al Feldhauser and Lori Syrjala.

3. APPROVAL OF MINUTES - A motion was made by Commissioner Coehoorn, supported by Commissioner Bergdahl and carried unanimously to approve the February 3, 1999 minutes as presented.

4. PUBLIC COMMENT - There was none.

5. APPROVAL OF AGENDA - Mr. Feldhauser advised the Commission that the Solid Waste Management Plan Public Hearing another opportunity for public comment to be taken. The second public comment period expires March 7, 1999. Commissioner questions will be answered under agenda item 9a(1) (Solid Waste Plan Update). A motion was made by Commissioner Bergdahl, supported by Commissioner Salo and carried unanimously to approve the agenda as presented.

6. PUBLIC HEARINGS -

a. Perkins Park Development Project Phase II - Chairman Holmes opened the public hearing for discussion. Al Feldhauser advised the Commission that this phase of the development project is to add two restroom/showers and to convert the current bathhouse into a pavilion. Mr. Feldhauser also explained that none of the previous County applications for Phase II were successful in the statewide grant competition and suggested increasing the local match to 26% to give the County a possible advantage by decreasing the grant amount requested.

A motion was made by Commissioner Bergdahl, supported by Commissioner Touchinski and passed 6-0 to close the public hearing. There was further discussion regarding the additional local match monies. A motion was made by Commissioner Salo, supported by Commissioner Touchinski and carried unanimously to support staff recommendation by increasing local match to 26% but eliminating the Forest Recreation Fund as a source for the local match.

b. Solid Waste Management Plan - Chairman Holmes opened the public hearing for discussion. Mr. Feldhauser gave a summary of the Solid Waste timeline stating that the Planning effort began in January, 1998, the first public comment period was October through December 1998 with a public hearing in December. It was decided by staff and Committee members to extend the public comment period from

January 1, 1999 through March 7, 1999 with the public hearing being held March 3. The Plan is essentially a continuation of the selected alternative of the previous plan. Some main points include maintaining flow control (Type II & III to landfill, coal ash to Wisconsin Electric's landfill), having a contingency disposal with reciprocal counties and maintaining local land use control. Some new additions to the Plan are recycling enhancements, education, reporting and a solid waste ordinance. As no public was present for comment, a motion was made by Commissioner Salo to close the public hearing. Motion was supported by Commissioner Bergdahl and passed 6-0.

7. COMMUNICATIONS - A motion was made by Commissioner Salo, supported by Commissioner Touchinski and carried unanimously to file the communications.

8. MONTHLY REPORT - There were no comments on the monthly report.

9. OLD BUSINESS

a. Solid Waste Plan

(1) Update - Mr. Feldhauser advised the Commissioners that the extended public comment period will expire on March 7, 1999 and the Marquette County Planning Commission and Solid Waste Management Planning Committee will hold a joint meeting on March 17, 1999. He also stated that Marquette Township approved the rezoning for a monofill coal ash landfill expansion for Wisconsin Electric. Wisconsin Electric will still be responsible for applying for a conditional use permit. Mr. Feldhauser also explained that the Solid Waste Ordinance may or may not be adopted before the Plan is adopted but a provision needs to be listed in the Plan for enforcement of the Ordinance under the Plan. A motion was made by Commissioner Salo to forward Plan to Solid Waste Planning Committee. Motion was supported by Commissioner Touchinski and passed 6-0.

b. Block Grant

(1) Update & (2) Ranking - Mr. Kaiser reviewed the housing update and project ranking stating that two projects from the 1997 program are expected to be completed in June and one emergency furnace replacement was done due to income returned to the program. The funding for the 1999-2000 housing rehabilitation grant was released on February 17th. Applications are currently being accepted. Mr. Kaiser submitted photos and a request for four homes to be rehabilitated under the first round of the 1999-2000 program. After review a motion was made by Commissioner Touchinski to authorize rehabilitation of the four homes requested. The motion was supported by Commissioner Thatcher and carried unanimously to approve.

c. GIS Plan Update - Mr. Kaiser handed out a "draft" GIS Plan and informed the Commission that the public hearing was postponed until April to give municipalities additional time for review. No further discussion was necessary.

d. CIP Criteria - Economic Development - Mr. Feldhauser reviewed the capital improvement point factoring for economic development as directed by the Commission. After discussion a motion was made by Commissioner Bergdahl, supported by Commissioner Thatcher and carried unanimously to approve.

## 10. NEW BUSINESS

a. A-95: Head Start - Mr. Kaiser reviewed the request stating that this was not included in their previous request for funding. This request will allow AMCAB to obtain additional funds to be added to their base grant amount for cost of living increase consistent with County Comprehensive Plan. A motion was made by Commissioner Salo to support staff recommendations and approve the grant request. The motion was supported by Commissioner Touchinski and passed 6-0.

b. Forsyth Township Rezoning: 2-99 - Mr. Kaiser reviewed the rezoning request stating that the request is to change a parcel from Residential-1 (minimum 10,000 square feet) to Rural Residential-2 (minimum 5 acres) to allow for horses. Mr. Kaiser explained that this would also help buffer the residential area from the commercial area on the west side of the property. After discussion a motion was made by Commissioner Thatcher, supported by Commissioner Touchinski and approved unanimously to support staff recommendation and approve the rezoning request.

c. Humboldt Township Recreation Plan Review - Mr. Kaiser reviewed the Recreation Plan stating that it appears to have met the guidelines set forth by the DNR and that it is also consistent with the goals of the Marquette County Recreation Plan. He did note some discrepancies and suggested staff comments be forwarded to Humboldt Township for consideration. A motion was made by Commissioner Salo, supported by Commissioner Thatcher and passed 6-0 to support staff recommendation and approve the proposed recreation plan with Commission and staff comments being forwarded.

d. Republic Township Recreation Plan Amendment - Mr. Feldhauser reviewed stating that this amendment is to address the Republic Dam acquisition and surrounding properties. Mr. Feldhauser explained that this amendment is consistent with the County's Recreation Plan and suggested the amendment be approved. A motion was made by Commissioner Touchinski to approve the amendment with a recommendation for Republic Township to look into how extensively downstream impacts on water users, particularly Wisconsin Electric, had been assessed and how regulation of water flow may affect them. The motion was supported by Commissioner Thatcher and passed 6-0.

e. A-95: Republic Dam Restoration - Mr. Feldhauser reviewed this A-95 request stating that Republic would like to acquire the Republic Dam in order to preserve shoreline areas along with fish and wildlife habitats and to enhance the tourist industry. The proposal will provide for continued access to waterfront recreation into the future. A motion was made by Commissioner Coehoorn, supported by Commissioner Thatcher and carried unanimously to support staff recommendation and approve the request.

f. Trails - Mr. Feldhauser reviewed the Trail Rationalization Plan memo stating that this request is to consider acquisition of rail abandonment in Marquette County under the rails to trails program. Although this trail request is mainly in regard to snowmobiles, there is also a need for non-motorized trails. Mr. Feldhauser suggested the Planning Commission recommend to the County Board use of a consultant to

prepare the Plan. A consultant focusing exclusively on the project would expedite completion and may make partnering and cooperation between municipalities somewhat easier. After discussion a motion was made by Commissioner Salo to support staff recommendation to suggest hiring a consultant in developing the Trail Rationalization Plan. The motion was supported by Commissioner Touchinski and passed 6-0.

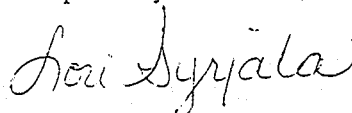
g. Coastal Management Program Grant Application - Mr. Kaiser reviewed the grant application stating that this would fund coastal management projects on a 50/50 match basis. He stated that this will provide funding of GIS projects in coastal areas and will include mapping of coastal resource data layers and parcel mapping of coastal townships. Mr. Kaiser asked the Commission to request to the County Board to adopt a resolution supporting the grant application and commit Marquette County's matching funds, designate the Public Improvement Fund as the source for matching funds, designate County Administrator as representative and authorize him to sign the application, and authorize Board Chair to sign documents related to the project if awarded. After discussion a motion was made by Commissioner Salo to support staff recommendation and forward request to County Board. The motion was supported by Commissioner Thatcher and passed 6-0.

11. ANNOUNCEMENTS - Commissioner Touchinski informed the people attending the meeting that Pathways has a program called "MI Child" which provides health insurance coverage to low income families for dental and vision at a fee of \$5 per month. Children must be of school age to be eligible. For more information contact Carol Touchinski at 906/225-5104.

12. PUBLIC COMMENT - There was none.

13. ADJOURNMENT - At 8:55 p.m., a motion was made by Commissioner Coehoorn, supported by Commissioner Salo and carried unanimously to adjourn.

Respectfully Submitted,



Lori Syrjala  
Unit Secretary II

MARQUETTE COUNTY SOLID WASTE MANAGEMENT PLANNING COMMITTEE  
MARQUETTE COUNTY PLANNING COMMISSION JOINT MEETING  
MINUTES  
MARCH 17, 1999

1. CALL TO ORDER - The special joint meeting of the Marquette County Solid Waste Management Planning Committee and Marquette County Planning Commission was called to order by Chairperson Tuominen at 7:00 p.m.

2. ROLL CALL - Solid Waste Management Planning Committee members present were Glen Adams, Richard Aho, Carr Baldwin, Richard Posey, Donald Pyle, Kurt Simandl, Bruce Michaelson, Kenneth Tuominen, Dawson Carriere, Denise Beauchamp, and Michael Twohey. Absent were William Niepoth, and Gerald Peterson. Absent and excused was Peter Van Steen. Planning Commission members present were Lynn Coehoorn, Ken Salo, Norman Holmes and Mike Touchinski. Commission members absent and excused were Charles Bergdahl and Les Thatcher. Staff members present were Al Feldhauser and Lori Syrjala.

3. APPROVAL OF MINUTES - A motion was made by Committee Member Beauchamp, supported by Committee Member Pyle and carried unanimously to approve the January 6, 1999 minutes as presented.

4. PUBLIC COMMENT - There was none.

5. APPROVAL OF AGENDA - A motion was made by Committee Member Baldwin, supported by Committee Member Adams and carried unanimously to approve the agenda.

6. COMMUNICATIONS - 6b was filed.

a. Correspondence from Antrim County - Committee members discussed and concurred to have staff send communication to Antrim County denying their request for importing solid waste to the Marquette County Landfill.

Al Feldhauser advised the Committee that he was expecting someone from Krist Oil to attend the meeting and address the Committee on items 6c & 6e. It was recommended and approved that the Committee would skip these two agenda items until Krist Oil showed up for comment or, should nobody show, after the review of the Solid Waste Plan.

d. Correspondence from Kenneth Huber, City of Negaunee - Al Feldhauser addressed the Committee and Commission members stating that the conflicting population figures Mr. Huber mentioned are actually for two different years. After discussion Committee members agreed to direct staff to send communication to the City of Negaunee addressing their concerns.

7. OLD BUSINESS -

a. Draft Solid Waste Plan Review - Below is a listing of page numbers and proposed changes made by the Solid Waste Planning Committee and Planning Commission during their review of the Plan.

<u>Page</u>	<u>Proposed Changes</u>
II-4	Paragraph 6 -- (eg Household hazardous waste collection program)
II-5	Paragraph 4 -- Most of these, however, haul only waste generated by their own activities (such as construction or demolition debris) while the bulk of collection is done by a <del>"handful" of operators</del> small number of haulers.
	Paragraph 9 -- All Type II (garbage, rubbish, refuse) and Type III ( <del>inert material--rock</del> , construction debris)....
	Paragraph 10 -- Fuel impacted soils, after characterization to establish they are not hazardous (Type I), will be...

At this point, Donn Atanasoff of Krist Oil joined the meeting and the Committee and Commission members agreed to stop review of the Plan to discuss agenda items 6c & 6e.

6a. Correspondence from Krist Oil Company

6e. Correspondence from Richard S. Baron - Donn Atanasoff was present on behalf of Krist Oil and requested the Solid Waste Planning Committee allow Krist Oil to export waste from their stores in Marquette County to its disposal facility in Iron County. Mr. Atanasoff explained that the use of dumpsters creates a problem of non-authorized dumping from the general public. Committee Chair Ken Tuominen explained that due to the bonding issue that Marquette County cannot allow out-of-county exportation of waste. Mr. Atanasoff understood Marquette's position and no further discussion was necessary.

7a. Draft Solid Waste Plan Review (continued) -

<u>Page</u>	<u>Proposed changes</u>
II-12	Table 3. reallocate K.I. Sawyer waste between Forsyth, Sands and West Branch Townships.
II-29	Table 7, Republic Township - delete Chick's Sanitation, add Northern Refuse Skandia Township and West Branch Township - add Northern Refuse
III-16	Table 11, Republic Township - delete Chick's Sanitation, add Northern Refuse Ishpeming City - add West End Transfer
III-20	Paragraph 6 - The primary advantage of bale fills is the greater lift thickness ( <del>3 feet vs 9 feet</del> ) (9 feet -vs- 3 feet).
III-22	Paragraph 7 - change "The primary providers of residential recycling in the County are Chick's, Northern Refuse, and Peninsula Sanitation." to "The primary providers of residential recycling in the County are Chick's, Northern Refuse, Ishpeming City, and Peninsula Sanitation."

<u>Page</u>	<u>Proposed changes</u>
III-25	Table 16 - Drop off column -- Champion Township add ITFD. Ely Township add ITFD, Humboldt Township add ITFD, Tilden Township add ITFD
III-34	Table 20 - Chick's delete Republic Township, Northern Refuse add Republic Township. West End Transfer add "K".
III-38	Delete Table 24.
III-41	Table 27 - Change (F2 ASH 100% Out-of-State Markets) to (19% In-State Markets and 81% Out-of-State Markets).
III-44	Paragraph 1, <u>Exceptions</u> -- delete "Siting criteria #1 is waived."
III-48	delete "*Criteria 1 is waived for exception listed on page III-44."
III-52	<u>Sanitary Landfills</u> delete "No. 2" at end of sentence.
B-6	Chart -- add TIPPING FEE (TON)***. Add footnote at bottom of chart stating "**** lower fees can be negotiated".

After a complete review of the Plan, Committee Chair Tuominen explained that the next goal is to get copies of the revised Plan to the County Board of Commissioners for distribution at the April 6 meeting, get Plan approval at the April 13 Committee of the Whole meeting, send Plan out to municipalities by April 20 for a 60 day review ending approximately June 20, 1999.

After discussion a motion was made by Planning Commissioner Salo to accept the Plan amendments and forward to the Solid Waste Management Planning Committee. Motion was supported by Commissioner Touchinski and passed 4-0.

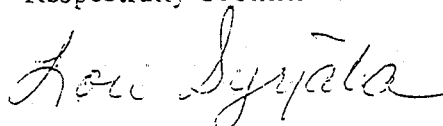
A motion was made by Solid Waste Planning Committee Member Twohey to accept the Plan as amended Plan and forward to the County Board of Commissioners. Motion was supported by Committee Member Adams and passed 11-0.

8. NEW BUSINESS - There was none.

9. PUBLIC COMMENT - There was none.

10. ADJOURNMENT - At 8:10 p.m., it was the consensus of both the Solid Waste Management Committee and the Planning Commission to adjourn joint meeting.

Respectfully Submitted.



Lori Syrjala  
Unit Secretary II

April 13, 1999

Honorable Chair and Members of the  
Marquette County Board of Commissioners

When the Committee of the Whole met on Tuesday, April 13, 1999, they considered the Marquette County Solid Waste Management Plan Update. Al Feldhauser, Senior Planner, was present and explained that the Solid Waste Management Planning Committee and the Marquette County Planning Commission completed work on updating the Solid Waste Plan. At their March 17, 1999 meeting the SWMPC unanimously approved and is recommending the adoption of the plan to the Marquette County Board of Commissioners.

Mr. Feldhauser explained that Marquette County has a lower per capita waste generation than the average in the state and the nation. This is partially due to Marquette County's recycling effort which recycles approximately 27% of the waste stream whereas the national average is 25%. This is particularly good in that nationally recycling is down and Marquette County is a large distance from recycling centers.

The Solid Waste Planning Committee, using population projection figures, can determine the solid waste needs for the next five to ten years. Several alternatives were considered including incineration, waste to energy, and landfilling. The plan must be consistent with state law and policy. After a thorough review the Solid Waste Planning Committee and the Planning Commission concluded that landfilling is still the best alternative. The Marquette County Landfill has 57 years left at its present site while most counties in Michigan are scrambling to find more landfill space. The Marquette County Landfill is also environmentally friendly due to our Household Hazardous Waste Program. The Intergovernmental Agreement adopted by all our municipalities guarantees a waste flow which will generate the necessary revenue to operate the landfill.

Marquette County's tipping fee has been stable since 1992 at \$38.43 per ton which is much lower than most counties in Michigan. Although reducing the waste volume is contrary to increasing revenues, it also lengthens the life of the landfill. The Solid Waste Management Plan being presented is consistent with previous recommendations. The initial Solid Waste Planning Committee (10 years ago) adopted an excellent plan which has proven to be cost effective and environmentally sound for Marquette County in the long run.

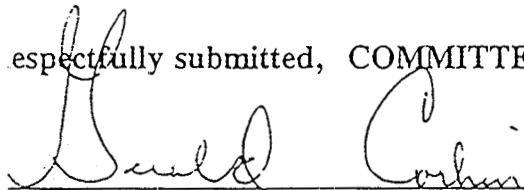
Comm. Tuominen noted that although the managers of solid waste in Marquette County will utilize "bailing" as the preferred technique until a superior alternative is developed, page III-20 indicates that when the bailer is unavailable it is permissible to place compacted loose waste into the landfill.

Al Feldhauser also noted that the Solid Waste Management Authority will continue its policy of no fly ash being disposed at the Marquette County Landfill. Although state policy allows fly ash disposal. Wisconsin Electric has a private landfill with a 6 or 7 year life span remaining in Marquette Township. They are currently working with the Township to expand their site for another 20 years.

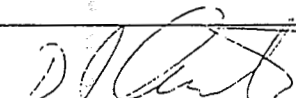
Commissioners commended the Planning Staff, the Planning Commission, and the Solid Waste Management Planning Committee, especially Comm. Tuominen who acted as Chairperson for their efforts. Chairperson Corkin also commended the Solid Waste Authority's Management and Board of Directors for the excellent operation at the Marquette County Landfill.

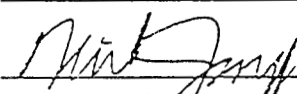
It was moved by Comm. Joseph, seconded by Comm. Arsenault, and unanimously carried by voice vote, that the Committee of the Whole recommend the County Board approve of the Solid Waste Management Plan Update for its submission to the Michigan Department of Environmental Quality as required under 1994 PA 451 (as amended).

Respectfully submitted, COMMITTEE OF THE WHOLE

  
Chair

\_\_\_\_\_  
Vice-Chair

  
\_\_\_\_\_  
Harlyn Rappoport  
\_\_\_\_\_  
Kenneth A. Tuominen

  
\_\_\_\_\_  
Elizabeth Roberts  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approved  
4/22/99  
EJR

ACTION ITEMS CONTINUED

10k) The County Board considered a Committee of the Whole Recommendation to approve the Solid Waste Management Plan Update for its submission to the Michigan Department of Environmental Quality as required under 1994 PA 451 (as amended).

Comm. Tuominen, in order to clarify the intent of Section III, Page 20, of the recommended Solid Waste Plan, made the following motion:

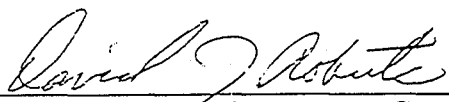
It was moved by Comm. Tuominen, seconded by Comm. Seppanen and unanimously carried by voice vote, "That if it proves to be economically feasible, the Solid Waste Plan makes provisions for a conventional compacted fill type operation with daily cover."

It was moved by Comm. Tuominen, seconded by Comm. Curto and unanimously carried by voice vote that the Marquette County Board of Commissioners approve of a Solid Waste Management Plan Update and forward it to the 22 municipalities in Marquette County for their review and approval as required under 1994 PA 451 (as amended).

## CERTIFICATION

I, David J. Roberts, Clerk of the County of Marquette, State of Michigan, do hereby certify the above was adopted by the Marquette County Board of Commissioners at their Regular Meeting held on the 20th day of April, 1999.

Sworn to by me on this  
21st day of April, 1999

  
\_\_\_\_\_  
David J. Roberts, Marquette County Clerk

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE  
1999

Checklist for Approvals from Local Units

<u>Municipality</u>	<u>Approved</u>	<u>Date</u>	<u>Disapproved</u>
Marquette City	X	6/14/99	
Negaunee City			
Ishpeming City	X	6/2/99	
Champion Township	X	5/11/99	
Chocolay Township	X	5/17/99	
Ely Township	X	5/17/99	
Ewing Township	X	6/8/99	
Forsyth Township	X	6/17/99	
Humboldt Township	X	5/10/99	
Ishpeming Township	X	5/11/99	
Marquette Township	X	5/18/99	
Michigamme Township	X	6/7/99	
Negaunee Township			
Powell Township	X	6/8/99	
Republic Township			
Richmond Township			
Sands Township	X	5/11/99	
Skandia Township	X	6/6/99	
Tilden Township	X	5/18/99	
Turin Township			
Wells Township			
West Branch Township	X	6/16/99	

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of Marquette City on  
(Township/City)

June 14, 1999 it is hereby resolved that we  
(Date)

approve the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994

amended, and the rules promulgated thereunder.

Norman Z Gruber  
Signature

City Clerk.  
Title

I:\SOLWASTE\RESOLUT.TWP

# Marquette



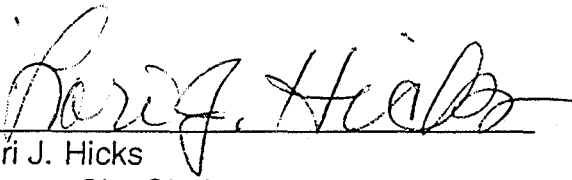
the Superior location

## CERTIFICATE

I, Lori J. Hicks, Deputy City Clerk of the City of Marquette, State of Michigan, do hereby certify that the following is a true and complete copy of an excerpt from the minutes of a regular meeting of the Marquette City Commission duly called and held on June 14, 1999:

It was moved by Commissioner Sciotto, supported by Commissioner Carlson, and carried unanimously to approve the recommendation and to authorize the City Clerk to sign a resolution which supports and approves the County of Marquette Solid Waste Management Plan.

Dated: June 14, 1999.

  
\_\_\_\_\_  
Lori J. Hicks  
Deputy City Clerk



## CITY OF ISHPERING, MICHIGAN 49849

City Hall, 100 E. Division Street  
Council-Manager Government

City Manager	485-1091
City Clerk	485-1091
Treasurer	485-1091
Police	486-4416
Public Works	486-9371
Assessor	485-1091
Fire	486-4416
Library	486-4381
Cemetery	486-6181
City Attorney	485-1091
Fax	485-6246

### RESOLUTION NO. 1999-4

#### RESOLUTION APPROVING UPDATE TO COUNTY OF MARQUETTE SOLID WASTE PLAN

By action of the Ishpeming City Council on Wednesday, June 2, 1999, it is hereby resolved that the City approves the County of Marquette Solid Waste Plan Update, prepared pursuant to Part 115 of Public Act 451 of 1994, amended, and the rules promulgated thereunder.

Corbin Neuman  
City Clerk



*The City of Ishpeming is an equal opportunity program/employer.  
Auxiliary aids and service are available upon request to individuals with disabilities.*

HOME OF THE U.S. NATIONAL SKI HALL OF FAME

MAY 21 1999

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of Champion Township on  
(Township/City).

MAY 11, 1999 it is hereby resolved that we  
(Date)

APPROVE the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994  
amended, and the rules promulgated thereunder.

Cheryl J. Koppinger  
Signature

Clrk  
Title

I:\SOLWASTE\RESOLUT.TWP



## Charter Township of Chocolay

5010 US 41 SOUTH • MARQUETTE, MICHIGAN 49855  
PHONE (906) 249-1448 • FAX (906) 249-1313 • E-MAIL: Choctwp@mail.portup.com

May 19, 1999

Al Feldhauser, Senior Planner  
Marquette County  
Resource Management/Development Dept.  
County Courthouse  
Marquette, Michigan 49855

Re: County Solid Waste Management Plan

Dear Mr. Feldhauser:

In accordance with the local municipality approval guidelines of Public Act 451 of 1994, the Chocolay Township Board, at their May 17, 1999 meeting, approved the County of Marquette Solid Waste Management Plan dated April 13, 1999.

Attached is an official excerpt from the minutes of that meeting. If you have any questions or need anything further please do not hesitate to contact me at 249-1448.

Sincerely,

Douglas Riley  
Director of Planning and Research


Attachment

County Solid Waste Management Plan  
Cont. p. 2 of 2

May 19, 1999

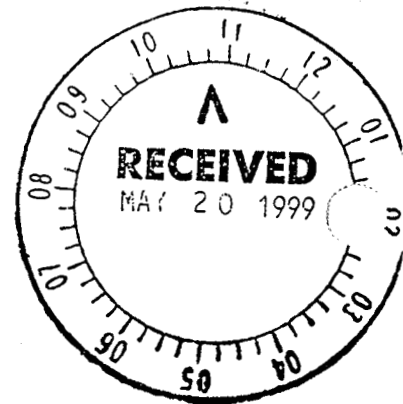
I hereby certify that the following motion is a true and complete copy of a resolution duly adopted by the Township Board of the Charter Township of Chocoley, County of Marquette, Michigan, at a regular meeting held on May 17, 1999 and that public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan 1976, including in the case of a special or rescheduled meeting notice by publication or posting at least eighteen hours prior to the time set for the meeting.

*Hill Moved Menhennick Second that the Chocoley Township Board approve the County of Marquette's Solid Waste Management Plan Update dated April 13, 1999, prepared pursuant to Part 115 of Public Act 451 of 1994, as amended, and the rules promulgated thereunder.*

  
Arlene E. Hill, CMC  
Chocoley Township Clerk

ELY TOWNSHIP  
1555 COUNTY ROAD 496  
ISHPEMING, MI 49849

906-486-6802  
FAX 906-486-6620



May 18, 1999

County of Marquette  
Board of Commissioners  
County Courthouse  
Marquette, Mi 49855

Dear Mr. Corkin:

At our regular Township Board Meeting on May 17, 1999 the Ely Township Board voted 4 Ayes, 0 Nays, 1 Absent in support of the Marquette County Solid Waste Plan. I would like to thank all persons involved in the Development of the Marquette County Solid Waste Plan for a job well done.

Sincerely,

Ted A Pepin,  
Supervisor

cc: Township Board  
file

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of Ely Township on  
(Township/City)

May 17, 1999 it is hereby resolved that we  
(Date)

approve the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994

amended, and the rules promulgated thereunder.

Fred A. Pepin  
Signature

Supervisor  
Title

I:\SOLWASTE\RESOLUT.TWP

RESOLUTION

99-1

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the (Board)/Commission of Ewing Township on  
(Township/City)

June 8, 1999 it is hereby resolved that we  
(Date)

approve the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994

amended, and the rules promulgated thereunder.

Arnold Siitola  
Signature

Supervisor  
Title

I:\SOLWASTE\RESOLUT.TWP

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/~~Commission~~ of Forsyth on  
(Township/~~City~~)

June 17, 1999 it is hereby resolved that we  
(Date)

Approve the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994  
amended, and the rules promulgated thereunder.

Susan C Fowler  
Signature

Clerk  
Title

I:\SOLWASTE\RESOLUT.TWP

SANFORD PESOLA, Supervisor

JACQUELINE KOSKI, Clerk

BARBARA MACKEY, Treasurer

SULO ISOTALO, Trustee

BERNHARDT ROSTEN, Trustee

## HUMBOLDT TOWNSHIP

906-339-2927 • FAX 906-339-4431

CHAMPION, MICHIGAN 49814

The regular meeting on the Humboldt Township Board was held on May 10, 1999 at 7 P.M. at the Humboldt Township Hall.

A motion was made by Treasurer Barbara Mackey to adopt the Marquette County Solid Waste Management Plan as required by Act 451. The motion was supported by Trustee Sulo Isotalo. A vote was taken, and the ordinance was passed 5 yeas; 0 nays.

Submitted by:

Jacqueline Koski  
Clerk

Sanford R. Pesola  
Supervisor

Barbara A. Mackey  
Treasurer

# ISHPEMING TOWNSHIP

---

1575 U.S. Hwy. 41 West  
Ishpeming, Michigan 49849  
Telephone 906-485-5411  
FAX 906-485-1394

Al Feldhauser, Senior Planner  
County of Marquette  
Resource Management/Development Dept.  
County Courthouse  
Marquette, MI. 49849

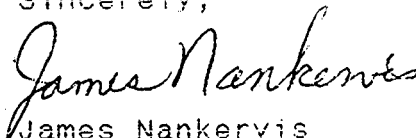
May 17, 1999

Dear Mr. Feldhauser,

At the May 11, 1999 meeting of the Ishpeming Township Board we passed a motion in approval of adopting the County of Marquette Solid Waste Management Plan.

The Ishpeming Township Board would like included in the plan the following sentence to be included in section III page 20. If it proves to be economically feasible the Solid Waste Plan makes provision for a conventional compacted fill type operation with daily cover.

Sincerely,

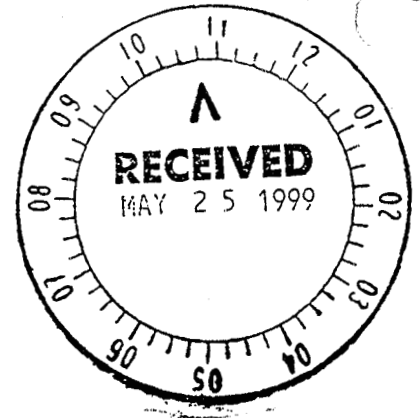


James Nankervis  
Ishpeming Township Supervisor

JN/tb

# Charter Township of Marquette

MARQUETTE COUNTY—161 Co. Rd. 492, Marquette MI 49855 — (906) 228-6220 — FAX (906) 228-7337



May 20, 1999

Marquette Board of Commissioners  
Marquette County Courthouse  
Marquette, MI 49855

Dear Commissioners:

At a regular meeting of the Marquette Township Board on May 18, 1999, the following resolution was adopted.

That the proposed solid waste management plan for the County of Marquette be supported by the Township of Marquette, and that the Township Clerk notify the Marquette County Board of Commissioners of such support.

Sincerely,

Kathe Musolf, Clerk  
Charter Township of Marquette

Cc: Resource Management/Development Department

e (906) 323-6608

(906) 323-6344

# MICHIGAMME TOWNSHIP

P.O. Box 220

MICHIGAMME, MICHIGAN 49861



June 8, 1999

## RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of MICHIGAMME on  
Township

June 7, 1999 it is hereby resolved that we

APPROVE the County of Marquette Solid Waste Plan  
Update, prepared pursuant to Part 115 of Public Act 451 of  
1994 amended, and the rules promulgated thereunder.

Jean D. Howe  
Signature

Michigamme Twp Clerk  
Title

RESOLUTION

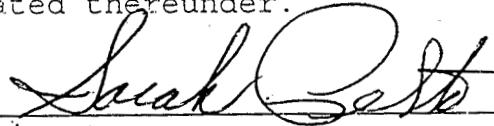
COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of POWELL TOWNSHIP on  
(Township/City)

JUNE 8, 1999 it is hereby resolved that we  
(Date)

APPROVE the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994  
amended, and the rules promulgated thereunder.

  
Signature

SUPERVISOR  
Title

I:\SOLWASTE\RESOLUT.TWP

MOTION MADE BY CLAYTON ROOT, JR  
SECONDED BY JERRY BEERMAN

VOTE: 3 ayes, 2 absent

# SANDS TOWNSHIP

P.O. Box 154  
Marquette, Michigan 49855  
Fax 906 346 5309

RESOLUTION # R 51199 -1

DATE May 11, 1999

## RESOLUTION

### TO APPROVE THE MARQUETTE COUNTY SOLID WASTE MANAGEMENT PLAN

**NOW, THEREFORE BE IT RESOLVED** that Sands Township Approve the Adoption of the Marquette County Solid Waste Management Plan.

The forgoing resolution was offered by Earl Yelle and Supported by Rickey Wilson.

Roll Call vote: Schram yes, Mattord yes, Wilson yes, Kallio yes, Yelle yes.

Supervisor Yelle declare the Resolution Approved and Adopted.

## CERTIFICATE

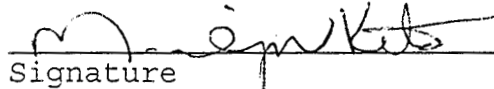
I, Judith P. Mattord, the duly elected and acting Clerk of Sands Township, hereby certify that the foregoing Resolution was adopted by the Township Board of Sands Township at the regular meeting of said Board held on May 11, 1999, at which meeting a quorum was present, by a roll call vote of said members as hereinbefore set forth; that said Resolution was ordered to take immediate effect.

*Judith P. Mattord*  
*Sands Township Clerk*

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of Skandia Township on  
(Township/City)  
May 6, 1999 it is hereby resolved that we  
(Date)  
Approve the County of Marquette Solid Waste Plan  
(approve/disapprove)  
Update, prepared pursuant to Part 115 of Public Act 451 of 1994  
amended, and the rules promulgated thereunder.

  
Signature

  
Title

I:\SOLWASTE\RESOLUT.TWP

Representatives to see if something can be done sooner.  
The next MCTA meeting they will be voting on new officers. If board members are not attending it was suggested that townships board members request ballots be sent out to them.

A. Anderson reported on the East Marquette Solid Waste meeting.

**Marquette County Solid Waste Management Plan:**

We received a letter and a copy of the County of Marquette Solid Waste Management Plan asking for townships approval of the plan. After discussion a motion was made by A. Anderson, seconded by G. Maki that Skandia Township approves the County Of Marquette Solid Waste Plan. Motion CARRIED.

**AccuVote Machine:**

M. Keto attended a demonstration meeting at West Branch Township on the Accuvote System. There was discussion on the voting system and the board decided to continue to use punch cards.

**Water Problem:**

The water system is now safe for drinking. A tool will kept at Heath's Hardware for all users on the water system to use if needed.

**MCTA Banquet:**

The MCTA Banquet will be held on Friday, May 14, 1999 at NMU.

**Fans/Bathroom:**

A. Anderson has contacted John Beauchamp to install fans in both bathrooms.

**NEW BUSINESS**

**Road Signs:**

Bob Anderson is replacing house numbers that are missing or have fallen down.

**Contract/Park Worker:**

We received two applications for a park worker to replace Paul Messier. The two application we received are from Marcia Delaksi and Mary Saprienz. After reviewing application a motion was made by A. Lauren, seconded by G. Maki to consider the proposal from Marica Delaski given the fact that it is a fixed rate and they will be using their own equipment. Motion CARRIED.

**Fire Call/Bills:**

M. Keto stated that she billed KI Sawyer for (2) runs at Sawyer Lumber which were rejected. The bill was send out again directly to Sawyer Lumber-Hollie Forest Products.

**Landfill/Gate:**

There was discussion on putting the gate back up on Holmi Road going into the landfill during the summer months. We are waiting approval from the Marquette County Road Commission.

**Budget Report for 1998-99:**

A final budget report for Budget Year 1998-99 was presented to the board.

**National EMS Week:**

We received a letter from Marquette County EMS asking townships to designate the week of May 16-22 as Emergency Medical Service Week. Motion was made by A. Lauren, seconded by M. Keto to designate the week of May 16-22 as Emergency Medical Services Week. Motion CARRIED.

**CORRESPONDENCE:**

Marquette County Sheriff's Department Emergency Services Division-

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of Tilden Township on  
(Township/City)

May 18, 1999 it is hereby resolved that we  
(Date)

APPROVED the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994  
amended, and the rules promulgated thereunder.

Ralph L. L. L.  
Signature

Tilden Township Supervisor  
Title

I:\SOLWASTE\RESOLUT.TWP

RESOLUTION

COUNTY OF MARQUETTE SOLID WASTE PLAN UPDATE

By action of the Board/Commission of West Branch Township on  
(Township/City)

June 16, 1999

(Date)

it is hereby resolved that we

Approved the County of Marquette Solid Waste Plan  
(approve/disapprove)

Update, prepared pursuant to Part 115 of Public Act 451 of 1994

amended, and the rules promulgated thereunder.

Doreen Takala  
Signature

Clerk  
Title

I:\SOLWASTE\RESOLUT.TWP

**WEST BRANCH TOWNSHIP  
JUNE 16, 1999  
UNAPPROVED MINUTES**

The meeting was called to order at 7:00 PM by Supervisor Barry Bahrman. Pledge was said by all. Board members present were Supervisor Barry Bahrman, Clerk Doreen Takalo, Treasurer Denise Beauchamp and Trustees Donna Oliver and John Beauchamp.

**Agenda:** Under new business add #C. Solid Waste Plan and #D. Add New Deputy Treasurer. Motion/support to approve agenda with additions by J. Beauchamp/D. Oliver. Motion carried.

**Minutes:** One correction under Recreation Committee - Omit Donna Oliver. Motion/support to approve with correction by J. Beauchamp/D. Oliver. Motion carried.

**Public Comment:** None at this time.

**Reports:**

**Financial:** Balance of \$398,584.30 on hand as of May 31, 1999. Motion/support to accept by D. Oliver/J. Beauchamp. Motion carried.

**Budget:** Motion/support to move \$50,000.00 from refunds to other revenue by D. Beauchamp/J. Beauchamp. Motion carried. Motion/support to accept budget by D. Oliver/J. Beauchamp. Motion carried.

**Bills Payable:** Motion/support to pay bills totaling \$16,268.68 by J. Beauchamp/D. Beauchamp. Motion carried.

**Committee Reports:**

**Assessing/Zoning:** Planning commissions will hold a public hearing on dog kennels for Hardys. Land owners will be notified. Issue on fences - right now we call for a permit for fences - Mark Maki feels this needs to be looked at. We need Flood Plain Maps. Currently we do not have these. Complaints on dogs and junk cars have been received.

**EMSWDA:** No report.

**Water Authority:** We are looking at meters for all customers.

**Joint Operations:** Set up a meeting for June 29, 1999. Motion to pay bills totaling \$6,134.36. Discussion on the monies for Emergency Services. The Fire Department continues to answer calls at Sawyer.

**Recreation:** D. Beauchamp held a meeting on June 15, 1999. The committee looked at the

06/18/99 02:36 2 506 542 7000  
Nature Trail being their first project.

**Buildings and Grounds:** Mike Shimon explained about our road signs. He also has street signs and fire numbers. We need a new tractor, weed eater, blower, etc.

**K I Sawyer:** No report.

**Correspondence:** We received a letter from Marquette County Road Commission on gating the Transfer Facility road.

**Old Business:**

Cub Cadet Tractor - Motion/support to purchase from Bergdahl's for \$21,286.00 by D. Takalo/D. Oliver. Discussion follows. Roll call vote: J. Beauchamp-Nay, D. Takalo-Aye, D. Beauchamp-Nay, B. Bahrman-Aye, D. Oliver-Aye. Motion carried.

**Credit Card Policy:** We have made some changes to this policy. Roll call vote: B. Bahrman-Aye, D. Beauchamp-Aye, D. Oliver-Aye, D. Takalo-Aye, J. Beauchamp-Aye. Motion carried.

**New Business:**

YMCA letter - The YMCA offered \$15,000.00 for the balance of the equipment. Motion/support to accept the \$15,000.00 for the equipment at the Activity Center by D. Beauchamp/J. Beauchamp. Motion carried.

Centennial Items - Motion/support to reduce the items that are left to 75% off by D. Beauchamp/D. Oliver. Motion carried.

Solid Waste Plan - It is moved by D. Beauchamp and support by D. Oliver to approve the Solid Waste Plan Update. Roll call vote: J. Beauchamp-Aye, D. Oliver-Aye, D. Beauchamp-Aye, B. Bahrman-Aye, D. Takalo-Aye. Motion carried.

D. Beauchamp introduced her new Deputy Treasurer - Carol Lee. Motion/support to approve paying the Deputy Treasurer \$6.25/per hour by B. Bahrman/D. Oliver. Motion carried.

Meeting adjourned at 8:30 PM.

Submitted by:

---

Doreen Takalo, Clerk

PUBLIC PARTICIPATION

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

The statutorial designation of representation on the Solid Waste Management Planning Committee (SWMPC) made a combination of public appeal and direct solicitation necessary for development of a "candidate pool" from which the Marquette County Board could make appointments. Attached, are various documents related to this effort as part of this appendix.

Newspaper article

Submitted 10/3/97

Submitted 10/16/97

Memo to Planning Commission

Submitted 11/5/97

Direct solicitation 11/7/97

Sent to recycling entities (per yellow pages), cities (Ishpeming, Marquette, Negaunee), all previous SWMPC members.

Notice posted by County Board

11/97

Appointment of Committee Members by County Board

12/16/97



# County of Marquette

RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855

Construction Codes 906/22 80  
Planning 906/225-8182  
FAX 906/225-8203

November 7, 1997

1 ~

Dear 2 ~:

Marquette County will be sponsoring efforts to update the current Solid Waste Management Plan. The initial step in this process is appointment of members to the Solid Waste Management Committee. The County Clerk is currently accepting applications from individuals interested in serving on the committee. Applications must be submitted by Tuesday, November 25, 1997, for December appointment.

The Committee will be comprised of individuals representative of the interests listed below.

- Committee consists of 14 members
- (4) solid waste management industry
  - (3) general public
  - (2) environmental interest groups
  - (1) county government
  - (1) city government
  - (1) township government
  - (1) regional solid waste planning agency

Any interested parties can be referred to the Resource Management Department at the phone number or address listed above. Applications are available at the County Clerk's office.

Thank you for your interest.

Sincerely,

Alan Feldhauser  
Planner

AF:jlf

-----  
Communication Sent To:

- Cities of Ishpeming, Marquette, Negaunee
- All previous SWMPC members
- Recycling entities (per yellow pages)



# County of Marquette

## RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855  
906/228-1535

October 3, 1997

Attn: Newsroom  
The Mining Journal  
249 W. Washington  
Marquette, MI 49855

Dear News Editor:

The County of Marquette is undertaking an update of the county's solid waste management plan. Required for this process is appointment of a committee. We would appreciate the following announcement being published under "Local Briefing" in The Mining Journal.

### County Board Seeks Committee Applicants

The Marquette County Board is soliciting applicants for the county's Solid Waste Management Planning Committee.

The Committee will be preparing an update to the county's solid waste plan which will guide local government in providing for current and future County-wide waste management needs.

Interested parties may obtain an application at the Marquette County Clerk's office located at 234 Baraga Avenue in Marquette. Additional information is available from the Resource Management Department at 228-1535.

Thank you for considering this request. If you require further information or have any questions, please contact me at the number listed above.

Sincerely,

Al Feldhauser,  
Planner

AF/jlf



# County of Marquette

## RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855  
906/228-1535

October 16, 1997

The Mining Journal  
Local Briefing  
P.O. Box 430  
Marquette, MI 49855

Dear News Editor:

The County of Marquette is undertaking an update of the county's solid waste management plan. Required for this process is appointment of a committee. We would appreciate the following announcement being published under "Local Briefing" in The Mining Journal.

### County Board Seeks Committee Applicants

The Marquette County Board is soliciting applicants for the county's Solid Waste Management Planning Committee.

The Committee will be preparing an update to the county's solid waste plan which will guide local government in providing for current and future County-wide waste management needs.

Interested parties may obtain an application at the Marquette County Clerk's office located at 234 Baraga Avenue in Marquette. Additional information is available from the Resource Management Department at 228-1535.

Thank you for considering this request. If you require further information or have any questions, please contact me at the number listed above.

Sincerely,

Al Feldhauser,  
Planner

AF/jlf

9a(1)



# County of Marquette

## RESOURCE MANAGEMENT/DEVELOPMENT DEPT.

County Courthouse  
Marquette, MI 49855  
906/228-1535

### MEMORANDUM

TO: Marquette County Planning Commission  
FROM: Resource Management/Development Staff  
DATE: November 5, 1997  
RE: Solid Waste Management Planning Committee

As commissioners are aware, staff is in the process of soliciting applicants for appointment to the Solid Waste Management Planning Committee. Should commissioners have any individuals to recommend for the categories listed below, please have them contact our office. Applications will be accepted through Tuesday, November 25, 1997.

Committee consists of 14 members.

- (4) solid waste management industry
- (2) environmental interest groups
- (1) county government
- (1) city government
- (1) township government
- (1) regional solid waste planning agency
- (1) industrial waste generators
- (3) general public

AF/jlf

NOTICE OF VACANCIES  
FOR  
VARIOUS COUNTY BOARDS AND COMMISSIONS

The following is a list of vacancies to various boards and commissions that are appointed by the Marquette County Board of Commissioners. Interested and qualified citizens are encouraged to apply.

An application form must be on file in order to be considered for appointment. Deadline for filing applications is Tuesday, November 25, 1997. Application forms are available from the County Clerk's Office, Courthouse, Baraga Avenue, Marquette, MI -Phone 228-1525.

The Marquette County Board of Commissioners will make appointments to the following vacancies at their Regular Meeting scheduled for Tuesday, December 16, 1997:

Airport Commission - 1 vacancy  
One 3-year term expiring 12/31/2000

Board of Health - 3 vacancies  
One 2-year term expiring 12/31/99  
Two 3-year terms expiring 12/31/2000  
(One must be a Doctor of Medicine or Osteopathy)

Planning Commission - 2 vacancies  
Two 3-year terms ending 12/31/2000

Building Code Board of Appeals - 2 vacancies  
Two 2-year terms ending 12/31/99

Election Scheduling Commission \*3 vacancies  
Three 2-year vacancies ending 12/31/99  
\*(One City Clerk, One Township Clerk, and One School Board Member)

Central Dispatch Policy Board - 5 vacancies  
Five 3-year terms ending January, 2001  
(One representing each of the following: City Government, Township Government, Fire Department, Police Agency, EMS)

Commission on Aging - 6 vacancies  
Three 3-year terms ending 12/31/2000 in the Senior Category  
Three 3-year terms ending 12/31/2000 in the Expert/Interested Citizen Category

Marquette County Transit Authority - 5 vacancies  
One 3-year term (City of Ishpeming) ending 12/31/2000  
Two 3-year terms (City of Marquette) ending 12/31/2000  
Two 3 year terms (Township Official) ending 12/31/2000

Community Corrections Advisory Board - 12 vacancies  
Six 2-year vacancies designated by various County Department Heads  
Six 2-year vacancies ending 12/31/99 in the following categories: (Police Chief, Media, Community Alternative Programs, Business, Defense Attorney, and General Public).

Alger Marquette Community Action Board - 2 vacancies  
Two 2-year terms ending 12/31/99

Eastern U.P. Substance Abuse Service Board - 3 vacancies  
Three 1-year terms ending 12/31/98

Solid Waste Planning Committee - 14 vacancies all expiring by 12/31/99  
(This Committee disbands after plan update complete) Categories as follows:  
(4) Represent Solid Waste Management Industry  
(2) Represent Environmental Interest Groups  
(1) Represents County Government  
(1) Represents City Government  
(1) Represents Township Government  
(1) Represents Regional Solid Waste Planning Agency  
(1) Represents Industrial Waste Generators  
(3) Represent General Public

PUBLIC PARTICIPATION

ANNING COMMITTEE

Committee member names and the company, group, or governmental entity represented from throughout the County are listed below.

Four representatives of the solid waste management industry:

Richard Aho, Marquette  
William Niepoth, Marquette  
Donald J. Pyle, Munising  
Jurt Simandl, Marquette

One representative from an industrial waste generator:

Bruce Michaelson, Negaunee Township

Two representatives from environmental interest groups from organizations that are active within the County:

Richard Posey, Marquette  
Michael B. Twohey, Marquette

One representative from County government. All government representatives shall be elected officials or a designee of an elected official.

Ken Tuominen, Ely Township

One representative from township government:

Glenn Adams, Republic Township

One representative from city government:

Gerald R. Peterson, Marquette

One representative from the regional solid waste planning agency:

Peter Van Steen, Escanaba

Three representatives from the general public who reside within the County:

Barry Baldwin, Ishpeming  
Denise Beauchamp, West Branch Township  
Lawson Carriere, Champion

ATTACHMENTS

APPENDIX D

n Implementation Strategy

The following discusses how the County intends to implement the plan and provides documentation of acceptance of responsibilities from all entities that will be performing a role in the Plan.

The selected alternative recommended by this plan is a continuance of the selected alternative of the previous plan. As such, much of what is proposed for the management of solid waste for the next five years is already in place and operating.

Enhancements to plan monitoring such as standardized annual reporting by recycling entities will provide better trend data for future program development. Data gathering will be performed by the Planning Commission and begin in 1999.

Annual collection/summary of recyclables

Provide recycling market information

Monitor DEQ waste disposal reports to assume compliance with import/export agreements.

Municipalities with specific implementation objectives.

Forsyth Township – institute recycling program

nds Township – institute recycling program

City of Ishpeming – biosolid disposal options

## ATTACHMENTS

### Resolutions

The following are resolutions from County Board of Commissioners approving municipality's request to be included in an adjacent County's Plan.

Plan developed independently by and for Marquette County.

ATTACHMENTS

ed Capacity

Documentation from landfills that the County has access to their listed capacity.

\*\* See letter on following page from Marquette County Solid Waste Management Authority.



## Marquette County Solid Waste Management Authority

600 COUNTY ROAD NP • MARQUETTE, MI 49855

PHONE: (906) 249-4125 • FAX: (906) 249-9377

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### BOARD OF TRUSTEES

Judith Mattord, Chairperson  
Loretta Acocks, Vice-Chairperson  
Leonard R. Parker, Secretary/Treasurer  
Dawson Carriere, Trustee  
Michael Twomey, Trustee  
Carr Baldwin, Trustee  
Edward J. Keto, Trustee

April 1, 1998

Mr. Alan Feldhauser, Senior Planner  
County of Marquette  
Courthouse Complex  
234 W. Baraga Avenue  
Marquette, MI 49855

Dear Mr. Feldhauser:

The Marquette County Solid Waste Management Authority controls a minimum of 60 years of landfill space (at the present consumption rate) that is reserved for the use of Marquette County.

Sincerely,

Rick Aho  
Executive Director  
Marquette County Solid Waste Management Authority

## ATTACHMENTS

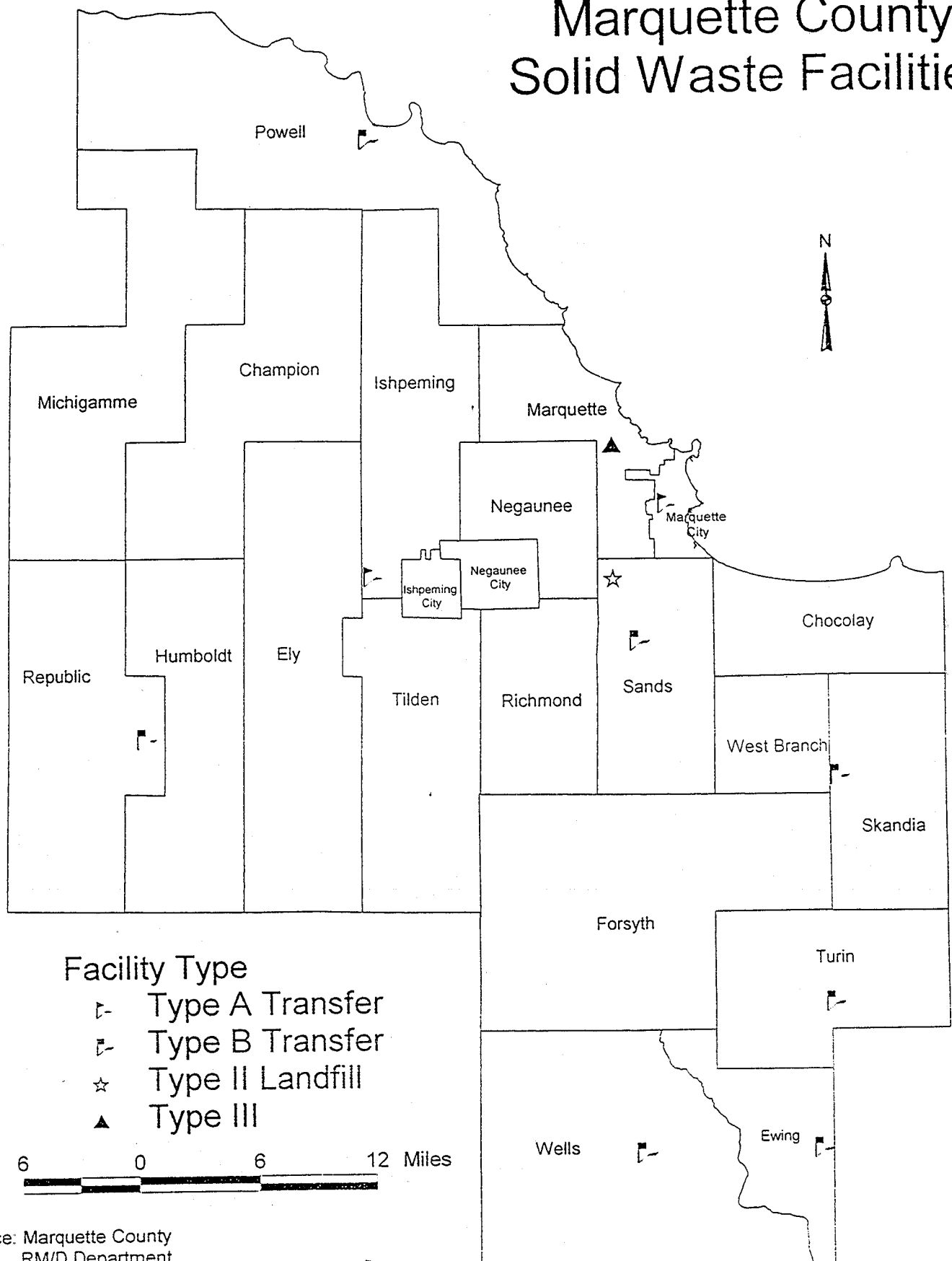
### Maps

Maps showing locations of solid waste disposal facilities used by the County.

See following pages:

Marquette County Solid Waste Facilities  
Marquette County Landfill Surrounding Ownerships  
Marquette County Landfill Contour Map  
Marquette County Landfill Footprint

# Marquette County Solid Waste Facilities





# SECTION I

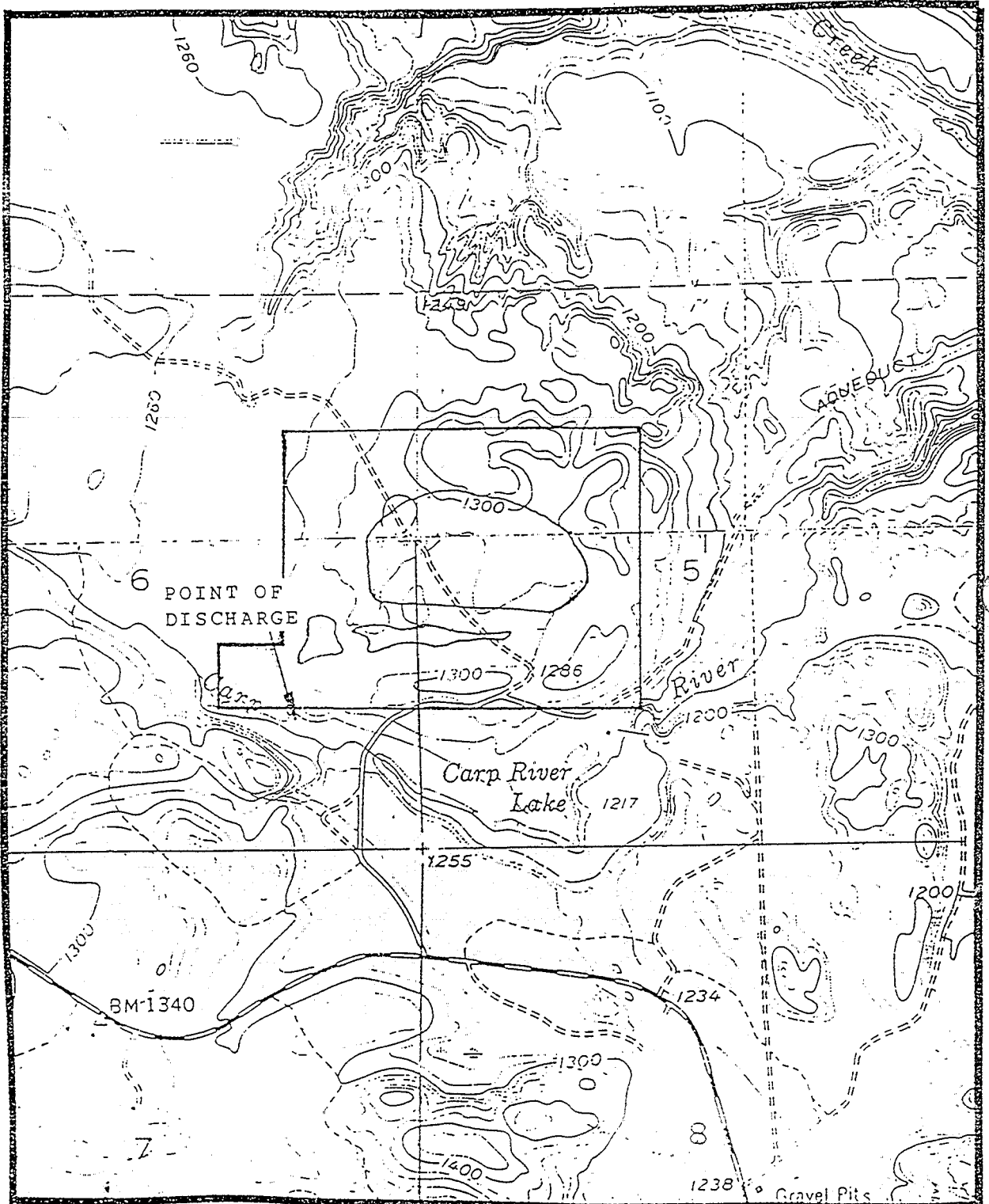
PERMIT  
NUMBER




A. PROVIDE A MAP OF THE TREATMENT FACILITY LOCATION, SHOWING THE LOCATION OF THE DISCHARGE POINT(S) AND OTHER INFORMATION REQUESTED ON REVERSE SIDE OF PAGE.

LOCATION

MAP



See "Design Plans For The Proposed Marquette Area Materials Management Facilities" prepared by Braithwaite Consultants, Inc.



ATTACHMENTS

Inter-County Agreements

Copies of Inter-County agreements with other Counties (if any).

\*\* None currently on file

## ATTACHMENTS

### Special Conditions

Special conditions affecting import or export of solid waste.

If emergency closure is required before life expectancy is reached, an agreement should be negotiated with a licensed Type II facility in one of the following counties to take Marquette County's waste during the emergency period:

Alger County  
Chippewa County  
Delta County  
Ontonagon County

Emergency situations are defined as:

- ☐ Short-term operational shutdowns
- ☐ Closure by the DEQ.

In emergency situations, waste from Alger, Chippewa, Delta, and Ontonagon Counties could be disposed of at the Marquette County facility under the following conditions:

- Only licensed landfills will be able to reciprocate with the Marquette County landfill.
- Duration of hauling period or volume hauled will be subject to Marquette County Solid Waste Management Authority approval.
- The Marquette County Solid Waste Management Authority will negotiate a tipping fee independent of the regular fees charged.
- All agreements will be subject to approval of the Marquette County Solid Waste Management Authority.
- Household Hazardous Waste Program must be operative.