



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

October 29, 2012

Mr. Wayne Wales, Chair
Iron County Board of Commissioners
2 South Sixth Street, Suite 7
Crystal Falls, Michigan 49920-1413

Dear Mr. Wales:

The locally-approved amendment to the Iron County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on July 20, 2012, and updated with revised municipal approval resolutions on September 10, 2012, is hereby approved.

The Plan Amendment creates the following changes:

- The import and export authorizations include primary disposal options to and from all Michigan counties.

The DEQ would like to thank Iron County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Rhonda S. Oyer, Chief, Sustainable Materials Management Unit, Solid Waste Section, Office of Waste Management and Radiological Protection, at 517-373-4750; oyerr@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Elizabeth Browne, Chief
Office of Waste Management &
Radiological Protection
517-373-9523

cc: Senator Tom Casperson
Representative Matt Huuki
Mr. Kim Stoker, Western Upper Peninsula Planning &
Development Regional Commission
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Deputy Director, DEQ
Ms. Maggie Datema, Legislative Affairs, DEQ
Mr. Steve Sliver, DEQ
Mr. Phil Roycraft, DEQ
Ms. Rhonda S. Oyer, DEQ
Ms. Christina Miller, DEQ\Iron County File



**Western Upper Peninsula
Planning & Development Regional Commission**

P.O. BOX 365 • HOUGHTON, MICHIGAN 49931
906-482-7205 • FAX 906-482-9032 • e-mail: info@wuppdr.org

July 18, 2012

Ms. Christina Miller
Solid Waste Management Coordinator
Resource Management Division
Department of Environmental Quality
Constitution Hall – Atrium North
525 W. Allegan Street
Lansing, MI 48933

RE: Iron County Solid Waste Management Plan Amendment

Dear Ms. Miller,

The current import and export volume authorizations require all municipal waste to be disposed of at the Iron County Solid Waste Transfer Station (Attachment 1). The approved amendment would allow Iron County to accept waste from all Michigan Counties and export waste to all Michigan Counties (see Attachment 2, proposed amendment).

July 19, 2011 - the Iron County Solid Waste Committee discussed and approved amending the Iron County Solid Waste Management Plan. The motion was passed with the condition that Mr. Spear (of Great American Disposal) correct the language of each page as necessary (Pages I-1, I-4, II-4-6, II-11, II-1-2, III-5, III-7-10). Attendance sheet also attached. (Attachment 3).

October 4, 2011 - the Committee again approved amending the Solid Waste Management Plan by changing Table 1-A so that Exporting County states "All Michigan Counties" and Table 2-A states "All Michigan Counties". (Attachment 4)

November 14 - all Iron County municipalities were sent a letter announcing the 90-day Public Review Period along with the Public Review Period notice and the current import/export policy and proposed amendment. (Attachment 5 - cover letter to municipalities and Public Review Period notice. The current and proposed amendment can be found in Attachment 1 and Attachment 2 above).

November 16, 2011 – the Public Review Period notice is placed in The Reporter (Iron County newspaper) announcing a proposed Amendment to the Solid Waste Management Plan for a 90-day public review and comment. (Attachment 6).

RECEIVED
JUL 20 2012
DEQ-RMD

Ms. Christina Miller
July 18, 2012
Page 2 of 2

January 11, 2012 - a Notice is published in The Reporter, announcing a public hearing to be held on Tuesday, January 24, 2012 to receive comments on the proposed Amendment to the Solid Waste Management Plan. The 90 day comment period will expire on Monday, February 23, 2012. (Attachment 7 – cover letter, Notice of Public Hearing and Affidavit attached)

January 24, 2012 – Iron County Board of Commissioners holds a Public hearing on January 24, 2012 to receive comments on the proposed 2011 Amendment to the Iron County Solid Waste Management Plan. (Attachment 8 – Iron County Board of Commissioners meeting January 24, 2012).

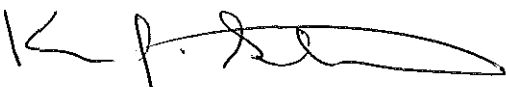
February 15, 2012 - all Iron County municipalities are sent a letter stating the Iron County Board of Commissioners approved the Amendment to be sent out for local municipality concurrence. In order for the Amendment to be adopted by the County and MDNR, at least 67% of the municipalities within Iron County must approve this Amendment. The letter asked that each municipality take action either approving or disapproving. (Attachment 9 – Cover letter, sample resolution).

Municipality Approval - As of April 18, 2012, all municipalities approved the plan amendment (Attachment 10 - Letters from Municipalities). These were sent to you previously).

May 8, 2012 – The Iron County Board of Commissioners approves the Amendment to the Solid Waste Management Plan. (Attachment 11)

Please contact me at 906-482-7205, ext. 316 or by email at kstoker@wuppd.org if you have any questions. Thank you.

Sincerely,



Kim J. Stoker
Executive Director

Attachments

cc: Sara Basso, Iron County Solid Waste Committee
Sue Clisch, Iron County
Wayne Wales, Chair, Iron County Board of Commissioners

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 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
Iron	Ontonagon	Krist Oil Company	--	1,000 cu.yds.	
Iron	Houghton	Krist Oil Company	--	1,000 cu.yds.	
Iron	Alger	Krist Oil Company	--	1,000 cu.yds.	
Iron	Baraga	Krist Oil Company	--	1,000 cu.yds.	
Iron	Schoolcraft	Krist Oil Company	--	1,000 cu.yds.	

____ Additional authorizations and the above information for those authorizations are listed on an attached page.

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

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 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹ DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
Iron	Ontonagon	K & W Landfill	All	10,000 tons	P
Iron	Menominee	Menominee Michigan Environs	All		C
Iron	Alger	Wood Island	All		C

____ Additional authorizations and the above information for those authorizations are listed on an attached page.

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Table 1-A: CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
IRON	ALL MICHIGAN COUNTIES	N/A	N/A	N/A	P

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

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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 2-A: CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹ DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
ALL MICHIGAN COUNTIES	IRON	N/A	N/A	N/A	P

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.



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

RUSSELL J. HARDING, Director

January 26, 2001

Mr. Lawrence Harrington, Chairman
Iron County Board of Commissioners
2 South Sixth Street
Crystal Falls, Michigan 49920-1413

Dear Mr. Harrington:

The Department of Environmental Quality (DEQ) received the locally approved update to the Iron County Solid Waste Management Plan (Plan) on February 17, 2000. Except for the items indicated below, the Plan is approvable. As outlined in the August 25, 2000 letter to Mr. Kim J. Stoker of the Western Upper Peninsula Planning and Development Region (WUPPDR), from Mr. Matt Staron, DEQ, Waste Management Division, and as confirmed by letters dated October 3, 2000 and October 17, 2000, from Ms. Joan Luhtanen, Iron County Clerk, on behalf of the Iron County Board of Commissioners (BOC), to Mr. Stan Idziak, DEQ, Waste Management Division, the DEQ makes certain modifications to the Plan as discussed below.

On [Page III-27, under the heading Criteria](#), the Plan states in part:

The following criteria will be used to evaluate the information provided by the developer and to determine if the proposed new Type II, Type III landfill or processing facility or expansion, is or is not, consistent with the approved Iron County Solid Waste Management Plan. The developer shall provide written statements of items 1, 2, and 4.

1. Does the developer intend to charge equitable and similar fees within its service area?
2. Does the developer agree to treat all haulers equitably and impartially?
3. If the proposed facility is a landfill, does the proposed landfill provide long-term capacity for Iron for 20 years?

(If the facility proposed is for restricted use by an industry located within the service area defined by the plan, the provision for 20 year County capacity is not required).

4. Does the proposed facility utilize proven technology?

The siting criteria on Page III-27 are overly broad and open to subjective interpretation. Section 11538 (3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), states that siting criteria shall not be subject to interpretation or discretionary acts. In order to clarify these criteria and make them more objective, the criteria are revised by adding the statement "Does the developer provide a statement saying that" to each of the criteria. In addition, under item 3, the requirement that the developer provide a statement saying that the proposed landfill provides long-term capacity for Iron County (County) for twenty years is modified to read ten years in order to bring this criterion in line with Section 11537a of the NREPA, which provides that the County is only required to use its siting mechanisms to site capacity to meet a ten-year capacity need. The siting criteria are, therefore, revised to read as follows:

1. Does the developer provide a statement saying that they intend to charge equitable and similar fees within its service area?
2. Does the developer provide a statement saying that they agree to treat all haulers equitably and impartially?
3. If the proposed facility is a landfill, does the developer provide a statement saying that the proposed landfill provides long-term capacity for Iron County for ten years?

(If the facility proposed is for restricted use by an industry located within the service area defined by the plan, the provision for ten-year county capacity is not required).

4. Does the developer provide a statement saying that the proposed facility will utilize proven technology?

[Page III-30](#) indicates that the DEQ is responsible for enforcement of the Plan. While the DEQ does have a role in solid waste enforcement, the primary agency responsible for enforcement of the Plan is the BOC. Therefore, the statement designating that the DEQ is responsible for Plan enforcement is deleted. In addition, the last paragraph is modified to indicate that the BOC, rather than the County, is the agency responsible for enforcing and updating the Plan. This modification is also made on Page III-32 under the heading Local Responsibility for Plan Update Monitoring & Enforcement.

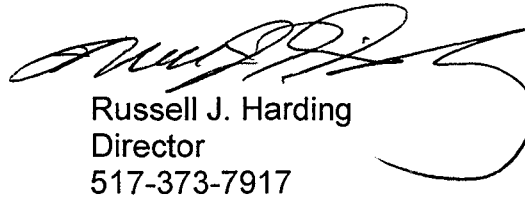
By approving the Plan with modifications, the DEQ has determined that it complies with the provisions of Part 115 and the Part 115 administrative rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms 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 the 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.

The DEQ applauds your efforts and commitment in addressing the solid waste management issues in Iron County. If you have any questions, please contact Ms. Joan Peck, Chief, Solid Waste Program Section, at 517-335-3383.

Sincerely,



Russell J. Harding
Director
517-373-7917

cc: Senator Donald Koivisto
Representative Rich Brown
Mr. Kim J. Stoker, WUPPDR
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. Stan Idziak, DEQ
Iron County File

IRON COUNTY

SOLID WASTE MANAGEMENT PLAN

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1997 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. This document is that format. The Plan should be prepared using this format without alteration. Please refer to the document entitled "Guide to Preparing the Solid Waste Management Plan Update" for assistance in completing this Plan format.

DATE SUBMITTED TO THE DEQ:

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

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 E.

<u>Municipality</u>	<u>Original Planning County</u>	<u>New Planning County</u>
---------------------	---------------------------------	----------------------------

N/A

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Western Upper Peninsula Planning and Development Region (WUPPDR)

CONTACT PERSON: Kim J. Stoker, Planning Director

ADDRESS: 326 Shelden Avenue, P.O. Box 365
Houghton, MI 49931-0365

PHONE: 906-482-7205 FAX: 906-482-9032 (if applicable)

E-MAIL: stoker@up.net (if applicable)

CENTRAL REPOSITORY LOCATION(S): WUPPDR offices located at 326 Shelden Avenue, Houghton, MI Office hours: 8:00 AM - 5:00 PM (EDT) and all Township and City offices in Iron County.

This plan was developed by the Iron County Solid Waste Planning Committee (SWMPC) with assistance of the Western U.P. Planning and Development Region (WUPPDR). The draft document was provided for a 90 day public review period from June 16, 1999 through September 21, 1999, which included a public hearing on September 21, 1999. The SWMPC recommended the plan to the County Board which granted its approval. The plan was circulated to all municipalities and received approval by _____ percent. Approvals/disapprovals are copied in Appendix _____.

EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage solid waste within Iron 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 P.A. 451, as amended, Iron County has contracted with the Western Upper Peninsula Planning and Development Region (WUPPDR) to update the County's Solid Waste Management Plan.

The Iron County Solid Waste Planning Committee and WUPPDR, Designated Planning Agency (DPA), was charged with production of this Plan. WUPPDR produced this document with the cooperation of the Solid Waste Management Planning Committee which was appointed by the Iron County Board of Commissioners 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 the 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 Iron County.

The selected alternative for Iron County consists of a county-wide flow control with all municipal waste disposed of at the Ironland Transfer Station with ultimate disposal at the K & W Landfill, Inc. in Ontonagon County. Waste collection consists of a combination of public and private curbside and commercial service.

OVERALL VIEW OF THE COUNTY

% of Land Use - Urban

Township or Municipality Name	Pop.*	Res	Com.	Ind.	Agri.	Forested	Other
Bates Twp.	966	0.71	0.01	0.00	0.91	81.50	16.86
Crystal Falls Twp.	1,614	1.01	0.05	0.04	2.11	82.61	14.66
Hematite Twp.	366	0.19	0.01	0.07	0.71	81.70	17.30
Iron River Twp.	1,398 ¹	0.30	0.01	0.02	1.88	83.95	13.84
Mansfield Twp.	248	0.13	0.00	0.03	2.57	80.49	16.79
Mastodon Twp.	654 ²	0.58	0.02	0.00	3.94	80.66	14.78
Stambaugh Twp.	1,224	0.60	0.00	0.09	3.34	83.09	12.90
Alpha Village	219						
Caspian City	1,031	28.03	1.38	2.80	0.00	11.11	56.7
Crystal Falls City	1,922	22.02	3.20	2.24	1.37	32.14	39.03
Gaastra City	376	15.18	0.00	0.12	0.00	45.52	39.17
Iron River City	2,095	23.62	2.78	6.36	1.15	28.39	37.68
Mineral Hills Village	200	5.53	0.00	2.36	0.00	17.81	74.30
Stambaugh City	1,281	24.96	4.22	0.69	0.00	7.89	62.24
TOTAL POPULATION	13,175						

Source: Michigan Resource Information System, Land and Water Management Division, Department of Natural Resources; Data compiled from 1978 aerial photography (7-27-88)

¹Includes Village of Mineral Hills

²Includes Village of Alpha

*1990 Census of Population

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

CONCLUSIONS

WUPPDR and the Planning Committee considered alternatives that could be implemented in lieu of the present system or partially implemented as enhancements to the existing system. Alternatives ranged from landfill construction 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/private investment has been made in the current system. Local investment has resulted in the development of a single transfer station which has a potentially unlimited life expectancy.

The continued disposal of a consistent volume of solid waste is critical to the efficient and cost effective operation of the Ironland Solid Waste Transfer Station (selected final disposal alternative). Reductions in the monthly tonnage processed at the facility may effect an increase in the cost per ton to cover operational and capital costs. 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 Iron County and the Solid Waste Management Planning Committee and this Plan.

Importation of waste from Wisconsin counties has occurred at the station for many years. Larger volumes of waste help to provide revenues for operations of the facility. Approximately 1,500 tons/year are imported from nearby Wisconsin counties and this volume is expected to remain stable or increase slightly.

SELECTED ALTERNATIVE

The selected solid waste management system for Iron 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.

- ▶ **Collection** - Materials not addressed by either of the previous techniques are collected. This can be accomplished at curbside or by green box. Material may be waste or recyclables.
- ▶ **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 investigated for their disposal needs. Municipal composting programs should be investigated or enhanced through the duration of this plan.
- ▶ **Transfer** - All Type II and Type III waste generated in the County are required to go to the transfer station with ultimate disposal at the K & W Landfill in Ontonagon.

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, Section 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: Establish and maintain a high-quality environment by developing and implementing integrated solid waste management which provides for the protection of public health and the environment.

Objective 1a: County plan encourages enforcement in the municipalities against illegal dumping of waste in unauthorized areas by enacting a county ordinance which provides for fines and other penalties and encourages witnesses to report illegal dumping by offering cash rewards.

Objective 1b: Encourage the Soil & Water Conservation Service and Michigan State University Extension office to continue the good job they have been doing in having household hazardous collection once or twice per year.

GOAL 2: Build an educated public where citizens are informed about and understand solid waste management issues and concerns.

Objective 2a: Encourage citizens about opportunities for solid waste management such as recycling, household hazardous wastes collections, and special concerns, through radio, television, flyers, and newspaper announcements.

INTRODUCTION (continued)

Goals and Objectives (continued):

Objective 2b: Support an environmental educational program for K-12 grades by providing annual opportunities to tour existing solid waste management facilities and providing information regarding those facilities which can be used in their curriculum.

GOAL 3: Maintain, support and expand (market dependent) recycling programs and facilities.

Objective 3.1: Promote at least 50 percent procurement of recycled products of supplies purchased by local governmental units by passing a procurement policy which requires the purchase of recycled products when it does not exceed ten percent of other bids for non-recycled materials and if the bid is comparable in other terms to the other bids.

Objective 3.2: Encourage municipalities and private enterprise to develop and implement a composting program which will recycle all of the yard waste in the county.

Objective 3.3: Encourage local businesses, hospitals, and nursing homes to participate with waste reduction, recycling and composting programs.

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 and composting. Also collected was information regarding annual tonnage disposed of at the transfer station. Volume data was obtained from the Department of Environmental Quality "Report of Solid Waste Landfilled in Michigan dated February 4, 1999: 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 the 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 (provided by the EPA), anticipate future waste volumes and disposal needs.

Page II-1-A shows 1996 waste disposal by municipality in Iron County and how it compares with other Upper Peninsula counties, similar size counties throughout the state and national averages. Page II-9 shows projections of population and waste volumes anticipated for disposal at the station.

DATA BASE

**WASTE VOLUME - U.P. COUNTIES*
1996**

County	Population	Type II (cu.yd.)	Tons/Year	Pounds/day/capita
Alger	9,971	46,604	15,535	N/A
Baraga	8,472	29,556	9,852	5.41
Chippewa	37,289	68,295	22,765	3.35
Delta	39,047	80,628	26,876	3.77
Dickinson	27,285	58,618	19,538	3.92
Gogebic	17,704	39,942	13,314	4.12
Houghton	36,230	86,439	28,813	4.36
Iron	13,121	29,804	9,935	4.15
Keweenaw	2,010	4,956	1,652	4.50
Luce	6,180	13,606	4,636	4.02
Mackinac	11,096	41,218	13,739	6.78
Marquette	62,017	148,263	49,421	4.37
Menominee	24,551	109,947	36,649	N/A
Ontonagon	8,405	21,957	7,319	4.78
Schoolcraft	8,653	29,940	9,980	6.32

*Actual volume reported at transfer station.

POUNDS/DAY/CAPITA

Iron	4.15
U.P. Counties Average	4.60
Similar Size County Average	4.12
State Average	6.10
National Average	4.50

*Source: DEQ Report of Solid Waste Landfilled in Michigan 10/1/97 - 9/30/98

DATA BASE

Gogebic County
Estimated Weekly Solid Waste Generation (Uncompacted-lbs./tons)

Municipality	Total Housing Units	Total Seasonal* Housing Units	1990 Population	Residential+
Bates Twp.	794	335	966	29,347 14.8
Crystal Falls Twp.	1,165	419	1,614	49,033 24.5
Hematite Twp.	393	188	366	11,119 5.6
Iron River Twp.	1,015	359	1,198	39,395 18.2
Mansfield Twp.	316	200	248	7,534 3.8
Mastodon Twp.	619	264	435	13,215 6.6
Stambaugh Twp.	1,325	753	1,224	37,185 18.6
Alpha Village	130	15	219	6,653 3.3
Caspian City	535	10	1,031	31,322 15.7
Crystal Falls City	922	16	1,922	58,390 29
Gaastra City	174	1	376	11,423 5.7
Iron River City	1,107	12	2,095	63,646 31.8
Mineral Hills Village	90	0	200	6,076 3.10
Stambaugh City	674	27	1,281	38,917 19.4
TOTALS	9,259	2,599	13,594	400,256 200.1

SOURCE: 1990 Census of Population and Housing

*For Seasonal, Recreational or Occasional Use. +EPA Characterization of Municipal Solid Waste in the U.S. 1996 Update, 4.34 lbs./person/day in 1995

TOTAL QUANTITY OF SOLID WASTE GENERATED:

10,403 Tons or Cubic Yards in Year 1998 (See Page II-9)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:

8,612 Tons or Cubic Yards in Year 1998 (After recycling)

DATA BASE

WASTE DISPOSAL BY MUNICIPALITY¹
MUNICIPAL, COMMERCIAL, INDUSTRIAL

UNIT OF GOVERNMENT	1990 POPULATION ²	1998 TONNAGE ⁵
Bates Twp.	966	58.26
Crystal Falls Twp.	1,614	241.67
Hematite Twp.	366	Not reported
Iron River Twp.	1,398 ³	51.29
Mansfield Twp.	248	26.65
Mastodon Twp.	654 ⁴	18.12
Stambaugh Twp.	1,224	95.11
Alpha Village	219	17.66
Caspian City	1,031	368.14
Amasa	Unincorporated	42.59
Crystal Falls City	1,922	345.31
Iron River City	2,095	607.95
Mineral Hills Village	200	12.01
Stambaugh City	1,281	211.98
Gaastra City	376	96.19
TOTALS	13,175	2,289.12 ⁶

¹Actual tonnage disposed of at transfer station.

²U.S. Census Bureau, 1990

³Includes Village of Mineral Hills

⁴Includes Village of Alpha

⁵Superior Waste

⁶Ironland Disposal (all areas) - 5,429.62 tons - includes rolloff, construction & demolition from hauling company and special wastes; Wisconsin wastes - 1,515.22 tons

*See page D-9 for breakdown.

DATA BASE

Per Capita Generation of Municipal Solid Waste by Material

Material	Pounds/Person/Day * Year 2000	Iron County*	
		Per day (Lbs.)	Annual (Tons)
Paper and paperboard	1.79	23583	4,304
Glass	0.27	3,557	649
Metals	0.34	4,480	818
Plastics	0.42	5,533	1,010
Rubber and leather	0.13	1,713	312
Textiles	0.17	2,240	409
Wood	0.33	4,348	793
Other	0.08	1,054	192
Total Non Food Products	3.52	46,376	8,464
Food Wastes	0.29	3,821	697
Yard Trimmings	0.54	7,114	1,298
Miscellaneous Inorganic Wastes	0.07	922	168
Total Municipal Solid Waste Generated	4.42	58,233	10,628

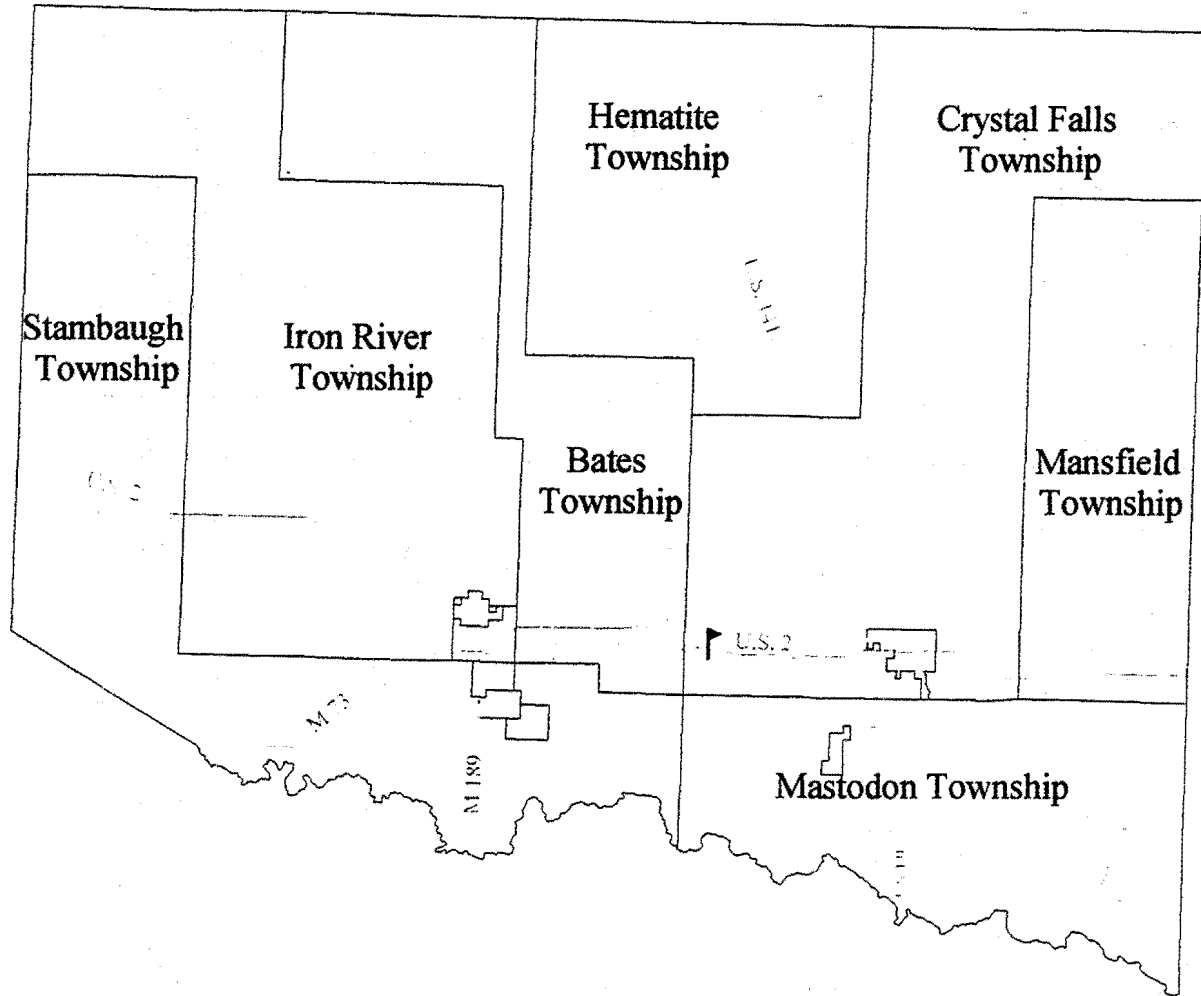
*Characterization of Municipal Solid Waste in the U.S. 1996 Update

+Based on 1990 Population using 4.42 lbs./person/day

Details may not add to totals due to rounding.

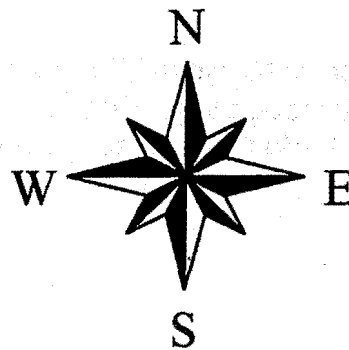
Iron County

Solid Waste Facilities



Facility Type

Transfer Station 



Source: Western Upper Peninsula Planning & Development Region

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.

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Superior Waste Services

County: Iron Location: Town: 43N Range: 33W Sec: 29

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: K & W Landfill, Ontonagon, Michigan

Public Private Owner: Waste Management, Inc.

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] hauled directly
- special wastes*] to landfill
- other: _____

*Explanation of special wastes, including a specific list and/or conditions:
Asbestos, sludge, contaminated soils - hauled in covered boxes directly to landfill. Does not pass through transfer station

Site 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 yds³
Estimated lifetime _____ years
Estimated days open per year: _____ days
Estimated yearly disposal volume: (if applicable) _____ tons or yds³
Annual energy production:
 Landfill gas recovery projects: _____ megawatts
 Waste-to-energy incinerators: _____ megawatts

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.

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: K & W Landfill, Inc.

County: Ontonagon Location: Town: 51N Range: 38W

Section(s) S-1/2, N-1/4 and N-1/2, SE-14, Section 28

Map identifying location included in Attachment Section: X 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 X Private Owner: K & W Landfill, Inc.

Operating Status (check)

- X open
- closed
- X licensed
- unlicensed
- X construction permit
- open, but closure
- pending

Waste Types Received (check all that apply)

- X residential
- X commercial
- X industrial
- X construction & demolition
- X contaminated soils
- X special wastes*
- other:

*Explanation of special wastes, including a specific list and/or conditions:
 Special waste acceptable at a Type II landfill. Special permit conditions allow petroleum
 contaminated soils and Niagara Paper Mill sludge as daily cover.

Site Size:

Total area of facility property:	<u> 87 </u> acres
Total area sited for use:	<u> 55 </u> acres
Total area permitted:	<u> 55 </u> acres
Operating:	<u> 20 </u> acres
Not excavated:	<u> 35 </u> acres
Current capacity:	<u> 2.7m </u> tons or yds ³
Estimated lifetime	<u> 26 </u> years
Estimated days open per year:	<u> 256 </u> days
Estimated yearly disposal volume: (if applicable)	<u> 100,000 </u> tons or yds ³
Annual energy production:	
Landfill gas recovery projects:	<u> </u> megawatts
Waste-to-energy incinerators:	<u> </u> megawatts

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.

IRON COUNTY

RESIDENTIAL/COMMERCIAL/WASTE HAULERS AND SERVICE AREAS

Township or Municipality	Waste Management	Municipal
Bates Twp.	X	
Crystal Falls Twp.		X
Hematite Twp.	X	
Iron River Twp.	X	
Mansfield Twp.		X
Mastodon Twp.	X	
Stambaugh Twp.	X	
Gaastra City	X	
Iron River City	X	
Crystal Falls City	X	
Stambaugh City	X	
Alpha Village	X	
Mineral Hills Village	X	

DATA BASE

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

- ▶ High cost of demolition disposal (Type III waste)
- ▶ High cost of disposal provides incentive for woods dumping and burning at home
- ▶ High transportation costs
- ▶ Reciprocal agreement for landfill leachate disposal at municipal treatment facility may be a problem in the future.

DATA BASE

DEMOGRAPHICS

The following presents the current and projected population densities and centers for approximately ten and fifteen year periods, identification of current and projected centers of solid waste generation including industrial solid waste for ten and fifteen 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.

Waste Generation (*Tons/Year)

Twp. or Municipality	Population 1990	Estimate of Generation	Population 2000	Est. Waste Generation	Population 2005	Est. Waste Generation
Bates Twp.	966	770	1,035	819	1,067	845
Crystal Falls Twp.	1,614	1,274	1,730	1,370	1,783	1,412
Hematite Twp.	366	290	398	315	419	332
Iron River Twp.	1,198	946	1,278	1,012	1,322	1,047
Mansfield Twp.	248	197	255	202	258	204
Mastodon Twp.	435	343	466	369	488	386
Stambaugh Twp.	1,224	967	1,315	1,041	1,362	1,079
Alpha Village	219	172	236	187	243	192
Caspian City	1,031	816	1,116	884	1,144	906
Crystal Falls City	1,922	1,508	2,062	1,633	2,125	1,683
Gaastra City	376	296	405	321	417	330
Iron River City	2,095	1,654	2,240	1,774	2,309	1,829
Mineral Hills Village	200	161	215	170	221	175
Stambaugh City	1,281	1,009	1,366	1,082	1,408	1,115
COUNTY	13,175	10,403	14,117	11,179	14,566	11,535

*SOURCE: EPA Characterization of Municipal Solid Waste in the U.S. 1996 update.
4.34 lbs/person/day in 1995

DATA BASE

LAND DEVELOPMENT

The following describes current and projected land development patterns, as related to the Selected Solid Waste Management System, for the next five and ten year periods.

Land uses in Iron 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. The growing population prompted land uses such as farming, commercial, industrial, and others. Mining and lumbering still remain restricted viable land uses in Iron County.

The County participated in a 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, the areas used for commercial/industrial and residential use grew with the forest/agricultural lands decreasing to accommodate growth.

Residential land use has also increased throughout the County. Most of the growth has been in the urban corridor between Wakefield and Ironwood. 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 - 13,635; 1990 - 13,175; 1997 - 13,067) probably will prevent any significant land use changes in the County over the next five to ten years.

*Source: U.S. Bureau of the Census, 1980 and 1990
U.S. Bureau of the Census, for 1997, issued March 17, 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.

ALTERNATIVE 1

Consists of one transfer station serving the entire County, located between Iron River and Crystal Falls on U.S. Highway 2. Primary disposal is the K & W Landfill located in Ontonagon County.

ALTERNATIVE 2

After evaluation of the cost associated with the construction of a Type II landfill to serve the County, it was determined that it was not economically feasible.

ALTERNATIVE 3

Incineration

At this time incineration has been eliminated due to the high cost associated with development and low volumes of waste generated in the county.

SELECTED SYSTEM

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 area locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies.

The major components of this system (Alternative 1) includes transfer and disposal at a single private landfill.

FINANCING

The cost of operating the transfer station is borne by the users who are paying tipping fees which are based on scaled tons and pay per bag. The tipping fee also reflects a reserve to be used for equipment maintenance and replacement.

PRIMARY DISPOSAL CAPACITY

The Ironland Transfer Station is owned and operated by Waste Management, Inc. The location of the transfer station is adjacent to U.S. Highway 2 between U.S. 2 between Iron River and Crystal Falls (see facility location map on page II-4). In 1988, the Clean Michigan fund provided \$300,000 of grant money to assist Ironland Disposal to construct this facility.

The Ironland Transfer Station has a disposal contract with the K & W Landfill of Ontonagon County. A recycling center has been established at the transfer station which is open to all customers.

Transfer Station and Flow Control

The primary disposal facility available to Iron County for disposal of solid waste is the K & W Landfill in Ontonagon County.

- ▶ All residential solid waste generated in Iron County must use the existing transfer station located on U.S. 2.
- ▶ All Type III from commercial and industrial sources in the County which are serviced by 20 cubic yard (or larger) containers may be direct hauled to the landfill.
- ▶ Industry may site a facility for disposal of solid waste generated solely by that industry at its facility in Iron County. A solid waste disposal facility of this type is determined to be consistent with the Iron County Solid waste Management Plan and is not subject to the siting criteria defined by this Plan.
- ▶ All Type II and Type III commercial wastes transported in containers of less than 20 cubic yards must use the transfer station.

INDUSTRIAL DISPOSAL

Several local boards in Iron County and the planning committee have indicated that they are in favor of encouraging industrial development within the County. In order to address this concern, the Iron County Solid Waste Management Plan authorizes the development of either a Type II or Type III industrial solid waste disposal facility in any township or city located in the County. Specifically, industry may site a facility for disposal of solid wastes generated solely by that industry at its facility in Iron County. A solid waste disposal facility of this type is determined to be consistent with the Iron County Solid Waste Management Plan and is not subject to the siting criteria defined by this Plan.

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 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
Iron	Ontonagon	Krist Oil Company	--	1,000 cu.yds.	
Iron	Houghton	Krist Oil Company	--	1,000 cu.yds.	
Iron	Alger	Krist Oil Company	--	1,000 cu.yds.	
Iron	Baraga	Krist Oil Company	--	1,000 cu.yds.	
Iron	Schoolcraft	Krist Oil Company	--	1,000 cu.yds.	

____ Additional authorizations and the above information for those authorizations are listed on an attached page.

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and operating in the future in the County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 1-B.

Table 1-B

**FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED**

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²

____ Additional authorizations and the above information for those authorizations are listed on an attached page.

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

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 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹ DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
Iron	Ontonagon	K & W Landfill	All	10,000 tons	P
Iron	Menominee	Menominee Michigan Environs	All		C
Iron	Alger	Wood Island	All		C

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

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and operates in the future in another County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 2-B if authorized for import in the approved Solid Waste Management Plan of the receiving County.

Table 2-B

**FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹ DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
N/A					

____ Additional authorizations and the above information for those authorizations are listed on an attached page.

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

²Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

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-7-1 through III-7-5 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of 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. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

K & W Landfill, Inc.

Type III Landfill:

Incinerator:

Krist Oil Company

Waste-to-Energy Incinerator:

Type A Transfer Facility:

Ironland

Type B Transfer Facility:

Processing Plant:

Waste Piles:

Other:

Additional facilities are listed on an attached page. Letters from or agreements with the listed disposal areas owners/operators stating their facility capacity and willingness to accept the County's solid waste are in the Attachments Section.

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Transfer Station
Facility Name: Superior Waste Services
County: Iron Location: Town: 43N Range: 33W Sec: 29

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: K & W Landfill, Ontonagon, Michigan
 Public Private Owner: Waste Management, Inc.

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] hauled directly
 special wastes*] to landfill
 other: _____

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

Asbestos, sludge, contaminated soils - hauled in covered boxes directly to landfill. Does not pass through transfer station

Site 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 yds³
Estimated lifetime _____ years
Estimated days open per year: _____ days
Estimated yearly disposal volume: (if applicable) _____ tons or yds³
Annual energy production: _____ megawatts
 Landfill gas recovery projects: _____ megawatts
 Waste-to-energy incinerators: _____ megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Incineration
Facility Name: Krist Oil Company
County: Iron Location: Town: 43N Range: 35W Sec: 36
Map identifying location included in Attachment Section: X 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: Munising

 Public X Private Owner: Wood Island
Operating Status (check) Waste Types Received (check all that apply)
 X open X residential
 closed X commercial
 X licensed industrial
 unlicensed construction & demolition
 construction permit contaminated soils
 open, but closure special wastes
 pending other:

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

Paper and cardboard - 90%
Food waste, plastic, other - 10%

Site Size:

Total area of facility property:	<u>11.0</u> acres
Total area sited for use:	<u>1.0</u> acres
Total area permitted:	<u>Same</u> acres
Operating:	<u>Same</u> acres
Not excavated:	<u>Same</u> acres
Current capacity:	<u>400 lbs</u> hours
Estimated lifetime	<u>10+</u> years
Estimated days open per year:	<u>260+</u> days
Estimated yearly disposal volume: (if applicable)	<u>2.500</u> tons or yds ³
Annual energy production:	
Landfill gas recovery projects:	<u>-0-</u> megawatts
*Waste-to-energy incinerators:	<u> </u> megawatts
	500K BTU - Heat for building

SELECTED SYSTEM

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

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

Superior Waste Service provides residential curbside service and commercial container service to most of Iron County areas. Caspian, Crystal Falls Township and Mansfield Township provide their own collection service and haul directly to the Ironland Transfer Station.

Residential service is varied. Superior Waste Services provide curbside service through municipal contracts (servicing entire cities or townships, i.e. Iron River City, Crystal Falls City) or pay per bag service (mainly in the townships). All residential services are provided with rear load collection vehicles.

Commercial service is provided to customers as a curbside hand pick up or a containerized services. Containers range in size from 1.5 cubic yards to 40 cubic yards. Containers larger than 12 cubic yards are roll-off containers. Containers less than 12 cubic yards and all had pick-ups are serviced with rear load collection vehicles.

All waste collected by Superior Waste Service in Iron County is disposed of at K & W Landfill, either directly or indirectly through the Ironland Transfer Station.

SELECTED SYSTEM

RESOURCE 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.

Effort Description	Est. Diversion Tons/Year		
	Current	5th Yr.	10th yr.
Source Reduction			
No set diversion			

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 used 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.

Technique Description	Est. Air Space Conserved Yds. ³ /Yr.		
	Current	5th Yr.	10th yr.
Waste Compaction			
Recycling			
Composting			

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

SELECTED SYSTEM

Overview 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.

At present, Superior Waste operates a drop-off recycling center at the Ironland Transfer Station. They accept plastics, newspaper, corrugated containers, tires, magazines and metals
Although limited recycling is taking place in the County, long distances to markets and low market prices make it difficult to provide the service at little or no cost to the county residents.

- 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:

Other activities in the County include scrap metal dealers and grocery stores recycling small quantities of cardboard. Superior Waste also provides limited recycling as part of their commercial pickup operations.

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:

Superior Waste Services have been asked to explore the possibility of operating a compost yard adjacent to their transfer station located on U.S. 2. The municipalities are requesting a proposal from Superior Waste to determine if the costs are reasonable enough to participate in a private operation.

- ☐ 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:

Because of the high cost associated with the collection and disposal of potentially hazardous waste materials and the small volumes that may be present in the County waste stream, it has been determined that there will be no separation of hazardous materials at this time.

SELECTED SYSTEM

RECYCLING 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-16, 17, & 18 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-19, 20, & 21 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 Iron County is being provided to an "economical degree" by Superior Waste Services. The company has offered curbside collection of recyclable materials to municipalities in the past but due to the high costs associated with collection, transportation and marketing of the materials and depressed markets the municipalities have declined the service. Superior Waste has established a successful drop off center at their transfer station which has provided the opportunity for county residents to recycle.

Through the planning process the solid waste committee has asked Superior Waste to investigate the possibility of operating a compost drop off center at their facility. The company has agreed to look at the costs associated with a small operation and then offer the service to the local units of government.

The success of both of these programs depends upon the cost of operating and the willingness of the local units of government to fund the private enterprise. Superior Waste has committed to provide the service if they can reach agreement with the municipalities to cover the cost of operation.

SELECTED SYSTEM

TABLE III-1

RECYCLING:

<u>Program Name</u>	<u>Service Area¹</u>	<u>Public or Private</u>	<u>Collection Point³</u>	<u>Collection Frequency⁴</u>	<u>Materials Collected⁵</u>	<u>Program Management Development</u>	<u>Responsibilities² Operation</u>	<u>Evaluation</u>
Superior Waste	County	Private	Transfer Station		A,B,C,F,K	Private	Private	Private

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

¹Identified 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.

²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

⁵Identified 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 25.

SELECTED SYSTEM

TABLE III-2

COMPOSTING:

<u>Program Name</u>	<u>Service Area¹</u>	<u>Public or Private</u>	<u>Collection Point³</u>	<u>Collection Frequency⁴</u>	<u>Materials Collected⁵</u>	<u>Program Management Development</u>	<u>Responsibilities² Operation</u>	<u>Evaluation</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

¹Identified 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.
²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
³Identified by c= curbside; d = drop-off; o = onsite; and if other, explained.
⁴Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.
⁵Identified 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 25.

SELECTED SYSTEM

TABLE III-3

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.

<u>Program Name</u>	<u>Service Area¹</u>	<u>Public or Private</u>	<u>Collection Point³</u>	<u>Collection Frequency⁴</u>	<u>Materials Collected⁵</u>	<u>Program Management Development</u>	<u>Responsibilities² Operation</u>	<u>Evaluation</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

¹Identified 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.

²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

⁵Identified 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; 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 III-4

PROPOSED RECYCLING:

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

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

¹Identified 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.
²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
³Identified by c= curbside; d = drop-off; o = onsite; and if other, explained.
⁴Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.
⁵Identified 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 25.

SELECTED SYSTEM

TABLE III-5

PROPOSED COMPOSTING:

<u>Program Name</u> (If known)	<u>Service Area</u> ¹	<u>Public or Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities Operation</u> ²	<u>Evaluation</u>
_____	County	Private	Transfer Station	_____	G.L.W	Private	Private	Private
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

¹Identified 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.

²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

⁵Identified 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 25.

SELECTED SYSTEM

TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

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

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

¹Identified 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.

²Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

⁵Identified 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; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; OT = Other Materials and identified.

SELECTED SYSTEM

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

The following identifies those public and private parties, and the resource recovery or recycling programs for which they have management responsibilities.

Environmental Groups:

Other:

SELECTED SYSTEM

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.

<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:</u>			<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:</u>		
	Current	5th Year*	10th Yr*		Current	5th Yr*	10th Yr*
A. TOTAL PLASTICS	<u>11.65</u>	<u>15</u>	<u> </u>	G. GRASS & LEAVES	<u>0</u>	<u> </u>	<u> </u>
B. NEWSPAPERS	<u>35.88</u>	<u>40</u>	<u> </u>	H. TOTAL WOOD WASTE:	<u>0</u>	<u> </u>	<u> </u>
C. CORRUGATED CONTAINERS:	<u>41.32</u>	<u>50</u>	<u> </u>	I. CONSTRUCTION & DEMOLITION:	<u>0</u>	<u> </u>	<u> </u>
D. TOTAL OTHER PAPER	<u> </u>	<u> </u>	<u> </u>	J. FOOD & FOOD PROCESSING:	<u>0</u>	<u> </u>	<u> </u>
E. TOTAL GLASS:	<u> </u>	<u> </u>	<u> </u>	K. TIRES:	<u>610</u>	<u>700</u>	<u> </u>
F. OTHER MATERIALS:	<u> </u>	<u> </u>	<u> </u>	L. TOTAL METALS:	<u>23.21</u>	<u>30</u>	<u> </u>
F1. _____	<u> </u>	<u> </u>	<u> </u>	F3. _____	<u> </u>	<u> </u>	<u> </u>
F2. _____	<u> </u>	<u> </u>	<u> </u>	F4. _____	<u> </u>	<u> </u>	<u> </u>

*Depends on Markets

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.

<u>Collected Material</u>	<u>In-State Markets</u>	<u>Out of State Markets</u>	<u>Collected Material</u>	<u>In-State Markets</u>	<u>Out-of-State Markets</u>
A. TOTAL PLASTICS	<u> </u>	<u>11.65</u>	G. GRASS & LEAVES:	<u> </u>	<u> </u>
B. NEWSPAPER:	<u>35.88</u>	<u> </u>	H. TOTAL WOOD WASTE:	<u> </u>	<u> </u>
C. CORRUGATED CONTAINERS:	<u> </u>	<u>41.32</u>	I. CONSTRUCTION & DEMOLITION:	<u> </u>	<u> </u>
D. TOTAL OTHER PAPER:	<u> </u>	<u> </u>	J. FOOD & FOOD PROCESSING:	<u> </u>	<u> </u>
E. TOTAL GLASS:	<u> </u>	<u> </u>	K. TIRES:	<u> </u>	<u>700</u>
F. OTHER MATERIALS:	<u> </u>	<u> </u>	L. TOTAL METALS:	<u>23.21</u>	<u> </u>
F1. Magazines	<u> </u>	<u> </u>	F3. _____	<u> </u>	<u> </u>
F2. _____	<u> </u>	<u> </u>	F4. _____	<u> </u>	<u> </u>

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 list of the programs offered or proposed to be offered in this County.

<u>Program Topic</u> ¹	<u>Delivery Medium</u> ²	<u>Targeted Audience</u> ³	<u>Program Provider</u> ⁴
<u>Composting</u>	<u>W, N</u>	<u>P, b, I</u>	<u>EX</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

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

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

³Identified 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.

⁴Identified 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.

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 III-7

Management Component	Timeline
Collection/disposal	Ongoing
Composting	2000

SELECTED SYSTEM

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

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.

Incineration

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this Plan. (Attach additional pages if necessary).

Identification of New or Expanded Solid Waste Facilities

Iron County does not have a licensed landfill, therefore this section outlines a siting mechanism that guarantees that a facility can be sited in the county.

In order for a solid waste facility to pursue a construction permit from the Michigan Department of Environmental Quality, the site must be either identified within the county solid waste plan update or be found consistent with the plan based on the criteria as described below.

Incineration is not consistent with this solid waste plan, but may be considered in the future.

The Solid Waste Planning Committee 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 Planning Committee will use the following information and criteria when reviewing proposals and determining consistency.

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

1. The developer shall provide documentation demonstrating: estimated total project costs, the possible source of the waste stream coming to the facility from within the service area defined by the plan, the short-term and long-term capacity of the facility, (b) the apparent needs of the service area and how they will be met by the proposed development, including proposed recycling services. (This is for informational purposes only).

SELECTED SYSTEM

2. The developer shall provide a written statement that the proposed development is consistent with proven technologies and with all statutory changes to and requirements of Public Act 451.
3. The developer shall provide a written statement of his intent to charge equitable and similar fees within its service area.
4. The developer shall provide a written statement agreeing to treat all haulers equitably and impartially.

If the proposal is for a processing facility, the developer shall also provide the following documentation:

5. The developer shall provide a list of communities where the processing technology is being successfully used.

CRITERIA 

The following criteria will be used to evaluate the information provided by the developer and to determine if the proposed new Type II, Type III landfill or processing facility or expansion is, or is not, consistent with the approved Iron County Solid Waste Management Plan. The developer shall provide written statements for items 1, 2 and 4.

	<u>Yes</u>	<u>No</u>
1. Does the developer intend to charge equitable and similar fees within its service area?	_____	_____
2. Does the developer agree to treat all haulers equitably and impartially?	_____	_____
3. If the proposed facility is a landfill, does the proposed landfill provide long-term capacity for Iron for 20 years? (If the facility proposed is for restricted use by an industry located within the service area defined by the plan, the provision for 20 year County capacity is not required).	_____	_____
4. Does the proposed facility utilize proven technology?	_____	_____

SELECTED SYSTEM

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

The Planning Committee will determine if the proposed development is, or is not, consistent with the Iron County Solid Waste Management Plan within 90 days of receiving all of the information listed above. The Committee must provide developer a written determination of consistency or inconsistency and include the reasons and facts supporting their decision. If the Committee fails to make a determination within the 90 day time period, the proposal shall be consistent with the County Plan.

APPEAL PROCESS - TO THE COUNTY BOARD OF COMMISSIONERS

If, and only if, a proposed development is found to be inconsistent with the Iron County Solid Waste Management Plan by the Planning Committee, 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 30 days of receipt of the request by the County Board Chairman.

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

Within 30 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 Committee the developer may address the deficiencies identified by the Board of Commissioners (and the Planning Committee) during the appeal process and resubmit the project proposal to the Planning Committee for subsequent review for consistency. If the County Board of Commissioners fails to make a determination within the 30 day time period, the proposal shall be consistent with the County Plan.

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SELECTED SYSTEM

SOLID WASTE MANAGEMENT COMPONENTS

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.

The Western Upper Peninsula Planning and Development Region is responsible for planning.

The Michigan Department of Environmental Quality is responsible for enforcement.



Iron County is also responsible for enforcement and update monitoring. Should the County deem necessary, they may seek to pass a flow control ordinance to insure all waste in the County is disposed of at the Superior Waste Transfer Station.

RETURN TO
APPROVAL
LETTER

SELECTED 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

Product Reuse

Reduced Material Volume

Increased Product Lifetime

Decreased Consumption

Resource Recovery Programs:

Composting: Superior Waste

Recycling: Superior Waste

Energy Production

Volume Reduction Techniques:

Collection Processes:

SELECTED SYSTEM

Transportation:

Disposal Areas:

Processing Plants

Incineration

Transfer Stations

Sanitary Landfills

Ultimate Disposal Area Uses:

Local Responsibility for Plan Update Monitoring & Enforcement:

Iron County

Educational and Informational Programs:

Documentation of acceptance of responsibilities is contained in Appendix D.

**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: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirement/restriction: _____

B. Geographic area/Unit of government: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirements/restriction: _____

C. Geographic area/Unit of government: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirement/restriction: _____

D. Geographic area/Unit of government: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirement/restriction: _____

E. Geographic area/Unit of government: _____

Type of disposal area affected: _____

Ordinance or other legal basis: _____

Requirement/restriction: _____

_____ 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.

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 the DEQ. The County's process for determination of annual capacity and submission of the County's capacity certification is as follows:

___ Additional listings are on attached pages.

*See following page and D-3b.



1229 W. Washington St.
Marquette, MI 49855
Tel: 906-228-4000
Fax: 906-228-4051

WASTE MANAGEMENT

March 29, 1999

Mr. Kim J. Stoker
Planning Director
Western Upper Peninsula Planning & Development Regional Commission
P.O. Box 365
Houghton, MI 49931

RE: K&W Landfill
Capacity Certification

Dear Mr. Stoker:

This letter serves to certify that the K&W Landfill has sufficient disposal capacity based on current volumes to accept waste generated in Iron County for a minimum 10 year period.

Please contact me if you have any questions.

Sincerely,

Robert Pliska, P.E.
Regional Engineer

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.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

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

See Page II-3a for generation by material.

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:

Proposed Programs:

Site Availability & Selection

Existing Programs:

Proposed Programs:

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>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Proposed Programs:

<u>Program Name</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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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.

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.

System Component¹	Estimated Costs	Potential Funding Sources
<u>Resource Conservation Efforts</u>		
<u>Resource Recovery Programs</u>		
<u>Volume Reduction Techniques</u>		
<u>Collection Processes</u>		
<u>Transportation</u>		
<u>Disposal Areas</u>		
<u>Future Disposal Area Uses</u>		
<u>Management Arrangements</u>		
<u>Educational & Informational Programs</u>		

¹These 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 transfer station, being owned by the citizens of Iron County, represents a sizeable public investment in solid waste disposal. The long term advantages of having made this investment, however, are already paying off. County flow requires all Type II and Type III waste generated within the county to go to the Authority's transfer station. This high degree of flow control insures sufficient volumes of waste to protect the economic viability of the facility. The transfer station provides a focal point to allow residents the opportunity to recycle.

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.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

Each 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.

ADVANTAGES:

1. Unlimited life span.
2. Cost savings associated with not developing additional sites.
3. Single transfer provides economy of scale.
4. Convenient location to population centers.

DISADVANTAGES:

1. Transportation costs due to large geographic area of County.
2. Lack of competition/choice of final disposal site.
3. Lack of flexibility.
4. Cost dependent upon landfill fees.
5. Lack of a program to separate potentially hazardous materials.
6. Lack of commitment by anyone to implement recycling and composting education.

NON-SELECTED SYSTEMS

Before selecting the solid waste management system contained within this Plan update, the County developed and considered other alternative systems. The details of the non-selected systems are available for review in the County's repository. The following section provides a brief description of these non-selected systems and an explanation why they were not selected. Complete one evaluation summary for each non-selected alternative system.

Alternative 2 - construction of a type II sanitary landfill to service the county.

The alternative was eliminated due to the costs associated with the construction of a licensed type II sanitary landfill. The alternative was discussed at length and cost estimates ranged between \$1 and \$2 million to construct a facility to serve the county.

SYSTEM COMPONENTS - ALTERNATIVE 3 - INCINERATION (WASTE ENERGY)

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

RESOURCE CONSERVATION EFFORTS:

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 an incinerator (near an energy market) would have an impact based on location.

DISPOSAL AREAS: Ash would most likely be hazardous and have to be shipped to a licensed Type I facility.

SYSTEM COMPONENTS

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 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. Iron County generates approximately 31.60 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 could result from the sale of energy.

SYSTEM COMPONENTS

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 emissions 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 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 the transfer station, 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 transferring to an out-of-county landfill.

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.

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. Construction and on-going operational costs of an incinerator are greater than construction and operation of a transfer station.
4. Waste volume generated in Iron County are not sufficient for economic operation of an incinerator.
5. Toxicity of residue is high.

PUBLIC PARTICIPATION

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.

PUBLIC PARTICIPATION

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

All meetings were held at the Iron County Court House in Crystal Falls:

June 3, 1998

March 24, 1999

Notices were placed at the court house as per the regular public meeting notice process.

PUBLIC PARTICIPATION

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

On April 7, 1998 the Western Upper Peninsula Planning and Development Region sent Iron County a proposed slate of individuals to serve on the planning committee.

At their regular monthly meeting on April 14, 1998, the County Board authorized the Chairman to make appointments to the Solid Waste Planning Committee.

The Chairman proceeded to appoint the members listed on the following pages.

ATTACHMENTS

APPENDIX D

Plan 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.

ATTACHMENTS

Resolutions

The following are resolutions from County Board of Commissioners approving municipality's request to be included in an adjacent County's Plan.

ATTACHMENTS

Listed Capacity

Documentation from landfills that the County has access to their listed capacity.

See Page D-3a and D-3b.



1229 W. Washington St.
Marquette, MI 49855
Tel: 906-228-4000
Fax: 906-228-4051

WASTE MANAGEMENT

March 29, 1999

Mr. Kim J. Stoker
Planning Director
Western Upper Peninsula Planning & Development Regional Commission
P.O. Box 365
Houghton, MI 49931

RE: K&W Landfill
Capacity Certification

Dear Mr. Stoker:

This letter serves to certify that the K&W Landfill has sufficient disposal capacity based on current volumes to accept waste generated in Iron County for a minimum 10 year period.

Please contact me if you have any questions.

Sincerely,

Robert Pliska, P.E.
Regional Engineer

ATTACHMENTS

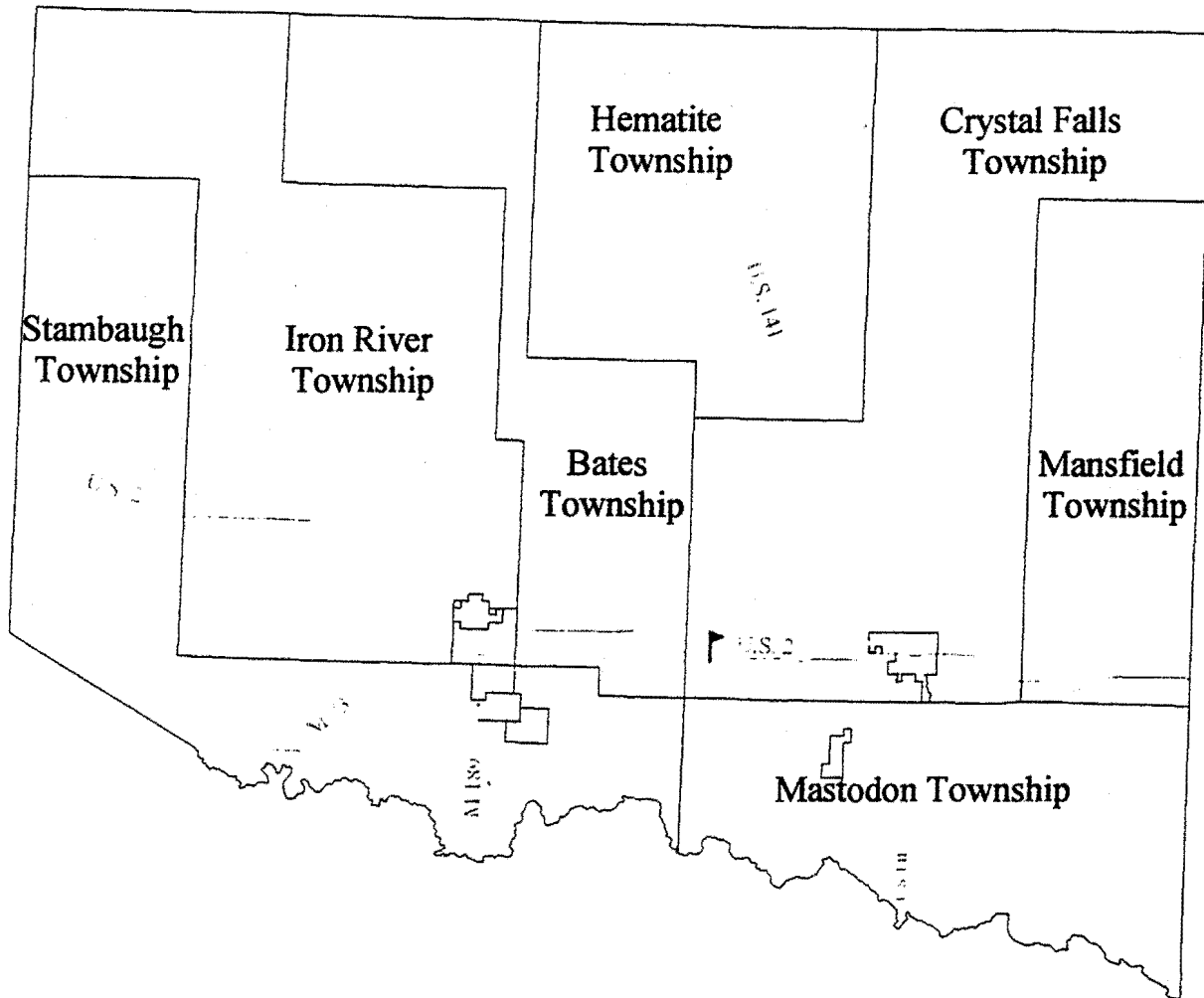
Maps

Maps showing locations of solid waste disposal facilities used by the County:

See following page.

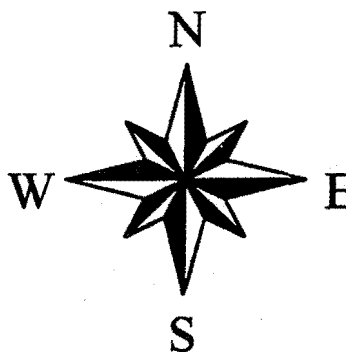
Iron County

Solid Waste Facilities



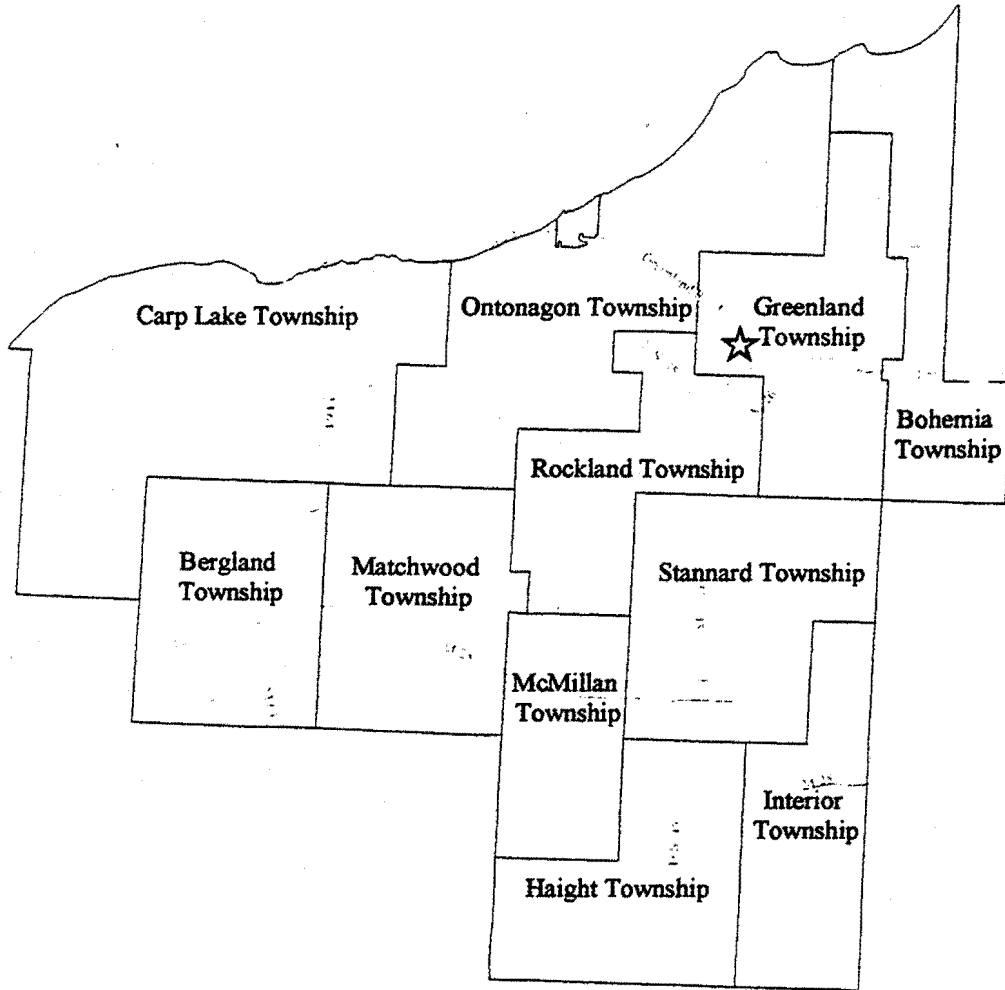
Facility Type

Transfer Station 



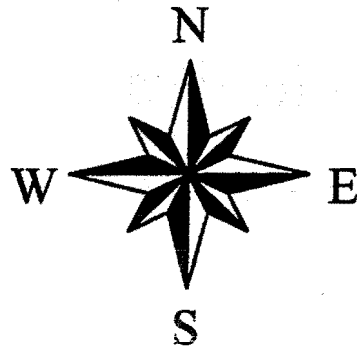
Source: Western Upper Peninsula Planning & Development Region

Ontonagon County Solid Waste Facilities



Facility Type

Type II Landfill ☆



Source: Western Upper Peninsula Planning and Development Region

ATTACHMENTS

Inter-County Agreements

Copies of Inter-County agreements with other Counties (if any).

ATTACHMENTS

Special Conditions

Special conditions affecting import or export of solid waste.

Disposal Contingency Emergency Plan

As part of the Iron County solid waste management plan, there is an apparent need to have an emergency (contingency plan). In the past, situations have arisen where the only landfill servicing an entire county is forced to cease its operations. In this situation the county is left with no viable disposal option.

Due largely to the aforementioned factor and the inter-county transportation of waste issue, a short-term emergency disposal alternative must be addressed. This alternative will include a short-term emergency disposal plan. The plan is intended to define a course of action needed to alleviate a disruption or discontinuation in disposal service. The emergency plan is only for unexpected situations which may include, but are not limited to: contract disputes, leachate outbreaks, serious equipment malfunctions, or natural disasters such as flood or tornado.

The emergency contingency plan is not intended to address landfill capacity problems but rather unexpected situations which may arise.

The following is a summary of Iron County's contingency plan:

If for any reason the K & W Landfill, Inc. is forced to cease operation, wastes could be shipped to any of the following:

1. USA Waste in Menominee (Michigan Environs)
2. Wood Island Landfill in Alger County

This contingency plan is a summary of possibilities and is not intended to be all inclusive. At the time the emergency arises the County Board of Commissioners would immediately contact the above referenced facilities to negotiate the terms of the emergency disposal plan with either facility.

In order to alleviate an emergency situation the course of action may include, but is not limited to:

1. Defining if the problems are short or long term.
2. If they are long term: investigate a new disposal system, or
3. Identify, if necessary, a new disposal alternative, e.g. landfill construction in Iron County.

**RECAP OF GARBAGE GENERATED FORM 1/1/98 THRU 12/31/98
AND HANDLED AT IRONLAND TRANSFER STATION**

	<u>1996 ACTUAL TONNAGE</u>	<u>1997 ACTUAL TONNAGE</u>	<u>1998 ACTUAL TONNAGE</u>
CITY OF IRON RIVER	663.91	677.14	607.95
CITY OF CASPIAN	385.00	348.78	368.14
CITY OF GAASTRA	65.78	90.64	96.19
CITY OF STAMBAUGH	209.72	212.89	211.98
MINERAL HILLS	10.09	11.29	12.01
CRYSTAL FALLS TOWNSHIP	218.36	237.08	241.67
MANSFIELD TOWNSHIP	18.84	19.00	26.65
IRON RIVER TOWNSHIP	43.52	49.65	51.29
BATES TOWNSHIP	58.68	59.66	58.26
STAMBAUGH TOWNSHIP	84.50	94.29	95.11
CITY OF CRYSTAL FALLS	281.22	336.10	345.31
AMASA	42.51	43.31	42.59
MASTODON TOWNSHIP	19.48	18.61	18.12
ALPHA	16.72	17.27	17.66
CASH, BAG & OTHER	1,034.58	1,162.90	989.49
IRONLAND (ALL AREAS)	4,892.97	5,102.63	5,429.62
OUT OF COUNTY - Wisconsin	1,012.12	1,421.18	1,515.22
<u>TOTAL TONNAGE</u>	<u>9,058.00</u>	<u>9,902.42</u>	<u>10,127.26</u>

* Includes roll-off, construction and demolition from hauling companies and special waste.



**Western Upper Peninsula
Planning & Development Regional Commission**

P.O. BOX 365 • HOUGHTON, MICHIGAN 49931
906-482-7205 • FAX 906-482-9032 • e-mail: wupdr@up.net

FAX MESSAGE

DATE: February 29, 2000

Matt Staron
TO: Solid Waste Program Section, DEO FAX #: 517-373-4797

FROM: Kim Stoker

RE: Additional Comment for Iron County Solid Waste Plan

NO. OF PAGES, INCLUDING THIS SHEET: 2

MESSAGE:

We received this comment today from Iron River Township.
Copy will be sent to you today.

NOTE: If all pages are not received in full, please call us as soon as possible at (906) 482-7205.

IRON RIVER TOWNSHIP

IRON RIVER, MICHIGAN
49928

WUPPDR
P.O. Box 372
Houghton, MI
February 11, 2000

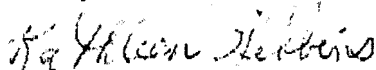
Dear Sir:

The Iron River Township Board on December 9, 1999 passed the following motion.

Ken Piwarski made a motion, which was seconded Mary Lanning to adopt the Iron County solid waste management plan. A roll call vote was taken Ayes: Spicer, Gibbins, Lanning, Piwarski, and Powell.

Nays: none. Motion carried (unanimously).

Sincerely



Kathleen Gibbins
Clerk



IRON RIVER TOWNSHIP

IRON RIVER, MICHIGAN
49935

WUPPDR
P.O. Box 372
Houghton, MI
February 11, 2000

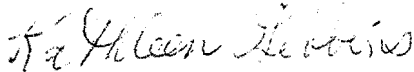
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The Iron River Township Board on December 9, 1999 passed the following motion.

Ken Piwarski made a motion, which was seconded Mary Lanning to adopt the Iron County solid waste management plan. A roll call vote was taken Ayes: Spicer, Gibbins, Lanning, Piwarski, and Powell.

Nays: none. Motion carried (unanimously).

Sincerely



Kathleen Gibbins
Clerk



RECEIVED

MAR 03 2000

waste manager



**Western Upper Peninsula
Planning & Development Regional Commission**

P.O. BOX 365 • HOUGHTON, MICHIGAN 49931
906-482-7205 • FAX 906-482-9032 • e-mail: wuppdr@up.net

February 14, 2000

FEB 17 2000

Mr. Matt Staron
Solid Waste Program Section
Waste Management Division
Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909-7741

Dear Matt:

Enclosed is a copy of the recently locally approved Iron County Solid Waste Plan and copies of the resolutions for your review and subsequent action.

Feel free to contact me if you have any questions. Thank you.

Sincerely,

Kim J. Stoker
Planning Director

KJS/mat

Enclosures

RESOLUTION

At its regularly scheduled meeting on Wednesday, October 6, 1999, the CASPIAN CITY COMMISSION Board approved (or disapproved) the Iron County Solid Waste Plan.

I hereby certify this to be a true copy of a resolution passed by the CASPIAN CITY COMMISSION Board on Wednesday, October 6, 1999.



RICHARD L. FRIGETTO

Clerk

City of Crystal Falls

401 Superior Ave.

Crystal Falls, Michigan 49920

Ph.: (906) 875-3212 • Fax: (906) 875-3767

RESOLUTION

WHEREAS, the Iron County Solid Waste Planning Committee in coordination with the Western Upper Peninsula Planning and Development Region have produced the Iron County Solid Waste Management Plan, and

WHEREAS, said plan is a comprehensive approach to managing the County's solid waste and recoverable materials, and

WHEREAS, the Council for the City of Crystal Falls has reviewed and agrees with the contents of said plan,


NOW THEREFORE BE IT RESOLVED, the Council for the City of Crystal Falls supports and approves the implementation of the Iron County Solid Waste Management Plan.

The foregoing resolution was offered at the Monday, October 11, 1999 regular meeting of the Crystal Falls City Council by Councilor SMITHSON, supported by Councilor TOLLEFSON.

AYES: 4
NAYS: 0
ABSTENTIONS: 0
ABSENT: 1

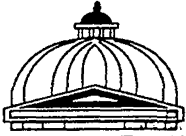
RESOLUTION DECLARED ADOPTED.

I, Dorothea Olson, Clerk of the City of Crystal Falls and of its Council, do hereby affirm that the above is a true and complete copy of a resolution duly presented, supported and approved by said Council at a regular meeting held on October 11, 1999.



Dorothea Olson, Clerk
City of Crystal Falls

"City of Community Pride"



Crystal Falls Township

1384 West US-2 • P.O. Box 329
Crystal Falls, Michigan 49920
(906) 875-3062 • Fax (906) 875-3333

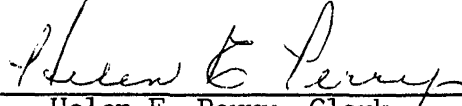
R E S O L U T I O N

At its regularly scheduled meeting on Tuesday, October 12, 1999, the CRYSTAL FALLS TOWNSHIP BOARD, approved the Iron County Solid Waste Plan.

AYES: N. DISHAW, L. KUDWA, D. WIRTANEN, H. PERRY, C. KUDWA

NAYS: NONE

I hereby certify this to be a true copy of a resolution passed by the Crystal Falls Township Board on Tuesday, October 12, 1999.



Helen E. Perry, Clerk

City of Gaastra

P.O. BOX 218
GAASTRA, MICHIGAN 49927
(906) 265-2141

At its regularly scheduled meeting on October 12, 1999, the
GAASTRA Board approved the Iron County
Solid Waste Plan.

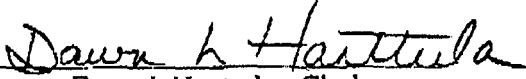
I hereby certify this to be a true copy of a resolution passed by the
GAASTRA Board on October 12, 1999.

Susan Cousin
Clerk

HEMATITE TOWNSHIP
BOX 67
AMASA MI 49903

At its regularly scheduled meeting held on October 11, 1999, the Hematite Township Board approved the Iron County Solid Waste Plan.

I hereby certify this to be a true copy of a resolution passed by the Hematite Township Board on October 11, 1999.


Dawn L. Hanttula - Clerk

Roll Call Vote:

Bonnie Ketola	aye
Carole Kamber	aye
Catherine Gill	aye
Bruce Tusa	aye
Dawn Hanttula	aye

CITY OF IRON RIVER

106 W. GENESEE

IRON RIVER, MICHIGAN 49935

JAN R. HUIZING
CITY MANAGER

TELEPHONE: AREA CODE 906
265 4719
265 4819

RESOLUTION

At a regularly scheduled Iron River City Commission meeting held on Monday, October 4, 1999, the following resolution was adopted on a motion offered by Commissioner Tarsi and supported by Commissioner Perlongo;

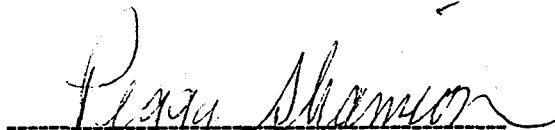
At its regularly scheduled meeting on Monday, October 4, 1999,
The Iron River City Commission approved the Iron County Solid
Waste Plan.

Ayes: 5
Nays: None
Absent: None



Arthur Scheck, Mayor

I, Peggy Shamion, Clerk for the City of Iron River do hereby attest that the above is a resolution adopted by the Iron River City Commission at a regular meeting held on Monday, October, 4, 1999.



Peggy Shamion, City Clerk

IRON RIVER TOWNSHIP

IRON RIVER, MICHIGAN
49928

WUPPDR
P O Box 372
Houghton, MI
February 11, 2000

Dear Sir,

The Iron River Township Board on December 9, 1999 passed the following motion.

Ken Piwarski made a motion, which was seconded Mary Lanning to adopt the Iron County solid waste management plan. A roll call vote was taken Ayes: Spicer, Gibbins, Lanning, Piwarski, and Powell.

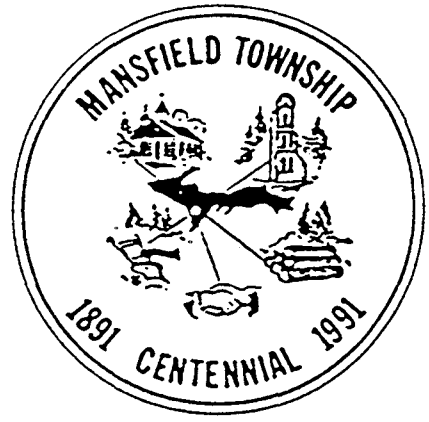
Nays: none Motion carried (unanimously).

Sincerely

Kathleen Gibbins
Kathleen Gibbins
Clerk



MANSFIELD TOWNSHIP



Solid
WASTE
Resolution

At its regularly scheduled meeting on December 15, 1999, the
MANSfield Township Board approved (or disapproved) the Iron County
Solid Waste Plan.

I hereby certify this to be a true copy of a resolution passed by the
MANSfield Township Board on December 15, 1999.

Cornel Boussert

Clerk

Iron County Solid Waste Plan

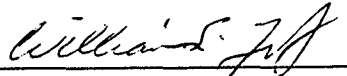
At its regularly scheduled meeting on November 3, 1999, the Stambaugh City Commission approved the Iron County Solid Waste Plan.

Ayes: All.

Nays: None.

Absent: None.

I hereby certify this to be a true copy of a resolution passed by the Stambaugh City Commission on November 3, 1999.



William S. Yost, Clerk



At its regularly scheduled meeting on December 1, 1999, the Stambaugh Township Board approved (or disapproved) the Iron County Solid Waste Plan. approved

I hereby certify this to be a true copy of a resolution passed by the Stambaugh Twp Board on December 1, 1999.

Theresa Baumgartner
Theresa Baumgartner Clerk

IRON COUNTY
SOLID WASTE PUBLIC HEARING/PLANNING COMMITTEE MEETING

Wednesday, September 21, 1999

Iron County Court House
Commissioners Room, Crystal Falls
2:00 PM

Members Present:

Paul Malmquist, County Government
Thomas Korpi, General Public
Rhea Hendershott, General Public
Bob Pliska, Solid Waste Industry
Jim Spicer, Township Government
Robert Johnson, General Public
Arthur Sacheck, City
Kim Stoker, Regional Planning

Members Absent:

Rhea Hendershott, General Public
Chester Kudwa, Solid Waste Industry
Dave Kemppainen, Solid Waste Industry
Nancy Porier, Industrial Generator
Louis Johnson, Environmental Interest
Leo Kiviranta, Environmental Interest

Guests:

Larry Harrington, Iron County Board of Com.
Tom Lesandrini, Iron County Board of Com.
Patti Peretto, Iron County Board of Com.
Jim McCabe, Great American Environmental

Malmquist asked if there were any public comments to be made on the Solid Waste Plan. There being no public comments, it was moved by Lesandrini, supported by Harrington that the public hearing be adjourned. Motion carried.

Malmquist opened the committee meeting.

Stoker said a letter was sent to the members asking them to attend the public hearing. He said Bob Pliska, from Waste Management (owns Superior Waste) was attending the meeting in place of Dean Ulrich. Ulrich was originally the individual representing Waste Management, however, he has since left the company. It is the County Board's responsibility to appoint Pliska to take Ulrich's seat on the Solid Waste Committee. Since there was a quorum of the county board members present at the committee meeting, Malmquist said that action could be taken at this meeting.

Moved by Harrington, supported by Korpi that Bob Pliska replace Dean Ulrich on the Iron County Solid Waste Committee. Motion carried.

PLAN CORRECTIONS

Stoker said he received a letter from Jim Johnson of DEQ outlining the changes which needed to be made to the plan. He distributed only those pages which have corrections or additions.

DEQ said the Plan did not address recycling and composting, and Page II-3a is a new page which shows what Iron County should produce each year based on EPA figures. Because of wood stoves and back-yard incinerators, all waste does not go to the transfer station. The transfer station actually receives approximately 8,000 tons. Approximately 120 tons were recycled in 1998. This included plastics, newsprint, corrugated containers and metals.

Deb Strelecki and Bernie Sacheck spoke on their visit to Gogebic County and Escanaba to look at their composting systems. Malmquist asked if was economically feasible for the County to look into composting and Sacheck said only if it is subsidized by the municipalities. Sacheck said the city of Iron River is willing to put in their share towards composting and he thinks there are grants available for startups. Stoker said on page III-14 of the Plan, it states that Superior Waste is investigating the possibility of starting a composting facility and offering it to the municipalities. A license is not needed, however, an operational plan is required. Stoker said Delta County received over \$1 million for a startup grant for recycling and composting. He said it will be up to Superior Waste to come up with an operational plan to have a controlled access drop off for municipalities under a contract service and to turn the windrows several times per year, a successful operation is possible.

Strelecki said she would look at the regulations. Stoker suggested the first year not be open to the public.

Regarding public education, Stoker said he would also list the Soil Conservation on page III-24.

Stoker said the DEQ will not accept the plan unless there is an enforcement policy in place. He said in previous solid waste plans, he has put DEQ as the enforcement agency, however, this is no longer possible. Without waste flow control in the county, the tonnage figures will drop off, you won't have recycling and composting and an operation like is available now. He said the County can adopt this flow control ordinance when they choose to. Spicer said he believes in competition and this should be brought before each municipality, asking them if they would agree with this ordinance. Stoker said each municipality will receive this plan and will be asked to either approve or disapprove the plan. The plan must be approved by 67% of the municipalities before it is considered a locally approved County plan. Sacheck said he doesn't see how we are stifling competition because someone could come in and build a landfill. Incinerators are not allowed. Stoker said a letter could be included with the Plan to the municipalities stating the County wants to know whether they want an ordinance adopted.

Stoker said of all the changes made to the plan, the most important change is that the County has the ability and will be the enforcement mechanism.


APPROVAL TO SEND PLAN TO THE COUNTY

Moved by Spicer, supported by Johnson that the Plan be forwarded to the Iron County Board of Commissioners for their approval and then sent to the municipalities. Motion carried.

*

ADJOURNMENT

Moved by Spicer, supported by Scheck that the meeting adjourn. Motion carried.



Kim J. Stoker

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September 21, 1999

Single: \$ 204.77, Couple: \$430.16, and Family: \$951.71. Should at any time the required premiums exceed the above, the increased cost will be shared with the County paying 40% and the employee paying 60%.

Increase over "exp" will be borne 60% by employees, and 40% by County.

Roll Call Vote: AYES: Korpi, Lesandri, Pareto, Malmquist, Saigh, Harrington
 NAYS: None Motion carried

1998 County Deficit Reduction Plan adopted.

Pareto made a motion, which was seconded by Saigh, adopting the County 1998 Deficit Reduction Plan. The auditors have found that six funds are in deficit, which is in violation of Public Act 275. A plan to reduce the deficit has to be submitted to the State. The funds affected are as follows:

Law Library Fund: \$671.00 (A transfer of \$3,000 had been done at the January 24, 1999 meeting to cover this deficit.)Cape Grant: \$7,826.00 (A difference in the fiscal year for the State and the County brought about this problem. As of this date, the funds have been received.)Data Fund: \$6,800.00 (Same as above)Family Independence Agency: \$4,182.00 (As of today, the fund is no longer in deficit.)Medical Care Facility Building: \$9,677.00 (Project has been completed and no longer is deficit.)Youth Camp Fund: \$32,432.00 (This amount is an accounts receivable due to a loan taken from the BDC/RLF fund. The loan is current.)

Roll Call Vote: AYES: Pareto, Saigh, Lesandri, Korpi, Malmquist, Harrington
 NAYS: None Motion carried

Joe Pittman appointed to IFA for three year term.

Korpi made a motion, which was seconded by Malmquist, to appoint Joseph Pittman to the Iron County Family Independence Agency Board for a three year term beginning November 1, 1999. There were no other applicants. On Voice Vote, the motion carried.

Policy adopted stated that only County will receive money for issuing dog licenses.

Due to P.A. 390 of 1998, which amends the "Dog Law of 1919", Malmquist made a motion, which was seconded by Lesandri, adopting the policy that the County of Iron agrees to perform the responsibility of issuing dog licenses and tags and collecting the accompanying fee. The cities and townships may also issue licenses, but would receive none of the revenue. On Voice Vote, the motion carried. Malmquist made a motion, which was seconded by Saigh, to adopt the following: \$10.00 for a set of kennel (10 page) tags, \$4.00 dog/cat surrender fee (owner picks up), \$10.00 dog/cat surrender fee (Animal Control Officer picks up), \$4.00 for boarding one dog or one cat per day, \$6.00 boarding two dogs per day, and \$4.00 board impounded dog or cat per day. The \$25.00 minimum adoption fee still stands. On Voice Vote, the motion carried.

Balanced budget budget fees adopted.

Lesandri made a motion, which was seconded by Pareto, accepting the resignation of John Lovato from the Road Commission Board. On Voice Vote, the motion carried. This position expires December of the year 2000. Malmquist made a motion, which was seconded by Saigh, to advertise for interested persons to fill the above vacancy. Letters of interest will be accepted until October 2nd, and will be read upon the next regular meeting, tentatively set for October 12th. On Voice Vote, the motion carried.

Resignation of John Lovato from Road Commission accepted.

October 2nd will be the last day for interested persons to apply for remainder of term.

Karla Parrot, Administrator of the Iron County Conservation District, reported that the audit of the county's program, done on September 8th by the Land and Water Management Division of the Soil Erosion and Sedimentation Control had been given an "Acceptable" rating. This is the highest rating possible. Kevin Swanson, of DEQ, had many positive comments regarding this program that Karla is running. Karla noted 40 permits had been issued this season. The board commended her on a job well done.

Karla Parrot receives high rating for Iron County Conservation Program.

Malmquist made a motion, which was seconded by Korpi, officially approving the recommendation of the Iron County Solid Waste Committee, by approving the draft of the Iron County Solid Waste Management Plan. This now will be forwarded by WUPPDR to the local municipalities for their approval.

Draft of Iron County Solid Waste Management Plan approved. Needs to be sent to locals.

Roll Call Vote: AYES: Malmquist, Korpi, Pareto, Saigh, Lesandri, Harrington
 NAYS: None Motion carried

Eric Swiberg approved for working under COPPS.

Saigh made a motion, which was seconded by Malmquist, approving the Sheriff's hiring of Eric Swiberg under the COPPS grant. On Voice Vote, the motion carried. Korpi made a motion, seconded by Malmquist, to accept all other reports. On Voice Vote, the motion carried. The first regular and audit meeting was set for October 12th, with a Public Hearing at 2:45 p.m., with the meeting at 3:00 p.m., and the second meeting on October 26th, starting at 7:00 p.m. Korpi made a motion, seconded by Lesandri, to adjourn the meeting. On Voice Vote, the motion carried. It was 3:58 PM.

Future meetings set for 10/12 and 10/26.

Chairman Larry Harrington

County Clerk Joann Luhtanen

Post-It® Fax Note	7671	Date	2-24-00	# of pages	1
To	Matt Stara	From	Kim Stara		
Co./Dept.	DEQ	Co.	WUPPDR		
Phone #	517-373-4741	Phone #	406-482-7205		
Fax #	517-373-4797	Fax #			

Affidavit of Publication

State of Michigan

PUBLIC NOTICE

WESTERN U.P. PLANNING and DEVELOPMENT REGION

Marian E. Nelson

Marian Nelson, being duly sworn, says that she is Editor of the *Iron County Reporter*, a newspaper published and circulated in said county and otherwise qualified according to Supreme Court Rule; that annexed hereto is a printed copy of a notice which was published in said newspaper on the following date, or dates, to-wit: **June 16, 1999**
Subscribed and sworn before me on this **16th day of June 1999**.

M. Joyce Myefski

M. Joyce Myefski

Notary Public

Iron County, Michigan

My commission expires 3/29/2003

PUBLIC NOTICE

The preliminary draft of the Iron County Solid Waste Management Plan has been released by the Solid Waste Planning Committee for the required 90 day public comment period. The Plan is available at the following locations: Iron County Courthouse-County Board of Commissioner's Office, 2 S. 6th Street, Crystal Falls, Michigan 49920 and the Western U.P. Planning and Development Region, 326 Sheldon Avenue, Houghton, Michigan 49931. Written comments may be submitted to: WUPPDR, P.O. Box 365, Houghton, MI 49931 through September 14, 1999.