



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



DAN WYANT  
DIRECTOR

December 2, 2013

Mr. John E. Pelkola, Chairperson  
Ontonagon County Board of Commissioners  
725 Greenland Road  
Ontonagon, Michigan 49953

Dear Mr. Pelkola:

The locally approved amendment to the Ontonagon County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on August 29, 2013, is hereby approved with modifications. The Plan Amendment required some modifications that were sent to the Ontonagon County Designated Planning Agency Contact, Mr. Kim J. Stoker on October 4, 2013. The approval of the modifications was received from Ontonagon County on October 21, 2013.

The following were modifications that were made to the Plan Amendment:

- [The amendment to page 21, Table 1-A](#), Current Import Volume Authorization of Solid Waste, identified the following counties in the table: Baraga, Gogebic, Houghton, Iron, and Keweenaw. The Amendment did not state any "Authorized Condition" however; it is our understanding that it was the County's intent to authorize these counties for primary disposal. Therefore, the Amendment shall include a "P" for each of these counties under the Authorized Condition column in the Table. This modification also applies to [page 22, Table 1-B](#), Future Import Volume Authorization of Solid Waste Contingent on New Facilities Being Sited, in the amendment.
- Further, the County did not include any contingency disposal options in [Table 1-A](#). Therefore, the following counties shall be included for contingency disposal: Alger, Delta, Marquette, and Schoolcraft. Furthermore, the Amendment shall include a "C" for each of these counties under the Authorized Condition column in the Table. This modification also applies to the amendment to [page 22, Table 1-B](#), Future Import Volume Authorization of Solid Waste Contingent on New Facilities Being Sited, in the amendment.

Upon approval by the DEQ, the Plan Amendment makes the following changes in addition to the modifications listed above:

- Adds a facility description for Ever-Green Landfill & Recycling Center, LLC.
- Adds Ever-Green Landfill & Recycling Center, LLC as a Type III Solid Waste Disposal Area in the County.

- Adds Ever-Green Landfill and Recycling Center, LLC (Ever-Green) as a facility that is deemed automatically consistent with the Plan for any new or amended permitting at the landfill.
- Changes all references in the Plan from Smurfit Stone Container to Ever-Green Landfill and Recycling Center, LLC.

The DEQ would like to thank Ontonagon 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 517-284-6591; oyerr@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,



Elizabeth M. Browne, Chief  
Office of Waste Management and  
Radiological Protection  
517-284-6551

cc: Senator Tom Casperson  
Representative Scott Dianda  
Mr. Kim Stoker, Western Upper Peninsula Planning & Development Commission  
Mr. Pat Tucker, Ever-Green  
Mr. Dan Wyant, Director, DEQ  
Mr. Jim Sygo, Deputy Director, DEQ  
Ms. Maggie Datema, Legislative Affairs, DEQ  
Mr. Phil Roycraft/Ms. Carolyn St Cyr, DEQ  
Ms. Rhonda S. Oyer, DEQ  
Mr. Steve Sliver/Ms. Christina Miller, DEQ\Ontonagon County File

**Ontonagon County**  
**Board of Commissioners**  
Courthouse, 725 Greenland Road  
Ontonagon, MI 49953  
Telephone (906) 884-4255  
Fax (906) 884-6796

**Chairperson**

John E. Pelkola

**Vice Chairperson**

Dale Parent

**Commissioners**

Hubert J. Lukkari

Dennis H. O'Brien

Carl R. Nykanen

October 16, 2013

Christina Miller  
Sustainable Materials Management Unit  
Solid Waste Section  
Office of Waste Management and Radiology Protection  
Department of Environmental Quality  
Constitution Hall  
525 West Allegan Street  
P.O. Box 30473  
Lansing, MI 48909-7973

Dear Ms. Miller

As a follow up to your letter dated October 4, 2013, the Ontonagon County Board of Commissioners respectfully requests the DEQ to issue your approval of the Ontonagon County Solid Waste Management Plan Amendment.

Ontonagon County Board of Commissioners met in regular session on October 15, 2013 and reviewed the recommended modifications to the Ontonagon County Solid Waste Management Plan Amendment. The Board of Commissioners concurred with your recommendation of approving the modifications as follows:

- Amendment to page 21, Table 1-A, Current Import Volume Authorization of Solid Waste, identified the following counties in the table: Baraga, Gogebic, Houghton, Iron, and Keweenaw. The Amendment did not state any "Authorized Condition" however; it was the County's intent to authorize these counties for primary disposal. Therefore, the Amendment should indicate a "P" for each of these counties under Authorized Condition column in the Table. This modification also applies to page 22, Table 1-B, Future Import Volume Authorization of Solid Waste Contingent on New Facilities Being Sited, in the amendment.
- It was an oversight by the County not to include any contingency disposal options in Table 1-A. Therefore, the following counties should have been included for contingency disposal: Alger, Delta, Marquette, and Schoolcraft. Furthermore, the Amendment should include a "C" for each of these counties under the Authorized Condition column in the Table. This modification also applies to the amendment to page 22, Table 1-B, Future Import Volume Authorization of Solid Waste Contingent on New Facilities Being Sited, in the amendment.

RECEIVED

OCT 21 2013

DEQ-RMD

Thank you for your attention to this request. If there is anything further you require please contact Kim J. Stoker, Executive Director of the Western U.P. Planning and Development Region (WUPPDR) at 906-482-7205, ext. 316 or by email at [kstoker@wuppdr.org](mailto:kstoker@wuppdr.org).

Sincerely,

A handwritten signature in cursive script that reads "John Pelkola". The signature is written in black ink and is positioned above the typed name.

John Pelkola, Chair  
Board of Commissioners  
Ontonagon County

Enc: Copy 10/15/2013 Board Minutes

Cc: Kim J. Stoker, Executive Director, WUPPDR



**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

August 28, 2013

Ms. Christina Miller  
Solid Waste Planning, Reporting and Surcharge Coordinator  
Office of Waste Management and Radiological Protection  
Department of Environmental Quality, Constitution Hall, Atrium North  
525 West Allegan  
Lansing, MI 48933

RE: Ontonagon County Solid Waste Management Plan Amendment  
Ever-Green Landfill & Recycling Center LLC

Dear Ms. Miller,

This is a synopsis of the amendment to the 1997 Ontonagon County Solid Waste Management Plan (hereinafter referred to as The Plan). The Plan is being amended to allow for waste from the five surrounding counties (Baraga, Gogebic, Houghton, Iron and Keweenaw) to be imported and deposited at Ever-Green Landfill and Recycling Center, LLC (hereinafter referred to as Ever-Green Landfill) or any subsequently permitted and licensed landfill in the county.

**Attachment 1:** letter dated December 7, 2012 from Ever-Green Landfill (Patrick Tucker) addressed to Kim J. Stoker. Question as to whether the acquisition and operation of the former Smurfit Stone landfill by his company is consistent with the Plan. Ever-Green Landfill would operate as a Type III landfill. After review of the Plan and correspondence, Tucker believes all of their proposed activities are consistent.

**Attachment 2:** letter dated December 28, 2012 from DEQ (Phil Roycraft, P.E., District Supervisor, Office of Waste Management & Radiological Protection) regarding Ever-Green Landfill; Operating License Application, Technical Review; Waste Data System Number 478636. Application is found to be technically deficient in three areas: 1) "Final Cell Layout" requested, 2) five additional monitoring wells need to be installed in the uppermost aquifer, as well as one additional upgradient well. If a different method is chosen for evaluating well data, an appropriate number of background samples must be collected. 3) In order for a disposal area to serve the needs of another county.....the service.... must be explicitly authorized in the approved Solid Waste Management Plan of the receiving county. DEQ requests the Final Cell Layout Plan and Monitoring Well Work Plan be submitted by January 31, 2013.

**Attachment 3:** email dated January 8, 2013 from Eugene Fiszer, Ontonagon County Clerk, Mary Taddeucci, WUPPDR Administrative Assistant, stating the County Board of Commissioners approved the Brownfield Committee (aka Ontonagon County Solid Waste Committee) Membership attached.

RECEIVED  
AUG 29 2013  
DEQ-RMD

Ms. Christina Miller  
August 28, 2013  
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**Attachment 4:** email dated January 9, 2013 from Mary Taddeucci, WUPPDR Administrative Assistant, contacting the Ontonagon County Solid Waste Planning Committee to schedule the first committee meeting. (Meeting date is set for January 30, 2013 – see Attachment 8, January 30, 2013 draft minutes).

**Attachment 5:** letter dated January 21, 2013 from Charles E. Barbieri of Foster, Swift, Collins & Smith PC, Attorneys on behalf of Ever-Green Landfill to Kim Stoker regarding the Amendment to the Plan. The changes would allow wastes to be imported from several nearby counties and deposited at Ever-Green Landfill or any subsequently permitted and licensed landfill in the County. The letter outlines four specific changes and 2013 amendments to the Ontonagon County Solid Waste Management Plan.

**Attachment 6:** letter dated January 30, 2013 from Charles E. Barbieri, Foster Swift Collins & Smith PC Attorneys for Ever-Green Landfill to Kim Stoker. This letter revises the January 21, 2013 letter and includes the amendments (6) to the Plan.

**Attachment 7:** Agenda for the first meeting of the Ontonagon County Solid Waste Planning Committee, scheduled for January 30, 2013 and Attendance Sheet.

**Attachment 8:** January 30, 2013 draft minutes and revised pages in the Plan and Attendance Sheet. After discussion, the committee approves the proposed changes to the plan.

#1: Pages 13, 21, 22, 25, 27 are revised;

#2: Page 44, 1<sup>st</sup> paragraph, Siting Criteria will state “The following process describes the criteria and procedures to be used to site all solid waste disposal areas and determine consistency with this Plan, except any new or amended permit of Ever-Green Landfill and Recycling, as approved by DEQ, shall be deemed consistent with the Plan;

#3: All references to Smurfit Stone Container are hereby changed to Ever-Green Landfill & Recycling Center, LLC.

The committee also approves the 90 day Public Comment period be posted.

**Attachment 9:** letter dated February 1, 2013 to the Ontonagon Herald (Ontonagon County’s weekly newspaper) to post the Public Review Period notice in the Wednesday, February 6, 2013 edition. Comment period ends May 7, 2013. Letter, notice and original affidavit attached.

**Attachment 10:** letter dated February 5, 2013 from Kim Stoker to the Ontonagon County municipalities and the Ontonagon County Clerk, along with a copy of the 1999 Solid Waste Plan, the proposed changes to the Plan and a copy of the Public Review Period Notice.

**Attachment 11:** letter and email dated March 11, 2013 from Kim Stoker to Ontonagon County Solid Waste Planning Committee. Includes cover letter showing comments/changes made by Christina Miller, DEQ, January 30, 2013 minutes and draft Public Hearing Notice. Changes to be made as follows:

Page 7, last paragraph, 2<sup>nd</sup> sentence, reads "Tucker said initially the *licenses* were 600 acres...". Miller said "This is probably *permits*, but I don't know what he actually said. A permit identifies where a cell can be built. A license gives them permission to dispose of waste in that cell". The word "licenses" will have to be amended. Page 8, 4<sup>th</sup> paragraph down, first two lines read "*Strong said regarding Amendment #6, if we don't do it, you are approved for Type III, but if you go with Type II, its already considered consistent for C & D. If we don't do this, we have to go through the steps.* Miller said the underlined portion is incorrect. *A C & D landfill is permitted as a Type II landfill, not a Type II.* This portion would need amending.

**Attachment 12:** letter dated March 26, 2013 to Ontonagon Herald to publish Notice of Public Hearing in the Wednesday, April 3, 2013 issue of the Ontonagon Herald. The Hearing is to be held on Thursday, May 9, 2013 at the Ontonagon County Courthouse. Original affidavit attached.

**Attachment 13:** email/letter dated March 27, 2013 from Kim Stoker to the Ontonagon County Solid Waste Planning Committee stating a Public Hearing will be held at the Ontonagon County Courthouse on May 9, 2013 to receive comments on the proposed Amendment to the Ontonagon County Solid Waste Management Plan.

The letter also states the Planning Committee will meet on Tuesday, May 14, 2013 to finalize the amendment to the Solid Waste Management Plan.

**Attachment 14:** letter dated April 9, 2013 from Kim Stoker to Planning Committee to reschedule the Planning committee meeting to Thursday, May 9, 2013, same day as the Public Hearing.

**Attachment 15:** letter dated May 1, 2013, to the Ontonagon County Solid Waste Management Planning Committee, c/o Ontonagon County Clerk's office and received from Ontonagon County Clerk on May 9, 2013. The letter was presented at Planning Committee meeting. Letter was from Jeffrey L. Woolstrom, of Honigman, Miller, Schwartz and Cohn LLP, Attorneys and Counselors, on behalf of the Michigan Waste Industries Association (MWIA), regarding proposed Plan amendment. Letter stated MWIA is opposed to the proposed amendment to the Plan because of serious concerns.

**Attachment 16:** letter dated May 7, 2013 from Charles E. Barbieri of Foster, Swift, Collins & Smith PC Attorneys, on behalf of Ever-Green Landfill in response to comments made by Michigan Waste Industries Association. They disagree with these comments.

Ms. Christina Miller  
August 28, 2013  
Page 4 of 4

**Attachment 17:** May 9, 2009 public hearing comments and public hearing attendance sheet.

**Attachment 17A:** minutes of the May 9, 2013 Ontonagon County Solid Waste Planning Committee. The committee accepts the amendment to the Ontonagon County Solid Waste Management Plan; Motion carried. 2 – Nays; 1 - abstain.

**Attachment 18:** Email dated May 17, 2013, from Sue Harter to Eugene Fiszer, Ontonagon County Clerk and Letter, dated May 17, 2013, from Kim Stoker to the Ontonagon County Board of Commissioners, stating the Solid Waste Planning Committee held a Public Hearing on May 9th and that a motion was made to accept the amendment to the Ontonagon County Solid Waste Management Plan as drafted. The letter asked for the County Board to approve the Plan amendments as presented to them to send out to the County municipalities for their approval/rejection.

**Attachment 19:** letter dated July 11, 2013 from the Ontonagon County Clerk to Mary Taddeucci, WUPPDR Administrative Assistant, along with the official board minutes of the May 21, 2013 Board of Commissioners meeting. The minutes show that on page 122 of the Solid Waste Plan, the amendments to the Ontonagon County Solid Waste Plan were approved.

**Attachment 20:** letter dated May 24, 2013 from Kim Stoker to all Ontonagon County municipalities (12): Village of Ontonagon, Townships of Bergland, Bohemia, Carp Lake, Greenland, Haight, Interior, Matchwood, McMillan, Ontonagon, Rockland and Stannard, requesting each Council/Board take action at their June meeting to either approve or disapprove the Amendment to The Plan.

**Attachment 21:** Resolutions of Support. A minimum of 67% approval is required in order for the amendment to be approved. Of the 12 municipalities, resolutions are received from 10. This gives an 83% approval rate.

Sincerely,

  
Kim J. Stoker  
Executive Director

Attachments

cc: John Pelkola, Chairman, Ontonagon County Board of Commissioners  
Stacey Preiss, Clerk, Ontonagon County  
Patrick Tucker, Ever-Green Landfill & Recycling Center, LLC



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

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

TO: Ontonagon County Board of Commissioners

FROM: Kim J. Stoker, *KJS*  
WUPPDR Executive Director & Solid Waste Committee Chair

Re: Amendment of the Ontonagon County Solid Waste Management Plan

DATE: May 17, 2013

Dear Commissioners:

The Ontonagon County Solid Waste Planning Committee held a Public Hearing on May 9, 2013 at the Ontonagon County Courthouse beginning at 4:00 EST. A quorum of the Planning Committee was present at the Public Hearing to listen to public comments and after the hearing was closed a committee meeting was called to order.

After much discussion and considering the public comments a motion was made to accept the amendments to the Ontonagon Solid Waste Management Plan as drafted (see attached).

The next step in the approval process is for the County Board of Commissioners to approve the Plan amendments as presented to them by the Solid Waste Committee to send out to your municipalities for their approval/rejection. The Plan must be approved by no less than sixty-seven percent (67%) of your municipalities of which there are twelve (12) so it must be approved by a minimum of nine (9). If 67% approve the amendment, the Plan will then be sent to the MDNR for their approval. I am also attaching the Amendment Flow Chart for your review should you have any questions.

Thank you for your time and consideration in this matter.

Attachments

January 30, 2013

**2013 Proposed AMENDMENTS TO ONTONAGON COUNTY SOLID WASTE PLAN**

1. Replace page 13 as shown in attachment.
2. Replace page 21 as shown in attachment.
3. Replace page 22 as shown in attachment.
4. Replace page 25 as shown in attachment.
5. Replace page 27 as shown in attachment.
6. Amend first paragraph below SITING CRITERIA AND PROCESS on page 44 to state:

The following process describes the criteria and procedures to be used to site all solid waste disposal areas and determine consistency with this Plan, except any new or amended permitting of Ever-Green Landfill & Recycling Center, LLC as approved by DEQ shall be deemed consistent with the Plan.

7. All references to Smurfit Stone Container are hereby changed to Ever-Green Landfill & Recycling Center, LLC.

**DATA BASE**

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill Type III (Low Hazard Industrial Waste), Type II (when permitted and licensed)

Facility Name: Ever-Green Landfill & Recycling Center, LLC

County: \_\_\_\_\_ Location: Town: 51N Range: 39W Section(s): 24

Map identifying location included in Attachment Section:  Yes  No

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

Public  Private Owner:

Operating Status (check)

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

Waste Types Received (check all that apply)

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

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

\*\* Licensed for Low Hazard Industrial Waste; see page 44

Site Size:

Total area of facility property:	1252.89	acres
Total area sited for use:	<u>260</u>	acres
Total area permitted:	<u>260</u>	acres
Operating:	<u>176</u>	acres *
Not excavated:	<u>84</u>	acres
Current capacity:	588,006	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup> **
Estimated lifetime:	_____	years
Estimated days open per year:	_____	days
Estimated yearly disposal volume:	_____	<input type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects:	_____	megawatts
Waste-to-energy incinerators:	_____	megawatts

\* This acreage reflects Active Type III not a final grade.

\*\* See page 44

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 <sup>1</sup>	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
<u>Ontonagon</u>	<u>Baraga</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Gogebic</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Houghton</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Iron</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Keweenaw</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



RETURN TO  
AMENDMENT  
LETTER

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

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

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 <sup>1</sup>	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
<u>Ontonagon</u>	<u>Baraga</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Gogebic</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Houghton</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Iron</u>	_____	_____	_____	_____
<u>Ontonagon</u>	<u>Keweenaw</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



RETRUN TO  
AMENDMENT  
LETTER

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

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

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

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 A Transfer Facility:

-

-

Type B Transfer Facility:

-

-

Type III Landfill:

Ever-Green Landfill & Recycling Center, LLC

-

Processing Plant:

Incinerator:

-

Waste Piles:

Waste-to-Energy Incinerator:

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 AttachmentsSection.

\*See page 44

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Sanitary Landfill Type III (Low Hazard Industrial Waste),  
Facility Type: Type II (when permitted and licensed)  
Facility Name: Ever-Green Landfill & Recycling Center, LLC  
County: \_\_\_\_\_ Location: Town: 51N Range: 39W Section(s): 24

Map identifying location included in Attachment Section:  Yes  No

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

Public  Private Owner: \_\_\_\_\_

Operating Status (check)

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

Waste Types Received (check all that apply)

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

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

\*\* Licensed for Low Hazard Industrial Waste; see page 44

Site Size:

Total area of facility property:	1252.89	acres
Total area sited for use:	<u>260</u>	acres
Total area permitted:	<u>260</u>	acres
Operating:	<u>176</u>	acres *
Not excavated:	<u>84</u>	acres
Current capacity:	588,006	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup> **
Estimated lifetime:	_____	years
Estimated days open per year:	_____	days
Estimated yearly disposal volume:	_____	<input type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:

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

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

\* This acreage reflects Active Type III not a final grade.

\*\* See page 44.



JOHN ENGLER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



RUSSELL J. HARDING  
DIRECTOR

April 18, 2002

Ms. Joan Antila, Chairperson  
Ontonagon County Board of Commissioners  
725 Greenland Road  
Ontonagon, Michigan 49953

Dear Ms. Antila:

The Ontonagon County Solid Waste Management Plan Update (Plan) was locally disapproved on December 13, 2000. In accordance with Section 11536(6) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Part 115 administrative rules, the Department of Environmental Quality (DEQ) assumed Plan preparation on March 20, 2000.

The Plan, as written by the DEQ, adequately meets the solid waste disposal needs of the County for the next five-year period. Further, by your letter dated November 9, 2001, the Ontonagon County Board of Commissioners has been identified as the responsible entity to take legal action to guarantee compliance with the Plan, as required by Part 115. Therefore, the Plan is hereby approved and issued to the County.

If you have any questions, please contact Ms. Rhonda Oyer Zimmerman, Chief, Solid Waste Management Unit, Waste Management Division, at 517-373-4750.

Sincerely,

Russell J. Harding  
Director  
517-373-7917

cc: Senator Donald Koivisto  
Representative Rich Brown  
Mr. Arthur R. Nash Jr., Deputy Director, DEQ  
Mr. Thomas M. Hickson, Legislative Liaison, DEQ  
Mr. Jim Sygo, DEQ  
Ms. Joan Peck, DEQ  
Mr. Robert Schmeling, DEQ – Marquette  
Ms. Rhonda Oyer Zimmerman, DEQ  
Ms. Christina Miller, DEQ  
Ontonagon County File

## **Michigan Department of Environmental Quality Waste Management Division**

### **Public Responsiveness Summary for the Ontonagon County Solid Waste Management Plan Update**

[Public comment period October 15, 2001 through November 13, 2001]

The Ontonagon County (County) Solid Waste Management Plan Update (Plan) was locally disapproved on December 13, 1999. The Department of Environmental Quality (DEQ) assumed plan preparation on March 20, 2000.

As part of the process of preparing the Plan for final approval, the DEQ made copies of the draft Plan available to the public, industry, and representatives of local government bodies in the County for review. A thirty-day period in which written, e-mailed, faxed, and/or telephoned comments on the Plan could be presented to the DEQ was instituted from October 15, 2001 through November 13, 2001. This included a public meeting held on Tuesday, October 30, 2001, at 7:00 p.m., at the County Court House, Circuit Court Room, 725 Greenland Road, Ontonagon, Michigan. The public comment period and the public meeting were announced in the DEQ Calendar and the Ontonagon Herald. In addition, letters were sent to the County and municipal governments notifying them of the comment period and the public meeting.

This document summarizes the comments and questions related to the Plan and Planning Process, submitted to the DEQ by citizens, representatives of local governments, and industry living and/or working in the County concerning the Plan, as well as, the DEQ's response to these concerns.

The following people were present at the meeting:

Rhonda Oyer Zimmerman, DEQ  
Rob Schmeling, DEQ – Marquette  
Christina Miller, DEQ  
Lynn Dumroese, DEQ  
Joe Moskwa, Ontonagon County Commissioner  
Meredith Strong, Smurfit-Stone Container Corp.  
Kim J. Stoker, Western Upper Peninsula Planning and Development Region (WUPPDR)  
James R. Richardson, Citizen  
Dave Anderson, Flintsteel Restoration Association  
Jay S. Finch, Prosecuting Attorney, Ontonagon County  
Gerald F. Light, Citizen  
John F. Robinson, Citizen  
Bob Pliska, Waste Management, Inc.  
Joan Antila, Ontonagon County Commissioner, Chair  
Hubert Lukkari, Ontonagon County Commissioner  
Scott Robbins, Ontonagon Planning Commission  
Rick Miskovich, Ontonagon Planning Commission  
David Kempainen, K & W Landfill  
James K. Bradley, Ontonagon Planning Commission  
Louis Paulman, Ontonagon County Commissioner  
Linda Graham, WUPY-Y101 FM Radio  
Jan Tucker, Ironwood Globe/W MPL Radio  
Bruce Johanson, Ontonagon Herald  
Roy Campbell, Citizen  
Ginger Davis, Daily Mining Gazette  
John Polkola, Ontonagon County Commissioner

Comment: Concerns were expressed regarding volume limits, out-of-state waste imports, and the opening of the import/export authorizations to the entire Upper Peninsula, and it was stated that the County would like to limit the importation and exportation authorizations to reflect those contained in the County's original draft Plan. Some individuals were concerned about waste leaving the County and the economic effects it may have on the K & W Landfill (Landfill). Others were concerned that too much waste may be disposed of at the Landfill, which could cause the Landfill to run out of space and require the County to site another landfill.

DEQ Response: In 1992, the United States Supreme Court ruled, in the matter of *Fort Gratiot Sanitary Landfill v. Michigan Department of Natural Resources et al.*, that provisions of Michigan's law that permitted counties to restrict imports from other states and countries violated a provision of the United States Constitution known as the Commerce Clause. The Commerce Clause reserves to the United State Congress (Congress), and, therefore, not to states, the power to regulate commerce between states and with other countries. Since Congress has never given the states authority to control imports of solid waste, as a result of this decision, Michigan and other states have been unable to restrict waste imports from other states and countries.

The DEQ opened up the importation and exportation of waste to the entire Upper Peninsula for several reasons. The DEQ believes, where appropriate, Plans should use a regional approach to solid waste management. With the remoteness and low population levels in the Upper Peninsula, volume limits could hinder the Landfill operation and force their operation to close down, this, in turn, may cause higher disposal rates to the counties they service because of transportation costs. Additionally, the DEQ is preparing the Alger, Baraga, and Keweenaw County Solid Waste Management Plans because the import/export authorizations for these Solid Waste Management Plans are open to the entire Upper Peninsula, the DEQ felt it was important to remain consistent. However, the Ontonagon County Board of Commissioners (BOC) agreed to take responsibility for implementing and enforcing the Plan if the Plan was changed to reflect the original waste import/export authorizations contained in the BOC draft Plan. Therefore, WMD staff has re-evaluated the import/export authorizations and is recommending that the final Plan contain import/export authorizations consistent with the original draft Plan as approved by the BOC.

Comment: It was requested that the DEQ be the responsible party for enforcement and implementation of the Plan.

DEQ Response: As stated previously, the BOC has agreed to take responsibility for implementing and enforcing the Plan. Also, the legislative intent of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451 (NREPA), as amended, was to have the County be the responsible party for the Plan. Further, it is not feasible for the DEQ to also be the enforcing body because the DEQ oversees the preparation of all county Solid Waste Management Plans and reviews of these Plans for compliance with Part 115. For these reasons, the DEQ will not be the responsible party for enforcement and implementation of the Plan. The final Plan will identify the BOC as the party responsible for enforcement and implementation of the Plan.

Comment: It was asked that wording be added to the Plan to indicate that industrial landfill facilities may be found consistent with the Plan and that they would not be restricted by the 66-month capacity review for municipal use.

DEQ Response: The siting criteria in the Plan allows for all disposal facility types to be sited, except for an incinerator. The DEQ feels that all facilities should be required to meet the siting criteria in order to be sited. Per Section 11537(a) of Part 115, if the County is able to demonstrate at least 66 months of available disposal capacity, it is the County's decision whether or not to allow a landfill to be sited. Therefore, no changes will be made to the Plan concerning siting of facilities.

Comment: A suggestion was made to change the siting criteria to require the negotiation of a host community agreement.

DEQ Response: The DEQ does not prohibit the negotiation of host community agreements within a solid waste management plan. However, Part 115 contains no authority for host community agreements, and a landfill cannot be forced into negotiating a host community agreement. Therefore, this change was not included in the Plan.

Comment: A concern was stated about monitoring the disposal of hazardous waste and having the Plan include penalties if a facility were to accept hazardous waste materials. Additional concerns regarding inspecting the operation at the Landfill were also raised.

DEQ Response: The DEQ, Marquette District Office is responsible for monitoring all disposal sites within their district. This includes a minimum of quarterly inspections at the Landfill, some of which are conducted at random. During these inspections, district staff reviews the waste acceptance policy at the Landfill, inspections of random suspicious loadings, and operating records. The Landfill has been in compliance with Part 115 for the last five years. Also, penalties for hazardous waste violations are already addressed in Part 111, Hazardous Waste Management, of the NREPA and Part 115. Therefore, inspection penalties are already covered by statute and will not be specified within the Plan.

Comment: Suggestion to increase recycling efforts and programs in the Plan.

DEQ Response: The DEQ supports and encourages implementing resource conservation efforts. However, due to the Headlee Amendment, Article IX, Section 6 and Sections 25-31 of the Michigan Constitution, the DEQ cannot impose a law on a local unit of government without providing funding for the program. Also, the rural nature of the County and the low population spread hinder the establishment of a comprehensive, economically viable recycling program other than what the County offers on a limited basis. Therefore, only existing programs were referenced in the Plan.

Comment: A question was asked about what would happen if the BOC does not accept responsibility for implementing and enforcing the Plan.

DEQ Response: The following options would be available to resolve this issue:

- ◆ The DEQ would work with the County to resolve issues of concern, and then the BOC would accept responsibility for implementing and enforcing the Plan.
- ◆ The DEQ would find another governmental entity within the County that is willing to accept responsibility for implementing and enforcing the Plan.
- ◆ If this issue cannot be resolved with either of the previous options, the DEQ would issue a self-implementing Plan. The Plan would be designed so that there would be no reason to implement or enforce issues within the County.

However, by letter dated November 9, 2001, from Joan Antila, the BOC has accepted responsibility for implementing and enforcing the Plan; therefore, this is not an issue.

Comment: Written comments were received regarding the Smurfit-Stone Container Type III Landfill.

DEQ Response: The following changes were made to address these comments: The facility descriptions for the Smurfit-Stone Container Landfill, on pages 13 and 27, were changed to state that the facility is licensed for low-hazard, high-volume industrial waste and that the facility

has a construction permit. A correction to page 20, paragraph 3, was made that states, "The Smurfit-Stone Container operates a Type III low hazard – high volume industrial waste disposal area which serves only the Ontonagon Mill's waste disposal needs..." On page 28, the SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE SECTION, will be changed to state, "All municipal waste that is collected in the County is disposed of at the K & W Landfill located in Greenland Township. Low hazard – high volume industrial wastes are transported by the generator to privately owned facilities."

Comment: A comment was made that the Plan no longer contained verbiage for a disposal contingency plan as initially developed. It was asked that a disposal contingency plan be reinstated in the Plan as an alternative disposal option in the event of an unexpected disruption of municipal disposal services.

DEQ Response: The disposal contingency plan was removed from this Plan because it is unnecessary if the entire Upper Peninsula is authorized for importation and exportation of waste. However, because the Plan will be changed to reflect the original waste import/export authorizations contained in the draft Plan, the contingency plan will be reinstated.

Comment: A concern was expressed about what type of landfill screening can be regulated by a local ordinance. A definition of "screening" was also requested.

DEQ Response: Screening is not specifically defined in Part 115. However, the guide book for preparing the Plan identifies screening as an allowable area of local regulation. The County may choose to adopt an ordinance for the purpose of screening provided that it does not prohibit or regulate the location or development of a solid waste disposal area.

It was also noted that a representative from Greenland Township was not present at the meeting.

Additional concerns were received; however, only comments that were directly related to the Plan or Planning Process are addressed in this summary.

**ONTONAGON COUNTY**  
**SOLID WASTE MANAGEMENT PLAN**

Prepared by  
Michigan Department of Environmental Quality  
Waste Management Division

## 1997 PLAN UPDATE COVER PAGE

Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), 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.

### DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

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The Ontonagon County Solid Waste Planning Committee developed the original Ontonagon County Plan with the assistance of the WUPPDR. The Plan was locally disapproved on December 13, 2000. Approvals/disapprovals are copied in Appendix D. In accordance with Section 11536(6) of Part 115 the (DEQ) assumed Plan preparation on March 20, 2000. Modifications were made to make the Plan approvable.

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## EXECUTIVE SUMMARY

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

It is the intention of this Plan to provide the County with the mechanism to dispose of its solid waste within the rules and regulations outlined in Part 115 and its administrative rules.

### OVERALL VIEW OF THE COUNTY

The Plan was developed by the Ontonagon County Solid Waste Planning Committee (SWMPC) with the assistance of the Western Upper Peninsula Planning and Development Region (WUPPDR). The Plan was locally disapproved on December 13, 2000. The DEQ assumed Plan preparation on March 20, 2000. Changes were made by the DEQ to those items needing modification or clarification in order to bring the Plan into compliance with Part 115 and to otherwise clarify the Plan.

The selected alternative consists of the existing K & W Landfill serving the entire county for its disposal needs and a mixture of municipal and private solid waste collection services. A summary of the components can be found on page 4.

Percentage of Land Use - Urban

Township or Municipality Name	Pop. <sup>+</sup>	Res	Com.	Ind.	Agri.	Forested <sup>1</sup>	Other <sup>2</sup>
Bergland Twp.	618	1.81	0.03	0.00	0.25	267.97 <sup>1</sup>	30.74 <sup>2</sup>
Bohemia Twp.	90	0.71	0.00	0.04	0.88	378.61	19.55
Carp Lake Twp.	1,193	2.34	0.41	0.14	1.96	717.91	77.90
Greenland Twp.	1,001	1.60	0.07	0.11	20.21	201.27	26.75
Haight Twp.	218	0.39	0.00	0.02	3.34	271.79	24.46
Interior Twp.	480	1.01	0.05	0.00	7.16	157.59	39.12
Matchwood Twp.	122	1.03	0.03	0.00	14.80	266.22	52.90
McMillan Twp.	650	0.47	0.12	0.00	25.37	138.30	35.73
Ontonagon Twp. <sup>3</sup>	3,238 <sup>1</sup>	22.35	2.47	7.09	25.81	557.52	105.11
Rockland Twp.	371	0.93	0.04	0.00	5.54	212.99	21.27
Stannard Twp.	873	1.08	0.08	0.03	22.35	288.39	38.07

<sup>1</sup>Forested Acreage

<sup>2</sup>Other Acreage

<sup>3</sup>Includes Village of Ontonagon

<sup>+</sup>1990 Census of Population

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

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

## EXECUTIVE SUMMARY

### CONCLUSIONS

The WUPPDR and the SWMPC considered alternatives that could be implemented in lieu of the present system or partially implemented as enhancements to the existing system. Alternatives ranged from incineration 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 private investment has been made in the current system. This investment resulted in the development of a single landfill, which provides the County with guaranteed ten years of capacity and serves fourteen other counties within the Upper Peninsula.

The continued disposal of a consistent volume of solid waste is critical to the efficient and cost effective operation of the K & W Landfill (selected final disposal alternative). Reductions in the monthly tonnage processed at the facility may effect an increase in the cost per ton to cover operational 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 the SWMPC, local units of government, the public, and this Plan.

Importation of waste from Wisconsin counties has occurred at the landfill for many years. Larger volumes of waste help to provide revenues for operations of the facility. Approximately 54,121 cubic yards were imported from nearby Wisconsin counties in 1998 (Report on Solid Waste Landfilled in Michigan, 1998), and this volume is expected to remain stable or increase slightly.

## **SOLID WASTE MANAGEMENT ALTERNATIVES**

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

### **ALTERNATIVE I**

Since the K & W Landfill has at least eighteen years of projected capacity remaining, the SWMPC felt there was no point in examining other alternatives at this point in time. Incineration was determined not to be consistent with this five-year update.

### **ALTERNATIVE II**

Incineration has been eliminated from the five-year update due to the economics required to implement and operate an incinerator with small waste volumes. The costs of construction and operation would require a tipping fee far in excess of what residents would pay.

The two alternatives were evaluated and ranked for public acceptability, economics, and feasibility. The results were the selection of Alternative I.

## SELECTED ALTERNATIVE

The selected solid waste management system for the 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 areas and all other components of the system are diminished. An additional benefit is the conservation of natural resources that would otherwise have been wasted.
- **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. All haulers to the K & W Landfill are publicly or privately operated. Most haul only waste generated by their own activities (such as construction or demolition debris) while the bulk of collection is done mainly by Superior Waste Services.
- **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 developed for their disposal needs. Municipal composting programs are encouraged through the duration of this Plan.

# 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 Plan works toward the following goals through actions designed to meet the objectives described under the respective goals that they support:

**GOAL 1:** Establish and maintain a high-quality environment by developing and implementing integrated solid waste management that provides for the protection of public health and the environment.

Objective 1.1: The County will comply with Act 451, Part 115 to meet the goal.

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

Objective 2.1: Establish or designate an office where the public can direct questions about solid waste management and obtain educational materials. Michigan State University provides this type of service, and questions can be addressed to this agency.

Objective 2.2: Continue to provide on a periodic basis, information to citizens regarding available opportunities for recycling.

Objective 2.3: Encourage the Michigan Technological Regional Groundwater Education in Michigan, Center for Science and Environmental Outreach (GEM) to provide environmental education programs for K-12 grades.

## **INTRODUCTION (continued)**

**GOAL 3:** Maintain, support, and expand recycling programs and facilities.

Objective 3.1: Will encourage procurement of recycled products for supplies purchased by local governmental units by encouraging a procurement policy that recommends 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 private/public intergovernmental cooperation by promoting both a tire recycling center and a county-wide composting program.

Objective 3.3: To encourage and develop the regionwide location, collection, and processing of junk automobiles (white goods, stoves/appliances, refrigerators, etc.).

## **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.

### WASTE GENERATION

Data was collected pertaining to waste generated in the County, as well as any volumes diverted from the waste stream by recycling and composting. Also collected was information regarding annual tonnage disposed at the K & W Landfill. Volume data was obtained from the DEQ 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 through 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, anticipate future waste volumes and disposal needs.

Page twelve shows 1998 waste disposal by municipalities in the County and page eight shows how it compares with other Upper Peninsula counties, similar size counties throughout the state and national averages. Page nine shows the summary of solid waste disposal sites in the County as of 1988. Page 17 shows projections of population and waste volumes anticipated for disposal at the K & W Landfill from the County.

**DATA BASE**

**WASTE VOLUME – UPPER PENINSULA COUNTIES  
1996**

County	Population	Type II (cu.yd.)	Tons	Pounds/ Day/capita
Alger	9,971	56,138	18,713	N/A
Baraga	8,472	29,556	9,852	6.37
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*	N/A
Houghton	36,230	26,253 - Wood Island 51,434 - K & W Landfill	8,751- Wood Island 17,145 - K & W Landfill	3.92
Iron	13,121	29,804	9,934	4.12
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	8.18
Ontonagon	8,405	21,957	7,319	4.77
Schoolcraft	-	--	--	--

\*Includes waste from Wisconsin.

Source: EPA Waste Characterization

**POUNDS/DAY/CAPITA**

Ontonagon	4.77
U.P. Counties Average	4.84
Similar Size County Average	4.05
State Average	6.10
National Average*	4.34

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

**DATA BASE**

**SUMMARY OF SOLID WASTE DISPOSAL  
IN ONTONAGON COUNTY (1988)**

Site	Disposal Site	Legal Description	Operating Agency	Site Ownership	Total Acres	Acres Left
K & W Landfill	LDA	NE-1/4, Sec. 28 T51 R38W	Private	Private	80	39
Greenland Township	Closed	NW-1/4, SW-1/4 Sec. 36 T51N R38W	Greenland Township	DNR		
Interior Township	Closed	NW-1/4, SW01/4 Sec. 24 T47N-R38W	Interior Township	USFS	40	35
Rockland Township	Closed	NW-1/4, NW-1/4 Sec. 16 T50N-R39W	Rockland Township	Mead Corp.	5	3
Smurfit-Stone Container	LDA	T51N-R39W Sec. 24	Private	Private	300	280

SOURCE: K & W Landfill, Smurfit-Stone Container and WUPPDR.

**DATA BASE**

**ONTONAGON COUNTY  
ESTIMATED WEEKLY SOLID WASTE GENERATION (UNCOMPACTED-LBS./TONS)**

Municipality	Total Housing Units	Total Seasonal <sup>1</sup> Housing Units	1990 Population	Residential <sup>2</sup> lbs or tons/week
Bergland Twp.	598	293	618	18,775 lbs. 9.4 t
Bohemia Twp.	143	93	90	2,734 lbs. 1.4 t
Carp Lake Twp.	630	79	1,193	36,243 lbs. 18.1 t
Greenland Twp.	519	44	1,001	30,408 lbs. 15.2 t
Haight Twp.	239	131	218	6,622 lbs. 3.3 t
Interior Twp.	309	85	480	14,581 lbs. 7.3 t
Matchwood Twp.	149	84	122	3,710 lbs. 1.8 t
McMillan Twp.	387	97	650	19,747 lbs. 9.9 t
Ontonagon Twp.	1,652	174	3,238 <sup>3</sup>	98,371 lbs. 49.2 t
Rockland Twp.	220	62	371	11,270 lbs. 5.6 t
Stannard Twp.	486	80	873	26,523 lbs. 13.3 t
Ontonagon Village	950	21	2,040	61,978 lbs. 31.0 t
<b>TOTALS</b>	<b>6,282</b>	<b>1,243</b>	<b>10,894</b>	<b>330,962 lbs. 165.5 t</b>

SOURCE: 1990 Census of Population and Housing (lbs. = pounds, t = tons)

<sup>1</sup>For Seasonal, Recreational, or Occasional Use. <sup>2</sup>EPA Characterization of Municipal Solid Waste in the U.S. 1996 Update, 4.34 lbs./person/day in 1995. <sup>3</sup>Includes Village of Ontonagon

Total quantity of solid waste generated in Ontonagon County:

8,606 Tons Per Year

Total quantity of solid waste needing disposal:

8,606 Tons Per Year from Ontonagon County only

**DATA BASE**

**PER CAPITA GENERATION OF MUNICIPAL SOLID WASTE BY MATERIAL**

Material	Pounds/Person/Day* 2000	Ontonagon County*	
		Per day Lbs.	Annual Tons
Paper and Paperboard	1.79	19,500	3,559
Glass	0.27	2,941	537
Metals	0.34	3,704	676
Plastics	0.42	4,575	835
Rubber and Leather	0.13	1,416	258
Textiles	0.17	1,852	338
Wood	0.33	3,595	656
Other	0.08	871	159
Total Non-Food Products	3.52	38,347	6,998
Food Wastes	0.29	3,159	576
Yard Trimmings	0.54	5,883	1,074
Miscellaneous Inorganic Wastes	0.07	763	139
Total Municipal Solid Waste Generated	4.42	48,151	8,787

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

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

**DATA BASE**

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

UNIT OF GOVERNMENT	1990 <sup>+</sup> POPULATION	APPROXIMATE 1998 TONNAGE
Bergland Twp.	618	730
Bohemia Twp.	90	Not reported
Carp Lake Twp.	1,193	1,170
Greenland Twp.	1,001	286
Haight Twp.	218	225
Interior Twp.	480	429
McMillan Twp.	650	714
Matchwood Twp.	122	79
Ontonagon Twp.	3,238	803
Rockland Twp.	371	130
Stannard Twp.	873	678
Ontonagon Village	2,040	2,075
TOTALS	8,854	7,319

\*Actual tonnage disposed of at K & W Landfill, Inc., 1998

NOTE: Actual tonnage disposed differs from generation due to households burning waste, yard waste being composted, and illegal dumping.

<sup>+</sup>SOURCE: 1990 U.S. Census

**DATA BASE**

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill Type III (Industrial High Volume/Low Hazard)

Facility Name: Smurfit-Stone Container Corporation

County: Ontonagon Location: Town: 51N Range: 39W Section(s): 24

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:

<u>    </u> Public <u>  X  </u> Private	Owner: <u>Smurfit-Stone Container Corporation</u>
Operating Status (check)	Waste Types Received (check all that apply)
<u>  X  </u> open	<u>    </u> residential
<u>    </u> closed	<u>    </u> commercial
<u>  X  </u> licensed	<u>  X  </u> industrial**
<u>    </u> unlicensed	<u>    </u> construction & demolition
<u>  X  </u> construction permit	<u>    </u> contaminated soils
<u>    </u> open, but closure	<u>    </u> special wastes*
<u>    </u> pending	<u>    </u> other:

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

\*\*Licensed for low hazard – high volume industrial waste.

Site Size:

Total area of facility property:	<u>260</u> acres
Total area sited for use:	<u>260</u> acres
Total area permitted:	<u>260</u> acres
Operating:	<u>20.0</u> acres
Not excavated:	<u>190</u> acres

Current capacity:	<u>100</u> yds <sup>3</sup> /day
Estimated lifetime	<u>20</u> years
Estimated days open per year:	<u>365</u> days
Estimated yearly disposal volume:	<u>36,500</u> yds <sup>3</sup>

(If applicable)

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

**DATA BASE**

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: K & W Landfill, Inc.

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

Section(s): S1/2, N1/4 and N 1/2, SE 1/4, 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: 87 acres  
Total area sited for use: 55 acres  
Total area permitted: 55 acres  
  Operating: 20 acres  
  Not excavated: 35 acres

Current capacity: 2.7m tons  
Estimated lifetime: 26 years  
Estimated days open per year: 256 days  
Estimated yearly disposal volume: 100,000 tons

(If applicable)

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

**ONTONAGON COUNTY  
RESIDENTIAL/COMMERCIAL/WASTE HAULERS AND SERVICE AREAS**

Township or Municipality	Superior Service	Municipal
Bergland Twp.	X	
Bohemia Twp.	X	
Carp Lake Twp.	X	
Greenland Twp.	X	
Haight Twp.	X	
Interior Twp.	X	
Matchwood Twp.	X	
McMillan Twp.	X	
Ontonagon Twp.	X	
Rockland Twp.	X	
Stannard Twp.	X	
Ontonagon Village	X	

## **DATA BASE**

### **EVALUATION OF DEFICIENCIES AND PROBLEMS**

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

- Problems with providing service to tourists and camp owners which is necessary to prevent the dumping of waste in forested areas.
- High cost of demolition disposal (Type III waste).
- Need for expanded recycling of construction material.
- As the cost of disposal increases, it provides incentive to do the "wrong thing," such as dumping in forested areas, and home incineration to reduce home disposal volume.
- High cost of leachate disposal.
- High transportation costs.

## 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.

Twp. or Municipality	Population <sup>1</sup> 1990	Tons* Generation	Population <sup>2</sup> 2000	Tons* Generation	Population 2005	Waste* Generation (Tons)	Population 2010	Waste* Generation Tons
Bergland Township	618	489	568	449	555	440	550	435
Bohemia Township	90	73	83	67	81	64	80	63
Carp Lake Township	1,193	936	1,096	860	1,070	847	1,059	839
Greenland Township	1,001	790	920	728	900	713	892	706
Haight Township	218	172	200	158	195	154	193	153
Interior Township	480	380	440	348	430	340	426	337
Matchwood Township	122	94	112	89	110	87	109	86
McMillan Township	650	515	597	473	583	462	577	457
Ontonagon Township	1,198	946	1,102	873	1,076	852	1,065	843
Rockland Township	371	291	341	270	333	264	330	261
Stannard Township	873	692	802	635	780	618	772	611
Ontonagon Village	2,040	1,612	1,874	1,484	1,830	1,449	1,811	1,434
COUNTY	8,854	6,990	8,135	6,434	7,943	6,290	7,864	6,225

<sup>1</sup>U.S. Census Bureau, 1990    <sup>2</sup>Source: MI Dept. of Transportation.    \*EPA Waste Characterization.    4.34/lbs/person/day

## 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 the 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. Lumbering still remains as a viable land use in the County.

The County participated in a comprehensive survey in the early 1980's under the provisions of Part 609, Resource Inventory, of the NREPA 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 and around the village of Ontonagon. There also seems to be a significant amount of development associated with water bodies throughout the County.

The current down trend in population being experienced in the County (<sup>1</sup>1980 - 9,861; 1990 - 8,854; <sup>2</sup>1997 - 8,117) probably will prevent any significant land use changes in the County over the next five to ten years.

\*Source: <sup>1</sup>U.S. Bureau of the Census, 1980 and 1990  
<sup>2</sup>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. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section.

#### **ALTERNATIVE I**

Since the K & W Landfill has at least 18 years of projected capacity remaining, the SWMPC felt there was no point in examining other alternatives at this time. Incineration was determined not to be consistent with this five-year update.

#### **ALTERNATIVE II**

Incineration has been eliminated from the five-year update due to the economics required to implement and operate an incinerator with small waste volumes. The costs of construction and operation would require a tipping fee far in excess of what residents would pay.

The two alternatives were evaluated and ranked for public acceptability, economics, and feasibility. The results were the selection of Alternative I.

## **THE SELECTED SOLID WASTE MANAGEMENT SYSTEM**

The County has been serviced by private collection and disposal since approximately 1987 when the K & W Landfill was opened. Since that time, the landfill and collection operation has changed ownership several times and is now owned by Waste Management Inc., who services the entire County both with municipal contracts and individual collection.

At the present time both the K & W Landfill and Superior Waste Services are owned and operated by Waste Management Inc., offering both residential and commercial service within the County. The landfill is authorized through this Plan to import up to 100 percent of both Type II and Type III wastes from all counties in the Upper Peninsula. The waste collection services being operated in the municipalities are listed in Table 1-A.

The Smurfit-Stone Container Corporation operates a licensed Type III sludge disposal area which serves only the Ontonagon company's waste disposal needs. The facility is located on state highway M-38 approximately five miles east of the village of Ontonagon. (See location map in Appendix D – Attachments).

The former Copper Range Company owned and operated by Inmet of Canada closed the White Pine Copper Mine located in White Pine in the fall of 1995. As part of the environmental clean-up activities, the company is in the process of constructing a licensed Type II landfill on company-owned property for the sole purpose of disposing of wastes resulting from the clean-up activities.

## IMPORT/EXPORT 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 <sup>1</sup>	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
Ontonagon	Baraga	K & W Landfill		100%	P
Ontonagon	Gogebic	K & W Landfill		100%	P
Ontonagon	Houghton	K & W Landfill		100%	P
Ontonagon	Iron	K & W Landfill		100%	P
Ontonagon	Keweenaw	K & W Landfill		100%	P
Ontonagon	Alger	K & W Landfill			C*
Ontonagon	Delta	K & W Landfill			C*
Ontonagon	Marquette	K & W Landfill			C*

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

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

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

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 <sup>1</sup>	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>

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

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

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

**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 Plan of the receiving County.

**Table 2-A**

**CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME <sup>1</sup>	AUTHORIZED QUANTITY/DAY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>
Ontonagon	Marquette	Marquette County Landfill			C*
Ontonagon	Alger	Wood Island Landfill			C*
Ontonagon	Menominee	Michigan Environs			C*
Ontonagon	Delta	Delta County Landfill			C*

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

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

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

**EXPORT AUTHORIZATION**

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 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 <sup>1</sup> DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS <sup>2</sup>

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

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

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

**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. 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 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:

Smurfit-Stone Container  
\_\_\_\_\_

Incinerator:

\_\_\_\_\_  
\_\_\_\_\_

Waste-to-Energy Incinerator:  
\_\_\_\_\_  
\_\_\_\_\_

Type A Transfer Facility:

Type B Transfer Facility:

Processing Plan:

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.

FACILITY DESCRIPTIONS

Facility Type:           Type II Landfill          

Facility Name:           K & W Landfill, Inc.          

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

Section(s):           S1/2, N1/4 and N1/2, SE 1/4, 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
Estimated lifetime	<u>          26          </u> years
Estimated days open per year:	<u>          256          </u> days
Estimated yearly disposal volume:	<u>          100,000          </u> tons

(If applicable)

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill Type III (Industrial High Volume/Low Hazard)

Facility Name: Smurfit-Stone Container Corporation

County: Ontonagon Location: Town: 51N Range: 39W

Section(s): S1/2, N1/4 and N1/2, SE 1/4, Section 24

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:

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

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

\*\* Licensed for low hazard - high volume industrial waste.

Site Size:

Total area of facility property:	<u>260</u> acres
Total area sited for use:	<u>260</u> acres
Total area permitted:	<u>260</u> acres
Operating:	<u>20.0</u> acres
Not excavated:	<u>190</u> acres

Current capacity:	<u>100</u> yds <sup>3</sup>
Estimated lifetime	<u>20</u> years
Estimated days open per year:	<u>365</u> days
Estimated yearly disposal volume:	<u>36,500</u> yds <sup>3</sup>

(If applicable)

Annual energy production:

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

## **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.

Superior Waste Services provides residential curb service and commercial hand and container service to the entire County.

Residential service is varied. Curbside service is provided through municipal contracts (where the entire city or township is serviced), individual customer subscription service, or pay per bag service. All residential services are provided with a rear-end load collection vehicle. A drop-off box is also located at K & W Landfill.

Commercial service is provided to customers as a curbside hand pickup or as containerized service. Containers range in size from 1.5 cubic yards to 50 cubic yards. Containers 12 cubic yards and larger are roll-off containers. Containers less than 12 cubic yards and all hand pickups are serviced with a rear-end load collection vehicle.

All municipal waste that is collected in the County is disposed of at the K & W Landfill located in Greenland Township. Low hazard – high volume industrial wastes are transported by the generator to privately owned landfills.



## Source Reduction

The best 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 - Use of 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.

## WASTE REDUCTION, RECYCLING, AND 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's intent 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. <sup>3</sup> /Yr.		
	<u>Current</u>	<u>5th Yr.</u>	<u>10th Yr.</u>
Compaction	No Specified Quantity		

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

## 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.

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:

Due to poor markets, long haul distances and small volumes of recyclables in the County, it is recognized that recycling will continue on a limited basis but at this time no one is in the position to offer a recycling program.

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

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

Composting in rural areas is somewhat difficult to assess. Most residents use some method of backyard composting to dispose of yard waste. Those would include burning of leaves (since there are few ordinances against burning leaves in the Upper Peninsula) and backyard composting piles.

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:

Not economically feasible. Very little hazardous waste generation and cost associated with starting and operating a program with very little generation.

## **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, Tables III-1 through III-3, 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 Tables III-4 through III-6 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's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

TABLE III-1

RECYCLING:

<u>Program Name</u>	<u>Service Area<sup>1</sup></u>	<u>Public or Private</u>	<u>Collection Point<sup>3</sup></u>	<u>Collection Frequency<sup>4</sup></u>	<u>Materials Collected<sup>5</sup></u>	<u>Program Management Responsibilities<sup>2</sup></u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
N/A								

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

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

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

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

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

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

**TABLE III-2**

COMPOSTING:

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

N/A

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

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

<sup>2</sup>Identified by 1 = Designated Planning Agency; 2 = County BOC; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other .

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

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

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

**TABLE III-3**

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Since improper disposal of non-regulated 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 Area<sup>1</sup></u>	<u>Public or Private</u>	<u>Collection Point<sup>3</sup></u>	<u>Collection Frequency<sup>4</sup></u>	<u>Materials Collected<sup>5</sup></u>	<u>Program Management</u>	<u>Responsibilities<sup>2</sup></u>
						<u>Development</u>	<u>Operation</u> <u>Evaluation</u>
N/A							

\_\_\_\_Additional programs and the above information for those programs are listed on an attached page.

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

<sup>2</sup>Identified by 1 = Designated Planning Agency; 2 = County BOC; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other.

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

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

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

TABLE III-4

PROPOSED RECYCLING:

<u>Program Name</u>	<u>Service Area<sup>1</sup></u>	<u>Public or Private</u>	<u>Collection Point<sup>3</sup></u>	<u>Collection Frequency<sup>4</sup></u>	<u>Materials Collected<sup>5</sup></u>	<u>Program Management Responsibilities<sup>2</sup></u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
N/A								

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

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

<sup>2</sup>Identified by 1 = Designated Planning Agency; 2 = County BOC; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other.

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

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

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

**TABLE III-5**

**PROPOSED COMPOSTING:**

<u>Program Name</u>	<u>Service Area<sup>1</sup></u>	<u>Public or Private</u>	<u>Collection Point<sup>3</sup></u>	<u>Collection Frequency<sup>4</sup></u>	<u>Materials Collected<sup>5</sup></u>	<u>Program Management Development</u>	<u>Responsibilities<sup>2</sup> Operation</u>	<u>Evaluation</u>
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N/A

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

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

<sup>2</sup>Identified by 1 = Designated Planning Agency; 2 = County BOC; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other.

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

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

<sup>5</sup>Identified by the materials collected by listing of the letter located by that material type. 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.

**TABLE III-6**

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

<u>Program Name</u>	<u>Service Area<sup>1</sup></u>	<u>Public or Private</u>	<u>Collection Point<sup>3</sup></u>	<u>Collection Frequency<sup>4</sup></u>	<u>Materials Collected<sup>5</sup></u>	<u>Program Management Responsibilities<sup>2</sup></u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
N/A								

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

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

<sup>2</sup>Identified by 1 = Designated Planning Agency; 2 = County BOC; 3 = Department of Public Works; 4 = Environmental Group ; 5 = Private Owner/Operator; 6 = Other .

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

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

<sup>5</sup>Identified by the materials collected by listing of the letter located by that material type. 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.

**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:**

N/A

**Other:**

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 yds.<sup>3</sup> Diverted:</u>			<u>Collected Material:</u>	<u>Projected Annual yds.<sup>3</sup> Diverted:</u>		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Yr
A. TOTAL PLASTICS:				G. GRASS AND LEAVES:			
B. NEWSPAPER:				H. TOTAL WOOD WASTE:			
C. CORRUGATED CONTAINERS:				I. CONSTRUCTION AND DEMOLITION:			
D. TOTAL OTHER PAPER:				J. FOOD AND FOOD PROCESSING:			
E. TOTAL GLASS:				K. TIRES:			
F. OTHER MATERIALS:				L. TOTAL METALS:			
F1.				F3.			
F2.				F4.			

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

The following identifies how much volume that existing markets are able to utilize of the recovered materials that 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>
1. TOTAL PLASTICS	_____	_____	G. GRASS & LEAVES:	_____	_____
2. NEWSPAPER:	_____	_____	H. TOTAL WOOD WASTE:	_____	_____
3. CORRUGATED CONTAINERS:	_____	_____	I. CONSTRUCTION & DEMOLITION:	_____	_____
4. TOTAL OTHER PAPER:	_____	_____	J. FOOD & FOOD PROCESSING:	_____	_____
5. TOTAL GLASS:	_____	_____	K. TIRES:	_____	_____
6. OTHER MATERIALS:	_____	_____	L. TOTAL METALS:	_____	_____
F1. <u>Magazines</u>			F3.		
F2.			F4.		

**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 that 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<sup>1</sup></u>	<u>Delivery Medium<sup>2</sup></u>	<u>Targeted Audience<sup>3</sup></u>	<u>Program Provider<sup>4</sup></u>
<u>1, 2, 3, 4</u>	<u>F</u>	<u>P</u>	<u>MSU Extension</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>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

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

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

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

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

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

## 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

<b>Management Component</b>	<b>Timeline</b>
Education and Informational Programs	On-going

## **SITING REVIEW PROCESS**

### AUTHORIZED DISPOSAL AREA TYPES

The following solid waste disposal area types may not be sited in 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 all solid waste disposal areas and determine consistency with this Plan.

#### Identification of New or Expanded Solid Waste Facilities

According to Part 115, if the County demonstrates at least 66 months of landfill capacity, the county is not required to allow for the siting of a new landfill within the County. The following process is intended to guide the County in the future should they wish to allow for the construction of a new landfill.

In order for a solid waste facility to pursue a construction permit from the DEQ, the site must be either identified within the Plan update or be found consistent with the Plan based on the criteria as described below.

The SWMPC 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 SWMPC 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 SWMPC.

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

### **Siting Criteria**

- (i) The active work area for a new facility or expansion of an existing facility shall not be located closer than 500 feet from adjacent property lines, road rights-of-way, lakes, and perennial streams.
- (ii) The active work area for a new facility or expansion of an existing facility shall not be located closer than 1,000 feet from domiciles or public schools existing at the time of submission of the application.
- (iii) A new, previously unlicensed sanitary landfill, shall not be constructed within 10,000 feet of a licensed airport runway. This restriction does not apply to expansions of existing sanitary landfills.
- (iv) A facility shall not be located in a 100-year floodplain as defined by Rule 323.1311 of the administrative rules of Part 31, Water Resources Protection, of the NREPA.
- (v) A facility shall not be located in a wetland regulated by Part 303, Wetlands Protection, of the NREPA, unless a permit is issued.
- (vi) A facility shall not be constructed in lands enrolled under Part 361, Farmland and Open Space Preservation, of the NREPA.
- (vii) A facility shall not be located in a sensitive environmental area as defined in Part 323, Shorelands Protection and Management, of the NREPA, or in areas of unique habitat as defined by the Department of Natural Resources, Natural Features Inventory.
- (viii) A facility shall not be located in an area of groundwater recharge as defined by the United States Geological Survey or in a wellhead protection area as approved by the DEQ.
- (ix) A facility shall not be located in a designated historic or archaeological area defined by the state historical preservation officer.
- (x) A facility shall not be located or permitted to expand on land owned by the United States of America or the state of Michigan. Disposal areas may be located on state land only if both of the following conditions are met:
  - a) Thorough investigation and evaluation of the proposed site by the facility developer indicates, to the satisfaction of the DEQ, that the site is suitable for such use.
  - b) The state determines that the land may be released for landfill purposes and the facility developer acquires the property in fee title from the state in accordance with state requirements for such acquisition.
- (xi) Facilities may only be located on property zoned as agricultural, industrial, or commercial at the time the facility developer applies to the county for a determination of consistency under the Plan. Facilities may be located on unzoned property, but may not be located on property zoned residential.

(xii) The owner and operator of a facility shall sign a statement agreeing to cooperate with the County on all current and future recycling and composting activities.

(xiii) A facility shall be located on a paved, all weather "Class A" road. If a facility is not on such a road, the developer shall sign a statement agreeing to provide for upgrading and/or maintenance of the road serving the facility.

The SWMPC will determine if the proposed development is, or is not, consistent with the Plan within 90 days of receiving all of the information listed above. The SWMPC must provide the developer a written determination of consistency or inconsistency and include the reasons and facts supporting their decision. If the SWMPC 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 Plan by the SWMPC, an appeal by the developer may be made to the BOC. The appeal hearing between the developer and the BOC must be held within 30 days of receipt of the request by the BOC Chairman.

The appeal process before the BOC shall be identical to the SWMPC review process in terms of information considered and criteria used to determine consistency. The developer, however, may provide additional information to the BOC.

Within 30 days of the appeal hearing, the BOC 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 BOC upholds the determination of inconsistency rendered by the SWMPC, the developer may address the deficiencies identified by the BOC (and the SWMPC) during the appeal process and resubmit the project proposal to the SWMPC for subsequent review for consistency. If the BOC fails to make a determination within the 30-day time period, the proposal shall be consistent with the County Plan.

The final determination of consistency with the Plan shall be made by the DEQ upon submittal by the developer of an application for a construction permit. The DEQ shall review the determination made by the BOC to ensure that the criteria and review procedures have been properly adhered to by the County.

## **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 WUPPDR is responsible for planning.

The Ontonagon County BOC are responsible for enforcement.

## **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

Recycling

Energy Production

### **Volume Reduction Techniques:**

### **Collection Processes:**

**Transportation:** Superior Waste

**Disposal Areas:**

Processing Plants

Incineration

Transfer Stations

Sanitary Landfills: K & W Landfill, Smurfit-Stone Container

**Ultimate Disposal Area Uses:**

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

Ontonagon County BOC

**Educational and Informational Programs:**

Michigan State University Extension

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 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:
  
- 3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the BOC and Greenland Township without further authorization from or amendment to the Plan.  
  
Pest control, mud/debris control, and screening.

## 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 BOC.

- 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:

1998 reported receipts 232,153 cubic yards divided by 3 = 77,384 tons/year

Total landfill area permitted = 55 acres

Current capacity = 2,700,000 tons (for permitted design)

Landfill life estimated with accepting 100,000 tons/year = 27 years  
2,700,000 divided by 100,000 tons/year

Total volume calculated for Ontonagon County using 4.43 lbs./person/day = 8,606/year

Ten year capacity 8,606 tons/year multiplied by 10 years = 86,060 tons

Actual reported tonnage at the landfill = 7,319 tons in 1998 (found on page 12)

\_\_\_ Additional listings are on attached pages.

\*See following page.

# **APPENDIX A**

**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 11.

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 that 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>
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	

## COORDINATION EFFORTS

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.

<b>System Component<sup>1</sup></b>	<b>Estimated Costs</b>	<b>Potential Funding Sources</b>
<u>Resource Conservation Efforts</u>		
<u>Resource Recovery Programs</u>		
<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 &amp; Informational Programs</u>		

<sup>1</sup>These components and their subcomponents may vary with each system.

## EVALUATION SUMMARY OF THE SELECTED SYSTEM

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

As the selected system is a continuation of the selected system of the previous Plan, evaluation of this alternative has been, essentially, an ongoing process. Service provisions continue to be a mix of public and private entities driven primarily by cost efficiency.

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. Approximately 20 year life remaining.
2. Cost savings associated with not developing sites.
3. Current site is isolated from population.
4. Single landfill provides economy of scale.
5. Service provided by private enterprise - no governmental costs, users pay.

### **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. High cost of leachate disposal.

# **APPENDIX B**

## **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.

## **SYSTEM COMPONENTS - ALTERNATIVE 2 - INCINERATION (WASTE TO 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 material 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 hazardous waste facility.

**INSTITUTIONAL ARRANGEMENTS:** N/A

**EDUCATIONAL AND INFORMATIONAL PROGRAMS:** Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste stream more compatible with incineration.

**CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:** Costs associated with a waste-to-energy facility would be incurred for land acquisition, facility construction, and processing facility construction. Ongoing costs for waste separation. Some disposal will still be required.

## **EVALUATION SUMMARY OF NON-SELECTED SYSTEM:**

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

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

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

Economics - A small waste-to-energy facility (30 tons/day) can cost nearly \$3 million to construct. Ontonagon County generates approximately 17.23 tons of waste and waste would have to be imported. 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.

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 that 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.

## **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 is 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 the County is not sufficient for economic operation of an incinerator.
5. Toxicity of residue is high.
6. Community opposition due to public investment in current alternative.

# **APPENDIX C**

## **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 SWMPC 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 SWMPC, County BOC, and municipalities.

All meetings were held at the Ontonagon County Courthouse in Ontonagon.

March 3, 1998

April 14, 1998

May 21, 1998

June 23, 1998

September 29, 1998

September 14, 1999

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

At a meeting held on Tuesday, September 14, 1999, the Ontonagon County Solid Waste SWMPC passed a motion to adopt the Ontonagon County Solid Waste Plan to be sent to the Ontonagon County BOC for their subsequent action. (Minutes on file at the WUPPDR office).

## **PUBLIC PARTICIPATION**

### **PLANNING COMMITTEE APPOINTMENT PROCEDURE:**

On November 10, 1997, the Western Upper Peninsula Planning and Development Region sent Ontonagon County a proposed slate of individuals to serve on the SWMPC.

At their regular monthly meeting on November 25, 1997 the County Board authorized the Chairman to make appointments to the SWMPC.

The chairman proceeded to appoint the members listed on the following page.

As of March 20, 2000 the DEQ assumed Plan Preparation.

## **PUBLIC PARTICIPATION**

### **PLANNING COMMITTEE**

Committee member names and the company, group, or governmental entity represented from throughout the County are listed below.

Four representatives of the solid waste management industry:

1. Doug Dernberge, Peninsula Sanitation
2. Mike Maloney, Ontonagon County Road Commission
3. Jim Richardson, Smurfit-Stone Corporation
4. Dave Kempainen, Waste Management

One representative from an industrial waste generator:

1. John Reid, Smurfit-Stone Corporation

Two representatives from environmental interest groups from organizations that are active within the County:

1. Mark Burgess
2. Rob Chapman

One representative from County government. All government representatives shall be elected officials or a designee of an elected official.

1. Allan Slye (later replaced by Hubert Lukkari)

One representative from township government:

1. Jean Schertz-Alanen, Greenland Township Supervisor

One representative from city government:

1. Kurt Giesau, Ontonagon Village Mayor

One representative from the regional solid waste Planning agency:

1. Kim J. Stoker, WUPPDR

Three representatives from the general public who reside within the County:

1. Clarence Wilbur
2. Robert Lukkari
3. James Fyfe

# **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 BOC 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 following pages.

## ATTACHMENTS

### Landfill Capacity

The K & W Landfill located in the County is required to provide annual waste receipt reports to the Michigan Department of Environmental Quality. This Plan authorizes the K & W Landfill to accept waste from all counties in the Upper Peninsula they are listed in Table 1-A on page 111-3 for primary disposal of up to 100 percent of the wastes generated in the listed counties. Using the waste receipt report from 1998 provided to the MDEQ by the K & W Landfill and the facilities descriptions listed on page 11-4 the following calculations determine that the landfill does have adequate disposal area remaining to provide Ontonagon county more than 66 months of capacity:

1998 reported receipts 232,153 cubic yards divided by 3 = 77,384 tons/year

Total landfill area permitted = 55 acres

Current capacity = 2,700,000 tons (for permitted design)

Landfill life estimated with accepting 100,000 tons/year = 27 years  
2,700,000 divided by 100,000 tons/year

Total volume calculated for Ontonagon County using 4.43 lbs./person/day = 8,606/year

Ten year capacity 8,606 tons/year multiplied by 10 years = 86,060 tons

Actual reported tonnage at the landfill = 7,319 tons in 1998 (found on page 12)

## ATTACHMENTS

### Maps

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

## ATTACHMENTS

### Inter-County Agreements

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

N/A

## ATTACHMENTS

### Special Conditions

Special conditions affecting import or export of solid waste.

If emergency closure is required before life expectancy is reached, an agreement should be negotiated with one of the following licensed Type II facilities to take Ontonagon County's waste during the emergency period:

- Alger County (Wood Island Landfill)
- Delta County (Delta County Landfill)
- Marquette County (Marquette County Landfill)
- Menominee County (Michigan Envions Landfill)

In emergency situations, waste from Alger, Delta, Menominee, and Marquette Counties could be disposed of at the K & W Landfill, however, an agreement should be negotiated during the emergency period.

