Leelanau County Planning and Community Development

113 S. Grand Ave.
P.O. Box 546
Leland, MI 49654-0546
Phone: (231) 256-9812 or
Toll Free (866) 256-9711
Fax: (231) 256-0174

Trudy J. Galla, AICP
Planning Director

Sarah J. Lucas
Senior Planner

Karen J. Hall
Secretary

Ron W. Crummel
Housing Coordinator

www.leelanau.cc

January 24, 2006

Michigan Department of Environmental Quality
Attn: Christina Miller, Environmental Quality Analyst
Waste & Hazardous Materials Division
PO Box 30241
Lansing MI 48909-7741

Dear Ms. Miller;

Enclosed please find a certified copy of the Reciprocal Agreement between Leelanau County and Antrim County which was approved by the Leelanau County Board of Commissioners on January 18, 2006. The agreement allows Antrim County to be considered "primary" instead of contingency. The approved Reciprocal Agreement will be added to our copy of the Leelanau County Solid Waste Management Plan, and is being submitted to you for inclusion in your copy of the Leelanau County Plan.

If you have any questions, please do not hesitate to contact me. Thank you.

Sincerely,

Trudy J. Galla, AICP,
Planning Director

Enclosure

cc: Antrim County

JAN 26 2006

Waste and Hazardous
Materials Division

STATE OF MICHIGAN
COUNTY *of* LEELANAU } SS.

I, Michelle L. Crocker, Clerk of the Circuit Court for the County of Leelanau, the same being a Court of Record and having a seal, do hereby certify that I have compared the annexed copy of

SOLID WASTE RECIPROCAL AGREEMENT

APPROVED BY LEELANAU COUNTY BOARD OF COMMISSIONERS JANUARY 18, 2006

With the original record thereof now remaining in my office, and that it is a true and correct transcript therefrom, and of the whole thereof.

Seal

In Testimony Whereof, I hereunto set my hand and affix the seal of said Court, at Leland, Michigan, this 19th day of JANUARY, 2006.

Michelle L. Crocker, Clerk

RECEIVED

DEC 15 2005

LEELANAU COUNTY
PLANNING DEPARTMENT

Solid Waste Reciprocal Agreement

WHEREAS, Antrim County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Antrim County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, part 115 of Act 451, P.A. 1994, as amended, requires that both the receiving and sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste, and;

BE IT RESOLVED, THAT Antrim County will agree to accept solid waste from Leelanau County in the event that Antrim County develops and has an approved solid waste disposal site that is open to public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Antrim County so long as an approved solid waste disposal site exists in Leelanau County that is open to public use.

BE IT FURTHER RESOLVED, THAT Antrim County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program
Antrim County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program
Recycling in Antrim County shall include a sufficient number of drop-off sites or sufficient curbside recycling as applicable to provide the public with an opportunity to participate in the program.

3. Composting Program
Antrim County shall establish or participate in a composting program to prevent yard waste or other organic materials from being disposed of in the landfill

4. Household and Agriculture Hazardous Waste Collection
Antrim County shall conduct or participate in at least one (1) Household Hazardous waste collection day per year. The collected waste shall be disposed of as a facility licensed to receive that type of waste.

BE IT FURTHER RESOLVED, THAT Antrim County agrees to implement a waste diversion program, as outlined above as funding is secured and approved for such use by the Antrim County Commission

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other harmless from any and all liability actions arising from the above waste diversion program or the disposal of solid waste.

For Antrim County

Jack White, Chairmen
Antrim County
Board of Commissioners

_____
Date

For Leelanau County

ROBERT W. HAWLEY, Chairperson
Leelanau County
Board of Commissioners

January 18, 2006
Date

Leelanau County Planning and Community Development

113 S. Grand Ave.
P.O. Box 546
Leland, MI 49654-0546
Phone: (231) 256-9812 or
Toll Free (866) 256-9711
Fax: (231) 256-0174

Trudy J.C. Galla, AICP
Planning Director

Sarah J. Lucas
Senior Planner

Karen J. Gleason
Secretary

Ron W. Crummel
Housing Coordinator

February 10, 2003

Michigan Department of Environmental Quality
Attn: Lyn Dumroese, Environmental Quality Analyst
Waste & Hazardous Materials Division
PO Box 30241
Lansing MI 48909-7741

Dear Ms. Dumroese;

Enclosed please find a copy of the reciprocal agreement between Leelanau County and Manistee County and an Excerpt from the January 21, 2003 Board of Commissioners minutes. The agreement was approved subject to a joint meeting being held between the 2 counties and Leelanau County urging Manistee County to secure funding for their recycling program. Both of these contingencies have been met.

This document should now be included as part of the Leelanau County Solid Waste Management Plan.

If you have any questions, please do not hesitate to contact me. Thank you.

Sincerely,

Trudy J.C. Galla, AICP,
Planning Director

Office of Leelanau County Clerk

County Building
301 E. Cedar St.
P.O. Box 467
Leland, Michigan 49654

Michelle L. Crocker
County Clerk
Clerk of Circuit Court

Phone (231) 256-9824
Fax (231) 256-8295

EXCERPT
LEELANAU COUNTY BOARD OF COMMISSIONERS
REGULAR SESSION – JANUARY 21, 2003
Tentative Minutes – Meeting taped

Meeting called to order by Chairman Hawley at 7:00 p.m.

Pledge of Allegiance led by Chairman Hawley.

Roll Call:	District #1 – Jean I. Watkoski	PRESENT
	#2 – Mark Walter	PRESENT
	#3 – Richard A. Schmuckal	PRESENT
	#4 – Mary P. Tonneberger	PRESENT
	#5 – Thomas F. Evans	PRESENT
	#6 – Robert L. Hawley	PRESENT
	#7 – Melinda C. Lautner	PRESENT

...

CONSENT ITEMS:

MOTION BY SCHMUCKAL TO APPROVE CONSENT ITEMS #1 - #10 AS PRESENTED ON THE AGENDA. SUPPORT EVANS.

01. Reciprocal agreement between Manistee and Leelanau Counties. THAT THE RECIPROCAL AGREEMENT BETWEEN MANISTEE AND LEELANAU COUNTY BE APPROVED AS PRESENTED, SUBJECT TO JOINT MEETING BEING HELD BETWEEN MANISTEE AND LEELANAU COUNTY OFFICIALS, AND ALSO TO URGE MANISTEE COUNTY THAT THEY SECURE FUNDING FOR THEIR RECYCLING PROGRAM.

...

AYES – 7 NO – 0 MOTION CARRIED.

State of Michigan
County of Leelanau

I, Michelle L. Crocker, Clerk of said County and Clerk of Circuit Court for said County, the same being a Court of record having a seal, do hereby certify that the above is a true copy/excerpt of the Record now remaining in my office and of the whole thereof. In Testimony whereof, I have hereto set my hand and affixed the seal of the Circuit Court the 22nd day of January 2003.

Michelle L. Crocker, Leelanau County Clerk

SOLID WASTE RECIPROCAL AGREEMENT

WHEREAS, Manistee County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Manistee County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, requires that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste;

THEREFORE, BE IT RESOLVED, THAT Manistee County will agree to accept solid waste from Leelanau County so long as Manistee County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Manistee County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Manistee County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program
Manistee County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program
The Manistee County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program
Manistee County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection
Manistee County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected waste shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESOLVED, THAT Manistee County agrees to implement a waste diversion program, as outlined above as funding is secured and approved for such use by the Manistee County Commission.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the above waste diversion program or the disposal of solid waste.

FOR MANISTEE COUNTY

Sharlene Wild

Sharlene Wild, Chairperson
Manistee County
Board of Commissioners

January 21 2003
Date

FOR LEELANAU COUNTY

Chairperson
Leelanau County
Board of Commissioners

February 4, 2003
Date

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

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

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

December 3, 1999

Ms. Jean I. Watkoski, Chairperson
Leelanau County Board of Commissioners
County Building
301 East Cedar Street
Leland, Michigan 49654

Dear Ms. Watkoski:

The Department of Environmental Quality (DEQ) received the locally approved update to the Leelanau County Solid Waste Management Plan (Plan) on September 20, 1999.

As outlined in the August 13, 1999 letter to Ms. Trudy Galla from Mr. Seth Phillips and as confirmed by the Leelanau County Board of Commissioners resolution of September 21, 1999, the DEQ makes the following modifications to the Plan.

On page III-3 of the Plan, items 1, 2, and 3, the language covering local ordinances and regulations affecting solid waste disposal was overly broad and undefined contrary to the limitations intended by Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Because the language of these items is so expansive and general in scope that the DEQ cannot evaluate the actual nature of the anticipated regulation, we are administratively deleting these sections from the Plan as part of our approval action.

By this letter, this Plan with these modifications is now approved and Leelanau County now assumes responsibility for the implementation and enforcement of this Plan. Please make certain that a copy of this letter is included with copies of the approved Plan both archived and distributed by the County.

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

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

We applaud your efforts and commitment in addressing the solid waste management issues in Leelanau County. If you have any questions, you may contact Mr. Seth Phillips, Solid Waste Management Section, Waste Management Division, at 517-373-4750.

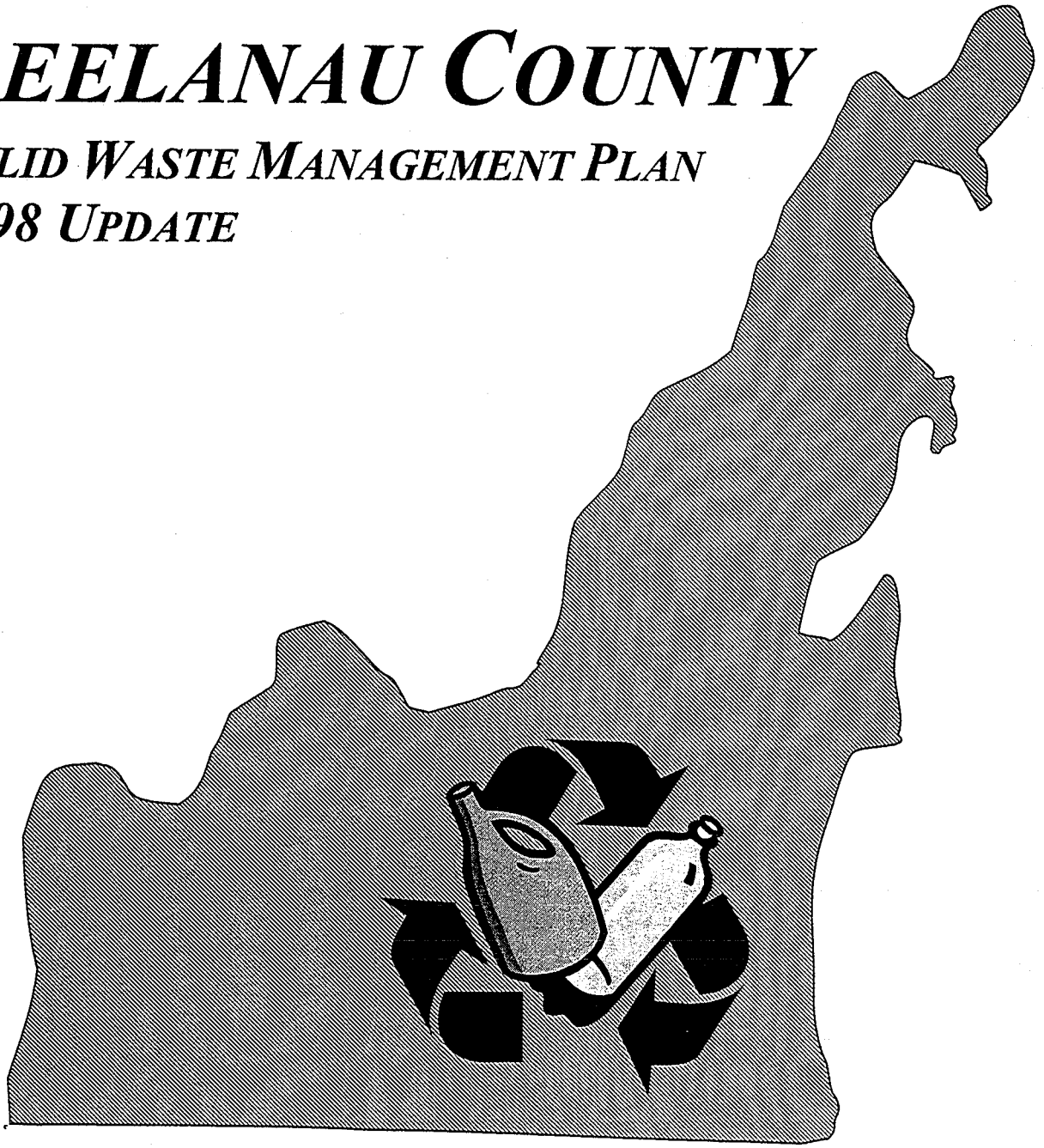
Sincerely,

Russell J. Harding
Director
517-373-7917

cc: Senator George A. McManus Jr.
Representative Jason Allen
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Ms Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Phil Roycraft, DEQ - Cadillac
Mr. Seth Phillips, DEQ
Leelanu County File

LEELANAU COUNTY

SOLID WASTE MANAGEMENT PLAN
1998 UPDATE



NOVEMBER 27, 1998

1998 PLAN UPDATE COVER PAGE

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each County have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available a standardized format for the preparation of these Plan updates. This document is that format. The Plan should be prepared using this format without alteration. Please refer to the document entitled *Guide to Preparing the Solid Waste Management Plan Update* for assistance in completing this Plan format.

DATE SUBMITTED TO THE DEQ: November 27, 1998

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

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

Municipality	Original Planning County	New Planning County

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Leelanau County Planning Department

CONTACT PERSON: Trudy J.C. Galla, AICP
ADDRESS: 113 S. Grand Avenue
P.O. Box 546
Leland, MI 49654
PHONE: (616) 256-9812
FAX: (616) 256-0174
E-MAIL: Not Applicable

CENTRAL INFORMATIONAL REPOSITORY: Leelanau County Planning Department

TABLE OF CONTENTS

Some pages were intentionally left blank in order to be consistent with the PLAN FORMAT as provided by the DEQ.

Section I

Executive Summary **1**
- Overall View of the County 1
- Conclusions 2
- Selected Alternatives 3
- Goals and Objectives 4

Section II

Data Base **1**
- Disposal Areas 2
- Facility Descriptions 3
- Collection Services and Transportation Infrastructure 7
- Evaluation of Deficiencies and Problems 8
- Demographics 9
- Land Development 12
- Management Alternatives 13

Section III

Selected Solid Waste Management System **1**
- Definitions 1
- Import Authorization 2
- Export Authorization 4
- Solid Waste Disposal Areas 6
- Facility Descriptions 7
- Solid Waste Collection Services and Transportation Infrastructure 12
- Resource Conservation Efforts 13
- Waste Reduction, Recycling, and Composting Programs 14
- Educational and Informational Programs 26
- Timetable 27
- Siting Procedure 28
- Management Component 29
- Local Ordinances 32

Appendix A

Additional Information Regarding the Selected System 1
Evaluation of Recycling 1
Detailed Features of Recycling and Composting Programs 2
Coordination Efforts 5
Costs and Funding 7
Evaluation Summary 8
Advantages and Disadvantages 15

Appendix B

Non-Selected Systems 1
Transfer Station with Waste Diversion 2
Compulsory Resource Recovery 9
Estimated Budgets for Components of Solid Waste Management Alternatives ... 17

Appendix C

Public Participation and Approval 1
Public Involvement Process 2
Planning Committee Appointment Procedure 3
Planning Committee 4
Meeting Notices 5

Appendix D

Plan Implementation Strategy 1
Listed Capacity 4
Facility Maps 5
Notice to the Public 7
Resolutions of Support from Municipalities 8
Inter-County Reciprocal Agreements 23
Newspaper Articles 44

EXECUTIVE SUMMARY

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

OVERALL VIEW OF THE COUNTY

Township of Municipality Name	*1990 Population*	*% Land Use**		*% of Economic Base***				
		Rural	*Urban*	*Agr*	*For*	*Ind*	*Com*	*Oth*
Bingham Township	2,051	94	6	45	25	0	0	30
Centerville Township	836	96	4	32	26	0	0	42
Cleveland Township	783	95	5	10	58	0	0	32
Elmwood Township	3,466	84	16	24	33	0	1	42
Empire Township	858	96	4	10	54	0	0	36
Glen Arbor Township	644	92	8	4	34	0	0	62
Kasson Township	1,135	96	4	24	52	0	0	24
Leelanau Township	1,694	92	8	34	35	0	0	31
Leland Township	1,642	91	9	25	33	0	0	42
Solon Township	1,268	95	5	22	29	0	0	49
Suttons Bay Township	2,150	93	7	40	34	0	0	26
Empire Village	355							
Northport Village	605							
Suttons Bay Village	561							
Traverse City (pt)	39							

Total Population 16,527

* *Township totals include incorporated villages located within the township*

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

CONCLUSIONS

Major conclusions resulting from the planning work during the development of this plan are as follows:

- It is important that the existing high quality environmental conditions in Leelanau County be preserved.
- Solid Waste volumes are directly related to population and seasonal fluctuations.
- All solid waste collection and hauling is being done by private haulers.
- A portion of the solid waste being generated in Leelanau County is being recycled. The present residential recycling system consists of seven County funded drop-off sites in Leelanau County, two private drop-off locations in Leelanau County, a private processing plant in Leelanau County, and a private processing plant in Grand Traverse County. The commercial recycling system also includes on-site dumpsters at businesses and schools.
- All solid waste presently being collected in Leelanau County that is not recycled or otherwise removed from the waste stream is disposed of by landfilling. Leelanau County has one privately owned landfill.
- At the present time, landfilling is the most economical method of solid waste disposal.
- Recycling is the primary five and ten year alternative for reducing Leelanau County's solid waste disposal based on an evaluation and ranking of various alternatives and estimated future conditions.

SELECTED ALTERNATIVES

All potentially feasible solid waste management systems were evaluated and ranked to determine the best systems for Leelanau County. The major components of the five and ten year recommended alternatives are as follows:

Recommended Five Year Alternatives

- Solid waste collection by private haulers.
- Materials collected at the drop-off sites will be transported to a processing plant. Funding for these sites will be provided by the County, Townships, and private recyclers.
- Dispose of all wastes not removed from the waste stream by source reduction, recycling, composting, or other methods at a licensed landfill.
- Encourage development of transfer stations as needed.
- Enter into reciprocal agreements with counties in the region regarding solid waste disposal.
- Coordinate collection for household and agricultural hazardous wastes and dispose of them at a licensed out-of-county disposal site.
- Seek additional and alternative funding to promote the selected system and recycling efforts through education.
- The Leelanau County Planning Commission or another organization designated by the County Board of Commissioners will be responsible for implementing the Solid Waste Management Plan. Membership on any designated organization should reflect the makeup of the Solid Waste Management Planning Committee as designated by the DEQ.

Recommended Ten Year Alternatives

- Solid Waste Collection by private haulers.
- Continue developing alternatives to landfilling.
- Follow-up recommendations of five-year plan as feasible.
- Update plan at five year intervals.

Implementation of the selected alternatives will take advantage of, where possible, opportunities for collaboration and coordination with neighboring communities and counties in the region. This effort will focus on opportunities for disposal capacity, recycling and composting processing capacity, residential and commercial solid waste, and recycling collection programs, household and agricultural hazardous waste programs, enforcement, education and outreach.

GOALS AND OBJECTIVES

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

(1) To utilize to the maximum extent possible the resources available in Michigan's solid waste stream through source reduction, source separation, and other means of resource recovery and;

(2) to prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

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

Goal 1: Establish and maintain a high-quality environment by developing and implementing economically feasible integrated solid waste management which provides for the protection of public health and the environment.

Objective 1a: Annually fund a recycling and household hazardous waste drop-off system.

Objective 1b: Select a solid waste management system that safeguards the health and well being of Leelanau County citizens.

Objective 1c: Periodically evaluate the location of drop-off recycling sites and operational hours to encourage accessible recycling while being economically feasible.

Goal 2: Provide the means and encouragement for public involvement in solid waste management activities.

Objective 2a: Maintain a county office where the general public can direct questions about solid waste management, obtain educational materials, and sign up for household hazardous waste collection.

Objective 2b: Advertise the location and operating hours of drop-off recycling sites, household hazardous waste collection days, and agricultural hazardous waste collection sites.

Objective 2c: Educate year-around and seasonal residents about solid waste management issues.

Objective 2d: Operate recycling drop-off sites that encourage recycling through geographic location.

Goal 3: Develop sustainable methods of solid waste handling such as recycling, composting, and others.

Objective 3a: Explore alternate methods of funding for operating and expanding both residential and commercial recycling programs.

Objective 3b: Clarify the responsibilities of the private sector and the county government or public authority for solid waste management.

Objective 3c: Evaluate new programs in relation to the State Solid Waste Policy.

DATA BASE

The data represents actual landfill volumes (*in tons*) as reported by Glen's Sanitary Landfill, Cedar Ridge Disposal, and Ken's Pick Up Service. To be consistent with the 1989 plan, type II waste was proportioned as follows: 60 percent residential, 35 percent commercial, and 5 percent industrial. Numbers were verified with landfill operators and haulers when possible.

	Current 1997 Annual Volume	*Five Year Annual Volume*	*Ten Year Annual Volume*
Residential Solid Waste	8,700	8,500	8,200
Commercial Solid Waste	5,100	5,000	4,800
Industrial Solid Waste	700	700	700
Construction and Demolition Waste	4,700	4,100	3,300
Total	**19,200**	**18,300**	**17,000**

Overall, the county does not anticipate major problems associated with managing the solid waste generated within its borders since Glen's Sanitary Landfill, which is located in Kasson Township, has over twenty years of capacity. Although the annual volume of waste has increased, so has the county's population. According to the State Demographer at the Michigan Department of Management and Budget, Leelanau County's population grew 12 percent between 1990 and 1995. They anticipate that the population will grow a total of 17 percent by the year 2000. The Northwestern Michigan Council of Governments also estimates similar population increases over the first part of the decade.

Leelanau County's volume of materials being reused and recycled has increased drastically over the past ten years. The volume of each material collected at the county drop-off sites continues to increase every year except for paper products which peaked in 1995. .The following numbers reflect collection volumes provided by Renewable Waste Inc, Construction Waste Recycling, Goodwill Industries, and Cedar Disposal Service. USA Waste Inc provided the volumes for the County's drop-off sites and Glen's Sanitary Landfill. The recycling volume for beverage containers is estimated using the average recovery rate provided in the 1989 Plan.

	Current 1997 Annual Volume	*Five Year Annual Volume*	*Ten Year Annual Volume*
Aluminum and Tin	50	50	30
Beverage Containers	1,150	960	890
Glass	140	110	80
Paper Products	480	500	320
Plastics	20	20	10
Commercial Cardboard	580	n/a	n/a
Construction and Demolition	1,040	n/a	n/a
Metal	190	n/a	n/a
Textiles	60	n/a	n/a
Total	**3,710**		

TOTAL QUANTITY OF SOLID WASTE GENERATED: **22,910 Tons**
TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL: **19,200 Tons**

DISPOSAL AREAS

All three disposal facilities accepting waste from Leelanau County are privately owned and operated. The vast majority of the solid waste produced in Leelanau County is disposed at Glen's Sanitary Landfill located in Kasson Township. A small portion of waste is disposed at Cedar Ridge Disposal Facility. Type III waste is disposed outside of Leelanau County at Ken's Landfill. Renewable Waste Inc operates a privately owned transfer facility within Leelanau County.

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Glen's Sanitary Landfill

County: Leelanau Location: Town: 28 N Range: 13 W Section(s): 35

Map identifying location included in the Attachment Section: X Yes ___ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

___ Public X Private Owner: USA Waste Inc.

Operating Status	Waste Type Received
X Open	X Residential
___ Closed	X Commercial
X Licensed	X Industrial
___ Unlicensed	X Construction and Demolition
X Construction Permit	X Contaminated Soils
___ Open, but Closure	X Special Wastes*
___ Pending	___ Other: ___

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

Asbestos, Type II Sludges

Site Size:

Total area of facility property:	460.0	acres
Total area sited for use:	133.0	acres
Total area permitted:	133.0	acres
Operating:	14.8	acres
Not excavated:	96.0	acres
Current capacity:	22,500,000	cubic yards
Estimated lifetime:	60	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	300,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Cedar Ridge Recycling and Disposal Facility

County: Charlevoix Location: Town: 33 N Range: 7 W Section(s): 19

Map identifying location included in the Attachment Section: X Yes ___ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

___ Public X Private Owner: Waste Management of Michigan, Inc.

Operating Status	Waste Type Received
X Open	X Residential
___ Closed	X Commercial
X Licensed	X Industrial
___ Unlicensed	X Construction and Demolition
___ Construction Permit	X Contaminated Soils
___ Open, but Closure	X Special Wastes*
___ Pending	___ Other: ___

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

Flyash, Foundry Sands

Site Size:

Total area of facility property:	120	acres
Total area sited for use:	40	acres
Total area permitted:	40	acres
Operating:	21	acres
Not excavated:	0	acres
Current capacity:	370,000	cubic yards
Estimated lifetime:	2.5	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	311,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type III Solid Waste Landfill

Facility Name: Ken's Pick Up Service

County: Gr. Traverse Location: Town: 27 N Range: 11 W Section(s): 15

Map identifying location included in the Attachment Section: X Yes ____ No

If the 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: USA Waste Inc.

Operating Status	Waste Type Received
X Open	____ Residential
____ Closed	____ Commercial
X Licensed	____ Industrial
____ Unlicensed	X Construction and Demolition
____ Construction Permit	____ Contaminated Soils
____ Open, but Closure	____ Special Wastes*
____ Pending	X Other: Type II Waste Transfer Station

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

_____

_____

Site Size:

Total area of facility property:	17.5	acres
Total area sited for use:	11.5	acres
Total area permitted:	11.5	acres
Operating:	6.0	acres
Not excavated:	0	acres
Current capacity:	125,000	cubic yards
Estimated lifetime:	1.5	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	70,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Transfer Station

Facility Name: Renewable Waste Inc.

County: Leelanau Location: Town: 30 N Range: 11 W Section(s): 33

Map identifying location included in the Attachment Section: X Yes ____ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: Glen's Sanitary Landfill

____ Public X Private Owner: Renewable Waste Inc.

Operating Status	Waste Type Received
X Open	X Residential
____ Closed	X Commercial
X Licensed	____ Industrial
____ Unlicensed	X Construction and Demolition
____ Construction Permit	____ Contaminated Soils
____ Open, but Closure	____ Special Wastes*
____ Pending	____ Other: ____

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

Site Size:

Total area of facility property:	23.0	acres
Total area sited for use:	3.5	acres
Total area permitted:	3.5	acres
Operating:	3.5	acres
Not excavated:	0	acres
Current capacity:	500	cubic yards per day
Estimated lifetime:	30	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	250,000	cubic yards

(*if applicable*)
Annual Energy Production

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

COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

Leelanau County is presently served by four private solid waste haulers (Cedar Disposal, Walt Kalchik's Disposal Service, Northern Disposal Inc, and USA Waste Inc) for residential and commercial collection. All four of these haulers are funded by charges paid by the customer. Customers pay either a monthly fee, per bag fee, or container fee. Cedar Disposal serves the western six townships (Empire, Glen Arbor, Kasson, Cleveland, Solon, and Centerville) and the unincorporated villages of Lake Leelanau and Leland. Walt Kalchik's Disposal Service operates in the northern two townships (Leelanau and Suttons Bay). Northern Disposal Inc utilizes a roll off system throughout Leelanau County. USA Waste Inc collects waste in the eastern five townships (Elmwood, Bingham, Suttons Bay, Leland, and Leelanau). There is overlap between the three haulers as the operational boundaries do not adhere to the political boundaries of the townships. There is one transfer facility operating in Leelanau County. Renewable Waste Inc is located just south of the Village of Suttons Bay. It is also privately owned and operated and is funded by customer fees.

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

Collection System

- It is a problem for haulers to collect source separated materials and keep them separated.

- There is a system for collecting household hazardous wastes. The cost of the program limits the frequency at which collections can be held and the number of people that can participate.

Management

- The County government needs to insure that waste is collected and disposed of properly. The previously formed Solid Waste Management Board was disbanded with the management responsibilities being given to the County Planning Commission. Private enterprise needs to be more involved in management, especially with respect to recycling and hazardous waste collection.

Interaction of Components of the Solid Waste System

- Solid waste generators and the general public need to be better educated as to how the solid waste management system works with respect to the following:

  Where the waste ends up
  Economics
  Importance of recycling
  Production and use of reusable products
  Elimination of unnecessary packaging material
  Methods for practicing source reduction
  Recognition and proper disposal of hazardous wastes

DEMOGRAPHICS

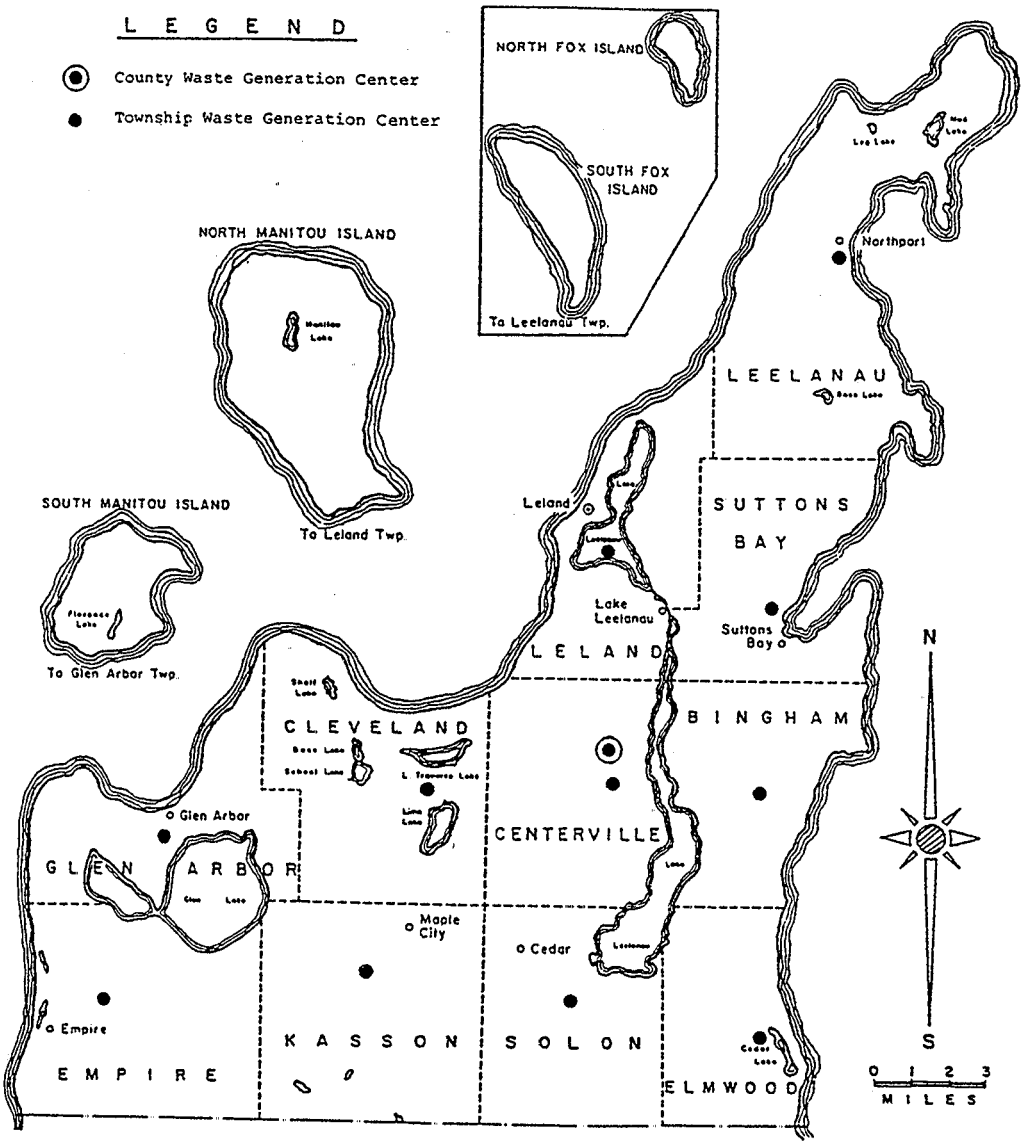
The following presents the current and projected population densities and centers for five and ten year periods, identification of current and projected centers of solid waste generation including industrial solid waste for five and ten year periods as related to the Selected Solid Waste Management System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

The latest census (1990) listed a permanent resident population for Leelanau County of 16,527. Both the Northwestern Michigan Council of Governments and the State demographer at the Michigan Department of Management and Budget have estimated that Leelanau County's population increased 12 percent in the first five to six years of the decade. The table on **Page II-10** shows each township's actual population for the 1980 and 1990 census years as well as projections for 1996 and projections for ten years in the future. The table also includes population densities and the township's percentage of the total county's population. It must be noted that Leelanau County has a very high seasonal population. The Data Research Center previously prepared seasonal population estimates but has not done so since 1984 when the accuracy of the estimates became questionable. The estimates were believed to be much lower than were actually occurring. The estimate provided in the 1989 Plan shows the seasonally adjusted population almost equal to twice the permanent population.

The map on **Page II-11** identifies the solid waste generation centers for each township and the county as a whole from the 1989 Plan. Since the population distribution and primary solid waste management system have remained relatively the same, the map should continue to be an accurate measure of today's solid waste generation and distribution centers.

Township	1980 Census Population	1980 Census % Total	1990 Census Population	1990 Census % Total	1992 Estimates[1] Population	1992 Estimates[1] % Total	Current Population[2] Population	Current Population[2] % Total	2007 Projections[3] Population	2007 Projections[3] % Total
Bingham	1,546	11.0	2,051	12.4	2,173	12.5	2,382	12.9	2,500	12.3
Centerville	709	5.1	836	5.1	886	5.1	971	5.3	1,100	5.4
Cleveland	654	4.7	783	4.7	829	4.8	910	4.9	1,100	5.4
Elmwood	3,004	21.4	3,466	21.0	3,533	20.4	3,491	18.9	4,500	22.2
Empire	797	5.7	858	5.2	892	5.1	935	5.1	900	4.4
Glen Arbor	578	4.1	644	3.9	683	3.9	748	4.1	800	3.9
Kasson	952	6.8	1,135	6.9	1,211	7.0	1,276	6.9	1,300	6.4
Leelanau	1,560	11.1	1,694	10.2	1,773	10.2	1,872	10.2	2,100	10.3
Leland	1,446	10.3	1,642	9.9	1,738	10.0	1,901	10.3	1,900	9.4
Solon	987	7.0	1,268	7.7	1,344	7.8	1,472	8.0	1,400	6.9
Suttons Bay	1,774	12.7	2,150	13.0	2,275	13.1	2,472	13.4	2,700	13.3
Totals	14,007		16,527		17,337		18,430		20,300	

1 *Estimates for July 1992 provided by the Northwestern Michigan Council of Governments.*
2. *Estimates for July 1996 provided by the Northwestern Michigan Council of Governments were used for current population.*
3. *Estimates for 2007 column were taken from the 1989 Plan as provided by Gosling Czubak. Current estimates from the Office of the State Demographer which do not break down individual townships indicate a similar total population for the county. Individual township percentages may vary.*



LEELANAU COUNTY

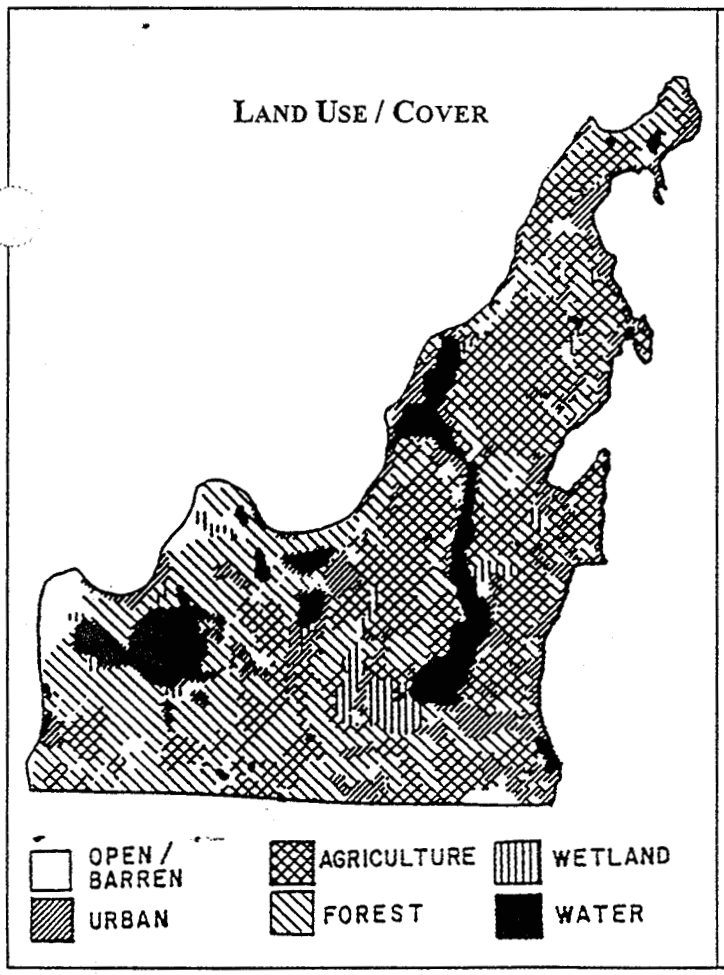
SOLID WASTE GENERATION CENTERS

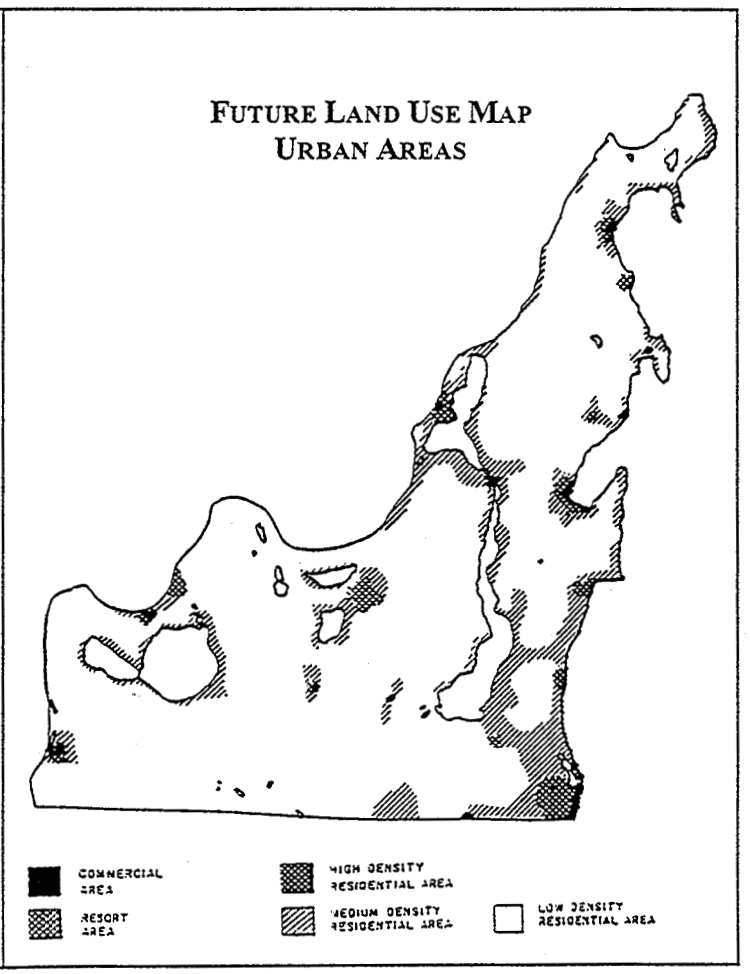
Gosling Czubak Associates

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.

The map on the left identifies land use / land cover in Leelanau County from 1990 and was compiled using data from the United States Bureau of the Census. The map on the right was developed during the planning process for the *Leelanau General Plan* in 1994. It identifies a generalized pattern of land uses in Leelanau County for the next five and ten year periods. Commercial and residential areas are the primary urban classes delineated on the map. Residential areas are classified as high, medium, and low density. It is recognized that local zoning will have the greatest influence over land use cover in Leelanau County.





SOLID WASTE MANAGEMENT ALTERNATIVES

The following briefly describes the three solid waste management alternatives considered by Leelanau County and how each alternative will meet its needs. Each alternative will be evaluated with respect to public health, economic, environment, siting and energy impacts. Details regarding the selected alternative are included in Appendix A. Details regarding the non-selected alternatives are included in Appendix B.

Alternative No. 1 - In-County Landfill with Waste Diversion

Description:

This alternative includes diverting as much waste as practical from the waste stream with the remainder being disposed of at an in-County landfill. It approximates the existing system. It includes the following:

- Waste collection by private haulers
- Drop off sites for recyclables with collected materials transported to a processing plant.
- Household hazardous waste collection program with disposal at a licensed out of County facility.
- Public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Disposal of wastes not removed by the diversion methods listed above at a licensed in-County landfill.

Discussion:

This alternative utilizes the existing facilities including the private hauling system, recycling drop-off sites, household hazardous waste program, public education, and the in-County landfill. With recycling sites, household hazardous waste collection, and the public education system, this alternative provides a system on which the County can expand its efforts to address the deficiencies and problems.

Estimated Costs:

		Annual Cost
Collection and Transportation (19,200 Tons @ $100)	$	1,920,000
Recycling Drop-off Sites	$	112,000
Household Hazardous Waste Collection	$	8,000
Public Education	$	8,000
Landfill Disposal	$	806,000
Total Estimated Cost	**$**	**2,854,000**
Estimated Cost per Ton (@ 19,200 TPY)	**$**	**149**

Alternative No. 2 - Transfer Station with Waste Diversion

Description:

This alternative consists of a transfer station at a central location in Leelanau County. Recyclable wastes will be diverted in the same manner as described in Alternative No. 1. The remaining wastes that require disposal will be transported from the transfer station to a disposal facility that may be located in Leelanau or another county. It includes the following:

- Waste collection by private haulers who transport the wastes to the transfer station.
- Drop off sites for recyclables with collected materials transported to a processing plant.
- Composting program consisting of a drop-off site for yard wastes with hauling by a private contractor.
- Household hazardous waste collection program with disposal at a licensed out of County facility.
- Public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Transfer station where wastes are compacted into large containers to be hauled to a licensed disposal site. The disposal site could be the existing in-County landfill or a site located out of County.

Discussion:

This alternative utilizes the existing facilities including the private hauling system, recycling drop-off sites, household hazardous waste program, and public education. It also provides for the utilization of an alternate disposal site in the event that the existing in-County landfill is not available at some future date. With recycling sites, household hazardous waste collection, and the public education system, this alternative provides a system on which the County can expand its efforts to address the deficiencies and problems.

Estimated Costs:

		Annual Cost
Collection and Transportation (19,200 Tons @ $90)	$	1,728,000
Recycling Drop-off Sites	$	112,000
Yard Waste Composting	$	29,000
Household Hazardous Waste Collection	$	8,000
Public Education	$	8,000
Transfer Station (Including Disposal)	$	1,105,000
Total Estimated Cost	**$**	**2,990,000**
Estimated Cost per Ton (@ 19,200 TPY)	**$**	**156**

Alternative No. 3 - Compulsory Resource Recovery

Description:

- Mandatory separation of marketable wastes by waste generators. Selected wastes, typically paper, newsprint, cardboard, glass, aluminum, tin cans, and plastics would be separated by residential, commercial and industrial waste generators. Industries that generate significant volumes of certain recyclable wastes that could be diverted from the waste stream would be required to do so.
- Waste collection by private haulers.
- Curbside collection of source separated wastes by private haulers in the more densely populated portions of the County. These materials would be either collected with separate vehicles from the non- separated waste collection or with the same vehicles with dedicated compartments for separated wastes.
- Drop off sites for recyclables for waste generators not served by curbside collection.
- Transport collected materials to a processing plant.
- Composting program consisting of a drop-off site for yard wastes with hauling by a private contractor.
- Expanded household hazardous waste collection program with disposal at a licensed out of County facility.
- Expanded public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Disposal of wastes not removed by the diversion methods listed above at a licensed in-County landfill.

Discussion:

This alternative utilizes the existing facilities including the private hauling system, recycling drop-off sites, household hazardous waste program, public education, and the in-County landfill. It also provides for a significant expansion of some of the programs. By diverting a greater quantity of waste from the landfill, the useful life of the landfill can be extended.

The proposed curbside collection program will be available to approximately 25% of the County's population or about 2000 homes. It is estimated that the curbside collection system will program will increase the quantities of materials recycled as listed on page II-1 by 25%.

This alternative addresses some of the deficiencies and problems identified in Section II-8. The proposed curbside collection of recyclables, and expanded household hazardous waste collection and public education programs aim directly at some of the deficiencies.

With recycling sites, household hazardous waste collection, and the public education system, this alternative provides a system on which the County can expand its efforts to address the deficiencies and problems.

Estimated Costs:

		Annual Cost
Collection and Transportation (18,740 Tons @ $100)	$	1,874,000
Recycling Drop-off Sites	$	90,000
Curbside Collection	$	72,000
Yard Waste Composting	$	29,000
Household Hazardous Waste Collection	$	15,000
Public Education	$	18,000
Landfill Disposal	$	806,000
Total Estimated Cost	**$**	**2,904,000**
Estimated Cost per Ton (@ 19,200 TPY)	**$**	**151**

THE SELECTED SOLID WASTE

MANAGEMENT SYSTEM

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

This alternative includes diverting as much waste as practical from the waste stream with the remainder being disposed of at an in-County landfill. It approximates the existing system. It includes the following:

- Waste collection by private haulers.
- Drop-off sites for recyclables with collected materials transported to a processing plant.
- Household hazardous waste collection program with disposal at a licensed out-of-County facility.
- Public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Disposal of wastes not removed by the diversion methods listed above at a licensed in-County landfill.

DEFINITIONS RELATING TO THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

Primary: An authorized principal facility identified to insure proper handling of a county's solid waste.

Contingency: An authorized alternate facility that would be used if the county's primary solid waste management facilities, designated in this Plan, become unavailable. This is not intended to restrict the legitimate business of private haulers from using alternate licensed landfills.

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 (*in ton.*

Antrim - Primary as of 1/21/04

Manistee - primary as of 1/21/03

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED DAILY QUANTITY	AUTHORIZED ANNUAL QUANTITY	
Leelanau	Antrim	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Benzie	Glen's Sanitary Landfill	100%	100%	Primary
Leelanau	Charlevoix	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Emmet	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Grand Traverse	Glen's Sanitary Landfill	100%	100%	Primary
Leelanau	Kalkaska	Glen's Sanitary Landfill	100%	100%	Primary
Leelanau	Manistee	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Missaukee	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Osceola	Glen's Sanitary Landfill	100%	100%	Contingency
Leelanau	Wexford	Glen's Sanitary Landfill	100%	100%	Contingency

* *See Appendix D for copies of Solid Waste Reciprocal Agreements. Leelanau County will only import solid waste from counties with reciprocal agreements attached in Appendix D even if that county is listed in Table 1-A.*

IMPORT AUTHORIZATION

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 CONDITIONS AUTHORIZED in Table 1-B.

Table 1-B

FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE (*in tons*)
CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED DAILY QUANTITY	AUTHORIZED ANNUAL QUANTITY	AUTHORIZED CONDITIONS*
Leelanau	Antrim	N/A	100%	100%	Contingency
Leelanau	Benzie	N/A	100%	100%	Primary
Leelanau	Charlevoix	N/A	100%	100%	Contingency
Leelanau	Emmet	N/A	100%	100%	Contingency
Leelanau	Grand Traverse	N/A	100%	100%	Primary
Leelanau	Kalkaska	N/A	100%	100%	Primary
Leelanau	Manistee	N/A	100%	100%	Contingency
Leelanau	Missaukee	N/A	100%	100%	Contingency
Leelanau	Osceola	N/A	100%	100%	Contingency
Leelanau	Wexford	N/A	100%	100%	Contingency

* *See Appendix D for copies of Solid Waste Reciprocal Agreements. Leelanau County will only import solid waste from counties with reciprocal agreements attached in Appendix D even if that county is listed in Table 1-B.*

EXPORT AUTHORIZATION

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

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE (*in tons*)

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME	AUTHORIZED DAILY QUANTITY	AUTHORIZED ANNUAL QUANTITY	AUTHORIZED CONDITIONS
Leelanau	Charlevoix	Cedar Ridge Recycling and Disposal Facility	100%	100%	Contingency
Leelanau	Grand Traverse	Ken's Pick Up Service Type III Landfill	100%	100%	Contingency
Leelanau	Manistee	Harland's Landfill	100%	100%	Contingency
Leelanau	Wexford	Wexford County Landfill	100%	100%	Contingency

Manistee – primary
as of 1/21/03

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 CONDITIONS AUTHORIZED in Table 2-B if authorized for import in the approved Solid Waste Management Plan of the receiving County.

Table 2-B

FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE (*in tons*)
CONTINGENT ON NEW FACILITIES BEING SITED

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME	AUTHORIZED DAILY QUANTITY	AUTHORIZED ANNUAL QUANTITY	AUTHORIZED CONDITIONS
Leelanau	Antrim	N/A	100%	100%	Contingency
Leelanau	Benzie	N/A	100%	100%	Contingency
Leelanau	Charlevoix	N/A	100%	100%	Contingency
Leelanau	Emmet	N/A	100%	100%	Contingency
Leelanau	Grand Traverse	N/A	100%	100%	Contingency
Leelanau	Kalkaska	N/A	100%	100%	Contingency
Leelanau	Manistee	N/A	100%	100%	Contingency
Leelanau	Missaukee	N/A	100%	100%	Contingency
Leelanau	Osceola	N/A	100%	100%	Contingency
Leelanau	Wexford	N/A	100%	100%	Contingency

SOLID WASTE DISPOSAL AREAS

The following identifies the names of the 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 through III-11 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 of 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 Landfills:

Glen's Sanitary Landfill (*Page III-7*)
Cedar Ridge Recycling and Disposal Facility, *Contingency Only* (*Page III-8*)
Harland's Manistee County Landfill, *Contingency Only* (*Page III-10*)
Wexford County Landfill, *Contingency Only* (*Page III-11*)

Type III Landfill:

Glen's Sanitary Landfill (*Page III-7*)
Ken's Pick Up service Type III Landfill (*Page III-9*)

Incinerators:

None

Waste-to-Energy-Incinerators:

None

Transfer Facility:

Renewable Waste Inc.

Processing Plants:

None

Waste Piles:

None

Other:

None

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Glen's Sanitary Landfill

County: Leelanau Location: Town: 28 N Range: 13 W Section(s): 35

Map identifying location included in the Attachment Section: X Yes ____ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

____ Public X Private Owner: USA Waste Inc.

Operating Status	Waste Type Received
X Open	X Residential
____ Closed	X Commercial
X Licensed	X Industrial
____ Unlicensed	X Construction and Demolition
X Construction Permit	X Contaminated Soils
____ Open, but Closure	X Special Wastes*
____ Pending	____ Other: ____

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

Asbestos, Type II Sludges

Site Size:

Total area of facility property:	460.0	acres
Total area sited for use:	133.0	acres
Total area permitted:	133.0	acres
Operating:	14.8	acres
Not excavated:	96.0	acres
Current capacity:	22,500,000	cubic yards
Estimated lifetime:	60	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	300,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Cedar Ridge Recycling and Disposal Facility

County: Charlevoix Location: Town: 33 N Range: 7 W Section(s): 19

Map identifying location included in the Attachment Section: X Yes ___ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

___ Public X Private Owner: USA Waste Inc.

Operating Status	Waste Type Received
X Open	X Residential
___ Closed	X Commercial
X Licensed	X Industrial
___ Unlicensed	X Construction and Demolition
___ Construction Permit	X Contaminated Soils
___ Open, but Closure	X Special Wastes*
___ Pending	___ Other: ___

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

Flyash, foundry sands

Site Size:

Total area of facility property:	120	acres
Total area sited for use:	40	acres
Total area permitted:	40	acres
Operating:	21	acres
Not excavated:	0	acres
Current capacity:	370,000	cubic yards
Estimated lifetime:	2.5	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	311,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type III Solid Waste Landfill

Facility Name: Ken's Pick Up Service

County: Gr. Traverse Location: Town: 27 N Range: 11 W Section(s): 7

Map identifying location included in the Attachment Section: X Yes ____ No

If the 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: USA Waste Inc.

Operating Status	Waste Type Received
X Open	____ Residential
____ Closed	____ Commercial
X Licensed	____ Industrial
____ Unlicensed	X Construction and Demolition
____ Construction Permit	____ Contaminated Soils
____ Open, but Closure	____ Special Wastes*
____ Pending	____ Other: _____

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

_____

_____

Site Size:

Total area of facility property:	17.5	acres
Total area sited for use:	11.5	acres
Total area permitted:	11.5	acres
Operating:	6.0	acres
Not excavated:	0	acres
Current capacity:	125,000	cubic yards
Estimated lifetime:	1.5	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	70,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Harland's Manistee County Landfill

County: Manistee Location: Town: 21 N Range: 16 W Section(s): 32

Map identifying location included in the Attachment Section: X Yes ____ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

____ Public X Private Owner: Allied Disposal

Operating Status	Waste Type Received
X Open	X Residential
____ Closed	X Commercial
X Licensed	X Industrial
____ Unlicensed	X Construction and Demolition
X Construction Permit	X Contaminated Soils
____ Open, but Closure	X Special Wastes*
____ Pending	____ Other: ____

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

Asbestos, Flyash

Site Size:

Total area of facility property:	336.0	acres
Total area sited for use:	40.0	acres
Total area permitted:	40.0	acres
Operating:	40.0	acres
Not excavated:	13.0	acres
Current capacity:	1,700,000	cubic yards
Estimated lifetime:	14	years
Estimated days open per year:	250	days
Estimated yearly disposal volume:	200,000	cubic yards

(*if applicable*)
Annual Energy Production

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

FACILITY DESCRIPTION

Facility Type: Type II Solid Waste Landfill

Facility Name: Wexford County Landfill

County: Wexford Location: Town: 23 N Range: 9 W Section(s): 33 & 34

Map identifying location included in the Attachment Section: X Yes ___ No

If the facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: N/A

X Public ___ Private Owner: Department of Public Works

Operating Status	Waste Type Received
X Open	X Residential
___ Closed	X Commercial
X Licensed	X Industrial
___ Unlicensed	X Construction and Demolition
___ Construction Permit	X Contaminated Soils
___ Open, but Closure	___ Special Wastes*
___ Pending	___ Other: ___

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

Site Size:

Total area of facility property:	146.0	acres
Total area sited for use:	51.0	acres
Total area permitted:	51.0	acres
Operating:	4.0	acres
Not excavated:	0	acres
Current capacity:	2,000,000	cubic yards
Estimated lifetime:	12	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	220,000	cubic yards

(*if applicable*)
Annual Energy Production

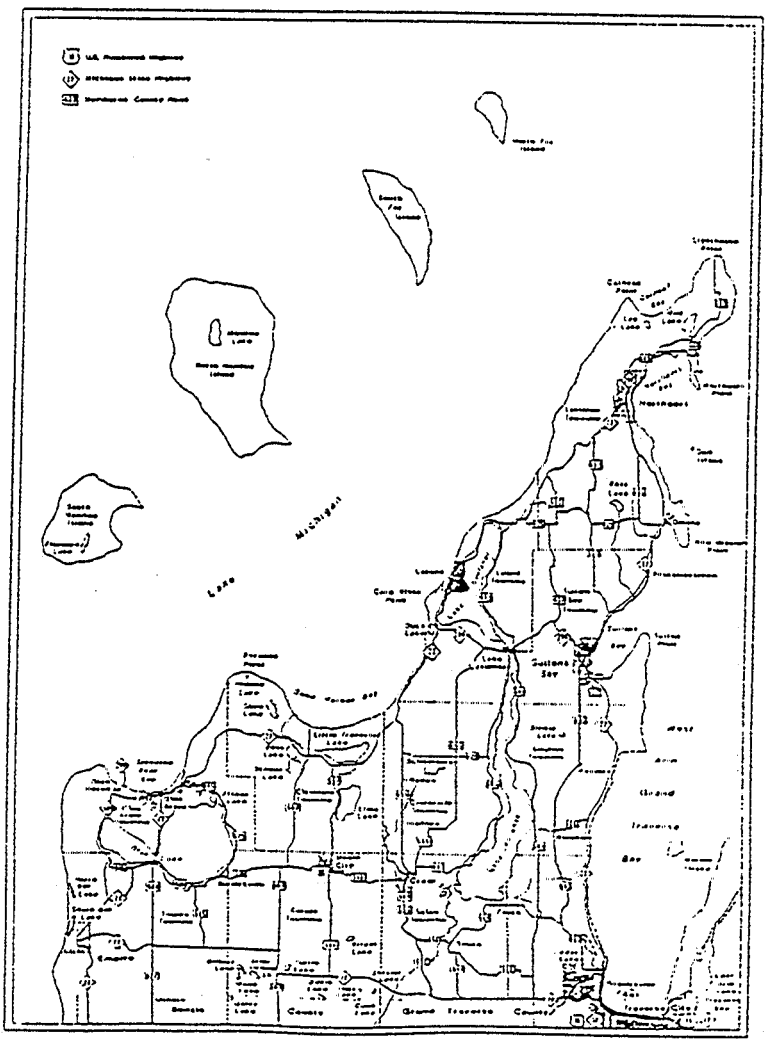
Landfill gas recovery projects:	N/A	megawatts
Waste-to-energy incinerators:	N/A	megawatts

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION

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

In the past, Leelanau County has been served by as few as three and as many as eight private haulers for residential and commercial collection. Currently, the County is served by four private solid waste haulers (Cedar Disposal, Walt Kalchik's Disposal Service, Northern Disposal, Inc, and USA Waste Inc) and will continue to be served by an unspecified number of private waste haulers funded by charges paid by the customer. In addition, Leelanau County will continue to be served by one transfer station. Renewable Waste Inc currently operates in the County just south of the Village of Suttons Bay.

Leelanau County's existing road system for the transportation of solid waste, shown below, utilizes state highways, county roads, and major arterial roads. The roads follow section and quarter lines in portions of the County although the majority of roads are dictated by natural features such as lakes, wetlands, and topography. All state highways and paved county roads have load restrictions with the exception of M-204 and portions of M-22 and M-72. All roads in Leelanau County have seasonal reductions in allowable loads during the spring breakup period.



RESOURCE CONSERVATION EFFORTS:

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

Effort Description	Estimated Diversion Tons Per Year		
	Current	*5th Year*	*10th Year*
Waste Reduction Program	**0**	**1,200**	**2,520**

- Prepare a Source Reduction Plan with a Public Education Program to reduce the quantity of unnecessary items thereby eliminating waste materials produced.
- Estimates based on State Solid Waste Policy with five percent reduction in five years and ten percent reduction in ten years.

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

The following describes the techniques used and proposed to be used throughout the County which reduce 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 practically voluntary and because technologies change and equipment may need replacing, it is not this Plan update's intention to limit the technologies 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.

Volume reduction techniques will be determined by members of the industry for their respective facilities. Currently, only one volume reduction program is in use throughout the county. Households are offered the option to pay a per-bag fee rather than pay a flat monthly collection fee. This encourages households, who take advantage of the program, to compact trash in order to use less bags. This program not only encompasses recycling it promotes volume reduction. For detailed descriptions of existing and proposed recycling techniques, see *Appendix A*.

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

According to the 1989 Plan, approximately forty percent (40%) of the total quantity of waste generated could be recycled including newsprint, cardboard, office paper, brown paper, glass, ferrous materials, aluminum and tin, and plastics. The following factors have an affect on the feasibility of the recycling program in Leelanau County:

- Public perception and willingness to source separate waste.
- Geographically convenient drop-off site locations.
- Hauler participation and willingness to pick up source separated wastes.
- Governmental financial support and oversight of the program.

The following impediments to recycling were identified in the 1989 Plan. No new impediments were identified during the update process although some were altered.

- Inconvenience to the individual.
- Present cost to the individual higher than for landfilling.
- Lack of public knowledge as to the importance of recycling and actual costs for disposal of materials.

Some of the available methods by which the impediments to recycling can be removed are as follows:

- Public education programs through the media, schools, etc.
- Annually evaluate the location of drop-off sites for geographic convenience.
- Financial incentives to encourage recycling.
- Adopt an ordinance prohibiting certain materials from being disposed of by landfilling.
- Create markets by requiring all governmental units to purchase supplies made from recycled materials.
- Establish landfill tipping fees based on a by-the-bag system only.

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

COMPOSTING

According to the 1989 Plan, approximately fourteen percent (14%) of the total quantity of waste generated could be composted including paper, food wastes, yard wastes, wood products, and other biodegradable materials. The following factors would have an effect on composting in the County:

- Public perception and willingness to participate.
- Convenient of the program.
- Governmental financial support of the program.

The following impediments to composting were identified in the 1989 Plan.

- Unknown costs to the individual and community.
- Lack of public knowledge as to the importance of composting.
- No organized composting program in existence.

The following are methods by which the impediments to composting can be overcome:

- Public education programs through the media, schools, etc.
- Institute pilot programs in higher populated areas of the County.
- Revenue from the sale of the final product to help offset the cost of the program.
- Financial incentives to encourage composting.
- Adopt an ordinance prohibiting certain materials from being disposed of by landfilling or burned.
- Establish landfill tipping fees based on a by-the-bag system only.

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:

The unknown costs of equipment, collection methods, and disposal techniques make it economically unfeasible for countywide composting without a Composting Plan. This does not preclude any household from operating a single family compost pile using waste generated at their residence for use in their garden.

HAZARDOUS MATERIALS

The County currently coordinates household and agricultural collection with Grand Traverse County paid for by a fee collected on tax bills. Materials accepted include oil based paint, pesticides, batteries, automotive liquids, and aerosol cans.

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

RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis, the tables on pages III-18, III-19, and III-20 list the existing recycling, composting, and hazardous materials source separation programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-21, III-22, and III-23 list the recycling, composting and hazardous materials source separation programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansion of current programs to be implemented beyond those listed.

Leelanau County will maintain an appropriate number (*currently seven*) of recycling drop-off sites for the collection of paper products, cardboard, glass, aluminum and tin. Private companies are also encouraged to operate recycling drop-off sites. Additional materials may be collected in the future as technology for recycling improves and markets are developed. Participation will be on a voluntary basis. The location of the sites and operational hours will be periodically evaluated to encourage accessible recycling while being economically feasible.

Leelanau County will encourage household composting through education and legislative support. In addition, the Leelanau County Board of Commissioners will appoint a committee to develop a Composting Plan. The Plan will include the following:

- The kinds and volumes of wastes that will be composted.
- Collection Methods.
- Measures to ensure collection such as ordinances or cooperative arrangements.
- Ordinances or regulations affecting the program.
- The role of the County, municipalities, and townships in implementing the Plan.
- The involvement of solid waste haulers and the community.
- Anticipated costs.
- On-going program financing.
- Equipment selection.
- Public and private sector involvement.
- Site availability and selection.
- Operating parameters such as pH and heat range.

Leelanau County will annually fund a number of household hazardous waste collection days. The location and operating hours of the household hazardous waste collection days and the agricultural hazardous waste collection sites will be advertised.

Table 3-A

EXISTING RECYCLING PROGRAMS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED*	MANAGEMENT RESPONSIBILITIES *DEVELOPMENT*	*OPERATION*	*EVALUATION*
Leelanau County Drop-Off Recycling Sites								
Cedar	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Empire	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Glen Arbor	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Greilickville	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Lake Leelanau	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Northport	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Suttons Bay	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Private Recycling Operations								
Cedar Disposal	Western Townships	Private	On-Site	Daily	C	Cedar Disposal	Cedar Disposal	Cedar Disposal
CWR	County	Private	On-Site	Daily	F, J	CWR	CWR	CWR
Glen's Landfill	County	Private	Drop-Off	Daily	A,B,C,D,E,F	USA Waste	USA Waste	USA Waste
Kalchik Disposal	Northern Townships	Private	On-Site	Daily	C	Kalckik Disposal	Kalchik Disposal	Kalchik Disposal
Renewable Waste	County	Private	Drop-Off	Daily	A,B,C,D,E,F,K,J	RWI	RWI	RWI

The above programs identify organizations that collect recyclable materials. This Plan is not authorizing the creation of a recycling facility within Leelanau County. Regulating that type of facility is not a function of the Solid Waste Plan.

* Identified by the materials collected using the letter located by that material type: A (Plastics), B (Newspaper), C (Corrugated Containers), D (Other Paper), E (Glass), F (Metals), J (Construction and Demolition), K (Tires)

Table 3-B

EXISTING COMPOSTING PROGRAMS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED	MANAGEMENT RESPONSIBILITIES		
						DEVELOPMENT	*OPERATION*	*EVALUATION*
None.								

Table 3-C

EXISTING SOURCE SEPARATION OF POTENTUALLY HAZARDOUS MATERIALS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED*	MANAGEMENT RESPONSIBILITIES		
						DEVELOPMENT	*OPERATION*	*EVALUATION*
Hazardous Waste Days	County	Public	Drop-Off	Four Times a Year	All	Grand Traverse	DPA	DPA
Agricultural Waste	County	Public	Drop-Off	Daily	PS	Grand Traverse	MSU Extension	MSU Extension

* Identified by the materials collected using the letter located by that material type: AR (Aerosal Cans), A (Automotive Products), AN (Antifreeze), B1 (Lead Acid Batteries), B2 (Household Batteries), C (Cleaners and Polishers), H (Hobby and Art Supplies), OF (Used Oil and Filters), P (Paints and Solvents), PS (Pesticides and Herbicides), PH (Personal and Health Care Products), U (Used Oil), OT (Other Materials), ALL (All of the Above)

Table 4-A

PROPOSED RECYCLING PROGRAMS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED*	MANAGEMENT RESPONSIBILITIES *DEVELOPMENT*	*OPERATION*	*EVALUATION*
Leelanau County Drop-Off Recycling Sites								
Cedar	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Empire	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Glen Arbor	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Greilickville	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Lake Leelanau	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Northport	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Suttons Bay	County	Public	Drop-Off	Weekly	A,B,C,D,E	DPA	USA Waste	DPA
Private Recycling Operations								
Cedar Disposal	Western Townships	Private	On-Site	Daily	C	Cedar Disposal	Cedar Disposal	Cedar Disposal
CWR	County	Private	On-Site	Daily	F, J	CWR	CWR	CWR
Glen's Landfill	County	Private	Drop-Off	Daily	A,B,C,D,E,F	USA Waste	USA Waste	USA Waste
Kalchik Disposal	Northern Townships	Private	On-Site	Daily	C	Kalckik Disposal	Kalchik Disposal	Kalchik Disposal
Renewable Waste	County	Private	Drop-Off	Daily	A,B,C,D,E,F,K	RWI	RWI	RWI

* Identified by the materials collected using the letter located by that material type: A (Plastics), B (Newspaper), C (Corrugated Containers), D (Other Paper), E (Glass), F (Metals), J (Construction and Demolition), K (Tires)

Table 4-B

PROPOSED COMPOSTING PROGRAMS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED	MANAGEMENT RESPONSIBILITIES		
						DEVELOPMENT	*OPERATION*	*EVALUATION*

No programs are proposed until following the preparation of the Composting Plan. Leelanau County will encourage private household composting through education.

Table 4-C

PROPOSED SOURCE SEPARATION OF POTENTUALLY HAZARDOUS MATERIALS

PROGRAM NAME	SERVICE AREA	PUBLIC OR PRIVATE	COLLECTION POINT	COLLECTION FREQUENCY	MATERIALS COLLECTED*	MANAGEMENT RESPONSIBILITIES		
						DEVELOPMENT	*OPERATION*	*EVALUATION*
Hazardous Waste Days	County	Public	Drop-Off	Four Times a Year	All	Grand Traverse	DPA	DPA
Agricultural Waste	County	Public	Drop-Off	Daily	PS	Grand Traverse	MSU Extension	MSU Extension

* Identified by the materials collected using the letter located by that material type: AR (Aerosal Cans), A (Automotive Products), AN (Antifreeze), B1 (Lead Acid Batteries), B2 (Household Batteries), C (Cleaners and Polishers), H (Hobby and Art Supplies), OF (Used Oil and Filters), P (Paints and Solvents), PS (Pesticides and Herbicides), PH (Personal and Health Care Products), U (Used Oil), OT (Other Materials), ALL (All of the Above)

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.

Cedar Disposal
On-site cardboard collection in the western four townships and the unincorporated villages of Leland and Lake Leelanau.

Construction Waste Recycling
On-site construction and demolition collection throughout the County.

Leelanau County Planning Department
Development and evaluation of the County drop-off recycling sites and the household hazardous waste program.

MSU Extension
Development and evaluation of the County agricultural waste collection program.

Renewable Waste Inc
Operation of a transfer station for recycling operations.

USA Waste Inc
Operation of the County drop-off recycling sites and Glen's Sanitary Landfill.

Walt Kalchik Disposal Service
On-site cardboard collection in the Northern two townships.

PROJECTED DIVERSION RATES

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

Collected Material	***Projected Annual Tons Diverted***		
	Current	*5th Year*	*10th Year*
Total Plastics	20	30	60
Newspaper	120	200	340
Corrugated Containers	700	800	980
Total Other Paper Products	240	400	690
Total Glass	140	240	400
Textiles	60	80	100
Grass and Leaves	n/a	?	?
Total Wood Waste	n/a	?	?
Construction and Demolition	1,040	1,030	1,120
Food and Food Processing	n/a	?	?
Tires	n/a	?	?
Total Metals	1,390	1,470	1,610

? Number will be dependent upon the conclusions of the Composting Plan and its implementation.

MARKET AVAILABILITY FOR COLLECTED MATERIALS

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

Collected Material	***In-State Markets***	***Out of State Markets***
Total Plastics	100%	
Newspaper	100%	
Corrugated Containers	100%	
Total Other Paper Products	100%	
Total Glass	100%	
Textiles*	99%	
Grass and Leaves	?	
Total Wood Waste	?	
Construction and Demolition	100%	
Food and Food Processing	?	
Tires	?	
Total Metals	100%	

** A very small percentage of textiles collected are sent to markets over seas.*
? Number will be dependent upon the conclusions of the Composting Plan.

EDUCATIONAL AND INFORMATIONAL PROGRAMS

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participated 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.

PROGRAM TOPIC	DELIVERY MEDIUM	TARGETED AUDIENCE	PROGRAM PROVIDER
Recycling	Newspaper	General Public	Planning Department
Recycling	Flyers	General Public	Planning Department
Recycling	Phone Book	General Public	Planning Department
Household Composting	Newspaper	General Public	Planning Department*
Hazardous Waste	Newspaper	General Public	Planning Department
Agricultural Waste	Newsletters	Industry	MSU Extension
Volume Reduction	Newspaper	General Public	Planning Department**

* *Additional educational programs may be included following the completion of the Composting Plan*
** *Additional educational programs may be included following the completion of the Source Reduction Plan*

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 5-A

Management Components	*Timeline*
Utilize existing recycling and solid waste facilities	1998-2007
Implement recommended educational programs	1998-2007
Participate in household and agricultural waste collection	1998-2007
Annually evaluate recycling drop-off locations and operating hours	1998-2007
Complete Composting and Source Reduction Plans	1999-2001
Implement Composting and Source Reduction Plans	2002-2007
Update the Solid Waste Management Plan	2002-2003

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

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

Incinerators

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this Plan.

There is sufficient capacity at current sites within Leelanau County for type II and type III solid waste disposal.

SOLID WASTE MANAGEMENT COMPONENTS

The following identifies the management responsibilities and institutional arrangements necessary for the implementation of the Selected Solid Waste Management System. Also included is a description of the technical, administrative, financial, and legal capabilities of each identified existing structure of management including planning, implementation, and enforcement.

Department of Environmental Quality (DEQ)
Various sections of the DEQ are charged by law with the regulation, enforcement and review of the conduct of the solid waste management systems in Leelanau County and all other Michigan counties. The county will be dependent upon the appropriate offices of the DEQ to be informed of changes in the requirements for solid waste management from both federal and state levels. This information from the DEQ will include new solid waste legislation, regulatory rulings, changes in the handling of disposal of all types of solid waste, national or state public information programs, financial aid programs from the national or state level available to the county, and technical assistance from DEQ staff.

Leelanau County Board of Commissioners
The County Board is responsible for the overall supervision of the solid waste management system for the county. This responsibility includes the implementation of the 5 year and 10 year plans. It also includes financing, administration and operations of the county solid waste management system, as well as accountability to the public. The County Board shall designate a board responsible for implementing the Solid Waste Management Plan. The County Board will continue to fund its portion of the costs for a resource Recovery Agent for the Cooperative Extension Service. The County Board will be responsible for funding a portion of recycling and household hazardous waste collection programs. The County will also be responsible for the enforcement of Plan violations. Any violations will be referred to the County Prosecutors Office for further action.

Leelanau County Planning Department
The Leelanau County Planning Department is responsible for the continued planning effort in the solid waste management field for the county. This planning should be done in coordination with other units of government actively involved in solid waste planning and implementation of plans. The Planning Department must be the "Central Informational Repository" of all solid waste planning information as it relates to Leelanau County.

Solid Waste Management Planning Committee (SWMPC)
The Leelanau County SWMPC is responsible for sending a recommended 5 year and 10 year Solid Waste Management Plan to the County Board for their approval, as is the purpose of this report. The SWMPC is also responsible to the County Board to assist in the approval process of the plan. Every five years, the SWMPC will update the 5 and 10 year management plans for the County Board. The SWMPC will begin work on the 5 year updates two years prior to the deadline for submission of the revised plan.

Township and Village Governments
The local units of government in the county will continue to inform the SWMPC as to the effectiveness of the Solid Waste Management Plan and will, on a continuing basis, inform the County Board as to solid waste problems. The County Board will in turn keep the local units of government informed as to solid waste management activities so the townships and villages may keep the citizenry totally informed as to the solid waste management. The villages and townships will be called upon to provide labor and assistance in managing the recycling drop-off sites. The townships will be responsible for funding a portion of the recycling programs and the household hazardous waste collection program.

Private Enterprises
The private sector should manage those activities which it can and is willing to manage. This includes both collection and disposal. The private sector is encouraged to develop alternative solid waste management facilities and services.

Private Individuals
The public of Leelanau County will need to support the solid waste management plans in order for them to be successful. This support will include source separation, willingness to accept new information on solid waste, and general support of any specific solid waste projects.

Cooperative Extension Service
The Cooperative Extension Service will develop the public education and promotional programs necessary for implementing various components of the plan, including recycling and composting programs. Cooperative Extension will assist in efforts to encourage local units of government, businesses, schools, etc. to participate in or expand resource recovery methods and programs. Cooperative Extension will also assist in developing and disseminating information and literature designed to inform the public on matters related to recycling, resource recovery, and conservation. Finally, Cooperative Extension will develop educational and promotional programs for the proper disposal of household hazardous wastes.

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:	To be determined in the Source Reduction Plan
Product Reuse:	To be determined in the Source Reduction Plan
Reduced Material Volume:	To be determined in the Source Reduction Plan
Increased Product Lifetime:	To be determined in the Source Reduction Plan
Decreased Consumption:	To be determined in the Source Reduction Plan

Resource Recovery Programs

Composting:	To be determined in the Composting Plan
Recycling:	Leelanau County Planning Department
Energy Production:	N/A

Volume Reduction Techniques: USA Waste Inc

Collection Processes: Private waste haulers

Transportation: Private waste haulers

Disposal Areas

Processing Plants:	USA Waste Inc
Incineration:	N/A
Transfer Stations:	Renewable Waste Inc
Sanitary Landfills:	USA Waste Inc

Ultimate Disposal Area Uses: USA Waste Inc

Local Plan Update

Monitoring and Enforcement: Leelanau County Planning Department

Educational and Informational Programs

Recycling:	Leelanau County Planning Department
Composting:	Leelanau County Planning Department
Hazardous Waste:	Leelanau County Planning Department
Agricultural Waste:	MSU Extension Service
Source Reduction:	Leelanau County Planning Department

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

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

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

   The Leelanau County Junk Yard Ordinance regulates waste piles on private property throughout Leelanau County by authority of P.A. 156 of 1851.

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

   Although the Plan has not identified any siting criteria for new facilities in Leelanau County, the following ordinances have been listed in order to emphasize the importance of local zoning when making land use decisions. If this Plan is amended to allow new solid waste facilities, local zoning ordinances will still apply.

	Unit of Government	*Disposal Area Affected*	*Legal Basis*
1.	Bingham Township Board	Solid Waste	PA 184 of 1943
2.	Centerville Township Board	Solid Waste	PA 184 of 1943
3.	Cleveland Township Board	Solid Waste	PA 184 of 1943
4.	Elmwood Township Board	Solid Waste	PA 184 of 1943
5.	Empire Township Board	Solid Waste	PA 184 of 1943
6.	Glen Arbor Township Board	Solid Waste	PA 184 of 1943
7.	Kasson Township Board	Solid Waste	PA 184 of 1943
8.	Leelanau Township Board	Solid Waste	PA 184 of 1943
9.	Leland Township Board	Solid Waste	PA 184 of 1943
10.	Solon Township Board	Solid Waste	PA 184 of 1943
11.	Suttons Bay Township Board	Solid Waste	PA 184 of 1943
12.	Empire Village Council	Solid Waste	PA 207 of 1921
13.	Northport Village Council	Solid Waste	PA 207 of 1921
14.	Suttons Bay Village Council	Solid Waste	PA 207 of 1921

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

   If this Plan is amended to allow new solid waste facilities, local zoning ordinances will still apply.

CAPACITY CERTIFICATIONS

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

Less than fifteen percent of the annual volume of waste disposed at Glen's Landfill comes from Leelanau County. This represents the vast majority of solid waste produced in Leelanau County. Since Glen's Landfill has an estimated sixty (60) year lifetime, an annual certification process is not included in this Plan.

APPENDIX

ADDITIONAL INFORMATION

REGARDING THE

SELECTED SYSTEM

EVALUATION OF RECYCLING

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

Leelanau County's volume of materials being reused and recycled has increased drastically over the past ten years. The volume of each material collected at the county drop-off sites continues to increase every year except for paper products which peaked in 1995. The numbers on the following pages reflect collection volumes provided by Renewable Waste Inc, Construction Waste Recycling, Goodwill Industries, and Cedar Disposal Service. USA Waste Inc provided the volumes for the County's drop-off sites and Glen's Sanitary Landfill. The recycling volume for beverage containers is estimated using the average recovery rate provided in the 1989 Plan.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS

The following describes the techniques used and proposed to be used throughout the County which reduce 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 practically voluntary and because technologies change and equipment may need replacing, it is not this Plan update's intention to limit the technologies 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.

Effort Description	Estimated Air Space Conserved Cubic Yards Per Year		
	Current	*5th Year*	*10th Year*
Beverage Container Resource Recovery	**3,440**	**3,600**	**3,780**
• Containers returned for deposit at purchase sites such as grocery stores and fueling stations.			
• Estimates based on five percent of total waste volume attributed to beverage containers.			
Leelanau County Drop-Off Recycling Sites	**2,160**	**3,640**	**6,170**
• Materials collected at the various recycling sites located throughout Leelanau County.			
• Estimates based on a continual ten percent annual increase per capita multiplied by population estimates for the future.			
Commercial Cardboard Recycling	**1,740**	**1,820**	**1,920**
• Cardboard collected by haulers from containers at business and school locations.			
• Estimates based on current recycling rates multiplied by the estimated population increase.			
Construction and Demolition Recycling	**3,690**	**3,640**	**3,960**
• Materials collected at the transfer station or removed from construction and demolition sites.			
• Estimates based on the difference in the number of construction permits issued over the past five and ten year periods. There was a slight decrease in the number of permits issued between 1992 and 1997, therefore, a decrease is projected for the 5th year. An increase in the volume of air space conserved is expected if there is an increase in the number of building permits issued over the next five year period.			
Goodwill Industries Textile Reuse	**170**	**230**	**300**
• Materials donated at one of three permanent sites and two proposed portable collection trucks over the next ten years.			
• Estimates based on a proportional increase in percentage donations with each new collection site.			

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 the past selection processes are also summarized along with how those problems were addressed:

Existing Recycling Program:

The seven County funded recycling drop-off sites are operated on a contract basis with United Waste Inc. The sites are located on County owned property and each is open one day a week. One site in the County is open on Tuesday, one on Wednesday, and one on Thursday. Since Friday and Saturday have higher participation rates, two sites are open on each of those two days. Sites are located in locations that seem to maximize participation through geographic location. In the past, sites had permanent recycling dumpsters which were left open without supervision. Unfortunately, solid waste as well as recyclable were left on the premises. Today, roll-off trucks are utilized. This has decreased contaminates from being mixed with recyclable materials. Participation rates do not seem affected. The volume of material has increased for all categories except paper products which seems to have peeked in 1995.

Proposed Recycling Program:

The present system of recycling will continue to be utilized in Leelanau County. The location of drop-off sites and operating hours will be periodically evaluated to maximize participation in the program.

Existing Composting Program:

Composting in Leelanau County is currently done by private households for use on site. No County funded composting program is in place.

Proposed Composting Program:

The unknown costs of equipment, collection methods, and disposal techniques make it economically unfeasible for countywide composting without a Composting Plan. This does not preclude any household from operating a single family compost pile using waste generated at their residence for use in their garden.

COMPOSTING OPERATING PARAMETERS

No multiple household or commercial composting programs are available in Leelanau County at this time. No programs are planned until the completion of a Composting Plan.

COORDINATION EFFORTS

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

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

Leelanau County will coordinate its solid waste management plans with other ongoing projects in the regional and within the county. This coordination will be done by the Leelanau County Board of Commissioners, the Planning Department, and any other entity as designated by the Board of Commissioners. This coordination and cooperation is particularly important in efforts by the county to deal with the DEQ and in efforts to obtain state and federal grants for solid waste projects. Ultimate authority for implementing the Solid Waste Management Plan, allocating funds, and authorizing solid waste agreements is the responsibility of the Leelanau County Board of Commissioners.

THIS PAGE INTENTIONALLY LEFT BLANK

COSTS AND FUNDING

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

*System Component**	*Estimated Costs*	*Potential Funding Sources*
Resource Conservation Efforts	n/a	Private Industry
Resource Recovery Programs	n/a	Unknown
Volume Reduction Techniques	$120,000**	Board of Commissioners
Collection and Transportation	$1,920,000	Consumers
Disposal Areas	$806,000	Consumers
Future Disposal Area Uses	n/a	Private Industry
Management Arrangements	n/a	Board of Commissioners
Educational and Informational Programs	$8,000	Board of Commissioners

* These components and their sub-components may vary with each system.
** Estimate for recycling efforts only.

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, 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 the system.

ALTERNATIVE NO. 1 - IN-COUNTY LANDFILL WITH WASTE DIVERSION

System Components:

- Waste collection by private haulers
- Drop off sites for recyclables with collected materials transported to a processing plant.
- Household hazardous waste collection program with disposal at a licensed out of County facility.
- Public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Disposal of wastes not removed by the diversion methods listed above at a licensed in-County landfill.

Resource Conservation Efforts:

Resource conservation efforts included in this alternative consist of recycling and source reduction that would occur as a result of the public education program. The recovery of wastes that are then recycled can reduce the need to consume non-renewable materials in manufacturing processes.

The public education program can provide information on how industries, commercial establishments, and the general public can modify their operations to reduce the quantity of wastes created. Examples of how household waste volumes can be reduced include buying materials utilizing less packaging material, buying reusable rather than disposable items, and purchasing fewer items that eventually require disposal. Commercial establishments can reduce waste volumes in a similar fashion.

Industries that produce large quantities of specific waste materials should be encouraged to find uses for these materials. Examples of how industries have reduced waste volumes include machine shops and fish processing facilities in Leelanau County. When the initial Solid Waste Management Plan for Leelanau County was prepared, these industries sent large waste volumes to landfills. The machine shops generated waste metal shavings and the fish processing plant had large quantities of fish wastes requiring disposal. Five years later when the Plan was updated, these wastes were being reprocessed and reused rather than being disposed of in landfills. Other industries could reduce waste volumes in a similar fashion.

The education program and the household hazardous waste program can also decrease waste volumes to be handled at the local facilities by creating opportunities for proper disposal of hazardous wastes.

Volume Reduction Techniques:

Volume reduction in the waste stream can result in overall cost savings. Techniques that are presently being utilized to reduce the volume of the waste stream include compaction in collection vehicles and compaction in the landfill.

Typically solid waste set out for collection has a density of approximately 200 pounds per cubic yard. Collection trucks will compact this waste to approximately 25% of its original volume resulting in an in-truck density of approximately 800 pounds per cubic yard. This is an average figure that has been observed at Glen's Landfill in recent years. Compaction of the waste in this fashion allows collection trucks to transport larger quantities of solid waste to the disposal site per trip. Since landfill tipping fees are based on volume rather than weight, disposal fees that haulers pass on to customers can be reduced with better compaction. As collection trucks are improved to achieve greater degrees of compaction, additional axles may be required on vehicles to keep wheel loadings on pavement within legal limits.

When the waste reaches the disposal site, it is further compacted when placed in the landfill. Based on topographic surveys of Glen's Landfill and the waste quantities received at the gate, it is estimated that the in-place waste density in the landfill is approximately 1200 pounds per cubic yard. This is a compaction rate of 1.5 times the density of the waste as it is received. The company wide goal for Waste Management, Inc. is to achieve an in-place density of 1500 pounds per cubic yard. Good compaction equipment and operator training can be achieved through a combination of waste mixing, proper compaction equipment, and operator training. The higher compaction rates in the landfill will result in the maximum use of the available air-space, thus decreasing the rate at which the landfill cells are filled and new ones need to be constructed. An additional benefit of compaction is that settlement of the cap over the waste is minimized.

Resource Recovery Programs:

The resource recovery programs in this alternative consist of recycling materials that are source separated from the waste stream. The proposed recycling system consists of drop-off sites with voluntary participation. The collected materials would be processed and shipped to markets where they could be reused. Hauling and processing of collected materials would be contracted to private enterprise. Composting would be on a voluntary basis by individuals.

Factors affecting the proposed recycling and composting programs include:

1. Willingness of the public to source separate wastes and take them to a drop-off site.
2. Public awareness as to the need for recycling and composting.
3. Convenient drop-off sites.
4. Feasibility of private enterprise to pick up source separated materials and transport them to processing centers and to markets.
5. Financial support by County government.
6. Availability of markets for recovered materials within a reasonable haul distance.

Impediments to implementing the proposed recycling and composting programs include:

1. Inconvenience to the individual.
2. The "Throw-away society" tradition.
3. Present cost to the individual for recycling and composting is higher than that for landfilling.

4. Public lack of knowledge as to how the solid waste system works and the importance of recycling and composting.
5. The tourism industry accelerates waste production . It can be inconvenient for visitors to participate in recycling efforts. Most visitors are unaware of the existing recycling program and therefore tend to dispose of all wastes using the simplest method available.

Methods of removing or minimizing the impediments include:

1. Public education and training.
2. Convenient drop-off sites for source separated material.
3. Collection and landfill tipping fees based on a by-the-bag system to encourage volume reduction.
4. Financial incentives to encourage recycling.
5. Implement a composting program for yard waste.
6. Create markets by requiring all governmental units to purchase supplies made from recycled materials.
7. Continued County financial support of the recycling program.
8. Provide County financial support for implementing a yard waste composting program.
9. Create opportunities for private enterprise to profitably participate in recycling programs.
10. Obtain grants or low interest loans to support recycling and composting programs.

How recycling and composting and other processing or disposal methods can compliment each other and the feasibility of excluding site separated material and source separated material from other processing or disposal methods:

Recycling, composting, and hazardous waste collection can compliment other phases of the solid waste management system. By recovering a portion of the waste stream, the remaining waste volume that must be handled and disposed of will be reduced. This will reduce the required capacity and therefore the cost of any future solid waste facilities that are needed. Reducing the waste volume will also extend the life of the existing landfill and delay the need to establish a new one. The removal of household hazardous wastes from the waste stream will assist the landfill and other waste facilities to operate safely with regard to the environment and facility employees.

The feasibility of excluding recoverable materials from landfill disposal depends mostly on the willingness of the public to participate in the waste diversion programs. The quantities of recycled materials shown on page II-1 indicate that 1810 tons of material were recycled in 1997 from a total waste stream of 21,010 tons. The recycled material represents only 8.6% of the waste volume generated. The 1989 Solid Waste Plan includes data from a waste stream assessment performed at Glen's Landfill in 1988. The waste stream assessment found that over half the waste stream consisted of materials that are presently being recycled. This is a good indication that the materials are available in the waste stream and are capable of being recovered with cooperation of the public.

Benefits that could result from the implementation of a recycling and composting program include:

Since a large portion of Leelanau County's economy is based on tourism, preservation of the environment will result in economic benefits. Environmental and economic benefits from recycling and composting include:

1. Energy savings by using recovered rather than virgin materials.
2. Conservation of natural resources such as land, trees, and oil.
3. Avoiding the need for additional land to be dedicated for landfill and other disposal sites.
4. Preservation of existing environmental conditions.

Feasibility of source separation of materials that contain potentially hazardous components at disposal areas:

The landfill would be a natural site for collecting hazardous wastes that are source separated from the waste stream. These materials could be prevented from entering the landfill and possibly disrupting its performance. By collecting hazardous wastes at the same location used for disposal of other wastes, it would be more convenient for individuals to separate rather than co-mingle these wastes. This type of system would encourage customers who haul their own wastes to disposal sites to source separate their hazardous wastes, but for customers served by haulers, the haulers will not likely be able to keep them separated.

Collection of hazardous wastes at the disposal area would create some problems. Regulations may prohibit collection of certain wastes at these sites. Also facility operators may not be willing to accept these materials due to employee safety and liability concerns. Storage and handling would be needed at the landfills. A professional person who can identify the wastes and determine how to safely store these wastes would be required.

There are existing hazardous waste haulers located in nearby counties that are capable of handling Leelanau County's disposal requirements.

Collection Processes:

The existing system of private haulers would be utilized for solid waste collection and transportation to the landfill.

Transportation:

The existing system of private haulers would be utilized to transport the collected wastes to the landfill for disposal. Private enterprise would also be utilized for hauling source separated materials that are collected at drop-off sites.

Disposal Areas:

With this alternative, the in-County landfill would be used for the ultimate disposal of solid wastes that are not otherwise removed from the waste stream.

Institutional Arrangements:
Since Leelanau County has a landfill and many of the surrounding counties do not, the local landfill serves several other counties. The landfill needs to be identified in these counties Solid Waste Management Plans as their primary or contingency disposal site. Agreements between counties are necessary to allow out of County waste disposal in Leelanau County. Also, Leelanau County will need agreements with other counties in which landfills or other disposal sites are located to utilize these sites on a contingency basis.

Arrangements with private enterprise would be needed for hauling recyclable materials.

Educational and Informational Programs:

The existing public education program that is funded through a portion of the costs paid to operate the recycling drop-off sites would continue under this alternative.

Sanitary Landfill

The existing in-County landfill would be utilized for the disposal of wastes that cannot be removed from the waste stream.

Ultimate Disposal Area Uses

When landfills are eventually closed, they must be capped with an impermeable layer to prevent precipitation from entering the buried waste and creating leachate. Closed landfill sites are not well suited to all types of future development. Buildings should not be constructed since the settlement of wastes and the creation of methane from waste decomposition are likely to occur. Land uses best suited for closed disposal sites are recreational and agricultural uses.

Capital, Operational, and Maintenance Costs:

See "Estimated Budgets for Components of Solid Waste Management Alternatives" beginning on page B-18 for detailed estimates.

		Annual Cost
Collection and Transportation (19,200 Tons @ $100)	$	1,920,000
Recycling Drop-off Sites	$	112,000
Household Hazardous Waste Collection	$	8,000
Public Education	$	8,000
Landfill Disposal	$	806,000
Total Estimated Cost	**$**	**2,854,000**
Estimated Cost per Ton (@ 19,200 TPY)	**$**	**150**

Evaluation Summary of Selected System:

The 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. The following is a brief summary of that evaluation along with an explanation as to why this system was chosen to be implemented.

Technical Feasibility
This alternative includes all existing systems. The technology for the existing collection, recycling, household hazardous waste program, and disposal by landfilling has been in existence for a considerable time.

Economic Feasibility
This alternative will not have a noticeable economic impact since no new facilities are proposed. Costs compared to the existing system could increase slightly with the possible expansion of the recycling and household hazardous waste collection programs.

Access to Land and Transportation Routes
The existing landfill is located on a state highway with good access. It is located near the south boundary of the County, not centrally located. It is in a reasonably convenient location to serve multiple counties.

Energy
This alternative would not noticeably increase energy consumption. Increasing the quantity of materials removed from the waste stream through the recycling program could result in additional shipping costs due to the higher volume. Some energy savings may result in manufacturing processes that can use the reclaimed materials rather than virgin materials although other processes may require more energy.

Environmental
This system would not have a noticeable effect on the environment. The volume of waste disposed of could decrease as participation in the recycling program increases, thus slowing the rate at which landfill expansion will be necessary. The reclaimed materials will help conserve resources in manufacturing processes by decreasing the demand for virgin materials. Since the landfill is already in place, no new sites for solid waste management will be needed. The public education system and possible expansion of the household hazardous waste collection system would have positive environmental effects by decreasing the quantity of non suitable waste disposal in the landfill.

Public Acceptability
Public acceptability is not expected to be a problem since all of the necessary facilities now exist. If increased taxation is required in the future to fund the recycling program, some opposition could be expected.

Public Health
This alternative should have no increased public health hazards since the selected system is the current system. Proper operation of the landfill as well as collection and recycling facilities will minimize public health concerns.

Siting
No new facility sites are needed for this alternative.

Advantages and Disadvantages of Selected System:

Advantages:
1. This alternative utilizes all of the existing components of the solid waste management system.
2. All of the necessary waste handling facilities already exist. This eliminates costs for developing new facilities and the difficulties typically encountered in siting them.
3. This alternative provides opportunities for recycling and household hazardous waste collection that can be expanded in the future.
4. Recycling opportunities would be available to all County residents.
5. This alternative would be the one most acceptable to the public.
6. Since all of the necessary facilities exist, this alternative would be the easiest one to implement.

Disadvantages:
1. Recycling opportunities would be available but not necessarily convenient to all County residents
2. This alternative may not result in a the maximum waste volumes being diverted from the landfill.
3. The system provides no opportunities for composting of yard waste other than individual efforts.

NON-SELECTED

SYSTEMS

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

ALTERNATIVE NO. 2 - TRANSFER STATION WITH WASTE DIVERSION

System Components:

- Waste collection by private haulers who transport the wastes to the transfer station.
- Drop off sites for recyclables with collected materials transported to a processing plant.
- Composting program consisting of a drop-off site for yard wastes.
- Household hazardous waste collection program with disposal at a licensed out of County facility.
- Public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Transfer station where wastes are compacted into large containers to be hauled to a licensed disposal site. The site could be the existing in-County landfill or a site located out of County.

Resource Conservation Efforts:

Resource conservation efforts included in this alternative consist of recycling, composting, and source reduction that could occur as a result of the public education program. The recovery of wastes that are then recycled can reduce the need to consume non-renewable materials in manufacturing processes.

Volume Reduction Techniques:

The public education program can provide information on how industries, commercial establishments, and the general public can modify their operations to reduce the quantity of wastes created. The education program and the household hazardous waste program can also decrease waste volumes to be handled at the local facilities by creating opportunities for proper disposal of hazardous wastes.

Resource Recovery Programs:

The resource recovery programs in this alternative consist of recycling and composting. The proposed recycling system consists of drop-off sites with voluntary participation. The collected materials would be processed and shipped to markets where they could be reused. The composting program would include a drop-off site for yard wastes with voluntary participation. Hauling and processing of collected materials would be contracted to private enterprise.

Factors affecting the proposed recycling and composting programs include:

1. Willingness of the public to source separate wastes and take them to a drop-off site.
2. Public awareness as to the need for recycling and composting.
3. Convenient drop-off sites.

4. Willingness of private enterprise to pick up source separated materials and transport them to processing centers and to markets.
5. Financial support by county government.
6. Availability of markets for recovered materials within a reasonable haul distance.

Impediments to implementing the proposed recycling and composting programs include:

1. Inconvenience to the individual.
2. The "Throw-away society" tradition.
3. Present cost to the individual for recycling and composting is higher than that for landfilling.
4. Public lack of knowledge as to how the solid waste system works and the importance of recycling and composting.
5. Ignorance of consequences to personal and environmental health caused by throw-away waste disposal.

Methods of removing or minimizing the impediments include:

1. Public education
2. Convenient drop-off sites for source separated material.
3. Collection and landfill tipping fees based on a by-the-bag system to encourage volume reduction.
4. Financial incentives to encourage recycling.
5. Ordinances prohibiting certain items from being disposed of in landfills.
6. Create markets by requiring all governmental units to purchase supplies made from recycled materials.
7. Continued County financial support of the recycling program.
8. Provide County financial support for implementing a yard waste composting program.
10. Create opportunities for private enterprise to profitably participate in recycling and composting programs.
11. Obtain grants or low interest loans to support recycling and composting programs.

How recycling and composting and other processing or disposal methods can compliment each other and the feasibility of excluding site separated material and source separated material from other processing or disposal methods :

Recycling, composting, and hazardous waste collection can compliment other phases of the solid waste management system. By recovering a portion of the waste stream, the remaining waste volume that must be handled and disposed of will be reduced. This will reduce the required capacity and therefore the cost of any future solid waste facilities that are needed. Reducing the waste volume will also extend the life of the existing landfill and delay the need to establish a new one. The removal of household hazardous wastes from the waste

stream will allow the landfill and other waste facilities to operate in an environmentally safe manner.

The feasibility of excluding recoverable materials from landfill disposal depends mostly on the willingness of the public to participate in the waste diversion programs. The quantities of recycled materials shown on page II-1 indicate that 1810 tons of material were recycled in 1997 from a total waste stream of 21,010 tons. The recycled material represents only 8.6% of the waste volume generated. The 1989 Solid Waste Plan includes data from a waste stream assessment performed at Glen's Landfill in 1988. The waste stream assessment found that over half the waste stream consisted of materials that are presently being recycled. This is a good indication that the materials are available in the waste stream and are capable of being recovered with cooperation of the public.

Benefits that could result from the implementation of a recycling and composting program include:

Since a large portion of Leelanau County's economy is based on tourism, preservation of the environment will result in economic benefits. Environmental and economic benefits from recycling and composting include:

1. Energy savings by using recovered rather than virgin materials.
2. Conservation of natural resources.
3. Avoiding the need for additional land to be dedicated for landfill and other disposal sites.
4. Preservation of existing environmental conditions.

Feasibility of source separation of materials that contain potentially hazardous components at disposal areas:

The transfer station and landfill would be natural sites for collecting hazardous wastes that are source separated from the waste stream. These materials could be prevented from entering the waste stream and possibly disrupting performance of the system. By collecting hazardous wastes at the same locations used for disposal of other wastes, it would be more convenient for individuals to separate rather than co-mingle these wastes. This type of system would encourage customers who haul their own wastes to disposal sites to source separate their hazardous wastes, but for customers served by haulers, the haulers will not likely be able to keep them separated.

Collection of hazardous wastes at the disposal areas would create some problems. Storage and handing would be needed at these sites. A professional person who can identify the wastes and determine how to safely store these wastes would be required.

Collection Processes:

The existing system of private haulers would be utilized for solid waste collection and transportation to the transfer station.

Transportation:

The transfer station would include a tipping floor where collected waste would be dumped. Some hand sorting of recyclables could be performed. The waste would be compacted and reloaded into a large, 75-100 cubic yard tractor-trailer rig that would haul the waste to either the in-County landfill or a disposal site located outside the County.

Disposal Areas:

With this alternative, either the in-County landfill or an out of County site would be used for the ultimate disposal of solid wastes. The system would be flexible enough to allow disposal at different sites.

Institutional Arrangements:

If an out of County disposal site were utilized, agreements with the county in which the site is located would be necessary. That county's solid waste plan would need to include provisions allowing Leelanau County to use the disposal site. Contracts with private enterprise would be needed for hauling recyclable materials and yard wastes.

Educational and Informational Programs:

The existing public education program that is funded through a portion of the costs paid to operate the recycling drop-off sites would continue under this alternative.

Sanitary Landfill

It is expected that the existing in-County landfill would be retained under this alternative. This alternative could also be utilized if the landfill were to eventually close. Collected wastes would continue to be hauled in large trucks, only to a different disposal site. If the new disposal site were located considerably farther from the transfer station, additional rolling stock may be needed to haul the wastes.

Ultimate Disposal Area Uses

When landfills are eventually closed, they must be capped with an impermeable layer to prevent precipitation from entering the buried waste and creating leachate. Closed landfill sites are not well suited to all types of future development. Buildings should not be constructed since the settlement of wastes and the creation of methane from waste decomposition are likely to occur. Land uses best suited for closed disposal sites are recreational and agricultural uses.

No ultimate land use for a transfer station site is being considered since such a site would likely be used for a long period of time no matter where and what type of ultimate disposal site receives the waste.

Capital, Operational, and Maintenance Costs:

(See "Estimated Budgets for Components of Solid Waste Management Alternatives" beginning on page B-18 for detailed estimates.)

	Annual Cost
Collection and Transportation (19,200 Tons @ $90)	$ 1,728,000
Recycling Drop-off Sites	$ 112,000
Yard Waste Composting	$ 29,000
Household Hazardous Waste Collection	$ 8,000
Public Education	$ 8,000
Transfer Station (including Disposal Costs)	$ 1,105,000
Total Estimated Cost	$ 2,990,000
Estimated Cost per Ton (@ 19,200 TPY)	$ 155

Evaluation Summary of Non-Selected System:

This 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. The following is a brief summary of that evaluation along with an explanation as to why this system was not chosen to be implemented.

Technical Feasibility

This alternative includes mostly existing systems except for the transfer station and the composting system. The technology exists for these systems to be implemented and there are many similar systems in existence.

Economic Feasibility

This alternative will have an economic impact. The development of a new transfer station facility would increase costs over the present level. Costs could also increase if the transfer station were used to haul to a distant out of County disposal facility with long hauling distances and high disposal fees. Costs versus the existing system would also increase slightly due to the implementation of a yard waste composting program and possible expansion of the recycling and household hazardous waste collection programs. The preferred method of developing the proposed facilities would be by private enterprise.

Access to Land and Transportation Routes

A suitable parcel of land would be required for the development of a transfer station. Approximately 5 acres would be needed. The existing transportation system may need to be upgraded depending on the location of the transfer station. The ideal site would be centrally located in the County on an all weather road capable of handling a reasonable volume of truck traffic.

An additional land requirement would be a 5-10 acre parcel for a yard waste drop-off site. A suitable site would be conveniently located with good access to the County road system.

Energy

The use of a transfer station could result in an energy savings if the collected wastes are hauled to an in-County transfer station. For some of the haulers, the transfer station will be a more convenient location than the landfill for emptying collection trucks. This would result in a lower driving mileage for the trucks. Hauling the collected wastes to an out of County disposal site may increase the energy requirements, depending mostly on the hauling distance. If an out of County disposal site were utilized, energy costs for waste hauling would be considerably higher without a transfer station.

Environmental

This system would have a slight effect on the environment since an additional site will be dedicated to solid waste management. If the collected wastes were shipped out of the County, the transfer station could have a positive environmental effect since the existing landfill could then be closed and capped.

Public Acceptability

The proposed transfer station would probably receive public acceptance, especially if it were necessary to use an out of County site for disposal. Some scattered opposition would be expected, especially from people who live nearest to the proposed site.

Public Health

This alternative could have a slight impact on public health if both a transfer station and a landfill are in operation at the same time. Proper operation of these facilities will minimize public health concerns.

Siting

The siting of a transfer station could be difficult. The site would need to be centrally located, on an all weather road, and in a location acceptable to the public. Many sites that are otherwise suitable may become unacceptable due to public opposition.

Advantages and Disadvantages of Non-Selected System:

Advantages:

1. This alternative utilizes all of the existing components of the solid waste management system.
2. The system offers flexibility by allowing ultimate waste disposal at alternate sites. This would be a very significant advantage if the in-County landfill were to close or otherwise become unavailable.
3. This alternative provides opportunities for recycling, composting, and household hazardous waste collection that can be expanded in the future.
4. Another opportunity for private enterprise to become involved with solid waste will occur with the addition of a transfer station and a yard waste drop-off site.
5. Recycling opportunities would be available to all County residents.
6. Composting opportunities for yard waste would become available.

Disadvantages:

1. Costs will increase due to the need to develop and operate a new facility.
2. Another parcel of land would become dedicated to solid waste, precluding its use for another purpose.
3. Siting a transfer station may be difficult due to the requirements for a convenient location, transportation access, and public acceptance.
4. Recycling opportunities would be available but not necessarily convenient to all County residents.
5. This alternative may not result in a the maximum waste volumes being diverted from the landfill.

ALTERNATIVE NO. 3 - COMPULSORY RESOURCE RECOVERY

System Components:

- Mandatory separation of marketable wastes by waste generators. Selected wastes, typically paper, newsprint, cardboard, glass, aluminum, tin cans, and plastics would be separated by residential, commercial and industrial waste generators. Industries that generate significant volumes of certain other wastes that could be diverted from the waste stream would be required to do so.
- Waste collection by private haulers.
- Curbside collection of source separated wastes by private haulers in the more densely populated portions of the County. These materials would be either collected with separate vehicles from the non- separated waste collection or with the same vehicles with dedicated compartments for separated wastes.
- Drop off sites for recyclables for waste generators not served by curbside collection.
- Transport collected materials to a processing plant.
- Composting program consisting of a drop-off site for yard wastes.
- Expanded household hazardous waste collection program with disposal at a licensed out of County facility.
- Expanded public education program encouraging source reduction, recycling, composting, and proper hazardous waste disposal.
- Disposal of wastes not removed by the diversion methods listed above at a licensed in-County landfill.

Resource Conservation Efforts:

Resource conservation efforts included in this alternative consist of recycling, composting, and source reduction that could occur as a result of the public education program. These programs would be greatly intensified over similar programs proposed in the other alternatives. The recovery of wastes that are then recycled can reduce the need to consume non-renewable materials in manufacturing processes.

Volume Reduction Techniques:

The public education program can provide information on how industries, commercial establishments, and the general public can modify their operations to reduce the quantity of wastes created. The education program and the household hazardous waste program can also decrease waste volumes to be handled at the local facilities by creating opportunities for proper disposal of hazardous wastes.

Resource Recovery Programs:

The resource recovery programs in this alternative consist of recycling and composting. The proposed recycling system consists of curbside collection of source separated materials in the more densely populated portions of the County and drop-off sites available to the remainder of the County residents. The collected materials would be processed and shipped to markets where they could be reused. The composting program would include a drop-off site for yard wastes with voluntary participation. Hauling and processing of collected materials would be contracted to private enterprise.

Factors affecting the proposed recycling and composting programs include:

1. Willingness of the public to source separate wastes despite the mandatory requirement.
2. Public awareness as to the need for recycling and composting.
3. Willingness of residents not served by curbside collection to source separate wastes and take them to a drop-off site.
4. Convenient drop-off sites for those not served by curbside collection.
5. Ability of the County to enforce mandatory recycling.
6. Willingness of private enterprise to pick up source separated materials and transport them to processing centers and to markets.
7. Financial support by County government.
8. Availability of markets for recovered materials within a reasonable haul distance.

Impediments to implementing the proposed recycling and composting programs include:

1. Inconvenience to the individual.
2. Opposition to government interference with individual life styles by mandating recycling.
3. Higher costs.
4. Public lack of knowledge as to how the solid waste system works and the importance of recycling and composting.
5. Ignorance of consequences to personal and environmental health caused by throw-away waste disposal.

Methods of removing or minimizing the impediments include:

1. Public education
2. Convenient drop-off sites for source separated material.
3. Collection and landfill tipping fees based on a by-the-bag system to encourage volume reduction.
4. Higher landfill tipping fees to encourage source separation.
5. Financial incentives to encourage recycling.
6. Ordinances prohibiting certain items from being disposed of in landfills.

7. Create markets by requiring all governmental units to purchase supplies made from recycled materials.
8. Continued County financial support of the recycling program.
9. Provide County financial support for implementing a yard waste composting program.
10. Create opportunities for private enterprise to profitably participate in recycling and composting programs.
11. Obtain grants or low interest loans to support recycling and composting programs.

How recycling and composting and other processing or disposal methods can compliment each other and the feasibility of excluding site separated material and source separated material from other processing or disposal methods :

Recycling, composting, and hazardous waste collection can compliment other phases of the solid waste management system. By recovering a portion of the waste stream, the remaining waste volume that must be handled and disposed of will be reduced. This will reduce the required capacity and therefore the cost of any future solid waste facilities that are needed. Reducing the waste volume will also extend the life of the existing landfill and delay the need to establish a new one. The removal of household hazardous wastes from the waste stream will allow the landfill and other waste facilities to operate in an environmentally safe manner.

The feasibility of excluding recoverable materials from landfill disposal depends mostly on the willingness of the public to participate in the waste diversion programs and the County's ability to enforce participation. The quantities of recycled materials shown on page II-1 indicate that 1810 tons of material were recycled in 1997 from a total waste stream of 21,010 tons. The recycled material represents only 8.6% of the waste volume generated. The 1989 Solid Waste Plan includes data from a waste stream assessment performed at Glen's Landfill in 1988. The waste stream assessment found that over half the waste stream consisted of materials that are presently being recycled. This is a good indication that the materials are available in the waste stream and are capable of being recovered with cooperation of the public. A mandatory recycling program can assist in recovering some of those materials that are presently being landfilled.

Benefits that could result from the implementation of a recycling and composting program include:

Since a large portion of Leelanau County's economy is based on tourism, preservation of the environment will result in economic benefits. Environmental and economic benefits from recycling and composting include:

1. Energy savings by using recovered rather than virgin materials.
2. Conservation of natural resources.
3. Avoiding the need for additional land to be dedicated for landfill and other disposal sites.
4. Preservation of existing environmental conditions.

Feasibility of source separation of materials that contain potentially hazardous components at disposal areas:

The landfill would be a natural site for collecting hazardous wastes that are source separated from the waste stream. These materials could be prevented from entering the landfill and possibly disrupting its performance. By collecting hazardous wastes at the same location used for disposal of other wastes, it would be more convenient for individuals to separate rather than co-mingle these wastes. This type of system would encourage customers who haul their own wastes to disposal sites to source separate their hazardous wastes, but for customers served by haulers, the haulers will not likely be able to keep them separated.

Collection of hazardous wastes at the disposal area would create some problems. Storage and handling would be needed at the landfills. A professional person who can identify the wastes and determine how to safely store these wastes would be required.

Collection Processes:

The existing system of private haulers would be utilized for solid waste collection and transporting it to the transfer station. Curbside collection of source separated materials would be performed by private enterprise.

Transportation:

The existing system of private haulers would be utilized to transport the collected wastes to the landfill for disposal. Private enterprise would also be utilized for hauling source separated materials that are collected by curbside collection and at drop-off sites.

Disposal Areas:

With this alternative, the in-County landfill would be used for the ultimate disposal of solid wastes that are not otherwise removed from the waste stream.

Institutional Arrangements:

Since Leelanau County has a landfill and many of the surrounding counties do not, the local landfill

serves several other counties. The landfill needs to be identified in these counties Solid Waste management Plans as their primary or contingency disposal site. Agreements between counties are necessary to allow out of County waste disposal in Leelanau County. Also, Leelanau County will need agreements with other counties in which landfills or other disposal sites are located to utilize these sites on a contingency basis. Contracts with private enterprise would be needed for hauling recyclable materials and yard wastes.

Educational and Informational Programs:

The existing public education program that is funded through a portion of the costs paid to operate the recycling drop-off sites would be expanded under this alternative.

Sanitary Landfill

The existing in-County landfill would be utilized for the disposal of wastes that cannot be removed from the waste stream.

Ultimate Disposal Area Uses

When landfills are eventually closed, they must be capped with an impermeable layer to prevent precipitation from entering the buried waste and creating leachate. Closed landfill sites are not well suited to all types of future development. Buildings should not be constructed since the settlement of wastes and the creation of methane from waste decomposition are likely to occur. Land uses best suited for closed disposal sites are recreational and agricultural uses.

Capital, Operational, and Maintenance Costs:

(See "Estimated Budgets for Components of Solid Waste Management Alternatives" beginning on page B-18 for detailed estimates.)

	Annual Cost
Collection and Transportation (18,740 Tons @ $100)	$ 1,874,000
Recycling Drop-off Sites	$ 90,000
Curbside Collection	$ 72,000
Yard Waste Composting	$ 29,000
Household Hazardous Waste Collection	$ 15,000
Public Education	$ 18,000
Landfill Disposal	$ 806,000
Total Estimated Cost	$ 2,904,000
Estimated Cost per Ton (@ 19,200 TPY)	$ 150

Evaluation Summary of Non-Selected System:

This 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. The following is a brief summary of that evaluation along with an explanation as to why this system was not chosen to be implemented.

Technical Feasibility

This alternative includes mostly existing systems except for the curbside collection of recyclables and the composting system. The technology exists for these systems to be implemented and there are many similar systems in existence.

Economic Feasibility

This alternative will have an economic impact. Curbside collection of recyclables, the yard waste composting program, and the intensified public education and household hazardous waste programs will result in higher costs. The preferred method of developing the new and expanded programs would be through significant involvement by private enterprise.

Access to Land and Transportation Routes

The existing landfill is located on a state highway with good access. It is located near the south boundary of the County, not centrally located. The only additional land required for this alternative would be a 5-10 acre parcel for a yard waste drop-off site. A suitable site would be conveniently located with good access to the county road system.

Energy

This alternative would likely increase energy consumption in the collection process unless normal waste and source separated materials are collected with the same vehicles using separate compartments. It is more likely that the source separated materials will be collected and hauled by separate vehicles. Increasing the quantity of materials removed from the waste stream will result in additional shipping costs due to the higher volume. Some energy savings will result in manufacturing processes that can use the reclaimed materials rather than virgin materials.

Environmental

This system would have a noticeable effect on the environment. The volume of waste

disposed of will decrease, thus slowing the rate at which landfill expansion will be necessary. The reclaimed materials will help conserve resources in manufacturing processes by decreasing the demand for virgin materials. Since the landfill is already in place, the only new site that will be dedicated to solid waste management will be the yard waste drop-off site.

Public Acceptability

Public acceptability to lower volumes of waste being disposed of at the landfill would be very favorable. A considerable amount of public opposition to mandatory source separation could be expected.

Public Health

This alternative could have a slight impact on public health with a smaller quantity of waste being disposed of at the landfill.

Siting

The only new facility to be sited under this alternative would be the yard waste drop-off site. It should not be too difficult to find a suitable site that would be acceptable to the public.

Advantages and Disadvantages of Non-Selected System:

Advantages:

1. This alternative utilizes all of the existing components of the solid waste management system.
2. The alternative would increase the amount of waste being diverted from the landfill by intensifying the recycling, composting, and household hazardous waste programs.
3. This alternative provides increased opportunities for recycling, composting, and household hazardous waste collection that can be further expanded in the future.
4. Another opportunity for private enterprise to become involved with solid waste will occur with the addition of curbside collection of recyclables, a yard waste drop-off site, and an expanded hazardous waste collection program.
5. Recycling opportunities would be available to all County residents. More convenient opportunities would be available to residents living where curbside collection is available.
6. Composting opportunities for yard waste would become available.

Disadvantages:

1. Costs will increase due to the expanded recycling, composting, and hazardous waste programs.
2. Many residents will be opposed to mandatory recycling.
3. Recycling opportunities would be available but not necessarily convenient to all County residents.

ESTIMATED BUDGETS FOR COMPONENTS OF SOLID WASTE MANAGEMENT ALTERNATIVES

LANDFILL DISPOSAL

Assume all landfill disposal will occur at the existing site (Glen's Landfill) and that the existing tipping fee of $14 per cubic yard will remain constant for the near future.

The tipping fee on a per ton basis, assuming 3 cubic yards per ton, is $42 per ton.

Use $42 per ton for landfill disposal cost for the present volume of 19,200 tons per year requiring landfill disposal. This results in a total annual cost of $806,000 in landfill disposal fees for Leelanau County.

If future recycling efforts significantly reduce the waste volume received at the landfill, tipping fees will likely increase. For this report, it will be assumed that the tipping fees will be increased to the amount needed to gross $806,000 for the volume of waste landfilled from Leelanau County.

COLLECTION AND TRANSPORTATION

Collection and transportation includes the cost for private haulers to provide curbside collection of wastes and transport them to a disposal site. Cost estimates are based on utilizing existing system of private haulers.

National average operating costs for waste haulers:

30% Disposal Costs
70% Collection and Transportation

Using this cost breakdown, collection and transportation costs can be estimated as follows:

Present disposal cost (30% of total)	$ 42/Ton
Total cost for collection, transportation, and disposal (100%)	$140/Ton
Estimated collection and transportation cost (70% of total)	$ 98/Ton
Estimated collection and transportation cost (Rounded)	$100/Ton

The estimated collection and transportation costs can be verified using the present monthly rates charged by haulers for residential collection.

Present residential fee (from Cedar Disposal) (includes collection, transportation, and disposal)	$ 16/month
Annual Leelanau Co. residential waste volume (from page II-1)	8700 Tons
Approximate 1997 County population	19,000

Estimated residential per capita waste generation rate	0.46 Tons/capita/year 2.5 lb/capita/day
Estimated number of persons per household	3
Estimated residential per household waste generation rate	7.5 lb/household/day 225lb/household/month
Estimated cost per pound at $16/ month	$0.07/lb
Estimated cost per ton (collection, transportation and disposal)	$140/Ton
Less disposal cost	$ 42/Ton
Estimated collection and transportation cost	$ 98/Ton
Estimated collection and transportation cost (Rounded)	$100/Ton

This verifies the initial collection and transportation cost estimate of $100 per ton. Use this figure for waste collection estimates.

If haulers providing curbside pickup have access to a transfer station centrally located within the County, the transportation costs will decrease slightly. For this report, collection and transportation costs will be estimated to be 90% of the present cost or $90 per ton.

RECYCLING

Drop-off Sites

Leelanau County presently operates seven recycling drop-off sites. Two additional sites are operated by private enterprise. The cost for the County to operate the seven sites is approximately $10,000 per month which includes staffing, transportation, and processing of materials. For Alternatives No. 1 and 2, it will be assumed that these costs will remain roughly the same which results in an annual cost of $120,000. The costs for the two privately operated sites are already included in disposal fees.

For Alternative No. 3, the entire recycling system will be intensified. With the addition of curbside collection of recyclables in the more heavily populated areas, the volumes received at the drop-off sites would be expected to decrease. This decrease would be partially offset by an increase in participation by individuals that are not served by curbside collection due to mandatory recycling requirements. For estimating purposes, it is assumed that the drop-off site operational costs will be approximately 75% of the existing cost, or $90,000 per year, for Alternative No. 3.

Curbside Collection

The proposed curbside collection program will be available to approximately 25% of the County's population or about 2000 homes. It is estimated that the curbside collection system will program will increase the quantities of materials recycled as listed on page II-1 by 25%.

Materials	1997 Annual Quantity Quantity (Tons)	Estimated Future Quantity with Curbside Collection
Aluminum and Tin	50	65
Glass	140	175
Paper Products	480	600
Plastics	20	25
Commercial Cardboard	500	625
Construction and Demolition	370	465
Metal	190	240
Textiles	60	75
Total Recycled	1810	2270
Additional Recycled Quantity	460 Tons	
Remaining Waste Needing Disposal	18,740 Tons	

Curbside Collection Cost:

Based on 2000 homes in the more densely populated portions of Leelanau County, the estimated cost to provide curbside collection of source separated recyclables would be approximately $3 per household per month. This cost would include collection and transportation to a processing facility. The private enterprise performing the collection would handle the transportation to markets and receive the commodity value for the materials.

No. of Households served by Curbside Collection	2000
Monthly Cost per Household	$ 3
Annual Cost per Household	$ 36
Total Annual Cost	$72,000

YARD WASTE COMPOSTING

Yard waste composting estimates are based on the following system:

Drop-off site centrally located in Leelanau County.
Site operated by private enterprise contracting with County.
Collected materials hauled from site for processing by private contractor.

Form 1989 Solid Waste Plan, yard waste represents 2.2% of total County waste stream. It is estimated that approximately 25% of the available yard waste could be collected.

Estimated total Leelanau Co. solid waste stream, 1997	19,200 Tons
Estimated yard waste from Leelanau Co. 1997 (2.2% of total)	400 Tons
Estimated annual quantity of yard waste to be collected at drop-off site (25% of total)	100 Tons 300 cu yd

Estimated Capital Costs

Plant		
Land, 5 acres at $3000		$ 15,000
Site Development		$ 30,000
Engineering, Legal, Administrative, and Contingencies (25%)		$ 10,000
Total Capital Cost for Plant		$ 55,000
Annual Debt Retirement (20 yrs @ 8%)		$ 6,000
Equipment		
Loader	$ 100,000	
Miscellaneous Equipment		$ 20,000
Total Equipment Cost	$ 120,000	
Annual Debt Retirement (8 yrs @ 8%)	$ 20,000	

Estimated Operational Costs

Equipment	$ 500
Hauling fees, 300 cu yd/ year @ $7.00	$ 2100
Administration	$ 400
Total Estimated Annual Operational Cost	$ 3000

Yard Waste Composting Cost Summary

Initial Capital Costs

Plant	$ 55 ,000
Equipment	$ 120,000
Total	$ 175,000
Annual Debt Retirement	
Plant	$ 6,000
Equipment	$ 20,000
Total	$ 26,000
Annual Operational Cost	$ 3,000
Total Annual Cost	$ 29,000
Cost/Ton of composted yard waste (@100 TPY)	$ 290
Cost/Ton of total waste stream (@ 50 TPD)	$ 1.50

HOUSEHOLD HAZARDOUS WASTE COLLECTION

The current household hazardous waste collection system costs approximately $50 per drop-off with approximately 100-150 participants annually.

For Alternatives No. 1 and 2, the estimated household hazardous waste collection costs will be based on an aggressive version of the present system as follows:

150 drop-offs @ $50 =	$7500/ year
Rounded up	$8000/year

For Alternative No. 3, a more intensive collection system is anticipated. The estimated annual budget will be $15,000 which will allow approximately 300 participants.

PUBLIC EDUCATION PROGRAM

The present public education program is funded through the costs of the County's seven recycling drop-off sites. Out of the County's fees for these sites, $700 per month is dedicated for public education for a total of $8400 per year. For Alternatives No. 1 and 2, the present system will be utilized where the public education costs are already included in the recycling system cost.
For Alternative No. 3, a much more intensive public education program will be needed. The program would probably also include some enforcement of the mandatory recycling participation. This would likely more than double the present cost. For Alternative No. 3, it will be assumed that an additional $10,000 annual cost will be needed for the public education program.

TRANSFER STATION

Assume site is centrally located in Leelanau County on all weather road.

The facility will serve Leelanau County only, approximately 50 TPD capacity. Capacity for entire county waste stream.

Estimated Capital Costs

Plant	
Land, Building, Sitework	
(Includes scales, crane, etc.)	$500,000
Engineering, Legal, Administrative,	
and Contingencies (25%)	$125,000
Total Capital Cost for Plant	$625,000
Annual Debt Retirement (20 yrs @ 8%)	$ 65,000
Rolling Stock	
1 Loader @ 100,000	$ 100,000
1 Tractor @ 95,000	$ 95,000
2 Trailers @ 75,000	$ 150,000
Total Rolling Stock	$ 345,000
Annual Debt Retirement (8 yrs @ 8%)	$ 60,000

Estimated Operation & Maintenance Costs

Wages & Benefits	
4 people @ $30,000	$ 120,000
Landfill Tipping Fees	
50 TPD @ $14/cu.yd..	$ 770,000
Miscellaneous Expenses	
Fuel, Insurance, Repairs, Engineering, etc.	
Short Haul (to in-County Landfill)	$ 80,000
Long Haul (to out of County site)	$ 110,000
Administration & Management	$ 10,000
Total Operation & Maintenance Cost, Short Haul	$ 980,000
Total Operation & Maintenance Cost, Long Haul	$1,010,000

Transfer Station Cost Summary

Initial Capital Costs	Short Haul Distance	Long Haul Distance
Plant	$ 625,000	$ 625,000
Equipment	$ 345,000	$ 345,000
Total	$ 970,000	$ 970,000
Annual Debt Retirement		
Plant	$ 65,000	$ 65,000
Equipment	$ 60,000	$ 60,000
Total	$ 125,000	$ 125,000
Annual O & M Cost	$ 980,000	$1,010,000
Total Annual Cost	$1,105,000	$1,135,000
Cost/Ton (@ 19,200 TPY)	$ 58	$ 59

Present collection and transportation cost (cost to haul to landfill with collection vehicles) is approximately $100/ton. With a conveniently located transfer station, it is estimated that collection and transportation costs will be approximately 90% of the present cost or $90/ton.

Estimated Collection & Transportation Cost	$ 90/T
Estimated Transfer Station Cost	$ 59/T
Total Estimated Cost using Transfer Station	$ 149/T

PUBLIC PARTICIPATION AND APPROVAL

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

Solid Waste Management Planning Committee (SWMPC) Appointed
By a unanimous vote (5-0), ten members were appointed at a public meeting of the Leelanau County Board of Commissioners held on January 20, 1998. The remaining four members were appointed by a unanimous vote (5-0) at a public meeting of the Leelanau County Board of Commissioners held on February 17, 1998. The public was allowed time to comment at each meeting.

Preparation of the Plan by the SWMPC
The SWMPC held seven public meetings between March 24, and July 14, to prepare the draft Plan. The public was given two chances to speak during each meeting.

Public review period authorized by the SWMPC
By a unanimous vote (11-0), the SWMPC authorized the 90 day public review period to begin at a public meeting held on July 14, 1998. The public was given two chances to speak during the meeting.

Public review period (July 17, 1998 to October 16, 1998)
A public hearing was held on October 6, 1998, during the regular monthly meeting of the Legislative and Resource Committee of the County Board of Commissioners.

Approval of the Plan by the SWMPC
By a unanimous vote (10-0), the SWMPC recommended approval of the Solid Waste Management Plan Update at a public meeting held on October 23, 1998. The public was given two chances to speak during the meeting.

Approval of the Plan by the County Board
By a unanimous vote (4-0), the County Board of Commissioners adopted the Solid Waste Management Plan Update at a public meeting held on November 2, 1998. The public was given the opportunity to speak during the meeting.

Approval of the Plan by the Municipalities
During the month of November, staff from the Designated Planning Agency and members of the SWMPC attended every Township Board and Village Council meeting. Every municipality adopted a resolution of support for the Solid Waste Management Plan Update. The public was given the opportunity to speak at every meeting.

Approval of the Plan by the DEQ
The Solid Waste Management Plan Update was submitted to the DEQ for their approval on November 27, 1998

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 Management Planning Committee, County Board of Commissioners, and Municipalities.

The Plan Update was prepared by the Designated Planning Agency using the services of Gosling Czubak Associates with continual input and review provided by the Solid Waste Management Planning Committee and the general public. At each meeting, the public was given two opportunities for input, once at the beginning of the meeting and again at the end. A copy of each notice and agenda for all meetings involving the Plan Update is outlined below and attached.

Date	*Type of Meeting*	*Page*
January 20, 1998	County Board of Commissioners	5
February 17, 1998	County Board of Commissioners	6
March 24, 1998	Solid Waste Management Planning Committee	7
April 14, 1998	Solid Waste Management Planning Committee	8
April 28, 1998	Solid Waste Management Planning Committee	9
May 19, 1998	Solid Waste Management Planning Committee	10
June 9, 1998	Solid Waste Management Planning Committee	11
June 30, 1998	Solid Waste Management Planning Committee	12
July 14, 1998	Solid Waste Management Planning Committee	13
October 6, 1998	Public Hearing during monthly L&R Committee	14
October 23, 1998	Solid Waste Management Planning Committee	15
November 2, 1998	County Board of Commissioners	16
November 2, 1998	Kasson Township Board	17
November 9, 1998	Elmwood Township Board	18
November 9, 1998	Leland Township Board	19
November 10, 1998	Leelanau Township Board	20
November 10, 1998	Empire Township Board	21
November 10, 1998	Cleveland Township Board	22
November 11, 1998	Suttons Bay Township Board	23
November 12, 1998	Solon Township Board	24
November 16, 1998	Suttons Bay Village Council	25
November 17, 1998	Empire Village Council	26
November 17, 1998	Glen Arbor Township Board	27
November 18, 1998	Bingham Township Board	28
November 19, 1998	Northport Village Council	29
November 23, 1998	Centerville Township Board	30

PLANNING COMMITTEE APPOINTMENT PROCEDURE

In October, the Planning Director sent a letter describing Leelanau County's intent to prepare the Plan Update to all Township Supervisors, Village Presidents, environmental groups, and concerned citizens who participated in the General Plan process (*approximately 500 letters*). Each letter described the required make-up for the Solid Waste Management Planning Committee, as specified by the Department of Environmental Quality, and asked for volunteers. Included with the letter was a standard committee application used by the county. As responses were received, they were reviewed by the County Administrator's office. Ten applicants were submitted for approval to the County Board of Commissioners at their regular public meeting in January. The remaining positions were filled by the County Board of Commissioners at their regular public meeting in February.

PLANNING COMMITTEE

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

Four representatives of the solid waste management industry:

1. Dave Barron, Glen's Sanitary Landfill
2. David Bradshaw, Construction Waste Recycling
3. Douglas Buffum, Renewable Waste Inc.
4. Mike Pomper, Cedar Disposal

One representative from an industrial waste generator:

1. Martin Easling, Easling Construction Company

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

1. Bill Perkins, Recycle Leelanau
2. Wayne Wunderlich, Leelanau Lake Association

One representative from County government:

1. Jim Bardenhagen, MSU Extension Service

One representative from township government:

1. Lynn Long, Suttons Bay Township

One representative from municipal government [proxy]:

1. John Rulison [Ed Rothgarber], Village of Suttons Bay

One representative from the regional solid waste planning agency:

1. Benjamin Whitfield, Northwestern Michigan Regional Solid Waste Planning Committee

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

1. Hugh Farber, resident living in the Lake Leelanau area
2. Regina Regner, resident living in the Suttons Bay area
3. John Warren Taylor, resident living in the Cedar area

DESIGNATED PLANNING AGENCY

Members of the designated planning agency and the technical consultant with their position or company name.

Trudy J.C. Galla, AICP, Leelanau County Planning Director
Matthew R. Fortunak, Leelanau County Senior Planner
Karen J. Gleason, Leelanau County Planning Secretary
Michael K. Schaeffer, P.E., Gosling Czubak Associates (*Technical Consultant*)

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Board of Commissioners
will be held at 7:00 p.m. on Tuesday, January 20, 1998
at the Courthouse in Leland, Michigan

MEETING CALLED TO ORDER BY THE CHAIR

ROLL CALL VOTE BY THE COUNTY CLERK

PLEDGE OF ALLEGIANCE

APPROVAL OF DECEMBER 16, 1997 and JANUARY 5, 1998 MINUTES

PROCLAMATIONS, PRESENTATIONS AND AWARDS

1. Presentation on the proposed Community Resource Building - Mr. Jerry Chase, Mr. John Dziurman and Mr Bob McEachran

PUBLIC COMMENT

LATE ADDITIONS

CONSIDERATION OF AGENDA

COMMITTEE REPORTS & RECOMMENDATIONS TO FULL BOARD:

LEGISLATIVE AND RESOURCES COMMITTEE

A. Appointments to the Solid Waste Management Planning Committee *(pg 1)*
B. Proposed changes to the Leelanau County Environmental Health Regulations Regarding Septic Systems (pg 2-*3)*

WAYS AND MEANS COMMITTEE

A. Maple Valley Nursing Home Lease *(pg 2)*
B. COPS Fast Grant – Elmwood Township *(pg 2) (See enclosed copy of proposed contract)*
C. Request for reinstatement of "on call" Secretary position for Inspections Department *(pg 2)*
D. MSU – Leelanau County Family Coordinating Council Grant Request *(pg 3)*
E. Payment of MAC Dues *(pg 3)*
F. Continuation of 1998 Title IV-D Budget Contract for Prosecutor's Office *(pg 5)*
G. Leland Township Sewer Project and Bonds *(pg 6)*
H. Claims and Accounts and Post Audit *(pg 6)*

SPECIAL REPORTS OR COMMENTS BY COMMISSIONERS, ELECTED OFFICIALS, STAFF, AND AFFILIATED AGENCIES

PUBLIC COMMENT

COMMISSIONER COMMENTS

MOTION TO ADJOURN

Posted by the Leelanau County Clerk: 1/15/98 4:00 p.m. 616/256-9824

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Board of Commissioners
will be held at 7:00 p.m. on Tuesday, February 17, 1998
at the Courthouse in Leland, Michigan

MEETING CALLED TO ORDER BY THE CHAIR

ROLL CALL VOTE BY THE COUNTY CLERK

PLEDGE OF ALLEGIANCE

APPROVAL OF JANUARY 20, 1998 MINUTES – 2/2/98

PROCLAMATIONS, PRESENTATIONS AND AWARDS

PUBLIC COMMENT

LATE ADDITIONS

CONSIDERATION OF AGENDA

COMMITTEE REPORTS & RECOMMENDATIONS TO FULL BOARD:

LEGISLATIVE AND RESOURCES COMMITTEE

A. Committee Appointments (pgs 1-3)
B. Memorandum of Understanding between Leelanau County Sheriff's Office and the National Park Service (pg. 3)
C. Proposed Change to the Policy Manual (pg 4)

WAYS AND MEANS COMMITTEE

A. Maple Valley Nursing Home – Request for new fire doors for Nursing Home and request for funds for Yard Project (pg 1)
B. Prosecuting Attorney - Annual Cost-Setting for FOIA requests (pg 2)
C. Commission on Aging - Cherryland Electric Community Caring Fund Request (pg 2)
D. Additional Equipment for Computer Upgrade (pg 3)
E. Community Resource Center (pg 3)
F. Planning Department - Request to accept Mitchell Graphics for printing 1998 Map (pg 4)
G. GA COPS Fast Grant Contract with Elmwood Township (pg 4)
H. G-B Additional Dispatch Personnel (pg 5)
I. Claims and Accounts and Post Audit (pg 5)

SPECIAL REPORTS OR COMMENTS BY COMMISSIONERS, ELECTED OFFICIALS, STAFF, AND AFFILIATED AGENCIES

PUBLIC COMMENT

COMMISSIONER COMMENTS

MOTION TO ADJOURN

Posted by the Leelanau County Clerk: 2/12/98 4:30 p.m. 616/256-9824

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

NOTICE OF MEETING

The 1998 Organizational Meeting of the Leelanau County Solid Waste Management Planning Committee will be held at 3:00 p.m. Tuesday, March 24, 1998 at the Courthouse in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **ORGANIZATIONAL ITEMS (*Blue*)**

A. Introduction of Members

B. Review and Adoption of Rules of Procedure

C. Election of Officers
1. Chairman
2. Vice-Chairman
3. Chairman Pro-Tem

D. Consideration of 1998 Timetable and Meeting Schedule
1. Plan Approval Process
2. Proposed Meeting Schedule

- **UNFINISHED BUSINESS *(None)***
- **NEW BUSINESS**

A. State Requirements for Solid Waste Plan Updates
- Public Act 451 of 1994 (*part*)
- A Guide to Preparing the Solid waste Management Plan Update Format

B. Discussion Regarding Hiring a Firm to Collect Technical Data

- **CORRESPONDENCE AND PUBLICATIONS**
  - Letters from Missaukee, Kalamazoo, and Mason Counties
  - "*Undesirable Uses*" article from March 4, 1998, LAND USE LAW REPORT
  - Leelanau County Solid Waste Management Plan 1989 (*for reference purposes*)

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee will be held at 1:00 p.m. Tuesday, April 14, 1998 at the Courthouse in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF MINUTES**
- **UNFINISHED BUSINESS** ***(None)***
- **NEW BUSINESS**

A. Discussion Regarding the Collection of Technical Data

- Summary technical data available to staff
- Proposal for technical data from Resource Recycling Systems, Inc.
- Proposal for technical data from Gosling Czubak
- Clothing collection figures from Goodwill Industries of Northwestern Michigan Inc
- Census data from Northwestern Michigan Council of Governments
- Recycling tonnage collected in Leelanau County from USA Waste Services, Inc
- Household Hazardous Waste surveys and collection data for 1997

- **COMMUNICATIONS**
  - Approved Rules of Procedure

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee will be held at 1:00 p.m. Tuesday, April 28, 1998 at the Courthouse in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF MINUTES**
- **UNFINISHED BUSINESS**

  A. Discussion regarding hiring a firm to provide information for Plan Update
  - Proposal from Resource Recycling Systems, Inc.
  - Proposal from Gosling Czubak

- **NEW BUSINESS**

  A. Collection of Technical Data
  - Additional information on technical data available to staff

  B. Review of Plan Format - Phase I

- **COMMUNICATIONS**

  A. "Recycling Presents Economic Opportunities and Challenges for Michigan Townships" *Michigan Township News*
  B. "Miracle on 34th Street?" *Waste Age*
  C. "Profiles in Garbage: Office Paper" *Waste Age*
  D. Correspondence from St. Joseph County on April 20, 1998: Import / Export Arrangements

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee will be held at 1:00 p.m. Tuesday, May 19, 1998 at the Courthouse in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF MINUTES**
- **UNFINISHED BUSINESS**

  A. Hiring a firm to provide information for Plan Update
  1. Staff update

- **NEW BUSINESS**

  A. Plan Update
  1. Review and Discussion of Sections 1 and 2
  2. Discussion of Reciprocal Agreements

- **COMMUNICATIONS**
  A. "Can Biweekly Recycling Collection Work?" *Waste Age* May 1998
  B. "Local Governments Seek Flow Control Options" *American City & County* May 1998
  C. Excerpt from Minutes of the NWMCOG Planners Meeting
  D. Correspondence from Benzie County RE: Reciprocal Agreement

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee
will be held at 1:00 p.m. Tuesday, June 9, 1998
at the **Munnecke Room** in the Leland Library in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF THE MAY 19, 1998 MEETING MINUTES**
- **UNFINISHED BUSINESS** (*None*)
- **NEW BUSINESS**

A. Draft of Solid Waste Reciprocal Agreement

B. Gosling Czubak Inc. (*Blue Sheets*)
1. Introduction of Mike Schaeffer, P.E.
2. Evaluation of Deficiencies and Problems
3. Solid Waste Management Alternatives

C. Plan Update
1. Additions to draft of Sections I and II
2. Draft of Section III

- **COMMUNICATION / INFORMATIONAL ITEMS**

A. Correspondence from Osceola County: Reciprocal Agreement
B. Correspondence from CUPPAD: Reciprocal Agreements with Schoolcraft County
C. Correspondence from Emmet County: Reciprocal Agreement
D. Correspondence from BFI: Reciprocal Agreements with Calhoun, Washtenaw, and Monroe Counties
E. SWMPC Minutes from Benzie County for May 4 and May 19
F. Correspondence from Northwestern Michigan Council of Governments: Regional Strategy Recommendations
G. EAD BULLETIN June 1998
H. Handout from Dave Barron: Type II – Solid Waste from Other States Landfilled in Michigan

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee
will be held at 1:00 p.m. Tuesday, June 30, 1998
at the MUNNECKE ROOM in the Leland Library in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF THE JUNE 9, 1998 MEETING MINUTES**
- **UNFINISHED BUSINESS** (*None*)
- **NEW BUSINESS**

A. Plan Update Draft

1. Additions to Sections I and II
2. Additions to Section III
2. Draft of Appendixes A and B provided by Gosling Czubak
3. Draft of Appendixes C and D (*distributed at the meeting*)

B. Authorization for 90 day public review period

- **COMMUNICATION / INFORMATIONAL ITEMS**

A. SWMPC Minutes from Wexford County: June 9, 1998

- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee
will be held at 1:00 p.m. Tuesday, July 14, 1998
at the SMALL COURT ROOM in the Courthouse in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF THE JUNE 9 and JUNE 30, 1998 MEETING MINUTES**
- **UNFINISHED BUSINESS**
  A. Review draft of the Plan Update
- **NEW BUSINESS**
  A. Authorize 90 day public review period
- **COMMUNICATION / INFORMATIONAL ITEMS**
  A. Minutes from the Benzie County Solid Waste Planning Committee
  B. Letter from Gosling Czubak regarding curbside recycling
  C. Draft of Plan Update from Missaukee County (*copies available at the meeting for review*)
- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

Note: ***Any member unable to attend this meeting should contact the Leelanau County Planning Department by 5:00 p.m. Monday, July 13, 1998. At least eight (8) members must APPROVE release of the Plan Update for the 90 day public review period.***

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

NOTICE OF MEETING

A Regular Meeting of the Legislative & Resources Committee
will be held at 9:30 a.m. on Tuesday, October 6, 1998
in the Law Library at the Courthouse in Leland, Michigan

TENTATIVE AGENDA

9:30 A.M. – CALL TO ORDER

PUBLIC COMMENT

AGENDA ADDITIONS OR DELETIONS

ACTION ITEMS

1. Proposal to Preserve Crystal River Property - Brian Price, Leelanau Conservancy
2. Solid Waste Management Plan Update - Trudy Galla, Planning Dept.

INFORMATIONAL ITEMS

None

PUBLIC COMMENT

ADJOURN

LEELANAU COUNTY
SOLID WASTE MANAGEMENT PLANNING COMMITTEE

Chairman Wayne Wunderlich
Vice-Chairman Bill Perkins

NOTICE OF MEETING

A Regular Meeting of the Leelanau County Solid Waste Management Planning Committee will be held at **9:30 A.M. FRIDAY, OCTOBER 23, 1998**
AT THE LAW LIBRARY IN THE COURTHOUSE in Leland, Michigan

TENTATIVE AGENDA *1st draft*

- **CALL TO ORDER**
- **ROLL CALL**
- **PUBLIC COMMENT**
- **CONSIDERATION OF AGENDA**
- **APPROVAL OF THE JULY 14, 1998 MEETING MINUTES**
- **UNFINISHED BUSINESS**
  None

- **NEW BUSINESS**
  A. Review comments and changes to the Plan Update
     1. *Review changes made by staff*
     2. *Review other comments received during the public review period*
  B. Review and discuss reciprocal agreements with other counties
  C. Make recommendation to the County Board of Commissioners
  D. Review Schedule for meetings with Township Boards and Village Councils

- **COMMUNICATION / INFORMATIONAL ITEMS** *(See attached)*
- **CHAIRPERSON'S COMMENTS**
- **COMMITTEE COMMENTS**
- **STAFF COMMENTS**
- **PUBLIC COMMENTS**
- **ADJOURN**

Note: Any member unable to attend this meeting should contact the Leelanau County Planning Department by 1:00 p.m. Thursday, October 22, 1998. At least eight (8) members must APPROVE the Plan Update in order for it to be submitted to the County Board of Commissioners for action.

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials to be distributed at the meeting, to individuals with disabilities upon twenty four (24) hour notice to Leelanau County, Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

NOTICE OF MEETING

A Special Meeting of the Leelanau County Board of Commissioners will be held at 9:00 a.m. on Monday, November 2, 1998 in the Law Library at the Courthouse in Leland, Michigan

AGENDA

MEETING CALLED TO ORDER BY THE CHAIR

ROLL CALL VOTE BY THE COUNTY CLERK

PLEDGE OF ALLEGIANCE

PUBLIC COMMENT

LATE ADDITIONS

CONSIDERATION OF AGENDA

ACTION ITEMS:

1. Leelanau County Solid Waste Management Plan Update.
2. Approval of County Solid Waste Reciprocal Agreements.

SPECIAL REPORTS OR COMMENTS BY COMMISSIONERS, ELECTED OFFICIALS, STAFF, AND AFFILIATED AGENCIES

PUBLIC COMMENT

COMMISSIONERS COMMENTS

MOTION TO ADJOURN

GENERAL NOTICE: Leelanau County will provide necessary reasonable auxiliary aids and services, such as signers by the hearing impaired and audio tapes of printed materials to be distributed at the meeting to individuals with disabilities upon twenty-four (24) notice to Leelanau County. Individuals with disabilities requiring auxiliary aids or services should contact Michelle Crocker, Leelanau County Clerk, at (616) 256-9824.

Posted by the Leelanau County Clerk 10/27/98 @ 10:00am

KASSON TOWNSHIP BOARD MEETING

AGENDA NOVEMBER 2, 1998 7:30 P.M.

1. Call Meeting to Order

2. Roll Call of Members Present

3. Minutes of October 5, 1998 Meeting

4. Review and Action on the Leelanau County Solid Waste Management Plan Update

5. Pertinent Correspondence

6. Treasurer's Report

7. List of Bills To Be Paid
   a) Review and Motion to Pay Bills

8. Permits For October

9. Reports
   a) Planning Commission
   b) MTA
   c) Cable Council

10. Unfinished Business
    a) Zoning Ordinance Violation
    b) County Junk Ordinance Violations
    c) John Bunek Devilopment Corp. Lawsuit - Case No. 98-4449-CE
    d) Sidewalks in Maple City
    e) Testing at Old County Landfill - Presentation by Dave Barron
    f) Appoint Members to Planning Commission
    g) Budget Amendment Correction
    h) Request from Nursery
    i) Any Other Unfinished Business

11. New Business
    a) Swimmers Itch Control Permit Letter Request - Glen Lake Association
    b) 2ND Quarter Budget Review
    c) Any Other New Business

12. Committee Reports
    a) Hall Use
    b) Building and Grounds

13. Comments From Audience

14. Motion To Adjourn

Kasson Township Clerk,

Kathlyn Feys

Kathlyn Feys

CHARTER TOWNSHIP OF ELMWOOD
November 9, 1998 - 7:00 p.m.

MONTHLY MEETING AGENDA

1) Call meeting to order.
2) Pledge of Allegiance.
3) Call of the roll.

   PUBLIC HEARINGS - AO-1 & PUD Z.O. amendments; Leelanau Hills

4) Agenda review and approval.
5) Approval of the minutes.
6) Remarks from the chair
7) Remarks from the trustees.
8) Report from other officials.
9) Public comments.
10) Communications - Clerk
11) Committee and officer reports:
    a) Assessor - Chris Krellwitz
    b) Engineer's Report - Craig Wells
    c) Fire Department
    d) Planning
    e) Parks and Recreation
12) Unfinished business:
    a) ZBA appointments
    b) Leelanau Hills Road Improvement
    c) Consider AO-1 and PUD Zoning Ordinance Amendments
    d)
13) New Business:
    a) Leelanau County Solid Waste Management Plan Update
    b)
    c)
14) Treasurers Report
15) Public comments
16) Adjournment

LELAND TOWNSHIP - REGULAR MEETING
NOVEMBER 9, 1998 - 7:30
LELAND LIBRARY - MUNNECKE ROOM

AGENDA

CALL TO ORDER

APPROVAL OF AGENDA

APPROVAL OF MINUTES
- October 12, 1998 - Regular Meeting
- Novebmer 2, 1998 - Sewer Board of Appeals
- November 2, 1998 - Special Meeting

TREASURER'S REPORT

PUBLIC COMMENT

REPORTS FROM BOARDS AND COMMISSIONS

ACTION ITEMS:

1. Vacating of Clara Avenue
2. Solid Waste Management Plan Update
3. Sewer As-builds

PUBLIC COMMENT

BOARD COMMENT

CORRESPONDENCE

BILLS AND ACCOUNTS

ADJOURNMENT

_____

Cheryl D. Van Zee
Leland Township Clerk Posted 11/6/98

LEELANAU TOWNSHIP
BOARD MEETING

DATE / TIME	NOVEMBER. 10, 1998	TUESDAY 6:00 P.M.
LOCATION	TOWNSHIP HALL (616) 386-5138	119 E. NAGONABA ST. NORTHPORT, MI 49670

TENTATIVE AGENDA

I **CALL TO ORDER AND ROLL CALL:**

II **PUBLIC COMMENTS:**
- A. **COUNTY SOLID WASTE PLAN & RESOLUTION**
- B. **OTHER**

III **CORRESPONDENCE AND ANNOUNCEMENTS:**

IV **SET AGENDA:**

V **GENERAL BUSINESS ITEMS:**
- A. MINUTES OF OCTOBER 13, 1998
- B CURRENT BILLS
- D. OTHER

VI **REPORTS:**
- A. FIRE DEPT
- B AIRPORT MANAGER
- C. OTHER

VII **APPROVAL ITEMS:**
- A KETELAAR SEWER AGREEMENT & RESOLUTION
- B. ARCHITECH CONTRACT
- C. OTHER

VIII **DISCUSSION ITEMS:**
- A. RECREATION COMMITTEE
- B. FACILITY/ROAD PLANNING
- C. OTHER

IX **ADJOURN:**

Agenda Empire Township Board
Nov 10, 1998

To: Amy
From: Chris

1. Call meeting to order 7:30 PM.
   Read & approve minutes
2. Assessors' Report
3. Campground Report
   a. electrical - new or repair
4. Airport Authority
5. Treasurer's Report
6. Zoning & Planning
   a County Solid Waste Proposal
      1. vote
   b. Report from Z & P. chairman
7. Supervisors' Report
   a letter from Red Cross
   b. letter from Mr McDonald - Re. A. Plamondon
   c.
8. Clerks' Report
   a correspondence
   b bills
9. Comments from Board members
10. Comments from audience
11. Adjourn.

CLEVELAND TOWNSHIP
LEELANAU COUNTY, MICHIGAN
REGULAR MEETING OF THE CLEVELAND TOWNSHIP BOARD
Tuesday, November 10, 1998
AGENDA

I. Call to Order
II. Roll Call
III. Approval of the October 14, 1998 Regular Meeting Minutes

IV. Reports
- A. Supervisor
- B. Clerk
- C. Treasurer
- D. Zoning Administrator
- E. Planning Commission
- F. Zoning Board of Appeals
- G. Maintenance
- H. Assessor
- I. Other members

Brief Public Comment on Agenda Item

V. New Business
- A. Leelanau County Solid Waste Management Plan Update
- B. Payment of bills as presented
- C. Correspondence

D. Extended Public Comment and /or Requests

Adjournment

SUTTONS BAY TOWNSHIP BOARD
NOTICE OF MEETING

The regular meeting of the Suttons Bay Township Board will be held at 5:00 PM, Wednesday November 11th, 1998 at the Suttons Bay Township Hall in Suttons Bay.

AGENDA

CALL TO ORDER

ROLL CALL

APPROVAL OF MINUTES OF PREVIOUS MEETINGS;

PRESENTATION OF TREASURER'S REPORT

PRESENTATION OF BILLS
MAS,Jay, Rent, Wade-Trim Invoices,map book(Jay), utilities, and all others

APPROVAL OF AGENDA

PUBLIC COMMENT and communications about items not on the agenda. (20 Minutes)

NEW BUSINESS:
-Presentation by Leelanau County Planning Dept of new Solid Waste Plan and approval of same

OLD BUSINESS:
-PC member
-Recreation Plan; Review history and possibility of hiring help to finish
-Jack Ryan split request; update
-suffle board court

BOARD MEMBER COMMENTS

SOLON TOWNSHIP
TENTATIVE AGENDA NOVEMBER 12, 1998

1. Call the meeting to order.
2. Approve meeting minutes of October 8, 1998.
3. Review Correspondence.
4. Jim Johnson/Leelanau County Road Commission review of speed information/right of ways in the down town area of Cedar etc.
5. Leelanau County Planning Dept./Solid Waste Management Plan
6. Treasurer's report for the Township/Vouchers Read
7. Treasurer's report for the Fire Department/Vouchers Read
8. Planning Commission report, MTA report, Recreational Committee report
9. Old Business:
   A. Cemetery Sexton
   B. Skate Board Ordinance
   C. Solon School
10. New Business:
   A. Shelter at playground.
   B. Solon Park Lake dressing rooms.
   C. Christmas Lights at Township Hall.
   D. History of Solon/Cedar
   E. D.D.A. request/$900.00 loan
   F. Abandonment of roads in Section 11
   G. Zoning Adminstrator issues
   H. Rezoning request fees, etc.
   I. Tax Maps
11. Adjournment

VILLAGE OF SUTTONS BAY
420 Front St., Box 395
Leelanau County
Suttons Bay, MI 49682
Telephone: 616/271-3051
Fax: 616/271-3051

SUTTONS BAY VILLAGE COUNCIL MEETING MONDAY, NOVEMBER 16, 1998, **6:00 PM**, Village Hall
PLEASE NOTE TIME CHANGE FOR THIS MEETING

AGENDA

Call to Order
Introduction of Guests/Request to Address Council
Amendments to Agenda
Approval of Minutes 10/19/98
Approval of Bills

OLD BUSINESS
NEW BUSINESS

Resolution of Approval of County Waste Management Plan - - County Planning Department

Recommendation to Approve Land Division Permit for Gary Beuerle, 328 St. Joseph.

Request from Superintendent MacEachran for Skate Board Park

Letter of Request for Traffic Warning Signs - M-22 - Harbor Club Board of Representatives - Sonja Cline

Request for Antique Car Show at North Park, August 1999

Request for Resolution of Support for Avalon Cable Company

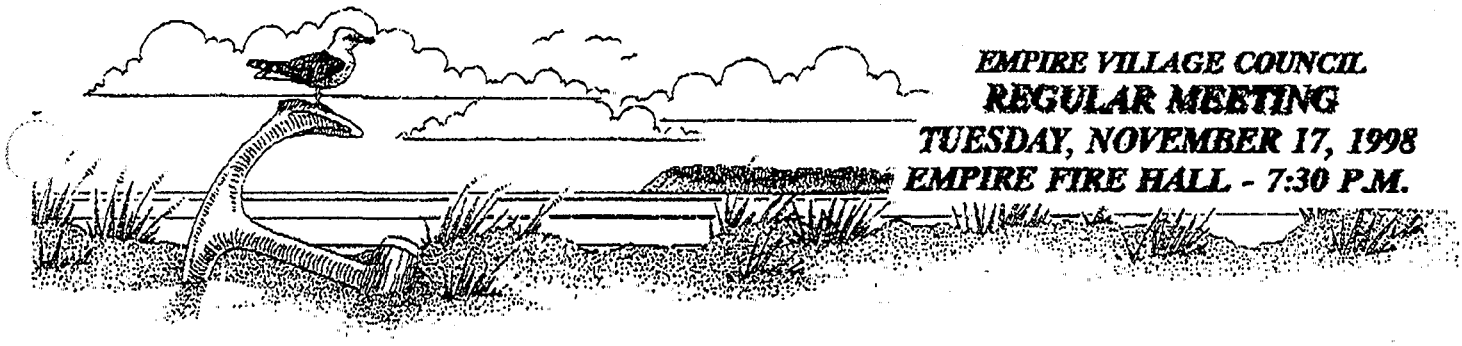
Report of Zoning Administrator Ted Watson

COMMITTEE REPORTS:

Streets
Personnel
Police/Fire
Finance - Meeting 11/4/98 - Banking Recommendations
Water/Sewer
Marina - Meeting 10/29/98 - Slip Fee Recommendation 1999
Planning/Zoning
Parks/Buildings/Grounds

ADJOURNMENT

REMINDERS - LAST LEAF/BRUSH PICK UP MONDAY, NOVEMBER 16
TREE LIGHTING/CAROL SING/PIZZA PARTY SUNDAY, DECEMBER 6, 5:30 PM - BANK PARKING LOT



EMPIRE VILLAGE COUNCIL
REGULAR MEETING
TUESDAY, NOVEMBER 17, 1998
EMPIRE FIRE HALL - 7:30 P.M.

COUNCIL AGENDA

A.) APPROVAL OF MINUTES

B.) REVIEW OF FINANCIAL STATEMENT

C.) BILLS

D.) COMMUNICATIONS

E.) CHANGES/ADDITIONS TO THE AGENDA

F.) QUESTIONS OR COMMENTS FROM THE AUDIENCE

G.) REPRESENTATIVE FROM COUNTY PLANNING REGARDING SOLID WASTE MANAGEMENT PLAN

H.) ZONING ADMINISTRATOR'S REPORT

.) COMMITTEE REPORTS

1. PLANNING COMMISSION

2. PERSONNEL

3. STREETS & SIDEWALKS
   - "LAMBKIN LANE"
   - SNOW PLOWING POLICY

4. AIRPORT
   - POSSIBLE APPOINTMENT OF REPRESENTATIVE TO AIRPORT BOARD

J.) OLD BUSINESS

1. STUDDED SNOWMOBILES ON SIDEWALKS.

K.) NEW BUSINESS

.) ADJOURNMENT

GLEN ARBOR TOWNSHIP
P.O. Box 276 Glen Arbor, MI 49636
616-334-3539 FAX 616-334-6370
Benjamin Whitfield, Supervisor Bonnie Quick, Clerk Jane L. Bulliss, Treasurer
Robert Hawley, Trustee Matthew Davis, Trustee

AGENDA
November 17, 1998

Call to order

Roll Call

Pledge of Allegiance

Approve Agenda

Minutes of Regular Meeting October 20, 1998

Treasurer's Report - $ 358482.86 As of October 30, 1998

Bills-General Fund	$ 9,465.81
Bills-Emergency Services	$ 8,315.61

Fire Chief Report & Emergency Services Advisory Commission Report

Streetscape Report

Zoning Administrator's Report – Bob Price

Public Comment pertaining to items on the agenda.

Correspondence
1. Jeanine Dean re: D. H. Day Farmhouse Addition
2. Leelanau County minutes, agendas
3. Leelanau County Planning Commission
4. MTA Legislative FAX's
5. M-DEQ permit: Steven L. Glenn, for Brooks Harbor Lake
6. Capitol Currents & Michigan Township News

Unfinished Business
1. Boat Ramp Purchase Orders
2. Ramp Fee Adjustment
3. False Alarm Ordinance

New Business
1. Glen Lake Chamber of Commerce – Becky Sutherland re: Glen Arbor Days
2. Leelanau County Solid Waste Management Plan Resolution
3. Board of Review Appointments

Zoning & Planning Commission Report – Bob Hawley
Public Comment
Board Member Comments
Supervisor Comments
Adjourn To the call of the Chair

BINGHAM TOWNSHIP
REGULAR BOARD MEETING
November 18, 1998

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. AGENDA APPROVAL
4. BRIEF PUBLIC COMMENT
5. PENDING BUSINESS:
   - A. Ordinance Amendments: Site Plan Review and Special Land Use Permit
6. NEW BUSINESS
   - A. County Solid Waste Management Plan
   - B. Board of Review Resignation - Don Austin -
     Board of Review Appointments - Jim Mebert, Rex Shugart,
   - C. Recreation Plan Update
   - D. Escrow accounts
7. CONSENT AGENDA:
   - A. October 21, 1998 Regular Board Meeting Minutes
   - B. MTA Fax's
   - C. Treasurer's Report
   - D. Bills, Payroll, Budget Adjustments
8. CORRESPONDENCE
   - A. Letter re: Junk Yard
9. COMMITTEE AND OFFICER REPORTS
   - A. ZONING ADMINISTRATOR
   - B. PLANNING
   - C. TREASURER
   - D. SUPERVISOR
     1. FIRE & RESCUE
     2. Hendryx Park - Zebra Mussels
   - E. TRUSTEES
   - F. CLERK
     1. Cemetery Lot buy back
     2. Master Plan update
     3. Newsletter
10. PUBLIC COMMENTS AND ANNOUNCEMENT
11. ADJOURNMENT

VILLAGE OF NORTHPORT COUNCIL MEETING

NOVEMBER 19 , 1998

- **Call To Order:** President, Michael Rogers

"Pledge Of Allegiance" I Pledge Allegiance to the Flag of the United States of America and to the Republic for which it stands, One Nation, Under God, Indivisible, with Liberty and Justice for All.

- **Approval Of Minutes:** 11/05/98 Regular Meeting

Agenda Items

❶ **Open Forum:** **Leelanau County Planning Department (Solid Waste Resolution)**

❷ **Correspondence:** Mork, King & Other

❸ **Treasurer's Report:** Mary Bell

❹ **Administrative Coordinator's Report:** Greg King

❺ **Clerk's Report:** Betty Mork
(Village Law General Liability)

❻ **D.P.W. Report:** Steve Gregory

❼ **Committee Reports:** Chairman

❽ **Old Business:**

1.0 Water System
1.1 DWRF {Pending)
1.2 Well Site {Review Next meeting}

2.0 Lawsuit
2.1 McDonald {Pending}
2.2 Steffen {Pending}
2.3 G.T.B. {Supreme Court}

3.0 Road Projects
3.1 Smith Av/Waukazoo Project
{Patmore Update Next meeting}

4.0 Hospital/Village Agreement
4.1 {Pending}

5.0 Fire Hall Expansion
5.1 {Pending} also Fire Truck

6.0 Miscellaneous
{All Pending)
6.1 Sesquicentennial
6.3 Recreational Plan
6.4 Thompson Tree
6.4 Computor

❾ **New Business:** **Cable Company Resolution**

❿ **Action Items:**

- **Payment of the Bills:** Betty Mork

SUPERVISOR
LEONARD KELENSKI
7031 E. Kelenski Dr.
Cedar, MI 49621
Phone 228-5548

CLERK
JAMES M. BALESH
[illegible]8 So. French Rd.
Cedar, MI 49621
Phone 228-5752

TREASURER
MAXINE SCHOPIERAY
3561 E. Bodus Road
Cedar, MI 49621
Phone 228-5670

Centerville Township

(Leelanau County)
Cedar, Michigan 49621

AGENDA

11-25-98

TRUSTEE
RICHARD PLEVA
5736 So. French Road
Cedar, MI 49621
Phone 228-5653

TRUSTEE
JOE CZERNIAK
4402 S. French Road
Cedar, MI 49621
Phone 228-5251

ZONING ADMINISTRATOR
RICHARD PLEVA
5736 So. French Road
Cedar, MI 49621
Phone 228-5653

I. SOLID WASTE Management PLAN.
Resolution of Support.

II. TWP Audit Report. TREAS CLK

III. County MTA Sugar-Hoof RECEPTION.
Individual Decision - Not-A-Bid Meeting.

IV. Applicants FOR PLANNING COMM.
1. Up-date from Zoning Admin.
2. ONE (NEW) TWP. Board Member Must be Put on The PLANNING COMM (1999)

V. MEETING AT HALL-Winter?
SNOW PLOWING? _____

VI. CEDAR FIRE DEPT - LIMITED SERVICE POLICY.
LTR & Appl. Atch. _____
COMMENTS _____

Office of Leelanau County Clerk

County Building
301 E. Cedar St.
P.O. Box 467
Leland, Michigan 49654

Michelle L. Crocker
County Clerk
Clerk of Circuit Court

Phone (231) 256-9824
Fax (231) 256-8295

EXCERPT
LEELANAU COUNTY BOARD OF COMMISSIONERS
REGULAR SESSION – TUESDAY, SEPTEMBER 21, 1999

Meeting called to Order at 7:18 p.m. by Chairman Watkoski.

Roll Call:	District	#1 – Wayne L. Wunderlich	PRESENT
		#2 – Richard A. Schmuckal	PRESENT
		#3 – Jean I. Watkoski	PRESENT
		#4 – Melinda C. Lautner	PRESENT
		#5 – Bernard U. Glettler	PRESENT

SOLID WASTE MANAGEMENT PLAN UPDATE:
Commissioner Wunderlich read from the Executive Document Summary – The Solid Waste Management Planning Committee (SWMPC) has asked the Board to concur with action from their meeting held on 9/20/99. "Leelanau County has been requested to make an amendment to the Solid Waste Management Plan Update, prior to the Department of Environmental Quality (DEQ) giving approval to the Plan." Wunderlich indicated that there were three issues, of which two have been resolved, leaving only the third. The issue at hand is that (quoting from the letter from Seth Phillips of the SWMU) "The DEQ had proposed to disapprove the Plan because of one specific issue. In order to make the Plan approvable; the language on page III-32 items 1., 2., and 3 must be deleted. These sections provide an overly broad and undefined scope of local regulation contrary to the limitations intended by Part 115, Solid Waste Management of the Natural Resources and Environmental Protection Act, 1994 PA 451 (NREPA), as amended. We propose to administratively delete these sections of the Plan as part of our approval action.....If the County desires to have the DEQ approve the Plan with these modifications, we will need a letter from someone in the County with authority to act in this regard on the County's behalf indicating the County's approval of this course of action and requesting that the DEQ make the necessary modifications to the Plan to make it approvable." Discussion on the reasons for doing the request this way as opposed to adding all information in order to leave the sections in.

MOTION BY WUNDERLICH TO AMEND THE SOLID WASTE MANAGEMENT PLAN UPDATE AND THAT A LETTER BE WRITTEN TO MR. SETH PHILLIPS APPROVING THE DELETION OF THE LANGUAGE, OF SAID ARTICLE, ON PAGE III-32 ITEMS 1., 2., AND 3., ADMINISTRATIVELY BY THE DEQ. SUPPORT GLETTLER.
AYES – 5 NO - 0 MOTION CARRIED.

State of Michigan
County of Leelanau

I, Michelle L. Crocker, Clerk of said County and Clerk of Circuit Court for said County, the same being a Court of record having a seal, do hereby certify that the above is a true excerpt of the Record now remaining in my office and of the whole thereof. In Testimony whereof, I have hereto set my hand and affixed the seal of the Circuit Court the 29th day of September 1999.

Michelle L. Crocker, Leelanau County Clerk

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.

The County will utilize existing recycling and solid waste facilities. The recycling drop-off locations and operating hours will be evaluated by the Planning Department in order to encourage accessible recycling while being economically feasible. The recycling program and household hazardous waste collection will be annually financed by the Leelanau County Board of Commissioners. The Planning Department will oversee the recommended educational programs and serve as the informational repository for all resources except for agricultural waste disposal which will be the responsibility of the MSU Extension Service. The Board of Commissioners will appoint committees to complete Composting and Source Reduction Plans. Resources will be allocated for the implementation of such plans. With funding from the Board of Commissioners, the Planning Department will oversee the review and updating of this Plan every five years.

RESOULTIONS
Resolutions from County Boards of Commissioners approving municipality's request to be included in an adjacent County's Plan are attached on the following pages: *No Requests Received.*

LISTED CAPACITY
Documentation from the landfill operator that the County has access to the listed capacity is attached on the following page: *See Page D-4 for USA Waste Inc.*

MAPS
Maps showing the locations of solid waste disposal facilities used by the County are attached on the following pages: *See Page D-5 for a location map of Glen's Sanitary Landfill. See Page D-6 for a regional map identifying contingency landfills.*

NOTICE TO THE PUBLIC
A copy of the Notice to the Public that was published in the local papers is attached on the following page: *See Page D-7 for a copy of the notice.*

RESOLUTIONS OF SUPPORT
Copies of resolutions of support from all fourteen of the municipalities in Leelanau County are attached as follows:

	Page of Resolution*
Bingham Township	D - 8
Centerville Township	D - 9
Cleveland Township	D - 10
Elmwood Township	D - 11
Empire Township	D - 12
Glen Arbor Township	D - 13
Kasson Township	D - 15
Leelanau Township	D - 16
Leland Township	D - 17
Solon Township	D - 18
Suttons Bay Township	D - 19
Empire Village	D - 20
Northport Village	D - 21
Suttons Bay Village	D - 22

INTER-COUNTY AGREEMENTS

Copies of Inter-County agreements with other Counties are attached on the following pages:

	*Page of Resolution**
Antrim County	D - 23
Benzie County	D - 25
Charlevoix County	D - 27
Emmet County	D - 29
Grand Traverse County	D - 31
Kalkaska County	D - 33
Manistee County	D - 35
Missaukee County	D - 37
Osceola County	D - 39
Wexford County	D - 41

NEWSPAPER ARTICLES

Copies of articles and opinions that appeared in the local newspapers with regard to the Solid Waste Management Plan Update are attached on the following pages:

	Page of Article
The Leelanau Enterprise and Tribune July 16, 1998	D - 44
The Leelanau Enterprise and Tribune November 5, 1998	D - 46
The Leelanau Enterprise and Tribune November 12, 1998	D - 48
The Traverse City Record Eagle November 15, 1998	D - 50
The Leelanau Enterprise and Tribune November 19, 1998	D - 52
The Leelanau Enterprise and Tribune November 26, 1998	D - 54

* *Some of the signed Inter-County agreements were not available when the Plan Update was submitted to the DEQ. Leelanau County will insert resolutions as they become available.*

Post-it® Fax Note 7671	Date 11/23	# of pages ▶ 1
To Matt F.	From Dave B.	
Co./Dept. Leelanau plan	Co. Glen's L/F	
Phone #	Phone #	
Fax # for your request	Fax (616) 256-0174	

Matthew R. Fortunak
Leelanau County Planning Department
113 S. Grand Ave.
P.O. Box 546
Leland MI. 49654 - 0546

11/23/98

Dear Mr. Fortunak,

Per the requirements of the DEQ County Solid Waste Management plans "Plan Format", Section III - 28 "Siting Review Procedures" and section D - 3 "Listed Capacity". Glen's Sanitary Landfill submits the following:

Under Glen's existing 133-acre DEQ expansion permit, and subsequent licensing program, we can supply the county of Leelanau with 10 years of airspace / disposal.

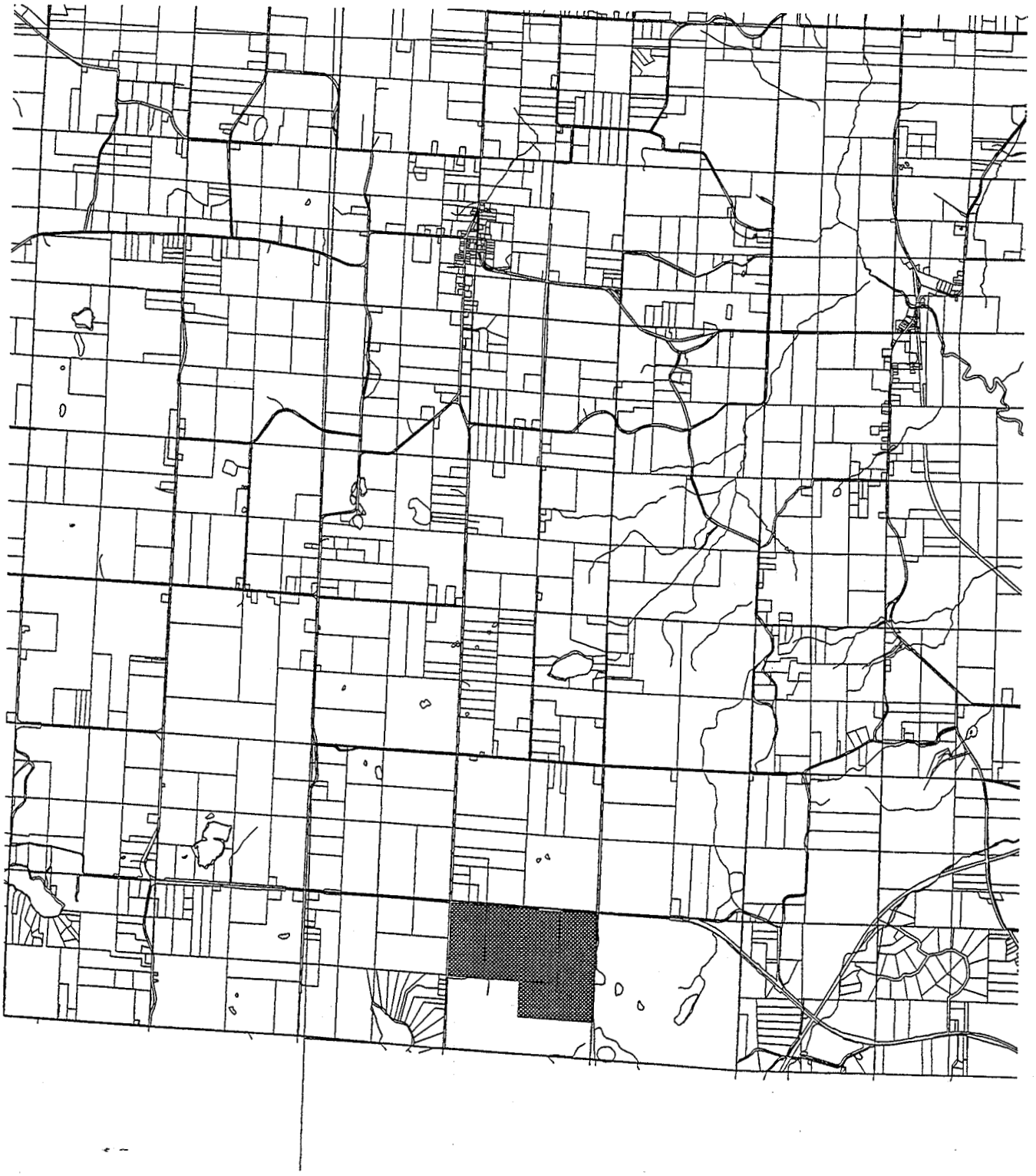
Please feel free to call me with any questions, (616) 228 - 6725.

Sincerely,

Dave Barron
Site Manager

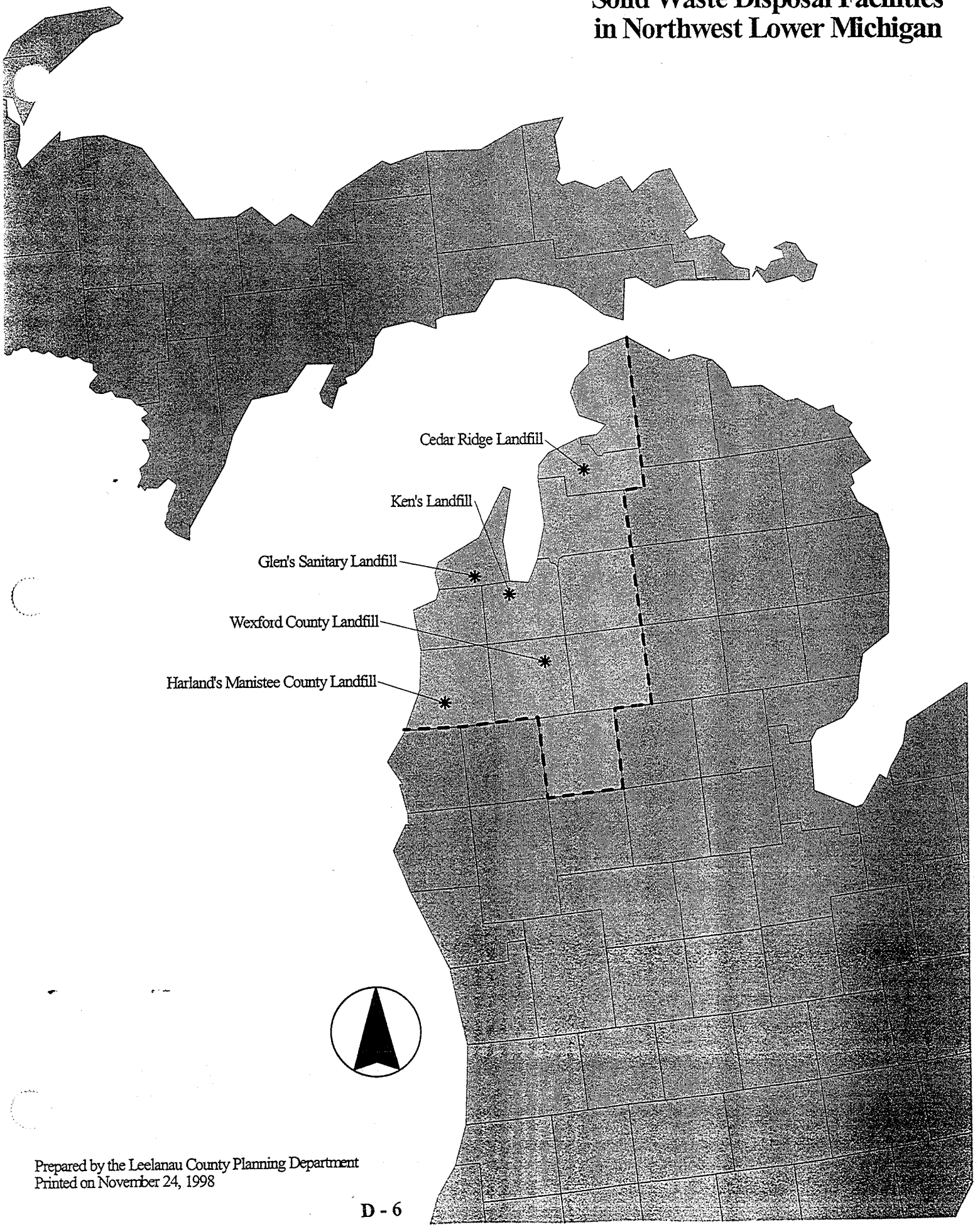
Cc: File

TOTAL P.01



Glen's Sanitary Landfill

Solid Waste Disposal Facilities in Northwest Lower Michigan



Prepared by the Leelanau County Planning Department
Printed on November 24, 1998

LEELANAU COUNTY
NOTICE TO THE PUBLIC

Pursuant to Section 11535(d) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, copies of the draft of the Plan Update of the Leelanau County Solid Waste Management Plan were sent to the Clerks of all municipalities in Leelanau County. All have been requested to make this document accessible to any interested citizens for their review.

As mandated by Act 451, a public review period has been established for examination of the draft of the Plan Update. The Solid Waste Management Planning Committee (SWMPC) has authorized the review period to begin on July 17, 1998 and end on October 16, 1998.

Verbal input regarding the draft of the Plan Update will be heard at a public hearing held during the regular monthly meeting of the Legislative and Resource Committee of the County Board of Commissioners on **Tuesday, October 6, 1998 at 9:30 a.m. in the Law Library** of the county courthouse in Leland.

Written comments regarding the draft should be sent to:

Leelanau County
Solid Waste Management Planning Committee
c/o Leelanau County Planning Department
113 S. Grand Ave.
P.O. Box 546
Leland, MI 49654

All comments will be considered by the SWMPC prior to the scheduled public hearing on the Plan Update to the Leelanau County Solid Waste Management Plan.

Copies of the draft of the Plan Update and all comments received to date are also available for inspection and/or purchase, at cost, at the Leelanau County Planning Department office in the courthouse annex in Leland. With questions call the Leelanau County Planning Department at (616) 256-9812.

Printed in the *Traverse City Record Eagle* Friday, July 17, 1998.
Printed in the *Leelanau County Enterprise and Tribune* Thursday, July 23, 1998.

Bingham Twp Resolution
R - 11 -01 -98

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Bingham Township Board members have received and reviewed the Plan Update and the Bingham Township Board approves the Solid Waste Management Plan Update.

AYES: Sanborn, Petroskey, Groesser, Warner

NAYES: _____

ABSTENTIONS: _____

ABSENT: GARDNER

Motion carried. Move Sanborn, 2nd Groesser.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Bingham, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Bingham Township Board, held on the 18th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Carol Groesser, Clerk
BINGHAM TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Centerville Township Board members have received and reviewed the Plan Update and the Centerville Township Board approves the Solid Waste Management Plan Update.

AYES: R. PLEVA - M. SCHOPIERAY - J. BALESH - L. KELENSKI

NAYES: _____

ABSTENTIONS: _____

ABSENT: JOE CZERNIAK

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Centerville, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Centerville Township Board, held on the 25th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

James M Balesh
CENTERVILLE TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Cleveland Township Board members have received and reviewed the Plan Update and the Cleveland Township Board approves the Solid Waste Management Plan Update.

AYES: Kalong, Mudil, Dochow, Patterson, Daniels

NAYES: - 0 -

ABSTENTIONS: - 0 -

ABSENT: - 0 -

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Cleveland, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Cleveland Township Board, held on the 10th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Louise M. Patterson
CLEVELAND TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Elmwood Township Board members have received and reviewed the Plan Update and the Elmwood Township Board approves the Solid Waste Management Plan Update.

AYES: Scott, Gallagher, Flohe, Naymick, Thiel

NAYES: O'Rourke, Smith

ABSTENTIONS: none

ABSENT: none

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Elmwood, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Elmwood Township Board, held on the 9th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Derith A Smith

ELMWOOD TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Empire Township Board members have received and reviewed the Plan Update and the Empire Township Board approves the Solid Waste Management Plan Update.

AYES: DEERING, NEISWONGER, BOLTON, PENDLETON

NAYES: NONE

ABSTENTIONS: NONE

ABSENT: WIEJACZKA

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Empire, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Empire Township Board, held on the 10th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Christine M. Neiswonger
EMPIRE TOWNSHIP CLERK

GLEN ARBOR TOWNSHIP
P.O. Box 276 Glen Arbor, MI 49636
616-334-3539 FAX 616-334-6370
Benjamin H. Whitfield, Supervisor Bonnie Quick, Clerk Jane L. Bulliss, Treasurer
Robert Hawley, Trustee Matthew Davis, Trustee

Resolution # 9-98
November 17, 1998

Resolution of Support for the Leelanau County Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that Glen Arbor Township Board members have received and reviewed the Plan Update and the Glen Arbor Township Board approves the Solid Waste Management Plan Update.

During the Regular Meeting of the Glen Arbor Town Board Meeting, held on Tuesday, November 17, 1998 a motion by Robert Hawley, second by Bonnie Quick to adopt Resolution # 9-98. By roll call vote:

Ayes: Jane Bullies, Bonnie Quick, Robert Hawley, and Ben Whitfield

Nays: None

GLEN ARBOR TOWNSHIP
P.O. Box 276 Glen Arbor, MI 49636
616-334-3539 FAX 616-334-6370
Benjamin H. Whitfield, Supervisor Bonnie Quick, Clerk Jane L. Bulliss, Treasurer
Robert Hawley, Trustee Matthew Davis, Trustee

Abstentions: None

Absent: Matt Davis

Motion carried 4 to 0

Supervisor Whitfield declared the motion carried and Resolution # 9-98 duly adopted.

State of Michigan)
Leelanau County)

I, THE UNDERSIGNED, THE DULY QUALIFIED AND ACTING Clerk of the Township of Glen Arbor, do hereby certify that the foregoing is a true and complete copy of proceedings taken at the regular meeting of the Glen Arbor Township Board, held on the 17th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Bonnie Quick

Bonnie Quick
Glen Arbor Township Clerk

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Kasson Township Board members have received and reviewed the Plan Update and the Kasson Township Board approves the Solid Waste Management Plan Update.

AYES: Feys, Lanham, Noonan, Peck, and Peplinski

NAYES: none

ABSTENTIONS: none

ABSENT: none

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Kasson, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Kasson Township Board, held on the 2nd day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Kathleen Feys

KASSON TOWNSHIP CLERK

98-11-2

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Leelanau Township Board members have received and reviewed the Plan Update and the Leelanau Township Board approves the Solid Waste Management Plan Update.

AYES: -4-

NAYES: -0-

ABSTENTIONS: -0-

ABSENT: -0-

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Leelanau, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Leelanau Township Board, held on the 10th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

LEELANAU TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Leland Township Board members have received and reviewed the Plan Update and the Leland Township Board approves the Solid Waste Management Plan Update.

AYES: Bredewhoeg, VanZee, Kirt, Eagle, Culman

NAYES: None

ABSTENTIONS: None

ABSENT: None

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Leland, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Leland Township Board, held on the 9th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Cheryl VanZee
LELAND TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Solon Township Board members have received and reviewed the Plan Update and the Solon Township Board approves the Solid Waste Management Plan Update.

AYES: Robert Dezelski, George Rosinski, Alex Garvin, Janet Novak and Patti Keim.

NAYES: None.

ABSTENTIONS: None.

ABSENT: None.

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Solon, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Solon Township Board, held on the 12th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Patti J. Keim

SOLON TOWNSHIP CLERK Patti J. Keim

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Suttons Bay Township Board members have received and reviewed the Plan Update and the Suttons Bay Township Board approves the Solid Waste Management Plan Update.

AYES: Bahle, Long, Moe, Catton

NAYES: None

ABSTENTIONS: 0

ABSENT: 0

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Township of Suttons Bay, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Suttons Bay Township Board, held on the 11th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Rosemarie J. Moe
SUTTONS BAY TOWNSHIP CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Village of Empire Council members have received and reviewed the Plan Update and the Village of Empire approves the Solid Waste Management Plan Update.

AYES: Barr, Deering, Boisineau, Scott, Vanderberg, Carpenter

NAYES: None

ABSTENTIONS: None

ABSENT: John

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Village of Empire, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Village of Empire, held on the 16th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

VILLAGE OF EMPIRE CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Village of Northport Council members have received and reviewed the Plan Update and the Village of Northport approves the Solid Waste Management Plan Update.

AYES: Brendel, Frank, Mattson, Ray, Rogers, Thomas and Zeits.

NAYES: None

ABSTENTIONS: None

ABSENT: None

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Village of Northport, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Village of Northport, held on the 16th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Betty L Mark

VILLAGE OF NORTHPORT CLERK

Resolution of Support
For The Leelanau County
Solid Waste Management Plan Update

WHEREAS the Department of Environmental Quality (DEQ) is commencing the next round of updates to County Solid Waste Management Plans under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS the County of Leelanau recognizes the need to address important changes and issues dealing with solid waste management; and

WHEREAS the County of Leelanau has a Solid Waste Management Plan that was approved by the State in 1988, and the Leelanau County Planning Commission was assigned the tasks of the Leelanau County Solid Waste Management Board as of January 1, 1995; and

WHEREAS the Leelanau County Board of Commissioners filed a Notice of Intent with the DEQ to Prepare a Solid Waste Management Plan Update and designated the Leelanau County Planning Department as the Designated Planning Agency (DPA) and appointed a 14-member Solid Waste Management Planning Committee (SWMPC) to prepare the Plan Update; and

WHEREAS the SWMPC has prepared and approved the Plan Update and the Leelanau County Board of Commissioners has approved the Plan Update;

NOW THEREFORE, BE IT FURTHER RESOLVED that the Village of Suttons Bay Council members have received and reviewed the Plan Update and the Village of Suttons Bay approves the Solid Waste Management Plan Update., Regular Village Council Meeting November 16, 1998:
Moved by Trustee Andy Forton, supported by Dave Capron:
AYES: Trustees Donna Herman, Ben Kohler, Andy Forton, Dave Capron, Dwaine Schaub; President John Rulison.
NAYES: None

ABSTENTIONS: None

ABSENT: Trustee Karl Bahle.

Motion carried.

STATE OF MICHIGAN
COUNTY OF LEELANAU

I, the undersigned, the duly qualified and acting Clerk of the Village of Suttons Bay, do hereby certify that the foregoing is a true and complete copy of proceedings taken at a regular meeting of the Village of Suttons Bay, held on the 16th day of November, 1998. Public notice of said meeting was given pursuant to and in compliance with Act 267, P.A. 1976, as amended.

Sandra Van Huystee

VILLAGE OF SUTTONS BAY CLERK
SANDRA VAN HUYSTEE
November 16, 1998

Solid Waste Reciprocal Agreement

WHEREAS, Antrim County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Antrim County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Antrim County will agree to accept solid waste from Leelanau County so long as Antrim County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Antrim County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Antrim County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Antrim County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Antrim County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Antrim County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Antrim County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT Antrim County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR ANTRIM COUNTY	FOR LEELANAU COUNTY
_____	_____
Chairman Antrim County Board of Commissioners	J. Patrick Yoder, Chairman Leelanau County Board of Commissioners
_____	_____
Date	Date

Solid Waste Reciprocal Agreement

WHEREAS, Benzie County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Benzie County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Benzie County will agree to accept solid waste from Leelanau County so long as Benzie County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Benzie County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Benzie County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Benzie County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Benzie County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Benzie County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Benzie County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT BENZIE County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR BENZIE COUNTY

Mary Pitts

Chairman
Benzie County
Board of Commissioners

May 3, 1999
Date

FOR LEELANAU COUNTY

Jean I. Watkoski

Jean I. Watkoski, Chairperson
Leelanau County
Board of Commissioners

5-4-99
Date

Solid Waste Reciprocal Agreement

WHEREAS, Charlevoix County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Charlevoix County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Charlevoix County will agree to accept solid waste from Leelanau County so long as Charlevoix County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Charlevoix County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Charlevoix County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Charlevoix County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Charlevoix County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Charlevoix County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Charlevoix County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT CHARLEVOIX County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR CHARLEVOIX COUNTY

_____

Chairman
Charlevoix County
Board of Commissioners

_____

Date

FOR LEELANAU COUNTY

_____

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

_____

Date

Solid Waste Reciprocal Agreement

WHEREAS, Emmet County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Emmet County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Emmet County will agree to accept solid waste from Leelanau County so long as Emmet County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Emmet County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Emmet County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Emmet County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Emmet County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Emmet County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Emmet County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT EMMET County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR EMMET COUNTY

_____

Chairman
Emmet County
Board of Commissioners

_____

Date

FOR LEELANAU COUNTY

_____

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

_____

Date

A TRUE COPY
Michelle L. Crocker
MICHELLE L. CROCKER
LEELANAU COUNTY CLERK
CLERK of CIRCUIT COURT
LELAND, MICHIGAN
1-28-02

Solid Waste Reciprocal Agreement With Grand Traverse and Leelanau Counties

WHEREAS, Grand Traverse County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, as amended, to update the current Solid Waste Plan, and;

WHEREAS, Grand Traverse County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waster management plan include authorization for the import and export of solid waste between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Grand Traverse county will agree to accept solid waste from Leelanau County so long as Grand Traverse County has an approved solid waste site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Grand Traverse County so long as an approved solid waste diposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Both Grand Traverse and Leelanau County agree to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its respective annual project update and progress report to the other county. The waste diversion program shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Each county shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycle Program

Each county's recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

Solid Waste Reciprocal Agreement

WHEREAS, Kalkaska County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Kalkaska County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Kalkaska County will agree to accept solid waste from Leelanau County so long as Kalkaska County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Kalkaska County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Kalkaska County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Kalkaska County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Kalkaska County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Kalkaska County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. **Household and Agricultural Hazardous Waste Collection**

Kalkaska County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT KALKASKA County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR KALKASKA COUNTY

Chairman
Kalkaska County
Board of Commissioners

7-14-98
Date

FOR LEELANAU COUNTY

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

11/2/98
Date

Solid Waste Reciprocal Agreement

WHEREAS, Manistee County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Manistee County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Manistee County will agree to accept solid waste from Leelanau County so long as Manistee County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Manistee County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Manistee County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Manistee County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Manistee County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Manistee County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Manistee County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT MANISTEE County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR MANISTEE COUNTY

_____

Chairman
Manistee County
Board of Commissioners

_____

Date

FOR LEELANAU COUNTY

_____

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

_____

Date

Solid Waste Reciprocal Agreement

WHEREAS, Missaukee County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Missaukee County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Missaukee County will agree to accept solid waste from Leelanau County so long as Missaukee County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Missaukee County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Missaukee County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Missaukee County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Missaukee County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Missaukee County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. **Household and Agricultural Hazardous Waste Collection**

Missaukee County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT MISSAUKEE County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR MISSAUKEE COUNTY

Gary Bingy

Chairman
Missaukee County
Board of Commissioners

OCTOBER 13, 1998
Date

FOR LEELANAU COUNTY

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

11/2/98
Date

Solid Waste Reciprocal Agreement

WHEREAS, Osceola County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Osceola County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Osceola County will agree to accept solid waste from Leelanau County so long as Osceola County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Osceola County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Osceola County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Osceola County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Osceola County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Osceola County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. **Household and Agricultural Hazardous Waste Collection**

Osceola County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESOLVED, THAT OSCEOLA County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR OSCEOLA COUNTY

Chairman
Osceola County
Board of Commissioners

7-30-98
Date

FOR LEELANAU COUNTY

J. Patrick Yoder, Chairman
Leelanau County
Board of Commissioners

11/2/98
Date

Solid Waste Reciprocal Agreement

WHEREAS, Wexford County, as well as all counties in the State of Michigan, are required by Part 115 of Act 451, P.A. 1994, to update the current Solid Waste Plan, and;

WHEREAS, Wexford County and Leelanau County are responsible for the final deposition of all waste generated in their respective counties, and;

WHEREAS, Part 115 of Act 451, P.A. 1994, as amended, require that both the receiving and the sending county's solid waste management plan include the mechanism for a signed agreement between the two counties prior to any shipment of solid waste,

THEREFORE, BE IT RESOLVED, THAT Wexford County will agree to accept solid waste from Leelanau County so long as Wexford County has an approved solid waste disposal site that is open for public use.

BE IT FURTHER RESOLVED, THAT Leelanau County will agree to accept solid waste from Wexford County so long as an approved solid waste disposal site exists in Leelanau County that is open for public use.

BE IT FURTHER RESOLVED, THAT Wexford County agrees to establish and maintain a program for diverting a portion of its waste from landfill facilities and send its ANNUAL PROJECT UPDATE AND PROGRESS REPORT to Leelanau County. The waste diversion program must be acceptable to Leelanau County and shall contain, at a minimum, the following four (4) items:

1. Public Education Program

Wexford County shall participate in a program to inform the public of proper disposal methods for various wastes so that no improper wastes are disposed of in the landfill. The educational program shall also inform the public as to the importance of recycling and how the public can participate.

2. Recycling Program

The Wexford County recycling program shall include a sufficient number of drop-off sites or sufficient curbside recycling to provide the public with an opportunity to participate in the program.

3. Composting Program

Wexford County shall establish or participate in a composting program to prevent yard waste and other organic wastes from being disposed of in the landfill.

4. Household and Agricultural Hazardous Waste Collection

Wexford County shall conduct or participate in at least one (1) household and agricultural hazardous waste collection day per year. The collected wastes shall be disposed of at a facility licensed to receive that type of waste.

BE IT FURTHER RESPOLVED, THAT WEXFORD County agrees to implement a waste diversion program, as outlined above, within one (1) year of the adoption of the Leelanau County Solid Waste Management Plan 1998 Update.

BE IT FURTHER RESOLVED, THAT this agreement is valid until the next revision of the Leelanau County Solid Waste Plan is approved. However, either county may give one-hundred eighty (180) days written notice of intent to terminate this agreement to allow the other party time to develop another source for solid waste disposal. Each county will save and hold the other county harmless from any and all liability actions arising from the disposal of solid waste.

FOR WEXFORD COUNTY	FOR LEELANAU COUNTY
_____	_____
Chairman Wexford County Board of Commissioners	J. Patrick Yoder, Chairman Leelanau County Board of Commissioners
_____	_____
Date	Date

The Leelanau Enterprise 50¢

and Tribune

Leelanau's Official Newspaper

VOL. 121 — No. 42 LELAND, MICH. 49654 *Thursday, JULY 16, 1998* THREE SECTIONS 48 PAGES

Copyright 1998, Leelanau Enterprise, Inc., all rights reserved.

Plan shows half of Leelanau's solid waste contributed from residential uses

By Amy Hubbell
Of The Enterprise staff

Leelanau County is leading the state on updating its 9-year-old solid waste plan.

The county Solid Waste Management Planning Commission (SWMPC) was scheduled to authorize a 90-day public review period starting Tuesday for proposed 5 and 10-year plan updates.

"From what I understand we're one of the furthest (counties) along," county senior planner Matthew Fortunak said.

Brian Burke, an environmental quality analyst with the Department of Environmental Quality's Waste Management division, keeps tabs on the progress of counties in the northern lower section of the state.

"(Leelanau) is ahead of the majority of counties in the state," Burke said. "There is only a handful of counties who are at that stage now."

Fortunak has been working since February with the 14-member solid waste committee to bring the management plan up to date. The committee includes four representatives of the solid waste industry, an industrial waste generator, representatives of township, village and county government, the general public, the regional solid waste planning agency and environmental interest groups.

The State of Michigan requires counties to update its solid waste management plan every five years. New standards for consideration during the update were adopted by the state last year.

"Everyone has to have their update done and adopted by the end of the year," Fortunak explained. "If the municipality chooses not to do it, one will be done for them by the state."

The plan includes a data base about the volume of waste going into Glen's Landfill—the only state-approved landfill in the 5-county region of Leelanau, Grand Traverse, Benzie, Antrim and Kalkaska counties. It also includes information about the volume of recycled materials collected at

*County landfill volumes**

As reported by Glen's Sanitary Landfill, Cedar Ridge Disposal and Ken's Pick Up Service.

	1997 Annual Vol.	5-Year Annual Vol.	10-Year Annual Vol.
Residential Solid Waste	8,700	8,500	8,200
Commercial Solid Waste	5,100	5,000	4,800
Industrial Solid Waste	700	700	700
Construction & Demolition Waste	4,700	4,100	3,300
TOTAL	**19,200**	**18,300**	**17,000**

*IN TONS

These are operated by Renewable Waste, Inc., Construction Waste Recycling, and Goodwill Industries.

According to the study, 19,200 tons of waste was deposited in Glen's Landfill last year. About half was generated from residential uses, or 8,700 tons. Commercial solid waste measured 5,100 tons, followed by construction and demolition waste. Only 700 tons of industrial solid waste was placed in the landfill.

The volume of materials being recycled in the county has increased dramatically over the past 10 years, peaking in 1995.

Some 980 tons of commercial cardboard and paper products make up about half of the recycled materials in the county. Construction and demolition materials represented 370 tons, followed by metal at 190 tons.

The management plan designates Benzie, Grand Traverse and Kalkaska as those counties from which waste will be accepted. Waste from Emmett, Charlevoix, Antrim, Missaukee, Wexford, Manistee and Osceola would be accepted provided they approve "reciprocal agreements" indicating that waste would be accepted from Leelanau.

The plan, required by the state, is also expected to describe the recycling program in the county as well as the implementation of a composting plan if applicable.

plan during the 90-day public comment period. Comments from the public and state during this 3-month review could be incorporated before adoption is considered by the county Board of Commissioners.

County endorsement is required, as well as approval from 10 of the 14 municipalities in the county—11 townships and three villages—before the plan is forwarded to the state.

The Leelanau Enterprise 50¢
and Tribune
Leelanau's Official Newspaper
VOL. 122 — No. 6 LELAND, MICH. 49654 Thursday, NOVEMBER 5, 1998 THREE SECTIONS 36 PAGES
Copyright 1998, Leelanau Enterprise, Inc., all rights reserved.

Solid waste plan approved by 4-0 vote of County Bd.

A proposed update of the county's nearly decade-old solid waste management plan was approved this week by the county Board of Commissioners.

The plan will go before the county's 14 municipalities this month.

The County Board voted 4-0 with commissioner Robert Weaver absent at a special Monday morning meeting to accept the solid waste management plan, which outlines primary and alternative waste management practices as recommended by the county Solid Waste Management Planning Commission. The group was reinstituted earlier this year to update the county's 1989 solid waste management plan as mandated by the state Department of Environmental Quality.

New standards for consideration during the update process were adopted by the state last year.

The plan calls for continuation of the status quo in which solid waste is collected by private haulers, and recyclable waste is diverted from the landfill with the county's drop-off recycling program. It also includes continuation of the county's household hazardous waste collection and public education.

"This alternative provides a system on which the county can expand its efforts to address the deficiencies and problems," the document states.

No increase in the county's $13 per

(Concluded on Page 2)

Solid waste plan approved by 4-0 vote of County Bd.

Continued from Page 1

household fee for recycling is anticipated at this time, county officials said.

"Alternatives" identified in the update would allow residents to continue to bring recyclable goods to an existing facility or provide for the use of an alternate disposal site—a transfer station.

Another alternative would continue waste collection by private haulers and offer curbside recycling on a limited basis.

"There is one clear path for us," said Matthew Fortunak, county senior planner, who has worked with the solid waste committee over the past nine months. "It's clear for us because we have a landfill."

A contingency plan is also identified in the event that the county's existing landfill—Glen's Landfill in Kasson Township—is no longer available. Glen's is the area's only licensed landfill.

The plan calls for reciprocal solid waste agreements with nine other counties in the northern lower peninsula. They are Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Missaukee, Osceola and Wexford counties.

Leelanau County officials are trying to negotiate a similar agreement with Manistee County, where officials have been hesitant to collect household hazardous waste.

"We want to continue this because we don't want hazardous waste going into the landfill," Fortunak said.

The public comment period on the proposed plan was from July 17 to Oct. 19. The plan is now scheduled to be reviewed by the county's 11 townships and three incorporated villages at meetings.

Approval from 10 of the 14 county municipalities is needed to adopt the plan and send it on to the state. If the update fails to garner local support, the state Department of Environmental Quality will prepare a plan for the county.

Kasson is first township to OK solid waste plan

Kasson Township became the first municipality in the county to approve a proposed update to the Leelanau County Solid Waste Management Plan at its regular township board meeting Monday.

The township is home to the Glen's Landfill, the only licensed landfill in Leelanau County. The township is also the first to hold a regular meeting every month—on the first Monday.

The board unanimously approved the Solid Waste Management Plan Update which had been supported earlier Monday by the county Board of Commissioners.

County planning director Trudy Galla presented the plan to the township board. She explained that the state Department of Environmental Quality requires that at least 10 of the county's 14 municipalities approve the plan. If the plan fails to gain local support, the DEQ will write a plan its own plan for Leelanau County.

The township board had been scheduled to hear from Dave Barron, operations manager at Glen's landfill. Glen's is involved in remediating contaminated sites associated with the former county landfill located adjacent to the current site. According to township clerk Kathlyn Feys, Barron asked to postpone his briefing until December.

The board also reappointed Virginia Rockwood to a three-year term on the township Planning Commission. A vacancy remains on the commission, due to the resignation of Bruce Westover.

The board voted to advertise again for applications..

In other business, the board:

• Discussed the need for sidewalk repair in Maple City. Lanham observed that only temporary repairs had been made by the county, and township action would likely be required in the coming year.

• Agreed to send a letter to the U.S. Fish and Wildlife Service supporting a Glen Lake Association plan to trap and remove merganser duck broods from the lake to help control "swimmers itch."

• Discussed ways to thank the dozens of individuals who donated labor and joined several area businesses in developing the township park.

The Leelanau Enterprise 50¢
and Tribune
Leelanau's Official Newspaper
VOL. 122 — No. 7 LELAND, MICH. 49654 Thursday, NOVEMBER 12, 1998 THREE SECTIONS 40 PAGES
Copyright 1998, Leelanau Enterprise, Inc., all rights reserved.

Elmwood likes updated solid waste plan

The Elmwood Township Board has gone on record in support of a proposed updated County Solid Waste Management Plan—despite misgivings from some board members.

Meeting Monday, the board passed a resolution of support by a 5-2 vote, with Clerk Derith Smith and Trustee James S. O'Rourke opposed.

The plan outlines primary and alternative waste management practices as recommended by the county Solid Waste Management Planning Committee. The County Board of Commissioners approved the update at a special meeting Nov. 2.

The state Department of Environmental Quality mandates that counties update solid waste management plans, or the state would do it for them.

Few changes are contained in the new plan, according to county senior planner Matthew Fortunak, who attended the Elmwood meeting. Ten of the 14 local municipalities in Leelanau County must support the plan for official approval.

O'Rourke opposed the plan because it includes adding Wexford and Osceola counties to a list of government agencies that could use Glen's Landfill in Kasson Township as an emergency refuse dumping location. He said the list should exclude Wexford, where waste collectors had illegally dumped at Glen's Landfill in the past.

The management plan calls for reciprocal solid waste agreements with Antrim, Benzie, Charlevoix, Emmet, Grand Traverse and Missaukee counties as well.

Supervisor John Naymick questioned whether Glen's was charging more for waste handling than counterparts in other counties. Fortunak said the Glen's fee is identical to landfills in Wexford and Manistee counties.

Counties in reciprocal agreements want waste haulers to go to the nearest landfill, and therefore promote the use of similar fees.

Cleveland cancels joint meeting, help pay for test well

Heated discussions about the inability of the Cleveland Township board to hold a joint meeting, and continued wrangling over the digging of another monitoring well near the King's Challenge golf course dominated discussions at the board's regular Tuesday meeting.

The board eventually approved a $400 contribution toward a fourth test well at the golf course, and learned that the planned joint meeting had been canceled.

At last month's meeting, board members agreed to organize a joint meeting with the township Zoning Board of Appeals and Planning Commission to discuss updating the township master plan. Trustees Joseph Dechow and Mark Kalena were asked to contact board and commission members to set up a meeting tentatively scheduled for Tuesday.

Kalena reported that after he'd spoken with Zoning and Planning Commission chairman Charles Ryant he decided not to attend the joint meeting. Ryant also did not plan to attend.

Kalena said he'd reported his intentions to township Clerk Louise Patterson well before the scheduled meeting. Kalena said Patterson indicated the meeting would then be canceled.

The township is currently appealing a court decision supporting a lawsuit Ryant filed charging the township with violating the state Open Meetings Act.

Kalena said he'd changed his mind about attending the meeting after learning more about the issue since being asked last month to help organize the meeting.

"There are no rules pertaining to joint meetings, no authority," Kalena said. "It would be nothing but a big feud until the deal with Charlie (Ryant) is settled," he said.

Cleveland Supervisor Walt Daniels said that "there seems to be such an uncooperative spirit."

Kalena responded: "I call it watch

Because of your actions, you've cost this township thousands of dollars in legal fees."

"Why don't you pound the table some more, Mark," Daniels said. "Let's see where that gets you."

Daniels had indicated he would communicate with the planning Commission and ZBA exclusively in writing if necessary.

The board went on to hear a report from Marshall Meyer concerning plans to place a fourth well to monitor groundwater flows at King's Challenge golf course. Meyer said he and other committee members appointed by the board had discussed the issue with Sugar Ridge Development owner John Sills as well as members of the Little Traverse Lake and Lime Lake associations.

Meyer said the lake associations had each agreed to contribute $200 toward digging the test well. He said that if the township would also contribute $400, Sills might be convinced to pay the balance of the estimated $1,500 cost.

Township Treasurer Bessie Musil said she opposed using township money for the well, saying "it will open up a can of worms."

She added, "if we do it for one, we'll have to do for another." She suggested that the lake associations and Sills pay the entire cost.

However, Daniels supported the proposal, pointing out that water quality affects everyone, not just lakefront owners, and the lakes themselves are public property, not private.

"We need to do whatever we can to protect these assets for future generations," Daniels said.

Patterson agreed, saying groundwater monitoring would be "for the welfare and benefit of all."

But Kalena objected, saying "I can't see spending township money to benefit private industry." He added that there was "no guarantee" the fourth well would cover any more than

Daniels said that an engineering study had determined a fourth well was necessary. Sills had been required by the township to provide only three monitoring wells. He pointed out that the township would only be paying for a portion of the new well.

Dechow added that "the onus is on us to help pay for the fourth well that the township failed to require the first time."

"What can of worms does this open?" Kalena later asked.

Musil added, "This is Sills' responsibility."

Meyer stood up to leave the meeting, saying, "I didn't expect this would be such a divisive issue with the board. We'll see if we can do this without the help of the township and talk to Sills about it again ourselves."

He walked out of the meeting before the board could take action on his proposal, but not before adding, "If our taxes are just a little bit late this year, then please forgive us."

Patterson moved that the township pledge $400 along with $200 from each of the lake associations toward the new test well, pending a possible agreement by Sills to foot the entire bill. Dechow seconded with Daniels voting aye, Musil and Kalena opposing. The motion passed.

In other business, the board unanimously passed a resolution supporting adoption of Leelanau county's updated Solid Waste Management Plan.

Leland village lot owners want S. Clara St. vacated

Owners of lots fronting on S. Clara Ave. in the village of Leland have asked the Township Board to vacate the public street.

The board, acting at its monthly meeting Monday, agreed to hold a public hearing on the matter, likely on the same night as its Dec. 14 meeting.

"At that time we'll have to decide whether to vacate," said Supervisor Gary Bardenhagen, who voted in favor of holding the hearing.

But support wasn't unanimous. Treasurer Clifford Egeler and Trustee Gerald Culman were opposed, while Bardenhagen was joined by Clerk Cheryl D. Van Zee and Trustee Michael Kirt in voting "yes."

"We've never agreed to do this for anyone else," said Culman. "We've shot everyone else down who came here."

Leland attorney Larry Nelson represented property owners John H. Humble and Jean S. Lang at the meeting. In a resolution he prepared for the couple and delivered for the board action, he said the road was "unimproved and no longer necessary for the township or public purposes."

Humble and Lang are seeking to close S. Clara Ave. between E. Oak St. and Boulevard St. as well as an alley located to the south. Humble and Lang own adjacent lots and Dorothy J. Moore owns three lots, all facing S. Clara Ave. The five properties comprise the south tier of lots facing S. Clara Ave. Moore also submitted a written request to vacate the street.

Closing the street and alley would leave three lots without access to a public right-of-way, although in Humble's and Lang's request the landowners agreed to provide "an easement for ingress and egress and installation and maintenance of utilities for any potentially landlocked lots..."

In other action Monday, the Township Board unanimously approved a proposed county Solid Waste Plan update. Approval from ten of the county's 14 townships and villages is required for passage, although county Planner Trudy Galla said unanimous support is sought. "We'd really like to have all 14, as we did in the original plan," she told the board.

TRAVERSE CITY RECORD-EAGLE

OPINION

OUR VIEW

Leelanau sets an example with limits on the landfill

While county dumps are a thing of the past, local officials in counties that still have them do have some say in who can dump there.

Leelanau County officials made the right decision early this month when they decided that the potential service area for Glen's Landfill should only be 10 counties. In doing so, they turned away requests from counties as far away as Kalamazoo that wanted to dump trash here.

Now, the landfill has a better chance of lasting the entirety of its projected 60-year life span.

Arbor in Washtenaw County, because Canadians find it cheaper to dump there than in their own back yard.

And out-of-state use of Michigan landfills is expected to grow in two to three years after the nation's second-largest dump, Fresh Kills in New York, closes. The thinking is that the waste will move west, displacing trash normally landfilled in Pennsylvania and Ohio, which will be moved further into the Midwest and Michigan.

Glen's is the Grand Traverse area's only landfill and one of a few in northern Michigan. Others are in Charlevoix, Cadillac, Manistee and the Grayling-Gaylord area. Last year, Glen's alone took in more than 100 tons of waste from this region, according to Department of Environmental Quality reports.

Early this month, Leelanau County's Solid Waste Management Board agreed that the potential service area for the landfill only should be 10 counties in northwestern Michigan.

That was a good decision. Already there is pressure to open the landfill to counties far away. In fact, some of those requests would have opened the landfill to all of the state's 83 counties.

Landfills generally are not an exciting topic of everyday conversation, but this issue is important to our area for two reasons.

First, northern Michigan still has big tracts of open spaces and relatively cheap land, when compared to the Northeast. It easily could become a dumping ground for the state and beyond, especially as landfills in southern Michigan fill.

Last year, almost 13 percent of the waste landfilled in Michigan came from Canada and other states, primarily Indiana and Ohio, according to DEQ reports. Toronto's main dump is 200 miles away from the city, near Ann

The second reason this issue is important is that once the region's landfills are full, our garbage will have to be exported elsewhere, and trash hauling fees will become even more exorbitant than they are now.

Obviously, recycling has to be part of the answer, but a 60-year lifespan on a local landfill gives us more time to plan and prepare than just a few years. As long as trash can be hauled across state lines, no one will ever really learn to recycle and there never will be a good market for recyclable material.

Equally important are the state's laws, which still give host counties some control over the garbage coming into landfills there.

There have been attempts in the Legislature to amend the law to take away this control. This must never happen. It is the only way counties have to control their destiny and whether their land will be used for housing, recreation, farming and industry or for dumps.

The national garbage industry is big, monopolistic and powerful. It can move more than mountains of trash. Its right to haul trash hundreds of miles across state lines has been upheld by the nation's courts.

Our state legislators in the next session must resist all attempts to weaken the thread by which host counties have some say what comes into their counties.

The Leelanau Enterprise 50¢
and Tribune
Leelanau's Official Newspaper
VOL. 122 — No. 8 LELAND, MICH. 49654 Thursday, NOVEMBER 19, 1998 THREE SECTIONS 40 PAGES
Copyright 1998, Leelanau Enterprise, Inc., all rights reserved.

Empire zoning administrator 'resigns' after closed session

The Empire Village Council accepted the resignation of its zoning administrator Tuesday following a closed session discussion with him.

Tony Perfect said he will resign from the position following a 30-day interim period to give the village time to post and fill the position.

Council members made no comment about the position following the closed session.

Perfect, a former county Leelanau County planner, has been criticized in recent meetings by the council. Some council members complained that permit applications have taken too long to process.

The council also extended a land use permit which had expired for a building at 10126 Front St. Owners Donna and Gary Hirs were unable to meet the village's 18-month occupancy timeline.

The Hirs wrote to the village requesting extensions on a land permit and a variance that had expired. The couple has been unable to finish renivations and now need to sell the building.

The couple expressed frustration in their dealings with the village.

"I have a stop work order from the village and the county says I can continue, and you're telling me I have no variance," said Gary Hirs. "I hope everyone can see why I'm frustrated."

The council will also ask the Planning Commission and village planner to review the related section of the zoning ordinance.

Also during the 2-hour meeting, the council unanimously approved a resolution of support for the Leelanau County Solid Waste Management Plan Update.

Empire gives nod for swimmer's itch program in Glen Lakes

Support for swimmer's itch program on Glen Lake was given last week by the Empire Township Board.

The board, with Trustee Kent Wiejaczka absent, agreed Nov. 10, to support a swimmer's itch program proposed by the Glen Lake Association.

The project, similar to one proposed for Lake Leelanau, is being pursued jointly by the Glen Lake and Lake Leelanau Lake associations. It involves live-trapping merganser ducks, the primary host of the parasite that causes swimmer's itch. The ducks are then inoculated and relocated.

Approval from the U.S. Fish and Wildlife Service is required for a permit needed for the swimmer's itch control project.

Empire, Glen Arbor and Kasson townships border the Glen Lakes. Kasson has already supported the project, while Glen Arbor Township officials formally supported the project last month.

In other business during the monthly meeting the board:

• Approved the proposed update of the county solid waste management plan. The update, formulated by the county Solid Waste Management Planning Commission, must be supported by 10 of the 14 municipalities in the county in order to be formally adopted.

• Agreed to replace township hall entrance doors. The cost of the project, estimated at between $2,000 and $3,000, will be covered in part by a $1,000 contribution from the former Empire VFW Post.

• Agreed to investigate further problems with the underground electric line serving the township campground after hearing concerns from property owners along Osborn Rd. that trees would need to be cut to allow a new overhead line to serve the park.

• Forwarded to the county Prosecutor's office a letter complaining about an alleged junk violation on S. Plowman Rd.

3 governments may consider 'skatepark'

Skateboarders may get a better place to practice their sport if Bingham and Suttons Bay township boards can agree with the Village Council where to locate a skateboard park—and how to pay for it.

Skateboarders will also be asked to play a part in the project, according to Suttons Bay Schools Superintendent Robert MacEachran, who also represented the Leelanau Family Coordinating Council at Monday's Village Council meeting.

Three communities in Leelanau county have already constructed skateboard parks—Empire, Leland and Northport—and all have relied to one extent or another on the ideas and the energy young people put into making the facilities a reality.

MacEachran suggested that municipalities might approach the Grand Traverse Band for a $10,000 grant to resurface a site, then rely on local youth organizations to raise an additional $1,200 required to build skateboard structures.

Village trustees agreed with MacEachran that the parking lot behind the Middle School might be the most appropriate spot for a skateboard park in Suttons Bay. Students currently use the site, as well as several others around the village, for skateboarding.

The most popular site, according to village manager Punky Idema, has been off Front St. behind the Roman Wheel pizzeria, and the Old Kent Bank parking lot.

"These areas have caused some problems with motorists and also with the amount of litter that is not picked up," she told MacEachran. She added that the parking lot adjacent to Millside Interiors on St. Joseph St. is also frequently used, "although it is private property and there are many signs stating 'No Skateboarding.'"

MacEachran felt it would be helpful for young people to get involved in designing a skateboard park and working through the process of gaining political support and funding. He asked if the village would be willing to act as the "vehicle" for requesting funding from the Grand Traverse Band.

Village President John Rulison thought the village council "would have no problem hearing from a bunch of kids who want to put this forward."

Trustee David Capron added, "I think the village could be a vehicle for funding as long as we could also get both townships on board with this."

The Village Council took no official action on the issue pending further communication from skateboard park proponents and the townships.

In other business, the village:

• Approved the update to Leelanau County's Solid Waste Management plan.

• Approved a land division permit from Gary Beuerle, owner of the parcel on St. Joseph's Avenue currently occupied by Millside Interiors, The Michigan Peddler, and Muriel's. The split will allow Beuerle to sell the property occupied by Millside separately from property occupied by the other two businesses.

• Discussed another letter from village manager Idema to the Michigan Department of Transportation requesting that "No Passing on Shoulder" signs be installed along M-22 in the village. Idema's Nov. 11 letter was sent following complaints from the Port Sutton Condominium Association about unsafe driving practices near the development. "We just have to keep after MDOT if we want to get those signs," said Idema.

• Approved a request to hold an antique car show at North Park some time in the latter half of August, 1999. The show would be free to the public but exhibitors would pay a fee.

• Approved a request from Cable Michigan, the cable TV franchisee in Suttons Bay, for an internal company name change to Avalon Cable of Michigan, Inc.

• Approved a 3-percent increase in seasonal slip fees at the village marina. In the main harbor, vessels up to 20 feet long will pay $860. Those over 20 feet will pay $43 per foot. At the coal dock, which lacks water or electricity service, vessels up to 20 feet will pay $730. Those over 20 feet will pay $37 per foot. Trustee David Capron discussed planned improvements to the docks and bathrooms, and credited harbormasters Torre Boone and Tom Krantz for a successful season.

The Leelanau Enterprise and Tribune 50¢

Leelanau's Official Newspaper

VOL. 121 — No. 9 LELAND, MICH. 49654 Thursday, NOVEMBER 26, 1998 THREE SECTIONS 44 PAGES

Copyright 1998, Leelanau Enterprise, Inc., all rights reserved.

Northport supports waste plan update

The Village of Northport became the 13th municipality in Leelanau County to support a proposed update to the county Solid Waste Management Plan.

The council voted unanimously Thursday night to approve the plan, which is scheduled to be forwarded to state officials prior to a Dec. 1 deadline. Representatives of the county Planning Department were scheduled to present the plan to the Centerville Township Board at its rescheduled meeting last night.

"We only needed approval from 11 of the 14 municipal groups, but we wanted to send all 14 resolutions of support to show that the public is united in support of the plan," county senior planner Matthew Fortunak said.

Had the county plan failed to garner support from the minimum 10 governmental groups, the state would have written an update for the county.

In other business during the 1 1/4-hour meeting, the council:

• Approved a resolution in support of the transfer of ownership from Cable Michigan to Avalon Cable of Michigan LLC.

• Removed Public Works employee Gary Fulmer from probationary status to full-time employee plus benefits.

Leelanau County Planning Department

113 S. Grand Ave.
P.O. Box 546
Leland MI 49654-0546
616-256-9812
616-946-1162 Ext. 184
Fax: 616-256-0174

Trudy J.C. Galla, AICP
Planning Director

Matthew R. Fortunak
Senior Planner

Karen J. Gleason
Secretary

Ron Crummel
Housing Coordinator

Address Administration
Census Data
Economic Development
GIS Data
Growth Management
Housing Program
Land Use Issues
Mapping
Master Plans
Planning Commission
Recycling
Solid Waste Issues
Statistics
Transportation
Zoning

November 27, 1998

Mr. Seth Phillips, Chief
Solid Waste Management Unit
Solid Waste Program Section
Waste Management Division
Department of Environmental Quality
P.O. Box 30241
Lansing MI 48909

Dear Mr. Phillips:

Enclosed is the Leelanau County Solid Waste Management Plan Update. The Plan Update was approved by the Leelanau County Solid Waste Management Planning Committee on October 23 and then approved by the County Board of Commissioners and all fourteen (14) local units of government.

On behalf of Leelanau County, I am submitting the Plan Update and requesting DEQ review and approval.

If you have any questions or need further information, please feel free to contact me.

Sincerely,

Trudy J.C. Galla, AICP
Planning Director

Enclosure