



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

April 17, 2012

Mr. Larry Inman, Chairman
Grand Traverse Board of Commissioners
400 Boardman Avenue
Traverse City, Michigan 49684

Dear Mr. Inman:

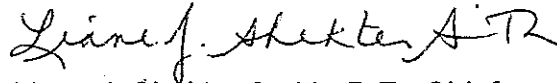
The locally-approved amendment to the Grand Traverse County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on February 22, 2012, is hereby approved.

The Plan Amendment creates the following changes:

- Updated Executive Summary to reflect current population and land use data; revised Authorized Management Component and Timetable for the Selected System.
- Updated Goals and Objectives.
- Revised Solid Waste Disposal Area inventory and updated the Solid Waste Facility Description sheets for each facility to reflect the current inventory.
- Updated Solid Waste Collection Services and Transportation Infrastructure.
- Revised Evaluation of Deficiencies and Problems.
- Revised the Selected Solid Waste Management System to reflect the County's current situation.
- Revised Siting Review Procedures and Authorized Disposal Area Types.
- Updated Solid Waste Management Components and Identification of Responsible Parties.
- Updated Capacity Certification section with the current disposal areas' information.

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

Sincerely,

A handwritten signature in black ink, reading "Liane J. Shekter Smith" with a stylized "A.T.R." at the end.

Liane J. Shekter Smith, P.E., Chief
Resource Management Division
517-373-9523

cc: Senator Howard Walker
Representative Wayne Schmidt
Mr. Bob Osterhout, Grand Traverse County
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Deputy Director, DEQ
Ms. Maggie Cox, Legislative Liaison, DEQ
Mr. Steve Sliver, DEQ
Mr. Phil Roycraft, DEQ
Ms. Rhonda S. Oyer, DEQ
Ms. Christina Miller/Grand Traverse County File, DEQ

RecycleSmart

GRAND TRAVERSE COUNTY

02-15-12

Christina Miller
Solid Waste Management Unit
Resource Management Division, MDEQ
Constitution Hall
525 West Allegan Street
Lansing, MI 48933

Re: Amendment to the Grand Traverse County Solid Waste Plan Update (March 31, 1999)

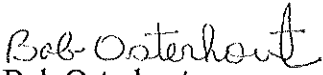
Dear Ms. Miller:

The Grand Traverse County Solid Waste Plan Update (March 1999) has been amended to address an abandoned 2007 amendment and to provide a general review and update of the plan. The following documents are attached for your files:

- Attachment A: 2011-2 amendment to the Grand Traverse County Solid Waste Plan Update (March 31, 1999)
- Attachment B: Minutes from the September 15, 2011 meeting indicating that the Solid Waste Planning Committee approved the amendment for release to the 90 day public review period
- Attachment C: Legal Notice for Public Hearing
- Attachment D: Minutes from November 17, 2011 Public Hearing
- Attachment E: Minutes from the December 21, 2011 meeting indicating that the Solid Waste Planning Committee approved the amendment and recommends it to the Grand Traverse County Board of Commissioners
- Attachment F: Resolution indicating approval of the amendment by the Grand Traverse County Board of Commissioners
- Attachment G: Resolutions indicating approval of the amendment by 67% of the municipalities
- Attachment H: List of the Solid Waste Planning Committee members and their areas of representation

Please do not hesitate to contact me if you have questions or need additional information.

Sincerely,


Bob Osterhout
Manager
Grand Traverse County
Resource Recovery Department

Grand Traverse County Resource Recovery Department
2650 LaFranier Road
Traverse City, MI 49686

RecycleSmart Hotline 231.941.5555

WWW.RECYCLESMAART.INFO

DEQ

FEB 22 2012

Recycled Paper

RESOURCE MANAGEMENT DIVISION

Attachment A

2011-2 amendment to the Grand Traverse County Solid Waste Plan Update (March 31, 1999)

5

**Grand Traverse County
2011-2 Solid Waste Management Plan Amendment**

**Approved by Grand Traverse County Board of Commissioners
and
Local Units of Government**

February 15, 2012

The County's current Solid Waste Management Plan Update was adopted by the County and local units of government and approved by the MDEQ in 1999. At that time and in that plan, there was a focus on providing trash and recycling services to residents under one County-wide contract with all processing done at a County owned/sponsored TS/MRF.

Some of the core mechanisms for achieving goals and objectives in the County's Solid Waste Management Plan were abandoned following a failed initiative in 2002. Abandoned mechanisms from the 1999 plan addressed funding, infrastructure and County managed contracting for services.

In August of 2004, a Solid Waste Management Planning Committee (SWMPC) was appointed by the County Board of Commissioners (BOC) to study and amend the Solid Waste Plan. The amendment was approved by the BOC on October 31, 2007. However, the amendment was never submitted to the local units of government for approval.

In January of 2011, a SWMPC was appointed by the BOC to amend the Solid Waste Plan to include and authorize automatic consistency to the proposed American Waste TS/MRF and to address the abandoned 2007 amendment and provide a general review and update of the plan.

Amendment 2011-1 to include and authorize automatic consistency to the proposed American Waste TS/MRF was approved by the MDEQ on July 06, 2011.

Amendment 2011-2 to address the abandoned 2007 amendment and to provide a general review and update of the plan was approved by the SWMPC on 09-15-11 for release to a 90 day public review and comment period. The 90 day public comment period started on September 21, 2011. A public hearing was held on November 17, 2011. The 90 day public comment period ended on December 19, 2011.

On December 21, 2011, the SWMPC voted to approve Amendment 2011-2 and recommend it to the BOC for adoption. The BOC approved amendment 2011-2 on December 28, 2011.

Highlights of amendment 2011-2 are as follows:

- Eliminated County-held contracting for services to services being provided by subscription unless contracted otherwise by individual, association, local unit or authority
- Eliminated County proposed flow and price control at County TS/MRF
- Eliminated County owned/sponsored TS/MRF to either private or public ownership
- Eliminated proposed Type II Landfill to be located in Whitewater Township
- Included language prohibiting siting of landfills and incinerators
- Shifted emphasis on recycling at the drop-offs to recycling at curbside
- Broadened language that allows funding alternate to the landfill surcharge to be implemented should the BOC so choose
- Changed reporting structure of Resource Recovery Department and Resource Recovery Council from Board of Public Works to Board of Commissioners
- Eliminated reference to expired intergovernmental Agreement giving Local Units of Government home rule authority to the funding, organization, and implementation of the plan's selected alternative
- Set waste diversion rate goal at 50% by 2017
- Established new goals and objectives
- Updated and/or added disposal areas and facility descriptions
- Rewrote sections of the plan to make it concise, easy to read and understand

The following sections of the Grand Traverse County Solid Waste Plan Update dated March 31, 1999 are amended as follows:

Section I-1 Executive Summary

The attached Section I-1 labeled "Executive Summary" replaces same section in the 1999 plan update pages I-1 thru I-6:

- Updated population data with 2010 U.S. Bureau of Census data
- Updated land use data
- Revised Selected System Alternative to eliminate duplication of section III-1
- Revised Authorized Management Component to eliminate duplication of section III-10
- Revised Timetable for Selected System Implementation to eliminate duplication of section III-8

Section I-2 Goals and Objectives

The attached Section I-2 labeled "Goals and Objectives" replaces same section in the 1999 plan update pages I-7 thru I-9:

- Updated goals and objectives reducing number of goals from 8 to 4

Section II-2 Solid Waste Disposal Areas

The attached Section II-2 labeled "Solid Waste Disposal Areas" replaces same section in the 1999 plan update page II-5 and the 2011-1 amendment:

- Removed Ken's Type III Landfill (WMI aka USA/United)
- Removed Cedar Ridge Landfill (WMI)
- Removed East Bay Township Transfer Station
- Added Wexford County Landfill (Wexford County)
- Added City Environmental Services of Waters (WMI)
- Added American Waste Transfer Station/Processing/MRF (Hughes Drive, Traverse City MI)
- Added American Waste Sanitary Waste and Recycling TS (Sundowner, Traverse City MI)
- Added Northern A-1 Waste TS (Kalkaska MI)
- Added Ken's TS (WMI)
- Added Waste Management MRF (Cass Road, Traverse City MI)
- Added Waste Management Recycle America Facility (Saginaw MI)
- Added Bay Area Recycling for Charities MRF (Maple City MI)
- Added GT Profile MRF (Traverse City MI)

Section II-3 Solid Waste Disposal Areas

The attached Section II-3 labeled "Solid Waste Facility Descriptions" replaces same section in the 1999 plan update pages II-6 thru II-12 and the 2011-1 amendment:

- Updated all existing solid waste facility descriptions
- New solid waste facility descriptions for additional disposal areas identified in section II-2

Section II-4 Solid Waste Collection Services and Transportation Infrastructure

The attached Section II-4 labeled "Solid Waste Collection Services and Transportation Infrastructure" replaces same section in the 1999 plan update pages II-13 thru II-14

- Updated to reflect current haulers operating in Grand Traverse County

- Removed reference to designated curbside recycling district
- Removed reference to Waste Management providing more than 98% of the service
- Replaced County owned and operated tub grinder with contract grinding

Section II-5 Evaluation of Deficiencies and Problems

The attached Section II-5 labeled "Evaluation of Deficiencies and Problems" replaces same section in the 1999 plan update page II-15:

- Removed reference to lack of competition, recycling services and recycling capacity
- Added new deficiencies and problems; low waste stream diversion rate, an unstable funding source and enforcement of illegal dump sites

Section III-1 Selected Solid Waste Management System

The attached Section III-1 labeled "Selected Solid Waste Management System" replaces same section in the 1999 plan update pages III-1 thru III-3:

- Included strong emphasis on data collection and education
- Removed reference to permanent hazardous waste collection site
- Replaced SQG with CESQG
- Removed reference to "flagship" drop-off recycling sites. Drop-off recycling sites to be provided by private sector or Local Units of Government
- Replaced two stream commingled recycling with single stream recycling
- Replaced reference to residential yard waste composting with composting of organics
- Removed reference to business recycling service district
- Removed reference to tip fee for commercial recyclables at MRF
- Removed reference to County contracting for long term landfill disposal
- Removed reference to County owned MRF/TS along with price and flow control

Section III-4 Solid Waste Disposal Areas

The attached Section III-1 labeled "Solid Waste Disposal Areas" replaces same section in the 1999 plan update pages III-11 thru III-18 and the 2011-1 amendment:

- Added and deleted solid waste disposal areas
- Removed facilities descriptions to eliminate duplication of section II-2

Section III-5 Solid Waste Collection Services and Transportation

The attached Section III-1 labeled Solid Waste Collection Services and Transportation replaces same section in the 1999 plan update pages III-19 thru III-20:

- Removed reference to permanent hazardous waste collection site removed
- Replaced SQG to CESQG
- Removed reference to County owned MRF/TS along with price and flow control

Section III-8 Timetable for Selected System Implementation

The attached Section III-8 labeled "Timetable for Selected System Implementation" replaces same section in the 1999 plan update page III-35:

- Replaced Office of Solid Waste with Resource Recovery Department
- Replaced Solid Waste Council with Resource Recovery Council
- Deleted component 7, 9, 12, and 14
- Changed component 8 to read "Implementation of Funding Structure and Mechanisms"

Section III-9 Siting Review Procedures

The attached Section III-9 labeled "Siting Review Procedures" replaces all text under Siting Review Procedures and Authorized Disposal Area Types in the 1999 plan update pages III-36 thru III-37 and the 2011-1 amendment:

- Eliminated proposed Type II Landfill to be located in Whitewater Township
- Included description of facilities that can be sited in the plan i.e. Type A Transfer Station/Processing/Material Recycling Facilities, Type B Transfer Stations, Material Recycling Facilities and Composting Facilities
- Included description of facilities that can not be sited in the plan i.e. landfills and incinerators
- Removed County required ownership/sponsorship of TS/MRF

Section III-10 Solid Waste Management Components

The attached Section III-10 labeled "Solid Waste Management Components" replaces same section in the 1999 plan update pages III-52 thru III-58:

- Replaced Office of Solid Waste with Resource Recovery Department
- Replaced Solid Waste Council with Resource Recovery Council
- Replaced Board of Public Works with Board of Commissioners
- Removed Intergovernmental Agreement
- Removed dispute resolution between County and United Waste Systems
- Removed construction of MRF/TS
- Removed County negotiated multi-year contracts for landfill and recycling tipping fees
- Removed price and flow control
- Replaced needs of the current management system with low waste stream diversion rate, an unstable funding source and enforcement of illegal dump sites
- Removed Intergovernmental Agreement between Local Units of Government and BPW and added home rule authority for LUG in managing solid waste in their jurisdiction

Section III-11 Identification of Responsible Parties

The attached Section III-11 labeled "Identification of Responsible Parties" replaces same section in the 1999 plan update pages III-59 thru III-60:

- Replaced Office of Solid Waste with Resource Recovery Department
- Replaced Solid Waste Council with Resource Recovery Council
- Replaced Board of Public Works with Board of Commissioners
- Removed reference to Intergovernmental Agreement
- Added home rule authority for LUG in managing solid waste in their jurisdiction

Section III-13 Capacity Certifications

The attached Section III-13 labeled Capacity Certifications replaces same section in the 1999 plan update page III-63:

- Removed Cedar Ridge Landfill
- Removed Ken's Landfill
- Update landfill life based on 2010 MDEQ Solid Waste Report

Language in sections of the 2011-2 Plan Amendment supersedes any conflicting text in the following sections of the current 1999 Solid Waste Management Plan Update:

- II-1 Database
- II-6 Demographics
- II-7 Land Development
- II-8 Solid Waste Management Alternatives
- III-2 Import Authorization
- III-3 Export Authorization
- III-6 Resource Conservation Efforts
- III-7 Waste Reduction, Recycling and Composting
- III-12 Local Ordinances and Regulations

I-1 EXECUTIVE SUMMARY

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

OVERVIEW OF THE COUNTY

Grand Traverse County is approximately 485 square miles in size and consists of 13 townships, which are Peninsula, Acme, Whitewater, East Bay Charter, Garfield Charter, Long Lake, Green Lake, Blair, Union, Fife Lake, Paradise, Mayfield, and Grant. The City of Traverse City is the only city and is the most urbanized area in the County. The Villages of Fife Lake and Kingsley are located in the southeast area of the County. The County features a wealth of natural resources, including lakes, forests, agricultural land and urban areas.

Population by municipality is characterized in the chart below. In addition to the projected growth of year-round residents, the population of the county increases seasonally. By the height of the tourist season, (late summer), it has been estimated that the county experiences a 39% increase in population.

Municipality Name	Population 2010	Seasonal Gain	Peak Population
Acme Twp	4,375	1,706	6,081
Blair Twp	8,209	3,202	11,411
East Bay Twp	10,663	4,159	14,822
Fife Lake Village	443	173	616
Balance of Fife Lake Twp	2,348	916	3,264
Garfield Twp	16,256	6,340	22,596
Grant Twp	1,066	416	1,482
Green Lake Twp	5,784	2,256	8,040
Long Lake Twp	8,662	3,378	12,040
Mayfield Twp	1,550	605	2,155
Kingsley Village	1,480	577	2,057
Balance of Paradise Twp	3,233	1,261	4,494
Peninsula Twp	5,433	2,119	7,552
Traverse City (pt)	14,482	5,648	20,130
Union Twp	405	158	563
Whitewater Twp	2,597	1,013	3,610
Total Population GTC	86,986	33,925	120,911

Source 2010 U.S. Bureau of Census data, USA Counties – Grand Traverse

The recently released data for the 2010 Census indicate a continued trend in population growth within Grand Traverse County. In the ten-year period between 2000 and 2010, the County grew from 77,654 residents to 86,986 residents representing a 12% increase.

As population grows, land not in use for agricultural services will be utilized to support the increasing population. The total land area of Grand Traverse County is about 310,453 acres.

Land usage in the County have been consolidated into nine categories and characterized in the chart below.

Land Use Type	Acreage	% County Land
Residential	22,769	7.33%
Commercial	1,602	0.52%
Industrial	2,739	0.88%
Institutional	974	0.31%
Recreation and Cemeteries	1,921	0.62%
Transportation & Utilities	1,407	0.45%
Agricultural	65,729	21.17%
Water/Wetlands	22,228	7.16%
Open/Wooded	191,084	61.55%
Total GTC	310,453	100.00%

Source: Grand Traverse County Master Plan

THE SOLID WASTE PLANNING PROCESS

The Designated Planning Agency (DPA) and the Solid Waste Planning Committee (SWPC) completed a strategic planning process that outlined strengths, weaknesses, opportunities, and threats that are part of the current and future solid waste management system in the County. The analysis was used to create goals and objectives that in turn formulated the solid waste management strategy and the selected alternative described in the Plan as the Plan's Enforceable Program and Process.

In developing the Plan's Selected Alternative, the SWPC developed a set of solid waste management program components in the following eight areas:

- Clean Community
- Drop-Off Residential Recycling
- Composting of Organics
- Material Transfer and Processing
- Recycling Incentives
- Curbside Residential Recycling
- Commercial and Institutional Recycling
- Disposal

These eight components are the key elements of the solid waste management system. The SWPC also considered some alternative approaches to handling the County's solid waste stream; however these alternatives were subsequently discarded based on their technical and economic feasibility. Grand Traverse County's Plan is designed to:

- build on the strengths of the local and regional situation,
- address current deficiencies and weakness,
- work with organizational approaches that the County is willing to consider,
- be fundable through systems that the County can implement,
- respond to and build community involvement and support,
- be enforceable, and
- set measurable goals that can be tracked to determine progress

Appendix B of this Plan details the System Alternatives that were not selected as part of the Plan's Enforceable Program. The Plan's Selected Alternative is described briefly below and more fully in the balance of the Plan and the Appendices.

THE PLAN'S SELECTED ALTERNATIVE

The Plan's Selected Alternative as described below and detailed further in the Plan and Appendices is an integrated strategy that places waste prevention, reduction, recycling, and composting at the top of the solid waste management hierarchy.

GRAND TRAVERSE COUNTY SYSTEM SELECTED ALTERNATIVE CLEAN COMMUNITY "RECYCLESMAST" - EXPANDED CURBSIDE RECYCLING

The selected system will provide comprehensive solid waste collection services to all households and businesses. Collection of solid waste will continue to be through private agreements with residents or through municipal contracts. Private hauling companies will continue to provide residential, commercial, and industrial service pick-up in Grand Traverse County.

Recycling and composting will be an integral component of this system, improving and expanding upon present recycling and composting programs. Curbside collection of solid waste, yard waste and recyclable materials will be available County wide. Drop-off recycling stations may be provided and funded by municipalities and private companies.

Comprehensive clean community programs will be made available to collect household hazardous waste, cleanup illegal dump sites and find reuse markets for unwanted products.

Transfer Stations, Material Recycling Facilities, and combination Transfer Stations/Material Recycling Facilities will be made available to process solid waste. Grand Traverse County will continue exporting solid waste out of the County to satisfy disposal needs.

Education will be a key component of the overall program emphasizing reduce, reuse, recycle, and buy recycled products.

After conducting an analysis of options, this system was determined to be the most feasible. It builds upon the existing recovery programs and infrastructure throughout the County, allows for growth and improvement, and clearly aligns with the Goals and Objectives of the Plan.

AUTHORIZED MANAGEMENT COMPONENT

The Selected Alternative is established by this Plan as the Plan's Enforceable Program defining the Grand Traverse County Solid Waste Management System, and will be implemented jointly by units of government within the County in cooperation with other public agencies and private firms. The Plan's Enforceable Program includes a Management Component that defines details of who will take responsibility for implementation and how that will be accomplished. The Authorized Management Component is described in Section III-10.

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

The Plan's Enforceable Program includes an implementation timeline for the Plan's Management Component and Selected Alternative. The table in Section III-8 summarizes key milestones for implementing the Plan's Enforceable Program.

I-2 INTRODUCTION

GOALS AND OBJECTIVES

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

- (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.

The solid waste management plan works toward the following goals through actions designed to meet the objectives described under the respective goals which they support:

Grand Traverse County Solid Waste Goals and Objectives

Goal One:

Create, implement, manage and monitor an aggressive program to increase MSW diversion rate from current levels to a County average of 50% by weight by the year 2017.

Objectives:

1. Promote pay-as-you-throw pricing systems.
2. Promote bans on landfill disposal of selected recyclable materials.
3. Consider mandatory recycling ordinances to motivate residents to reduce waste.
4. Promote and encourage County wide curbside collection of recyclable materials.
5. Develop and/or support programs aimed at reducing waste generation, such as source reduction, pollution prevention, and ISO 14000.
6. Promote backyard grass cycling and home and agricultural composting initiatives.
7. Investigate and encourage the composting of other organics.
8. Continue to pursue recycling and disposal alternatives for problematic materials such as Styrofoam, agriculture plastic, shrink wrap, expired medicines and sharps.
9. Work with government agencies and businesses to develop additional markets for recycled materials and organics.
10. Establish realistic and measurable goals for annual evaluation and investigate and implement measurement systems as needed.

Goal Two:

Ensure the safe and efficient management of municipal solid waste to protect the public's health and the quality of the natural resources: air, land, ground and surface waters.

Objectives:

1. Provide disposal capacity to meet the County's needs by utilizing regional landfills located outside the County.
2. Coordinate and staff three household hazardous waste collection events per year (spring, summer and fall).

3. Enforce County litter ordinance that provides for fines and/or other penalties for illegal dumping.
4. Promote a convenient product return infrastructure where consumers can return unwanted products to providers/businesses.

Goal Three:

Maintain an integrated solid waste management system in which all components work together to provide for the effective and efficient collection, separation, recycling and disposal of solid waste.

Objectives:

1. Maintain an administrative and planning structure for solid waste management.
2. Provide funding to finance the administrative and operational costs associated with the solid waste management system.
3. Maintain an office where the public can direct questions and obtain educational materials on solid waste management.
4. Promote best management practices for solid waste management as derived from existing programs in the County and other municipalities.
5. Promote a network of Transfer Stations, Material Recycling Facilities and Landfills to support the solid waste management system.
6. Maintain private and municipal programs to assist with the recovery and processing of yard waste and other compostable materials.
7. Promote use of County wide Curbside collection of solid waste, yard waste and recyclable materials.

Goal Four:

Provide public education and awareness programs for county residents, businesses and industries that promote hazardous waste management, recycling, reuse and waste reduction.

Objectives:

1. Expand the public awareness program efforts of the Resource Recovery Program through the production of a waste reduction guide, newspaper, flyers and other media outlets.
2. Expand the use of the Internet to gather and distribute information to residents through links to the RecycleSmart Home Page.
3. Maintain a recycling hotline to inform the public about County Resource Recovery programs.
4. Continue existing and develop new educational programs targeting school aged children, to teach them the benefits and techniques of waste reduction, recycling and resource conservation.
5. Develop programs to provide services such as waste audits, full cost accounting analysis of existing programs and pollution prevention training to municipal officials, institutions and businesses.

II-2 SOLID WASTE DISPOSAL AREAS

The following is an inventory and description of solid waste disposal areas which will be utilized by the County to meet its disposal needs for the planning period. Descriptions of these facilities are included in Section II-3.

Solid waste disposal areas identified outside the County for potential use are included in the export authorization tables in Section III-3. 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.

Type II Landfill:

Glens Sanitary Landfill (WMI)
Manistee County Landfill (Republic)
Wexford County Landfill (American Waste)
City Environmental Services of Waters (WMI)

Type III Landfill:

None

Type A Transfer Station:

American Waste Transfer Station/Processing/MRF (Hughes Drive, Traverse City MI)
American Waste Sanitary Waste and Recycling TS (Sundowner, Traverse City MI)
Northern A-1 Waste TS (Kalkaska MI)

Type B Transfer Station:

Peninsula Township TS
Ken's Landfill TS (WMI)

Processing Facility:

American Waste Transfer Station/Processing/MRF (Hughes Drive, Traverse City MI)
American Waste Sanitary Waste and Recycling TS (Sundowner, Traverse City MI)
Northern A-1 Waste TS (Kalkaska MI)

Material Recycling Facility (source separated Materials Recovery Facilities not regulated under Part 115)

Waste Management MRF (Cass Road, Traverse City MI)
Waste Management Recycle America MRF (Saginaw MI)
Bay Area Recycling for Charities MRF (Maple City MI)
GT Profile MRF (Traverse City MI)

Incinerator:

None

Waste-to-Energy Incinerator:

None

Waste Pile:

None

Other:

None

Note: To receive waste from within Grand Traverse County any facility listed above is required to have a current designated facility agreement with the County as specified by Ordinance 17 and Rules and Regulations.

II-3 Solid Waste Facility Descriptions

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Glens Sanitary Landfill Inc.

County: Leelanau

Location: 518 M 72 W, MAPLE CITY, MI 49664
Town: T28N Range 13W Section(s) 35 N 1/2

Map identifying location included in Attachment Section: x Yes No

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

Public or Private: Private

Owner: Waste Management Inc.

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> x </u>	contaminated soils
<u> x </u>	special wastes *
<u> </u>	other:

* Explanation of special wastes, including a specific list and/or conditions: All special wastes (including c-soils) must be approved through WM profile process prior to disposal.

Site Size:

Total area of facility property:

 401.5 acres

Total area sited for use:

 401.5 acres

Total area permitted:

 133 acres

Operating:

 41.5 acres

Not excavated

 91.5 acres

Current capacity:

 18,300,000 bank cubic yards

Estimated lifetime:

 150 years

Estimated days open per year

 260 days

Estimated yearly disposal volume:

 230,000 gate cubic yards

(if applicable)

Annual energy production:

Landfill gas recovery projects:

 n/a megawatts

Waste-to-energy incinerators:

 n/a megawatts

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Manistee County Landfill

County: Manistee

Location: 3890 CAMP RD, MANISTEE, MI 49660
Town: T21N Range R16W Section(s) 32

Map identifying location included in Attachment Section: x Yes No

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

Public or Private: Private

Owner: Harland's Sanitary Landfill, Inc. (Republic)

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> x </u>	contaminated soils
<u> x </u>	special wastes *
<u> </u>	other:

* Explanation of special wastes, including a specific list and/or condition: asbestos, flyash

Site Size:

Total area of facility property:	<u> 376 </u>	acres
Total area sited for use:	<u> 120 </u>	acres
Total area permitted:	<u> 98 </u>	acres
Operating:	<u> 36 </u>	acres
Not excavated	<u> 62 </u>	acres

Current capacity:	<u>11,000,000</u>	bank cubic yards
Estimated lifetime:	<u> 33 </u>	years
Estimated days open per year	<u> 265 </u>	days
Estimated yearly disposal volume:	<u> 440,000 </u>	gate cubic yards

(If applicable)

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Wexford County Landfill

County: Wexford

Location: 990 N US HIGHWAY 131, MANTON, MI 49663
Town: T23N Range 9W Section(s) 33, 34

Map identifying location included in Attachment Section: x Yes No

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

Public or Private: Private

Owner: American Waste

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> x </u>	contaminated soils
<u> x </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 178.4 </u>	acres
Total area sited for use:	<u> 178.4 </u>	acres
Total area permitted:	<u> 38.1 </u>	acres
Operating:	<u> 23.3 </u>	acres
Not excavated	<u> 14.8 </u>	acres

Current capacity:	<u> 5,000,000 </u>	bank cubic yards
Estimated lifetime:	<u> 40 </u>	years
Estimated days open per year	<u> 260 </u>	days
Estimated yearly disposal volume:	<u> 125,000 </u>	gate cubic yards

(if applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: City Environmental Services, Inc. of Waters

County: Crawford

Location: 11375 SHERMAN RD, FREDERIC, MI 49733
Town: T28N Range 3W Section(s) 4 W 1/2

Map identifying location included in Attachment Section: x Yes No

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

Public or Private: Private

Owner: Waste Management Inc.

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> x </u>	contaminated soils
<u> x </u>	special wastes *
<u> </u>	other:

* Explanation of special wastes, including a specific list and/or conditions: All special wastes (including c-soils) must be approved through WM profile process prior to disposal.

Site Size:

Total area of facility property:	<u> 271.5 </u>	acres
Total area sited for use:	<u> 271.5 </u>	acres
Total area permitted:	<u> 100 </u>	acres
Operating:	<u> 44.5 </u>	acres
Not excavated	<u> 55.5 </u>	acres

Current capacity:	<u> 16,000.00 </u>	bank cubic yards
Estimated lifetime:	<u> 75 </u>	years
Estimated days open per year	<u> 260 </u>	days
Estimated yearly disposal volume:	<u> 425,000 </u>	gate cubic yards

(if applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station

Facility Name: American Waste Transfer Station/Processing/MRF

County: Grand Traverse

Location: 280 Hughes Drive, Traverse City, Michigan 49686
Town T27N Range 11W Section(s) 25 part

Map identifying location included in Attachment Section: x Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Wexford Landfill or other approved facility identified in Section III

Public or Private: Private

Owner: American Waste

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> </u>	contaminated soils
<u> </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 15.8 </u>	acres
Total area sited for use:	<u> 15.8 </u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated	<u> </u>	acres

Current capacity:	<u> </u>	tons
Estimated lifetime:	<u> </u>	years
Estimated days open per year	<u> 310 </u>	days
Estimated yearly disposal volume:	<u>170,000+</u>	tons

(if applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station

Facility Name: American Waste Sanitary Waste and Recycling Transfer Station

County: Grand Traverse

Location: 3850 Sundowner Dr., Traverse City, MI 49684
Town: T27N Range 11W Section(s) 33

Map identifying location included in Attachment Section: x Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Wexford Landfill or other approved facility identified in Section III

Public or Private: Private

Owner: American Waste

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> </u>	contaminated soils
<u> </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 10,000 </u>	sqft
Total area sited for use:	<u> 10,000 </u>	sqft
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated	<u> </u>	acres

Current capacity:	<u> </u>	tons
Estimated lifetime:	<u> </u>	years
Estimated days open per year	<u> 312 </u>	days
Estimated yearly disposal volume:	<u> 50,000 </u>	tons

(If applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station

Facility Name: Northern A-1 Waste Transfer Station

County: Kalkaska

Location: 3947 US Highway 131 N, Kalkaska, MI 49646

Town: Range Section(s)

Map identifying location included in Attachment Section: ____ Yes x No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Wexford Landfill or other approved facility identified in Section III

Public or Private: Private

Owner: American Waste

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> x </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> x </u>	industrial
<u> x </u>	construction & demolition
<u> </u>	contaminated soils
<u> </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 10 </u>	acres
Total area sited for use:	<u> 10 </u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated	<u> </u>	acres

Current capacity:	<u> </u>	tons
Estimated lifetime:	<u> </u>	years
Estimated days open per year	<u> 312 </u>	days
Estimated yearly disposal volume:	<u> 100,000 </u>	tons

(if applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Peninsula Township Transfer Station

County: Grand Traverse

Location: Devil's Dive Road, Traverse City, MI 49686
Town: T29N Range 10W Section(s) NE1/4 28

Map identifying location included in Attachment Section: Yes x No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Wexford Landfill or other approved facility identified in Section III

Public or Private: Public

Owner: Peninsula Township

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> </u>	licensed
<u> x </u>	unlicensed
<u> </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> </u>	commercial
<u> </u>	industrial
<u> </u>	construction & demolition
<u> </u>	contaminated soils
<u> </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 2.1 </u>	acres
Total area sited for use:	<u> </u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated	<u> </u>	acres

Current capacity:	<u> </u>	tons
Estimated lifetime:	<u> </u>	years
Estimated days open per year	<u> 104 </u>	days
Estimated yearly disposal volume:	<u> </u>	compacted cubic yards

(if applicable)

Annual energy production:	<u> </u>	
Landfill gas recovery projects:	<u> n/a </u>	megawatts

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Ken's Landfill Transfer Station

County: Grand Traverse

Location: 5111 Cedar Run Road Traverse City, MI 49684
Town: T27N Range 11W Section(s) NE 1/4 of 7

Map identifying location included in Attachment Section: Yes x No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Glens Landfill or other approved facility identified in Section III

Public or Private: Private

Owner: Waste Management Inc.

Operating Status (check)

<u> x </u>	open
<u> </u>	closed
<u> x </u>	licensed
<u> </u>	unlicensed
<u> </u>	construction permit
<u> </u>	open, but closure pending

Waste Types Received (check all that apply)

<u> x </u>	residential
<u> x </u>	commercial
<u> </u>	industrial
<u> </u>	construction & demolition
<u> </u>	contaminated soils
<u> </u>	special wastes *
<u> </u>	other:

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

Site Size:

Total area of facility property:	<u> 16.8 </u>	acres
Total area sited for use:	<u> 5 </u>	acres
Total area permitted:	<u> n/a </u>	acres
Operating:	<u> n/a </u>	acres
Not excavated	<u> n/a </u>	acres

Current capacity:	<u> Facility </u>	tons
Estimated lifetime:	<u> n/a </u>	years
Estimated days open per year	<u> Currently </u>	days
Estimated yearly disposal volume:	<u> Operating </u>	compacted cubic yards

(if applicable)

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

FACILITY DESCRIPTIONS

Facility Type: Materials Processing Facility

Facility Name: American Waste Transfer Station/Processing/MRF

County: Grand Traverse

Location: 280 Hughes Drive, Traverse City, Michigan 49686
Town T27N Range 11W Section(s) 25 part

Map identifying location included in Attachment Section: x Yes No

Classification: Regulated under act 451

Public or Private: Private

Owner: American Waste

Materials Processed

<u> x </u>	glass	<u> x </u>	aluminum cans
<u> x </u>	paper	<u> x </u>	steel cans
<u> x </u>	corrugated cardboard	<u> x </u>	aseptic packaging
<u> x </u>	plastic 1,2,3,4,5,6,7	<u> </u>	batteries
<u> x </u>	plastic film	<u> </u>	textiles
<u> </u>	polystyrene	<u> x </u>	construction & demolition
<u> x </u>	plastic bags	<u> </u>	white goods
<u> x </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u> 150,000 </u>	square feet
Current processing capacity:	<u> </u>	tons per day
Total processing capacity:	<u> </u>	tons per day
Estimated day open per year:	<u> 312 </u>	days
Estimated yearly processing volume:	<u>20,000 </u>	tons

FACILITY DESCRIPTIONS

Facility Type: Material Processing Facility

Facility Name: American Waste Sanitary Waste and Recycling Transfer Station

County: Grand Traverse

Location: 3850 Sundowner Dr., Traverse City, MI 49684

Town: T27N Range 11W Section(s) 33

Map identifying location included in Attachment Section: x Yes No

Classification: Regulated under act 451

Public or Private: Private

Owner: American Waste

Materials Processed

<u> </u>	glass	<u> </u>	aluminum cans
<u> </u>	paper	<u> </u>	steel cans
<u> x </u>	corrugated cardboard	<u> </u>	aseptic packaging
<u> </u>	plastic 1,2,3,4,5,6,7	<u> </u>	batteries
<u> </u>	plastic film	<u> </u>	textiles
<u> </u>	polystyrene	<u> x </u>	construction & demolition
<u> </u>	plastic bags	<u> </u>	white goods
<u> x </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u> 10,000 </u>	square feet
Current processing capacity:	<u> </u>	tons per day
Total processing capacity:	<u> </u>	tons per day
Estimated day open per year:	<u> 312 </u>	days
Estimated yearly processing volume:	<u> 1,000 </u>	tons

FACILITY DESCRIPTIONS

Facility Type: Materials Processing Facility

Facility Name: Northern A-1 Waste Transfer Station

County: Kalkaska

Location: 3941 US 131 N, Kalkaska, MI 49646
Town: Range Section(s)

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

Classification: Regulated under act 451

Public or Private: Private

Owner: American Waste

Materials Processed

<input type="checkbox"/>	glass	<input type="checkbox"/>	aluminum cans
<input type="checkbox"/>	paper	<input type="checkbox"/>	steel cans
<input checked="" type="checkbox"/>	corrugated cardboard	<input type="checkbox"/>	aseptic packaging
<input type="checkbox"/>	plastic 1,2,3,4,5,6,7	<input type="checkbox"/>	batteries
<input type="checkbox"/>	plastic film	<input type="checkbox"/>	textiles
<input type="checkbox"/>	polystyrene	<input checked="" type="checkbox"/>	construction & demolition
<input type="checkbox"/>	plastic bags	<input type="checkbox"/>	white goods
<input checked="" type="checkbox"/>	scrap metal	<input type="checkbox"/>	other:

Site Size:

Total size of facility:	TBD	square feet
Current processing capacity:		tons per day
Total processing capacity:		tons per day
Estimated day open per year:	312	days
Estimated yearly processing volume:	TBD	tons

FACILITY DESCRIPTIONS

Facility Type: Material Recycling Facility

Facility Name: WMI Material Recycling Facility

County: Grand Traverse

Location: 2294 Cass Road, Traverse City, Michigan 49684
Town: 27N Range 10W Section(s)

Map identifying location included in Attachment Section: Yes x No

Classification: Not regulated under act 451

Public or Private: Private

Owner: Waste Management Inc.

Materials Processed:

<u> x </u>	glass	<u> x </u>	aluminum cans
<u> x </u>	paper	<u> x </u>	steel cans
<u> x </u>	corrugated cardboard	<u> x </u>	aseptic packaging
<u> x </u>	plastic 1,2,3,4,5,6,7	<u> </u>	batteries
<u> x </u>	plastic film	<u> </u>	textiles
<u> </u>	polystyrene	<u> </u>	construction & demolition
<u> x </u>	plastic bags	<u> </u>	white goods
<u> </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u> 22,000 </u>	square feet
Current processing capacity:	<u> 30 </u>	tons per day
Total processing capacity:	<u> 60-75 </u>	tons per day
Estimated day open per year:	<u> 260 </u>	days
Estimated yearly processing volume:	<u> 400 </u>	tons

FACILITY DESCRIPTIONS

Facility Type: Materials Recycling Facility

Facility Name: Waste Management Recycle America Facility

County: Saginaw

Location: 1953 Findley, Saginaw, MI 48601
Town: Range Section(s)

Map identifying location included in Attachment Section: Yes x No

Classification: Not regulated under act 451

Public or Private: Private

Owner: Waste Management Inc.

Materials Processed

<u> x </u>	glass	<u> x </u>	aluminum cans
<u> x </u>	paper	<u> x </u>	steel cans
<u> x </u>	corrugated cardboard	<u> x </u>	aseptic packaging
<u> x </u>	plastic 1,2,3,4,5,6,7	<u> </u>	batteries
<u> x </u>	plastic film	<u> </u>	textiles
<u> </u>	polystyrene	<u> </u>	construction & demolition
<u> x </u>	plastic bags	<u> </u>	white goods
<u> </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u> 95,000 </u>	square feet
Current processing capacity:	<u> 100 </u>	tons per day
Total processing capacity:	<u> 200 </u>	tons per day
Estimated day open per year:	<u> 254 </u>	days
Estimated yearly processing volume:	<u> 20,100 </u>	tons

FACILITY DESCRIPTIONS

Facility Type: Materials Recycling Facility

Facility Name: Bay Area Recycling for Charities Material Recycling Facility

County: Leelanau

Location: 177 E. Kasson Rd., Maple City, MI 49664
Town: Range Section(s)

Map identifying location included in Attachment Section: Yes x No

Classification: Not regulated under act 451

Public or Private: Private

Owner: Bay Area Recycling for Charities

Materials Processed

<u> x </u>	glass	<u> x </u>	aluminum cans
<u> x </u>	paper	<u> x </u>	steel cans
<u> x </u>	corrugated cardboard	<u> x </u>	aseptic packaging
<u> x </u>	plastic 1,2,3,4,5,6,7	<u> x </u>	batteries
<u> x </u>	plastic film	<u> x </u>	textiles
<u> x </u>	polystyrene	<u> </u>	construction & demolition
<u> x </u>	plastic bags	<u> x </u>	white goods
<u> x </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u> 4,800 </u>	square feet
Current processing capacity:	<u> 5 </u>	tons per day
Total processing capacity:	<u> 10 </u>	tons per day
Estimated day open per year:	<u> 200 </u>	days
Estimated yearly processing volume:	<u> 1,000 </u>	tons

FACILITY DESCRIPTIONS

Facility Type: Materials Recycling Facility
Facility Name: GT Profile MRF Material Recycling Facility
County: Grand Traverse
Location: 3820 Cass Road, Traverse City MI 49684
Town: Range Section(s)

Map identifying location included in Attachment Section: Yes x No

Classification: Not regulated under act 451

Public or Private: Private

Owner: GT Profile LLC

Materials Processed

<u> </u>	glass	<u> </u>	aluminum cans
<u> x </u>	paper	<u> </u>	steel cans
<u> x </u>	corrugated cardboard	<u> </u>	aseptic packaging
<u> </u>	plastic 1,2,3,4,5,6,7	<u> </u>	batteries
<u> </u>	plastic film	<u> </u>	textiles
<u> </u>	polystyrene	<u> </u>	construction & demolition
<u> </u>	plastic bags	<u> </u>	white goods
<u> </u>	scrap metal	<u> </u>	other:

Site Size:

Total size of facility:	<u>10,000</u>	square feet
Current processing capacity:	<u>4</u>	tons per day
Total processing capacity:	<u>12</u>	tons per day
Estimated day open per year:	<u>260</u>	days
Estimated yearly processing volume:	<u>1,000</u>	tons

II-4 SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

Per County ordinance, haulers must obtain a County license to collect and transport solid waste, yard waste and recyclables within Grand Traverse County. The following describes the solid waste collection services and transportation infrastructure which will be utilized within the County to collect and transport solid waste, yard waste and recyclables.

Solid Waste Collection Services

The collection of residential, commercial and industrial waste in Grand Traverse County is by licensed private haulers or individuals transporting their own waste to County designated transfer stations or landfills. Collection services are provided through individual subscription, preferred hauler or single hauler contracts. Customer pays hauler directly for solid waste collection services.

Residents who generate small amounts of trash have the option of purchasing budget bags from their hauler or from local businesses. Disposal is included in the cost of the bag, so residents only pay for the actual amount of trash produced. A maintenance charge may apply.

Haulers serving the County are:

Service Provider	Service Type ¹	Service Area	Disposal Facility
Acme Hauling	C,I	Partial County	American Waste TS/MRF
American Waste	R,C,I	County	American Waste TS/MRF
Republic Services	R,C,I	County	Manistee & Glens Landfill
Waste Management	R,C,I	County	Glens Landfill
Northern Disposal	C,I	Partial County	American Waste TS/MRF
Builders Waste	C,I	Partial County	American Waste TS/MRF
Area Waste Services	R	Partial County	Waters Landfill
Bay Area Disposal	R,C	County	American Waste TS/MRF

1 = Service Type: R=Residential; C=Commercial; and I=Industrial

Recycling Collection Services

Collection of residential, commercial and industrial recyclables in Grand Traverse County is by licensed private haulers or individuals transporting their own recyclables to County designated material recycling facilities or drop-off recycling stations. Recycling collection services are provided through individual subscription, preferred hauler or single hauler contracts. Customer pays hauler directly for recycling collection services.

Haulers serving the County are:

Service Provider	Service Type ¹	Service Area	Disposal Facility
American Waste	R,C,I	County	American Waste TS/MRF
Republic Services	R,C,I	County	Waste Management MRF
Waste Management	R,C,I	County	Waste Management MRF
Area Waste Services	R	Partial County	American Waste TS/MRF
Bay Area Recycling for Charities	R,C	County	BARC
G.T Profile, LLC	C,I	County	Profile
Royal Oak Recycling	C	County	Royal Oak

1 = Service Type: R=Residential; C=Commercial; and I=Industrial

Yard Waste Collection Services

Collection of residential, commercial and industrial yard waste in Grand Traverse County is by licensed private haulers or individuals transporting their own yard waste to a County designated composting facility. Yard waste collection services are provided through individual subscription, preferred hauler or single hauler contracts. Customer pays hauler directly for yard waste collection services.

Haulers serving the County are:

Service Provider	Service Type ¹	Service Area	Disposal Facility
American Waste	R,C,I	County	Keystone
Andy's Outdoor Service	R,C	Partial County	Keystone
Authentic Lawn & Tree Service	R,C	Partial County	Keystone
Bay Area Recycling for Charities	R,C	Partial County	BARC
Brian Zimmerman & Associates	R,C	County	Private Compost Site
Clearbrook O.R., LLC	R,C	County	Private Compost Site
Goodwill of Northern Michigan	R	Partial County	Keystone
GT Organic Landscape, Inc.	R,C	Partial County	Keystone
Heritage Landscape Design	R,C	Partial County	Keystone
JEM Outdoor Services	R	Partial County	Keystone
Landgreen Lawncare	R,C	Partial County	Private Compost Site
Landscape Management	R,C	County	Private Compost Site
Lesley's Landscape Maintenance	R,C	Partial County	Keystone
Lewis Lawn Care	R,C	Partial County	Keystone
Republic Services	R,C,I	County	Keystone
Waste Management	R,C,I	County	Keystone
T.O.P Services	R,C	County	Private Compost Site

¹ = Service Type: R=Residential; C=Commercial; and I=Industrial

Traverse City in cooperation with the County operates a yard waste compost facility, where it processes approximately 50,000 cubic yards of yard waste each year. The site consists of yard waste placed in windrows which are turned by the City. Finished compost (about 5-10,000 cubic yards per year) is screened on-site and sold wholesale to local retail outlets. The County contracts for the grinding of brush and wood debris (about 3,500-5,000 cubic yards per year) which is used locally as landscape material.

The following municipalities have contracted with a preferred hauler or a single hauler for solid waste collection services. The remaining municipalities in Grand Traverse County use subscription based collection services.

- Single Hauler Contract – City of Traverse City
- Single Hauler Contract – Peninsula Township
- Single Hauler Contract – Acme Township
- Preferred Hauler Agreement – Garfield Township

The County's road network is sufficiently developed to ensure that all residents have access to solid waste collection services.

II-5 EVALUATION OF DEFICIENCIES AND PROBLEMS

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

At the time of the Grand Traverse County's 1999 Solid Waste Plan Update, the County was experiencing a dramatic decline in the availability of competitive solid waste collection services, with one hauler providing more than 98% of all service in the County. Since that time, competition has increased significantly with a strong network of haulers offering competitive services as described in Section II-4.

With sufficient competition in Grand Traverse County, the major problems facing residents today are centered on increasing the waste stream diversion, implementing a stable funding source and eliminating illegal dump sites. The following areas have been identified as being deficient in the existing solid waste system:

1. Curbside Recycling: Curbside recycling is not being fully utilized by residents. Access to curbside is available County wide. However, many residents choose to use drop-off recycling containers instead or do not recycle despite the availability of the service. Effective recycling programs at curbside could have a measurable impact on the County's overall waste stream requiring disposal.

Curbside recycling is addressed under Goals #1 and 4.

2. Multi-Unit Housing Recycling: Multi-unit housing recycling for the most part is not being provided by property owners. Residents can use drop-off recycling containers if available. Effective recycling programs at multi-unit housing could have a measurable impact on the County's overall waste stream requiring disposal.

Multi-unit housing recycling is addressed under Goals #1 and 4.

3. Organic Composting: There is no infrastructure on a large scale to divert food waste from landfill disposal. The US EPA estimates that food waste constitutes 14% of the total solid waste generated. Effective residential, commercial and industrial organic composting programs could have a measurable impact on the County's overall waste stream requiring disposal.

Organic composting is addressed under Goals #1 and 4.

4. Funding: Funding generated from the landfill surcharge is dependent on the amount of waste sent to the landfill. Landfill volumes can be unpredictable. During recessionary periods and recycling market development, landfill volumes can decline resulting in reduced funding. Funding is also dependent on honest and accurate reporting of the surcharge. A stable funding source is critical in maintaining programs and services identified in the Selected Solid Waste Management System.

Funding is addressed under Goal #3. Alternate funding mechanisms are also addressed within several other areas of the Plan.

5. Illegal Dumping: There is little or no enforcement of illegal dumping in the County even though it is prohibited by Ordinance 17 and Rules and Regulations. Forest preserves and wooded areas in the County have provided illegal dumpers secluded locations to dump waste.

Illegal dumping is addressed under Goal #2.

III-1 THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing Grand Traverse County's solid waste and the recoverable commodities contained within. The Selected System addresses the generation, transfer, disposal and processing 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 and enterprises. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service to area residents and businesses. Disposal area locations and capacity to accept solid waste are identified as well as program management, funding and enforcement roles for local agencies.

Grand Traverse County identified six potential alternatives for managing its solid waste stream, described in Section II-8. Two of the strategic alternatives ("D" and "E") were further developed as GTC System Alternative 1 and GTC System Alternative 2.

The County has developed and selected a system alternative that builds off of the current solid waste and recycling management system (GTC System Alternative 2) already in place in the County.

During the Planning Period, the County will implement the following System:

GRAND TRAVERSE COUNTY SYSTEM SELECTED ALTERNATIVE CLEAN COMMUNITY "RECYCLESMA" - EXPANDED CURBSIDE RECYCLING

In developing the Plan's Selected Alternative, the SWPC developed a set of solid waste management program components in the following eight areas:

- Clean Community
- Drop-Off Residential Recycling
- Composting of Organics
- Material Transfer and Processing
- Recycling Incentives
- Curbside Residential Recycling
- Commercial and Institutional Recycling
- Disposal

Grand Traverse County has no landfills and will continue exporting solid waste to satisfy disposal needs. Regional landfill capacity is more than adequate for the planning period. Since the County relies on its neighbors for landfill space, Grand Traverse County has established an aggressive recycling and waste reduction program to increase municipal solid waste diversion rates from current levels to a County average of 50% recovery by the year 2017.

Education is important to the long-term success of any waste prevention and recycling program. Education is built into each component of the Selected System. Therefore, special efforts at improving curricula, communication channels, and monitoring of educational programs will be made within each component of the Selected System.

Another component of a successful program is the ability to adapt in response to new technologies, fluctuating market conditions, changing consumer waste generation patterns, and changing regulations. The ability to predict these changes lies in the amount of reliable information that is available. Accurate statistics are needed to design appropriate programs, budget for program needs, and assess overall impact. Therefore, as with education, this Plan places data collection as a high priority within each component of the Selected System.

Until an alternative funding mechanism is developed and implemented, the landfill surcharge paid by licensed solid waste transfer stations and disposal facilities will continue to be the primary funding source to cover the County's costs to staff the Resource Recovery Department and administer the "RecycleSmart programs". Funding will be supplemented by grants, fund balance, donations and service fees.

Additional details regarding each component of the Selected System follow:

Clean Community:

- Household hazardous waste collection, recycling, and disposal services will be provided to households and conditionally exempt small quantity generators (CESQG's).
- Clean Sweep (pesticides) collection services will be provided to County and out of County households and businesses.
- Clean community programs that promote cleaning of roadsides, stream banks, lakeshores, downtown areas, parks and forests will be promoted in conjunction with other community activities such as "Adopt a Forest".
- A convenient product return infrastructure will be promoted, where consumers can return unwanted products to providers/businesses "Take It Back program".
- Enforcement and educational efforts will be provided to prevent illegal dumping and litter.
- Special clean-up days will be encouraged that emphasize trade, reuse, and recycling.
- On-site disposal and burning of waste (except back yard composting) will be discouraged.

Drop-Off Residential Recycling:

- Municipalities and private companies have the option of funding drop-off recycling sites.
- Drop-off recycling sites will be available to handle hard to recycle materials such as Styrofoam, agriculture plastic, shrink wrap, etc.

Composting of Organics:

- Seasonal yard waste and leaf collection will be available to households and businesses.
- Drop-off options for yard waste will be available to households and businesses.
- Grass cycling and home and agricultural composting initiatives will be encouraged.
- Pilot programs targeted at food waste and other organic components of the municipal waste stream may be developed and implemented.

Material Transfer and Processing:

- Collection, transportation, delivery, or disposal of solid waste, yard waste and recyclable materials will be by private haulers licensed by the County.
- Collection, transportation, delivery, or disposal of solid waste, yard waste and recyclable materials will be through private agreements with residents or through municipal contracts.
- Type B Transfer Stations will be available to compact waste for cost effective transportation to area landfills.
- Type A Transfer/Material Recycling Facilities will be available to recover recyclable materials from the waste stream and to compact residual waste for cost effective transportation to area landfills
- Solid Waste will be delivered to County designated disposal and recycling facilities.

Recycling Incentives:

- Pay as you throw programs (Budget Bag) will be available to all households and businesses.
- Proactive education and promotion strategies will encourage responsible solid waste management and strong reduce/reuse/recycle behavior.
- Selected materials will be banned from collection and disposal as solid waste.

- Reward based recycling programs may be developed and implemented.
- Regulatory approaches such as mandatory recycling ordinances or bans on disposal may be considered.

Curbside Residential Recycling:

- Curbside recycling will be available to all single family housing units (up to fourplex in size).
- Single stream commingled recycling will be available to all single family housing units (up to fourplex in size).

Commercial and Institutional Recycling:

- On-site recycling will be available to all large businesses and institutions.
- Small businesses and home businesses will be encouraged to use existing residential curbside recycling.
- Single stream commingled recycling will be available to small businesses and home businesses.
- Businesses and institutions will be encouraged to haul directly to a drop-off recycling site when logistically and economically feasible.
- Construction and demolition recycling will be encouraged and facilitated.

Disposal:

- Landfill waste collected from area households and businesses will be exported to County designated Type II and Type III landfills located outside the County.
- Type A and B transfer stations will be used to compact waste for cost effective transportation to area landfills.
- Enforcement and educational efforts will be promoted to prevent illegal dumping and litter.
- Educational materials will be available to households and businesses on proper disposal of solid waste.

As required by the Plan Format, The sections that follow address the details regarding specific components of the Plan's Enforceable Program and Process, that answer the "who, what, when, where, and how" aspects of the Selected Alternative.

III-4 SOLID WASTE DISPOSAL AREAS

An inventory of solid waste disposal areas to be utilized by the County for this planning period is provided below along with a page number where a detailed facility description can be found. Facility descriptions will not be replicated in this section to prevent additional waste.

Solid waste disposal areas identified outside the County for potential use are included in the export authorization tables in Section III-3. 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.

Type II Landfill:

Glens Sanitary Landfill (WMI)	Page 13
Manistee County Landfill (Republic)	Page 14
Wexford County Landfill (American Waste)	Page 15
City Environmental Services of Waters (WMI)	Page 16

Type III Landfill:

None

Type A Transfer Station:

American Waste Transfer Station/Processing/MRF (Hughes Drive, Traverse City MI)	Page 17
American Waste Sanitary Waste and Recycling TS (Sundowner, Traverse City MI)	Page 18
Northern A-1 Waste TS (Kalkaska MI)	Page 19

Type B Transfer Station:

Peninsula Township TS	Page 20
Ken's Landfill TS (WMI)	Page 21

Processing Facility:

American Waste Transfer Station/Processing/MRF (Hughes Drive, Traverse City MI)	Page 22
American Waste Sanitary Waste and Recycling TS (Sundowner, Traverse City MI)	Page 23
Northern A-1 Waste TS (Kalkaska MI)	Page 24

Material Recycling Facility (source separated Materials Recovery Facilities not regulated under Part 115)

Waste Management MRF (Cass Road, Traverse City MI)	Page 25
Waste Management Recycle America MRF (Saginaw MI)	Page 26
Bay Area Recycling for Charities MRF (Maple City MI)	Page 27
GT Profile MRF (Traverse City MI)	Page 28

Incinerator:

None

Waste-to-Energy Incinerator:

None

Waste Pile:

None

Other:

None

Note: To receive waste from within Grand Traverse County any facility listed above is required to have a current designated facility agreement with the County as specified by Ordinance 17 and Rules and Regulations.

III-5 SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION

Details on the collection and transportation infrastructure to be utilized in this Plan are provided in Section II-4. That information will not be replicated in this section to prevent additional waste. In the Plan's Enforceable Program, comprehensive solid waste collection services to conserve resources will be made available to all households and businesses in the County. During the planning period:

- Direct haul by compacting collection vehicles and transfer haul by transfer trailers being the primary methods of transportation to regional landfills.
- Illegal dumping and litter will be policed with enforcement of violations. Spring/fall cleanup days and regular curbside bulky waste collection will be encouraged through cooperation with local units of government.
- Hazardous waste collection events will be available that services households, agricultural hazardous waste generators and unregulated conditional exempt small quantity hazardous waste generators.
- Clean community programs that promote cleaning of roadsides, stream banks, lakeshores, downtown areas, parks and forests will be promoted in conjunction with other community activities such as "Adopt a Forest".
- Recycling collection programs will add more materials to encourage participation by more citizens and businesses. Through the County's Ordinance No. 17 and Rules/Regulations, selected materials will be banned from landfill and transfer station disposal.
- Proactive education and promotion strategies will encourage responsible solid waste handling along with strong reduce/reuse/recycle practices. Pay as you throw services (Budget Bag) will be available throughout the County.

III-8 TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

The Plan's Enforceable Program includes an implementation timeline for the Plan's Management Component and Selected Alternative. The following table summarizes key milestones for implementing the Plan's Enforceable Program.

Management Components	Timeline
1) Designate Resource Recovery Department as Implementation Agency	Plan Adoption
2) Designate Resource Recovery Council as Implementation Oversight Committee	Plan Adoption
3) Develop /Adopt Implementation Action Plan	1999
4) Amend Intergovernmental Agreements/Ordinance/Rules/Regs	1999
5) Preliminary Program Specifications for Planned Programs	1999
6) Establish Budgets for Planned Programs	1999
7) Implementation of Funding Structure and Mechanisms	1999
8) Initiate all Outreach/Education Programs	1999/2000
9) Procure all Other System Improvements	1999/2000
10) Trigger Ban on Selected Items from Landfill Disposal	2000/2008
11) Evaluation of Options for Long Term Disposal Capacity	2000/2003
12) Implement Options for Long Term Disposal Capacity	2000/2003
13) Data Tracking to Assess Program Performance	Annual/Ongoing
14) Update Implementation Action Plan	Annual/Ongoing

III-9 SITING REVIEW PROCEDURES

The Siting Review Procedures contained in this Plan begin with a description of Authorized Disposal Area Types followed by a description of Unauthorized Disposal Area Types and the Siting Criteria and Process.

Per the requirements of Part 115 Section 11533 of NREPA, this Plan includes a Selected Solid Waste Management System that assures that the non-hazardous solid waste to be generated in the planning area over the next 10 years will be collected and recovered, processed, and disposed of at disposal areas that comply with state law and rules promulgated by the Michigan DEQ governing the location, design and operation of the disposal areas.

As provided for in Part 115 Section 11537 (a) of NREPA, this Plan demonstrates that the planning area has in excess of 66 months of available disposal capacity and will have in excess of 66 months of available disposal capacity for the duration of the 5 year planning period for which this Plan is provided. As a result, the County may refuse to utilize the siting mechanism contained herein until the County is no longer able to demonstrate 66 months of disposal capacity or until the County amends this Plan to provide for the annual certification process described in Part 115 Section 11538 (4) of NREPA.

This Plan does not include an annual certification process, as provided for in Part 115 Section 11538 (2) of NREPA, since specific disposal areas are identified in this Plan for the ten year period after approval of the Plan and, as such, is not required to provide the annual certification process described in Part 115 Section 11538 (4) of NREPA, or the interim siting mechanism described in Part 115 Section 11538 (3) of NREPA.

AUTHORIZED DISPOSAL AREA TYPES

The following facilities are consistent with the Goals and Objectives of the County Solid Waste Plan and the implementation of the Selected Solid Waste Management System. Disposal areas at specific sites identified in this Plan are automatically included in the Plan. Disposal areas without specific sites identified will be sited following the Plan's siting mechanism as provided for in this Chapter as will any changes in type or expansions of any existing disposal area unless provided for elsewhere in this Plan.

Facilities Included in this plan:

- Type A Transfer Station/Processing/Material Recycling Facilities
- Type B Transfer Stations
- Material Recycling Facilities
- Composting Facilities

Type B Transfer Stations do not require a construction permit and operating license from DEQ. They are still subject to the Plan's siting mechanism as provided for in this chapter and are exempt from local zoning.

Material Recycling Facilities and Composting Facilities that process only source separated materials of any type do not require a construction permit and operating license from DEQ. These types of facilities do not have to be sited by the Plan in order to be constructed and are subject to local zoning. These types of facilities can be sited with the approval of the local unit of government that has jurisdiction over a proposed site with the enforcement of local ordinances, including zoning, applicable to that siting being authorized elsewhere in this Plan.

UNAUTHORIZED DISPOSAL AREA TYPES

The following types of facilities will not be considered during this planning period for siting purposes and would automatically be deemed inconsistent with the Plan, if the County received a proposal to site such a disposal area.

Facilities Not Included in this plan:

- Type II or Type III Landfills
- Incinerators

Plan Amendment to Include a Facility Not Included in this Plan:

If a proposed facility is not consistent with or in compliance with this Plan, the facility proposer can request that the County amend the Plan. The procedure to amend this Plan is the same as the process for adopting this Plan, as provided for in Section 115 of NREPA. A request to amend the Plan should be made to the appropriate County Agency.

Upon receipt of such a request to amend the Plan, the County shall prepare a budget showing the costs anticipated to amend the Plan. Upon adoption of that Budget by the County Board of Commissioners the total amount of that budget shall become the fee charged to consider a proposed amendment to the Plan, which shall be paid in full prior to the initiation of the Plan Amendment process. Fee is only for the siting of a disposal facility not included in the plan and is not applicable to other proposed plan amendments.

III-10 SOLID WASTE MANAGEMENT COMPONENTS

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

Grand Traverse County Ordinance 17 and Rules/Regulations were enacted to provide enforcement, funding and incentives for resource recovery in regards to solid waste generated, collected, transported and disposed of in Grand Traverse County. By requiring haulers to be licensed and report to the County, the Plan has a mechanism in place for monitoring compliance. Funding for programs and administration is provided through a landfill surcharge, which is also part of Ordinance 17 and Rules/Regulations.

The Grand Traverse Board of Commissioners (BOC) with appropriate legal, management and financial capabilities and acting through the Resource Recovery Council (RRC) and Resource Recovery Department (RRD) has accepted ultimate responsibility for the implementation and enforcement of the solid waste management system.

NEEDS OF THE CURRENT MANAGEMENT SYSTEM

Problems and deficiencies in the existing Solid Waste Management System are detailed in Section II-5 and are summarized below:

1. Recovery rates in the existing Solid Waste Management System are too low. A 2010 waste diversion report determined that 35.51% of the total waste generated within the County is diverted from landfill disposal through recycling and composting initiatives. Data indicates that diversion rates in some areas of the County could be higher:
 - Estimated recovery rates in the residential sector are too low at 18% - 20%. Expansion and use of curbside recycling in this sector can increase the recycling rate and reduce the need for landfill disposal.
 - Few multi-unit housing complexes provide on-site recycling. Residents can use drop-off recycling containers if available. Expansion and use of on-site recycling can increase the recycling rate and reduce the need for landfill disposal.
 - There is no infrastructure on a large scale to divert food waste from landfill disposal. The US EPA estimates that food waste constitutes 14% of the total solid waste generated. Outside of home composting and garbage disposals, residents have no alternative to handle food waste other than sending it to the landfill.
2. Funding to staff the RRD and administer the "RecycleSmart programs" is provided by the landfill surcharge. The landfill surcharge is a variable funding source for the following reasons:
 - Landfill volumes can be unpredictable. The amount of landfill surcharge collected is dependent on the amount of waste sent to the landfill. During recessionary periods and recycling market development, landfill volumes can decline resulting in reduced funding.
 - Landfill volumes are dependent on honest and accurate reporting. Haulers do not have to provide documentation on the origin of waste delivered to Designated County landfills and/or transfer stations.
3. Illegal dumping continues to plague rural communities in the County. Even though fines are in place for illegal dumping, catching illegal dumpers is difficult due to the availability of secluded forest preserves and wooded areas in the County.

STRENGTHS OF THE CURRENT MANAGEMENT SYSTEM

Some key components of the organizational and management structure required to develop a suitable mechanism to implement the Plan's Enforceable Program are already in place within the County. These include:

- The authority and powers of the Grand Traverse County BOC to implement the Plan's Enforceable Program with appropriate legal, management and financial capabilities, executed through the RRC and RRD.
- The RRC as the "implementation oversight committee" to the BOC and RRD to oversee the implementation of the Plan's Enforceable Program, including the development and adoption of an annual strategic plan and budget and submittal of that plan to the BOC for final implementation authorization.
- The RRD as the "designated implementation agency" and the RRD Manager as the "designated planning agent" to manage the implementation of the Plan's Enforceable Program under general guidance of the BOC, RRC and key stakeholders.
- The County Solid Waste Ordinance 17 and Rules/Regulations to authorize and provide the basic framework for the development and operation of the solid waste and recycling system.
- The County's contracting capability to implement and operate solid waste programs.
- The contracting capability of individual units of government to develop supporting structures for funding, organization, and implementation of their own solid waste and recycling systems.
- A network of public, private and non-profit organizations that provide critical recycling services to residents and businesses throughout the County.
- A strong product return infrastructure present in the County to support the reuse of many household items.
- Access to regional landfill(s) with disposal capacity in excess of 100 years.
- A variety of County programs in place to serve residents, including curbside recycling, HHW disposal, organic composting, special collection events and outreach/education programs.

The current organizational and management structure as just described is automatically incorporated into the Plan's Enforceable Program and is authorized as the basis for further development of the Plan's Management Component.

FURTHER DEVELOPMENT OF THE MANAGEMENT COMPONENT

The Management Component builds on the strengths of the current organizational and management structure including the County's Solid Waste Ordinance No. 17, contractual arrangements for plan implementation and all related features. Further development of the Plan's Management Component is provided for as part of the Plan's Enforceable Program.

These developments may take a number of forms and will only be initiated after evaluating the best steps that can be taken given the system already in place. These steps will be detailed in an implementation action plan that the RRD and the RRC will develop, for the BOC approval, in order to provide for the necessary details required to carry out the Enforceable Program.

Every effort will be made during further development of the Management Component to build an implemented system that is supportive of and enables development of similar services and management capabilities throughout the region and out-of-county.

- A. A system of Hauler License and Designated Facility Agreements as provided for in County's Ordinance No. 17 and Rules/Regulations will be used to collect user fees from solid waste generators to fund all or a portion of the Management Component. Specifically:
- **At point of generation** the current practice of a resident or business paying a monthly or quarterly fee(s) for their solid waste handling services will continue with the following enhancements: 1) continued effort to ensure fee structures include "pay as you throw" (PAYT) features that result in the generator incurring additional costs as volumes of solid waste increase, 2) the regularly billed fee(s) will be for collection services as detailed by Ordinance No. 17 and Rules/Regulations;
 - **At point of transfer/disposal** the user fee paid for tipping at the designated disposal facility (i.e.: the Transfer Station and/or Landfill) will provide funds for system development, implementation and operation;
 - **At point of recycling processing** there may be a user fee paid for tipping at the recycling processing facility or a payment for the value of the materials;
 - **At point of yard waste processing** there may be a user fee paid for tipping at a yard waste composting site(s) that will have two key features - providing a needed revenue stream and providing an incentive for diverting materials.

Until an alternative funding mechanism is in place, a landfill surcharge will be collected and deposited into a "System Enterprise Fund" to be used to fund the County's costs to staff the RRD and administer the "RecycleSmart" programs. This amount, which will need to be determined, based on the specifics of the planned program and the mix of funding sources, and will be managed by the BOC through the RRC and RRD.

Four potential alternate funding mechanisms will be considered: 1) licensed haulers paying a per customer user fee each month as a condition of their hauler licensing agreement (solid waste volume handled being an alternate approach); 2) County general fund appropriation; 3) voter approved millage; 4) P.A. 69 funding mechanisms. Should other funding sources be enabled through state legislation, these will also be considered as appropriate.

- B. Local Units of Government (LUG) will be provided information, tools and techniques to increase recovery rates and to use the contracting provisions in Michigan municipal solid waste law to provide the highest quality service at the most affordable prices. These contracting arrangements will be structured to be compatible with and supportive of County Ordinance No. 17 and Rules/Regulations as required.
- C. Leveraging of contributed resources will be used to increase recovery rates and to reduce program budget requirements. Programs operated by public, private and non-profit organizations will be used to reduce cost and promote waste diversion. Area businesses and foundations will be approached for long-term commitments (project sponsors, etc.) with appropriate recognition provided. Collaboration with workplace experience programs will be pursued and expanded. Public and private service agencies as well as school groups will be asked to get involved even more than they are already.
- D. Private bank financing will be available for capital improvements made by private companies and non-profits that are involved in the implemented system -- especially if the contracting framework described above is well structured with long term service arrangements.
- E. Agency funds from public entities will be an important part of the mix of operating and capital funding that is needed to sustain the implemented system. These funds may be part of ongoing operational cost areas that are already part of municipal budgets (e.g. current operations to collect and process yard waste that are part of some municipal budgets). In addition, these agency funds may be able to assist in part with capital requirements for some of the projects.

- F. Bond financing will be an option that will be investigated depending on the final details of how the overall implemented system is structured to raise any necessary capital for solid waste, recycling, and composting system improvements.
- G. Further steps will be taken to access the fundraising capabilities of private giving and foundations. Efforts will also be targeted at providing support for education and promotion of clean community initiatives, reduce/reuse/recycle programming and, in some cases, capital funds for informational exhibits, displays, educational facilities and school programs.

IMPLEMENTATION OF THE MANAGEMENT COMPONENT

The following key steps will be taken to further develop the Management Component as needed to implement the Plan's Enforceable Program:

- A. The RRD as the "designated implementation agency" and the RRD Manager as the "designated planning agent" is assigned responsibility to manage program development through public and private sector channels working with the RRC, BOC and key stakeholders on the implementation process.
- B. The RRC as the "implementation oversight committee" is assigned responsibility to facilitate program development through public and private sector channels advising the RRD, BOC and key stakeholders on the implementation process.
- C. The annual "strategic plan" will be expanded into a comprehensive "Implementation Action Plan" covering all aspects of implementation of the Plan's Enforceable Program with a strong emphasis on defining required decisions, important decision factors, reports and expected timing/outcomes, at a level of detail required for actual task assignments with coordination and accountability for measurable/reportable outcomes. The action plan format will also provide for a means to be updated on a regular basis based on monitoring of progress towards plan goals and targeted diversion rates and a mechanism for feeding these updates into an ordinance/contract structure should they need to be changed.
- B. Local units of government within the County may apply their home rule authority to the funding, organization, and implementation of the Plan's selected alternative. Local communities are encouraged to build on their strengths in managing solid waste and recycling programs and further enhance those strengths through intergovernmental cooperation.
- C. System improvements, new services, required contract/licensing structures and recycling processing capacity will be further detailed, incorporated into the Implementation Action Plan and then implemented. The implementation is expected to be handled by private and/or non-profit or other governmental agencies with service contracts being the principal means to define expected performance and the necessary flow of funds. In addition to updating the County Ordinance No. 17 and Rules/Regulations as required and the hauler licensing and facility designation, other contracts will be needed for purchased services such as the household hazardous waste program as well as other program components.
- F: Upon implementation, progress will be tracked through methodical data compilation and analysis in order to measure, on an annual basis, overall waste generation, reduction and recycling, benchmark performance against goals, and target future implementation planning. Regular scheduled reports of implemented system performance and new goals will be incorporated into the continuously updated Implementation Action Plan as they develop.

III-11 IDENTIFICATION OF RESPONSIBLE PARTIES

The following identifies the management responsibilities and institutional arrangements necessary for the planning, implementation and enforcement of the solid waste management system. Also included are entities within the County which will have management responsibilities over various areas of the plan.

Grand Traverse County Board of Commissioners: The County Board of Commissioners (BOC) is responsible for the overall supervision of the solid waste management system for the County acting through the Resource Recovery Council (RRC) and Resource Recovery Department (RRD). The BOC has the authority to adopt countywide ordinances that are not in conflict with state and federal law, and for the licensing and regulation of the solid waste management system.

Resource Recovery Council: This advisory council appointed by the BOC is responsible for studying and making recommendations to the BOC and RRD regarding matters relating to the operation of the County solid waste management system. The RRC has been assigned oversight responsibility for county recycling, solid waste, and household hazardous waste and composting programs, and County Ordinance No. 17 and Rules/Regulations.

Resource Recovery Department: The RRD reports to the BOC and is authorized by the Board to serve as the Designated Planning Agency for the County. Under general guidance from the RRC, the RRD provides day-to-day management of county recycling, solid waste, and household hazardous waste and composting programs. This includes providing recycling and composting outreach and education; coordinating operation of the household hazardous waste collection and composting programs; implementation, all reporting, administration and enforcement coordination of the County Ordinance No. 17 and Rules/Regulations as required; and providing general information to the public.

Solid Waste Management Planning Committee (SWMPC): The Grand Traverse County SWMPC is responsible for updating and amending the County Solid Waste Management Plan and assisting the BOC in the approval process for such plan updates and amendments.

Municipal and Township Governments: The cities, villages, and townships, either individually or working together, may assume a financing, procurement, regulatory, and administrative role in arranging solid waste management services for their jurisdictions to comply with the plan.

Private Solid Waste Haulers: Private sector waste haulers provide for collection of solid waste with delivery to designated facilities as defined in the County's Ordinance No. 17 and Rules/Regulations as required.

Resource Conservation:

Source or Waste Reduction -
Product Reuse -
Reduced Material Volume -
Increased Product Lifetime -
Decreased Consumption -

Responsible Parties

RRD, LUG, waste generators
RRD, LUG, private/non-profits, waste generators
RRD, LUG, waste generators
RRD, LUG, waste generators
RRD, LUG, waste generators

Resource Recovery Programs

Composting -

Responsible Parties

Traverse City DPW, RRD, public agencies, private waste companies

Recycling -

RRD, public agencies, private waste companies

Energy Production -

not applicable

<u>Volume Reduction Techniques:</u>	RRD, LUG, waste generators
<u>Collection Processes:</u>	RRD, public agencies, private waste companies
<u>Transportation:</u>	RRD, private waste companies
<u>Disposal Areas:</u>	
Processing Plants -	RRD, private waste companies
Incineration -	Not applicable
Transfer Stations -	RRD, public agencies, private waste companies
Sanitary Landfills -	RRD, public agencies, private waste companies
<u>Ultimate Disposal Area End Uses:</u>	BOC through the RRD
<u>Local Responsibility for Plan</u>	
<u>Update Monitoring & Enforcement:</u>	RRD
<u>Local Responsibility for Emergency/ Storm Waste Management</u>	RRD
<u>Educational and Informational Programs:</u>	RRD, LUG, private waste companies

Documentation of acceptance of responsibilities is contained in Appendix D.

III-13 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.

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

The table below identifies landfill disposal areas, their expected life, historical usage rates, and supporting analysis that demonstrates that the County will have more than ten years of disposal capacity for the duration of the ten year planning period. These facilities are included in the Plan, meet export requirements and have signed County Designated Facility agreements. Attachment B includes a letter from one of these facilities, Glen's Landfill (WMI) in Leelanau County that indicates that they can supply Grand Traverse County with 10 years of landfill capacity.

Identified Disposal Area Capacity	Available Air Space Gate CY ¹	Gate CY ¹ Delivered 09/10	Landfill Life (in yrs) ² Based on 09/10 Delivery Rates
Manistee (Republic)	10,000,000	500,000	32
Glen's (WMI)	18,000,000	230,000	125
Wexford	5,000,000	125,000	64
CES Waters (WMI)	16,000,000	425,000	60
TOTAL	49,000,000	1,280,000	61

1 = Source 2010 MDEQ Solid Waste Report

2 = Calculations of landfill life assume that 20% of available air space is lost to cover and liner components and that gate cubic yards to in-place compaction is 50%



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

July 6, 2011

Mr. Larry Inman, Chairman
Grand Traverse Board of Commissioners
400 Boardman Avenue
Traverse City, Michigan 49684

Dear Mr. Inman:

The locally-approved amendment to the Grand Traverse County Solid Waste Management Plan (Plan) Amendment received by the Department of Environmental Quality (DEQ) on June 22, 2011, is hereby approved.

The Plan Amendment creates the following changes:

- The American Waste Type A Transfer Station/Processing/Material Recycling Facility (American Waste) is added as a county solid waste disposal area.
- An American Waste facility description and map is added.
- American Waste is added to the siting review procedure to authorize automatic consistency with the Plan.

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

Sincerely,

Liane J. Shekter Smith, P.E., Chief
Resource Management Division
517-373-9523

cc: Senator Howard Walker
Representative Wayne Schmidt
Mr. Bob Osterhout, Grand Traverse County
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Deputy Director, DEQ
Mr. Randy Gross, Director of Legislative Affairs, DEQ
Mr. Steve Sliver, DEQ
Mr. Phil Roycraft, DEQ
Ms. Rhonda S. Oyer, DEQ
Ms. Christina Miller/Grand Traverse County File, DEQ

**2011-1 PLAN AMENDMENT
TO THE
GRAND TRAVERSE COUNTY
SOLID WASTE MANAGEMENT PLAN UPDATE (MARCH 31, 1999)**

The purpose of the amendment is to include and authorize automatic consistency to the proposed American Waste Type A Transfer Station/Processing/Material Recycling Facility. The Grand Traverse County Solid Waste Plan Update (March 1999) is hereby amended as follows:

Section II-2 SOLID WASTE DISPOSAL AREAS

Add American Waste Type A Transfer Station/Processing/Material Recycling Facility to inventory of Solid Waste Disposal Areas.

Please see attached amended page II-5

Section II-3 SOLID WASTE FACILITY DESCRIPTIONS

Add facility description and map for American Waste Type A Transfer Station/Processing/Material Recycling Facility to Solid Waste Facility Descriptions.

Please see attached new page II-12a and map

Section III-4 SOLID WASTE DISPOSAL AREAS

Add American Waste Type A Transfer Station/Processing/Material Recycling Facility to inventory of Solid Waste Disposal Areas.

Please see attached amended page III-11

Add facility description and map for American Waste Type A Transfer Station/Processing/Material Recycling Facility to Solid Waste Facility Description

Please see attached new page III-18a and map

Section III-9 SITING REVIEW PROCEDURES

Add American Waste Type A Transfer Station/Processing/Material Recycling Facility to Facilities Included in this Plan.

Please see attached amended page III-36 added A.3

SECTION II- 2 SOLID WASTE DISPOSAL AREAS

Amended page II-5 to include new American Waste Type A Transfer Station/Processing/ Material Recycling Facility

The following is an inventory and description of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

- American Waste Type A Transfer Station/Processing/Material Recycling Facility located at 280 Hughes Drive, Traverse City, Michigan – New Facility
- Peninsula Township Transfer Station
- East Bay Township Transfer Station
- Ken’s Transfer Station (WMI aka USA/United)
- Ken’s Type III Landfill (WMI aka USA/United)
- Cedar Ridge Landfill (WMI)
- Manistee County Landfill (Allied/aka Harland’s)
- Glen’s Landfill (WMI aka USA/United)

Descriptions of these facilities follow.

Note that additional facilities outside the region have been identified for potential use and are included in the export authorization tables in Section III.

SECTION II-3 SOLID WASTE FACILITY DESCRIPTIONS

New page II-12a and map for Type A Transfer Station/Processing/Material Recycling Facility

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station/Processing/Material Recycling Facility located at 280 Hughes Drive, Traverse City, Michigan – New Facility

Facility Name: American Waste Type A Transfer Station/Processing/Material Recycling Facility

County: Grand Traverse Location: Town R11W Range T27N Section(s) 25 part

Map identifying location included in Attachment Section: x Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Glens Landfill or other facility authorized by Section II-3 of this plan.

 Public x Private Owner: American Waste Inc.

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

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

Site Size:

Total area of facility property: 15.8 acres

Total area sited for use: 15.8 acres

Total area permitted: acres

Operating: acres

Not excavated: acres

Current capacity: tons

Estimated lifetime: years

Estimated days open per year: 310 days

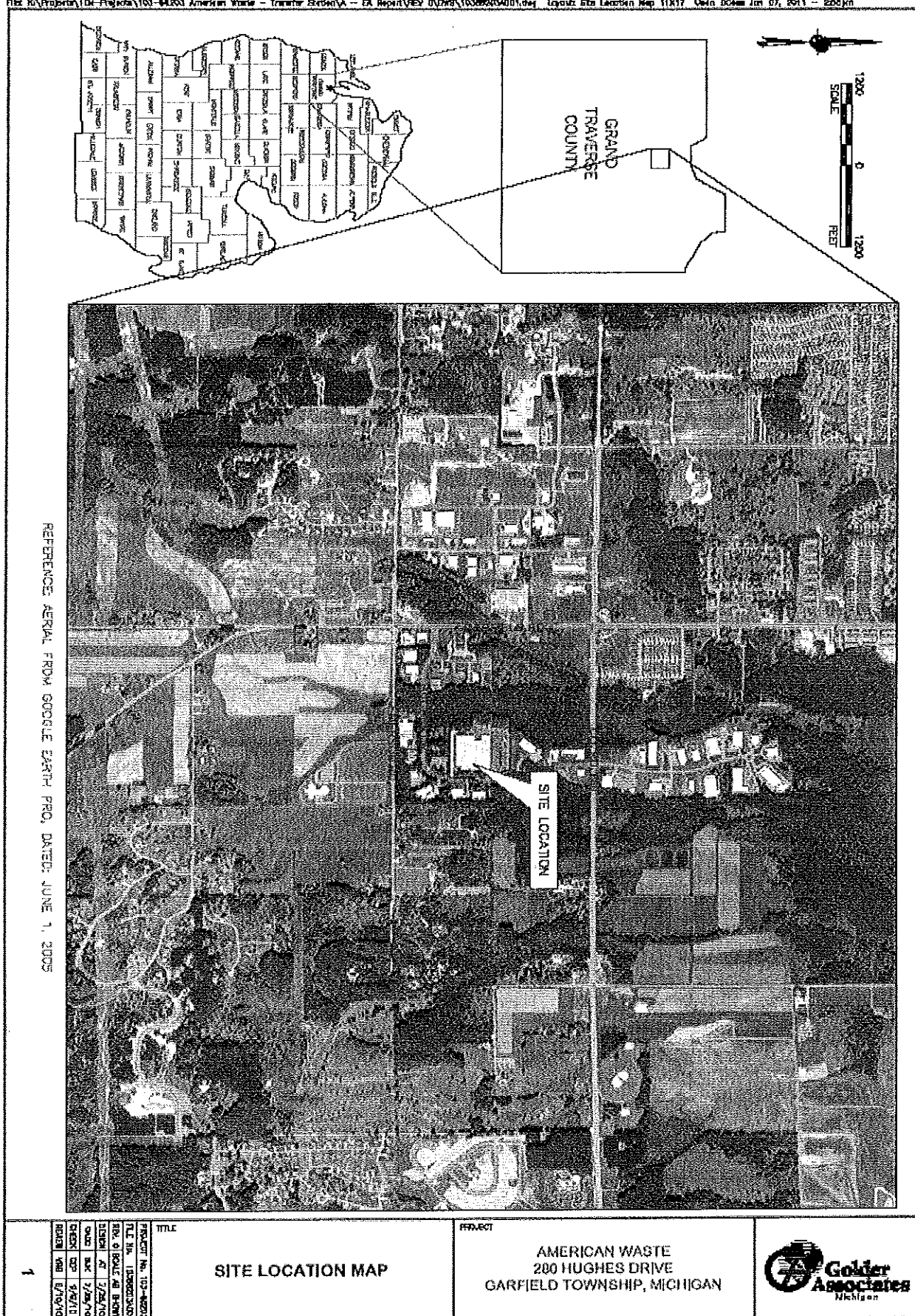
Estimated yearly disposal volume: 170,000+ tons

(if applicable)

Annual energy production:

Landfill gas recovery projects: NA megawatts

Waste-to-energy incinerators: NA megawatts



SECTION III- 4 SOLID WASTE DISPOSAL AREAS

Amended page III-11 to include new American Waste Type A Transfer Station/ Processing/Material Recycling Facility

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within Grand Traverse County for the next five years and, if possible, the next ten years. Descriptions of those facilities are included on Pages III-11 through III-20. Additional facilities which may be used during the planning period are included in the export authorization tables on Pages III-5 to III-8. 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. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

Glen's Sanitary Landfill (WMI)

Manistee County Landfill (Allied/Harlan's)

Montmorency-Oscoda Sanitary Landfill

Type III Landfill:

Ken's PS Type III Landfill (WMI)

Incinerator:

n/a

Waste-to-energy Incinerator:

n/a

Type A Transfer Facility:

American Waste Type A Transfer Station/
Processing/Material Recycling Facility located at
280 Hughes Drive, Traverse City, Michigan –
New Facility

Type B Transfer Facility:

East Bay Township Transfer Station

Peninsula Township Transfer Station

Ken's Landfill Transfer Station

Processing Plant:

American Waste Type A Transfer Station/
Processing/Material Recycling Facility located at
280 Hughes Drive, Traverse City, Michigan –
New Facility

Waste Piles

n/a

Waste-to-energy Incinerator:

n/a

Other:

n/a

SECTION III-4 SOLID WASTE DISPOSAL AREAS

New page III-18a and map for Type A Transfer Station/Processing/Material Recycling Facility

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station/Processing/Material Recycling Facility located at 280 Hughes Drive, Traverse City, Michigan – New Facility

Facility Name: American Waste Type A Transfer Station/Processing/Material Recycling Facility

County: Grand Traverse Location: Town R11W Range T27N Section(s) 25 part

Map identifying location included in Attachment Section: x Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Glens Landfill or other facility authorized by Section II-3 of this plan.

Public x Private Owner: American Waste Inc.

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

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

Site Size:

Total area of facility property: 15.8 acres

Total area sited for use: 15.8 acres

Total area permitted: acres

Operating: acres

Not excavated: acres

Current capacity: tons

Estimated lifetime: years

Estimated days open per year: 310 days

Estimated yearly disposal volume: 170,000+ tons

(if applicable)

Annual energy production:

Landfill gas recovery projects: NA megawatts

Waste-to-energy incinerators: NA megawatts

SECTION III-9 SITING REVIEW PROCEDURES

Amended page III-36 to add section A.3 to Facilities Included in this Plan

A: Facilities Included in this Plan:

This Plan's Enforceable Program and process, per the requirements of Part 115 Section 11533 of NREPA, includes new disposal areas within the County as described below. Disposal areas at specific sites identified in this Plan are automatically included in the Plan. Disposal areas without specific sites identified will be sited following the Plan's siting mechanism as provided for in this Chapter as will any changes in type or expansions of any existing disposal area unless provided for elsewhere in this Plan.

A.1: Type II Landfill Disposal Area: A Type II Landfill disposal area, as described in the Plan's Enforceable Program and sponsored by the County on land owned by the County, is included in the Plan for the 160 acre site that Grand Traverse County has secured in Whitewater Township (SE 1/4, Section 20, Town 27 North, Range 9 West). The site has been set aside for the purposes of constructing a Type II Landfill. No other Type II or Type III Landfill disposal areas may be sited by this Plan.

A.2: Solid Waste Transfer Station Disposal Area: A Solid Waste Transfer Station disposal area or areas, as described in the Plan's Enforceable Program, constructed with recycling/material recovery capabilities and sponsored by the County, is included in the Plan. Sponsorship by the County is defined to mean, at a minimum, ownership or long term lease (10 years or more) of the land on which the disposal area is located with solid waste directed to the disposal area by ordinance, contract or other similar mechanism as provided for in the Plan's Enforceable Program. Such a Solid Waste Transfer Station disposal area or areas will be sited following the Plan's siting mechanisms as provided for in this chapter since no specific sites have been identified in the Plan for a Solid Waste Transfer Station disposal area. No other Solid Waste Transfer Station disposal areas may be sited by this Plan.

A.3: Solid Waste Transfer Station/Processing/Material Recycling Facility. A Solid Waste Type A Transfer Station/Processing/Material Recycling Facility located at 280 Hughes Drive, Traverse City, Michigan is deemed automatically consistent with and included in the plan.

All Remaining Text for this Section in Current Plan Remains with Full Effect as Written

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

November 30, 1999

Mr. Richard Crowe, Chairperson
Grand Traverse County Board of Commissioners
400 Boardman
Traverse City, Michigan 49684

Dear Mr. Crowe:

The Department of Environmental Quality (DEQ) received the locally approved update to the Grand Traverse County Solid Waste Management Plan (Plan) on April 16, 1999. Except for the items indicated below, the Plan is approvable. As outlined in the August 17, 1999 letter to Mr. Randall Smith from Mr. Seth Phillips, and as confirmed in your letter of August 31, 1999, to Mr. Phillips, the DEQ makes the following modifications to the Plan:

1. On [Page III-48](#) of the Plan, siting Criterion H reads as follows:

H. No part of the site and respective parcel(s) is located within or less than 100 feet from the boundary edge of:

1. Existing public utility easements; and
2. Existing public rights-of-way.

The DEQ believes this criterion will effectively prohibit any new disposal area from being sited under this Plan since virtually all property on which a disposal area might seek to locate would abut a public road and would be located near the public utilities necessary to provide service to the property.

Section 11538(3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), requires an approvable siting mechanism to include: "both a process and a set of minimum siting criteria, both of which are not subject to interpretation or discretionary acts by the planning entity, and which if met by an applicant submitting a disposal area proposal, will guarantee a finding of consistency with the plan." The above referenced siting criterion would ensure that no proposed disposal area could be found consistent with the Plan. Therefore, siting Criterion H on page III-48 of the Plan is hereby deleted from the Plan.

2. [On Page III-62](#) of the Plan, the County seeks authority to impose unspecified zoning ordinances of Whitewater Township on the operations of any disposal area sited in the Township without specifying the scope of the proposed operational controls. The County subsequently provided DEQ with a copy of the ordinance intended to be made enforceable by this reference.

Section 11538(8) of Part 115 preempts enforcement of all local regulation of disposal area location, development, and operation except to the degree approved by the DEQ as part of the Plan.

The purpose of this section is to permit the DEQ to ensure that any local disposal area regulation does not conflict with Part 115 or the DEQ's regulatory authority and responsibilities. Upon review of the ordinance provided by the County, it is the DEQ's conclusion that the ordinance is overly broad in scope and will conflict and interfere with the DEQ's regulatory authority and responsibilities under Part 115. Therefore, we cannot approve inclusion of this ordinance in the Plan. Reference to this ordinance is hereby deleted from the Plan. In accordance with Section 11538(8) of Part 115, the ordinance is not enforceable against solid waste disposal areas.

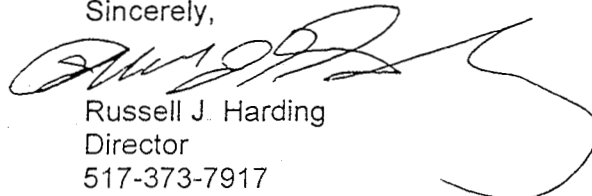
With these two modifications, Grand Traverse County's updated Plan is hereby approved and the County now assumes responsibility for the enforcement and implementation of this Plan. Please ensure that a copy of this letter is included with copies of the approved Plan distributed by the County.

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.

The DEQ applauds your efforts and commitment in addressing the solid waste management issues in Grand Traverse County. If you have any questions, please contact Mr. Seth Phillips, Chief, Solid Waste Management Unit, at 517-373-4750.

Sincerely,



Russell J. Harding
Director
517-373-7917

cc: Senator George A. McManus, Jr.
Representative Jason Allen
Mr. Randy Smith, Grand Traverse County Solid Waste and Recycling Office
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
Mr. Stan Idziak, DEQ
✓Grand Traverse County File



**GRAND TRAVERSE COUNTY
SOLID WASTE OFFICE**

400 BOARDMAN AVENUE
TRAVERSE CITY, MI 49684-2577
(616) 922-4576 • FAX (616) 922-4427

April 14, 1999

RECEIVED

Jan Sealock,
Department of Environmental Quality
Waste Management Division
P.O. Box 30241
Lansing, MI 48909-7741

APR 16 1999

Waste management
Division

Dear Ms. Sealock:

Enclosed is the locally approved 1998 Grand Traverse County Solid Waste Management Plan Update for DEQ Director approval.

Grand Traverse County has a history of developing broad based plans that meet the communities needs. I am proud to say that the Solid Waste Planning Committee has developed a Waste Management Plan that has 100% local approval. In fact all but four of the elected officials from the entire County approved this Plan Update. The County Board and all of the 16 local governmental units have approved this County Solid Waste Plan Update. Grand Traverse County is enthusiastically looking foreword to the Director's approval and our implementation of this Plan.

Should you or the Director have any questions regarding this Plan Update, do not hesitate to contact me at (616) 922-4576.

Yours for better recycling,

Randall S. Smith
Solid Waste Coordinator
Designated Planning Agency
Grand Traverse County

enclosure



RECYCLED PAPER

**Grand Traverse County
Solid Waste Management Plan Update
As Approved By Local Municipalities**

March 31, 1999

AS REQUIRED BY SECTION 11539a OF
PART 115, SOLID WASTE MANAGEMENT SECTION, OF
THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT
1994 PA 451, AS AMENDED

**Grand Traverse County
Solid Waste Management Plan Update
As Approved By Local Municipalities**

March 31, 1999

AS REQUIRED BY SECTION 11539a OF
PART 115, SOLID WASTE MANAGEMENT SECTION, OF
THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT
1994 PA 451, AS AMENDED

DATE SUBMITTED TO THE DEQ: April 9, 1999

This solid waste management plan includes Grand Traverse County. No other counties or municipalities outside Grand Traverse County have been included in this plan.

**DESIGNATED PLANNING AGENCY
PREPARING THIS PLAN UPDATE:** Grand Traverse County Solid Waste
and Recycling Office

CONTACT PERSON: Randy Smith

ADDRESS: 400 Boardman
Government Center
Traverse City, MI 49684

PHONE: 616-922-4576

FAX: 616-922-4427

E-MAIL: rsmith2@co.grand-traverse.mi.us

CENTRAL REPOSITORY LOCATION(S): County Clerk's Office
400 N. Boardman Ave, Traverse City, MI

**Grand Traverse County Solid Waste Management Plan Update
As Approved by Local Municipalities**

March 31, 1999

Table of Contents

I-1 EXECUTIVE SUMMARY.....	1
OVERVIEW OF THE COUNTY.....	1
THE SOLID WASTE PLANNING PROCESS	2
THE PLAN'S SELECTED ALTERNATIVE.....	3
AUTHORIZED MANAGEMENT COMPONENT.....	5
TIMETABLE FOR IMPLEMENTING THE PLAN'S ENFORCEABLE PROGRAM	6
I-2 INTRODUCTION.....	1
GOALS AND OBJECTIVES.....	1
II-1 DATA BASE.....	1
RESIDENTIAL WASTE GENERATION.....	1
COMMERCIAL/INDUSTRIAL WASTE GENERATION.....	2
SPECIAL WASTE STREAMS	2
MAJOR WASTE GENERATORS	3
WASTE GENERATION	4
II-2 SOLID WASTE DISPOSAL AREAS	5
II-3 SOLID WASTE FACILITY DESCRIPTIONS	6
II-4 SOLID WASTE COLLECTION SERVICES /TRANSPORTATION INFRASTRUCTURE.....	13
II-5 EVALUATIONS OF DEFICIENCIES AND PROBLEMS.....	15
II-6 DEMOGRAPHICS.....	16
II-7 LAND DEVELOPMENT.....	18
II-8 SOLID WASTE MANAGEMENT ALTERNATIVES.....	19
III-1 THE SELECTED SOLID WASTE MANAGEMENT SYSTEM.....	1
III-2 IMPORT AUTHORIZATION.....	4
CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE.....	4
FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE.....	5
III-3 EXPORT AUTHORIZATION	7

TABLE OF CONTENTS

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE	7
FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE	9
III-4 SOLID WASTE DISPOSAL AREAS	11
III-5 SOLID WASTE COLLECTION SERVICES & TRANSPORTATION	19
III-6 RESOURCE CONSERVATION EFFORTS:	20
III-7 WASTE REDUCTION, RECYCLING AND COMPOSTING	21
VOLUME REDUCTION TECHNIQUES	21
OVERVIEW OF RESOURCE RECOVERY AND RECYCLING PROGRAMS	21
RECYCLING AND COMPOSTING PROGRAMS	21
IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:	32
PROJECTED DIVERSION RATES:	33
MARKET AVAILABILITY FOR COLLECTED MATERIALS:	33
EDUCATIONAL AND INFORMATIONAL PROGRAMS:	34
III-8 TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION	35
III-9 SITING REVIEW PROCEDURES	36
AUTHORIZED DISPOSAL AREA TYPES	36
SITING CRITERIA AND PROCESS	37
DEFINITION OF THE FACILITY SITING COMMITTEE	46
MINIMUM STANDARD SITING CRITERIA	47
III-10 SOLID WASTE MANAGEMENT COMPONENTS	52
NEEDS OF THE CURRENT MANAGEMENT SYSTEM	52
STRENGTHS OF THE CURRENT MANAGEMENT SYSTEM	52
FURTHER DEVELOPMENT OF THE MANAGEMENT COMPONENT	53
IMPLEMENTATION OF THE MANAGEMENT COMPONENT	56
III-11 IDENTIFICATION OF RESPONSIBLE PARTIES	59
III-12 LOCAL ORDINANCES AND REGULATIONS	61
III-13 CAPACITY CERTIFICATIONS	63
APPENDIX A: ADDITIONAL INFORMATION REGARDING THE SELECTED SYSTEM	
EVALUATION OF RECYCLING	A-1
EVALUATION SUMMARY OF THE SELECTED SYSTEM:	A-7
APPENDIX B: NON-SELECTED SYSTEMS	B-1
APPENDIX C: PUBLIC PARTICIPATION AND APPROVAL	C-1
APPENDIX D: PLAN IMPLEMENTATION STRATEGY	D-1

I-1 EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage the solid waste within the County.

OVERVIEW OF THE COUNTY

Grand Traverse County is approximately 466 square miles in size and features a wealth of natural resources, including lakes, forests, agricultural land and urban areas. Grand Traverse County consists of rolling hills, forested uplands and extensive wetlands. The County's beauty at the same time is resulting in rapid growth in tourism, housing and commerce.

Current population by town is characterized in the chart below. In addition to the projected growth of year-round residents, the population of the county increases seasonally. By the height of the tourist season, (late summer), it has been estimated that the county experiences a population swell by an additional 39%.

Municipality	1998 pop	Peak Gain/Mo. (+39%)	Peak Population
Acme township	4,171	1,627	5,798
Blair township	6,347	2,475	8,823
East Bay township	10,040	3,915	13,955
Fife Lake village	466	182	647
Balance of Fife Lake township	1,022	399	1,421
Garfield township	12,810	4,996	17,806
Grant township	902	352	1,254
Green Lake township	4,510	1,759	6,269
Long Lake township	7,231	2,820	10,051
Mayfield township	1,164	454	1,618
Kingsley village	886	345	1,231
Balance of Paradise township	2,139	834	2,973
Peninsula township	5,251	2,048	7,300
Traverse City (pt.)	15,019	5,857	20,876
Union township	309	120	429
Whitewater township	2,208	861	3,069
<i>Grand Traverse County Total</i>	<i>74,476</i>	<i>29,045</i>	<i>103,521</i>

Sources; U.S. Bureau of Census data, USA Counties - Grand Traverse.

Employment, as reported to by the U.S Bureau of the Census, shows the civilian labor force in 1990 was 35,814 employees, an increase of 53% since 1975. Of total employees in 1990, Agriculture, Forestry and Fisheries accounted for only 3.3% of the total labor force.

Projected growth trends forecasts the population for the county to double over the next twenty five years. If total population does almost double in the next 25 years as has been estimated, it will add about 2,300 more people in the county on average per year. These new residents will need housing and other infrastructure services as well as jobs. In the recent past, new private

INTRODUCTION

housing unit permits were granted at an average rate of 528 per year from 1979 to 1994.

If population continues to grow as projected, land not in use for agricultural services will be utilized to support the growing population. It has been estimated that development in the next twenty five years has the potential to sprawl over 188 square miles of the county. This would represent 40% of the total county area - contrasting with much lower allocation of land for development under current conditions as shown in the chart below.

Land Use Type	% County Land
Surface Water	6 %
Developed Land	18 %
Public Open Space	21 %
Agriculture	22 %
Private Open Space	33 %
<i>Grand Traverse County Total</i>	100 %

To address concerns for uncontrolled development, the county has outlined "Strategies to Manage Growth" in the document, Focus 2020: A County Master Plan, prepared by the Grand Traverse County Planning Department.

THE SOLID WASTE PLANNING PROCESS

The Designated Planning Agency (DPA) and the Solid Waste Planning Committee (SWPC) completed a comprehensive strategic planning process that outlined strengths, weaknesses, opportunities, and threats that are part of the current and potential future solid waste management system that services the County. This analysis was used to create goals and objectives which are provided immediately after this Executive Summary. These goals and the strategic analysis formed the basis for developing the solid waste management strategy and the selected alternative that is described in this Plan as the Plan's Enforceable Program and Process as provided for in Part 115, Section 11533 (1) of the Michigan Natural Resources and Environmental Protection Act (NREPA).

In developing the Plan's Enforceable Program and Process the DPA and SWPC first screened out strategies that were technically or economically unsuitable for the County. The DPA and SWPC then reviewed a set of solid waste management program strategies in the following eight areas that were viewed as technically and economically feasible:

- Clean Community
- Drop-Off Residential Recycling
- Residential Yard Waste Composting
- Material Transfer and Processing
- Recycling Incentives
- Curbside Residential Recycling
- Commercial Recycling
- Disposal

These program strategies were assembled as System Alternatives that varied by level of landfill diversion, capital and operating cost and implementation requirements. At this stage in the strategic planning process, some of the Strategic Alternatives were determined to be unsuitable for the County based on an evaluation of the overall technical and economic feasibility of each approach and its ability to:

- build on the strengths of the local and regional situation,
- address current deficiencies and weaknesses,

INTRODUCTION

- work with organizational approaches that the County is willing to consider,
- be fundable through systems that the County can implement,
- respond to and build community involvement and support,
- be enforceable, and
- set measurable goals that can be tracked to determine progress.

Appendix B of the Plan contains further detail regarding the System Alternatives that were not selected as part of the Plan's Enforceable Program.

The strategic planning process was carried through to final conclusions regarding the program strategies that would make up the Plan's Selected Alternative and become the foundation for the Plan's Enforceable Program as required by statute. The strategic planning process included surveying of the views of key stakeholders in the planning process, and others considered to be critical to implementation of the plan - primarily local government officials. The Selected Alternative is described briefly below and in the balance of the Plan with further detail provided in Appendix A of the Plan.

THE PLAN'S SELECTED ALTERNATIVE

During Years 1 through 10 of the Planning Period the Plan's Enforceable Program provides for the implementation of the System Alternative 2 as described below, detailed further in Part III of this Plan with additional supporting material provided in Appendix A:

GRAND TRAVERSE COUNTY SYSTEM ALTERNATIVE 2 EXPANDED CLEAN COMMUNITY AND CURBSIDE RECYCLING PROGRAM

Key features include a Comprehensive Clean Community program, operating at a high level of effectiveness in all sectors. Bans on collection/disposal of certain materials as solid waste will kick recycling programs into high gear for increased tonnage and lower unit costs. Incentives to recycle boost program performance, increasing tons and lowering unit costs. The drop-off recycling system is optimized for some cost savings as more convenient recycling opportunities become common. Commercial recycling and C&D (Construction & Demolition) recycling begin to broaden business opportunities for diversion. Yard waste recovery approaches 100% through expanded collection programs and source reduction techniques. A Material Recovery Facility/Transfer Station maximizes system flexibility for cost savings and landfill diversion. Innovative techniques for increasing diversion or reducing system costs are explored building a strong foundation for significantly lower reliance on landfills as primary means of waste management.

Following is a more detailed description of the specific program elements that are part of the Selected Alternative and the Plan's Enforceable Program. Specific details on who will implement the Plan's Enforceable Program are covered in the next section covering the Plan's Authorized Management Program. The timing of implementation of the Plan's Enforceable Program are then provided in the Plan's Timetable for Implementation that follows. The County's Solid Waste Program, implemented jointly by units of government within the county in cooperation with other public agencies and private firms will include the following features:

Clean Community:

Comprehensive solid waste collection services will be made available to all households and businesses in the County. Households in a curbside collection district will receive the service as defined in the County's solid waste ordinance. Strong illegal dumping and litter policing will continue. Spring/fall cleanup days will be provided in an urban service district with scavenging/trading/reuse encouraged. A permanent hazardous waste collection site will be

INTRODUCTION

provided that services households, agricultural hazardous waste generators and unregulated small quantity hazardous waste generators. Adopt a "____" programs will be organized with volunteers and business/service group sponsorship for periodic cleaning of roadsides, streambanks, lakeshores, parks and forests. Many of these programs are already in place in some parts of the County.

Recycling Incentives:

Proactive education and promotion strategies will encourage responsible solid waste management and strong reduce/reuse/recycle behavior. Pay As You Throw (PAYT) programs will be widespread throughout the County. Recycling collection programs will add more materials to encourage participation by more citizens and businesses. Selected materials (e.g. OCC and ONP) will be banned from collection and disposal as solid waste as part of the County's solid waste ordinance.

Drop-Off Residential Recycling:

The existing network of drop-off sites for recycling will be upgraded, made more permanent and be open 24-hours per day. One or more "flagship" drop-off sites will be staffed, have an educational component, and collect the largest number of types of materials. Small, satellite drop-offs will also be added in high-use tourist areas and parks.

Curbside Residential Recycling:

Two stream commingled curbside recycling will be provided to all residents in an expanded curbside collection district as defined in the County's solid waste ordinance. Steps will be taken to adjust program design and operation to significantly increase participation. Subscription service outside this district will be strongly encouraged.

Residential Yard Waste Composting:

Seasonal weekly yard waste collection as well as fall leaf collection will be provided in an urban service district. Backyard composting will be encouraged through distribution of backyard bins at discount rates expanding on programs that have been run in the past. A similar mulching mower program will encourage grass cycling. Permanent drop-off options for yard waste will be provided throughout the County with one "flagship" site taking all types of yard waste and providing finished compost for distribution to residents and area municipalities. Selected processing of food waste will be included.

Commercial Recycling:

A permanent site will be provided for businesses to drop-off a wide variety of recyclables including commingled containers and commingled paper. A business recycling service district will be established and development of services to businesses within the district will be facilitated (linked to bans on collection and disposal of selected materials as solid waste) through an umbrella contract for the collection services provided by licensed haulers. Services for recycling of construction and demolition waste will continue to grow.

Material Transfer and Processing:

A material recovery facility (MRF) will be made available to all recycling collectors in the system and be integrated with a transfer station for solid waste to allow longer distance waste transfer. The facility will be able to process commingled containers and commingled fibers as well as presorted recyclables like OCC. Commercial recyclables will be able to be tipped at the facility for a reasonable fee that is lower than the tipping fee at area landfills. Mixed loads of commercial solid waste that have a high percentage of recyclable materials will be sorted. The

INTRODUCTION

MRF will have full waste transfer capabilities for MSW at high compaction rates (900 to 1000 lbs per cy) and be permitted as such through MDEQ.

Disposal:

At the beginning of the planning period the current practice of direct haul to regional landfills will continue. Once construction of the MRF and waste transfer facility is complete, compacting collection vehicles will then primarily haul to the transfer station which then will initially ship waste to landfills in Northern Michigan that offer the most competitive rate. During this period there will be a competitive evaluation of landfill disposal options to service the County's needs, including potential for long term contracts for disposal at predetermined prices, potential "ownership" of a facility that already is in operation or development of a new "green fields" disposal facility either within the County's jurisdiction on a site already owned by the County and identified in this plan for this purpose or outside of the County's jurisdiction at a new site still to be identified. A network of drop-off facilities for solid waste will be available including a "flagship" site that takes other types of waste (bulky, C&D, etc.) with this system preferably located at the same sites as recycling drop-offs and the flagship site located at the MRF/Transfer Station.

AUTHORIZED MANAGEMENT COMPONENT

The Selected Alternative as described above is established by this Plan as the Plan's Enforceable Program defining the Grand Traverse County Solid Waste Management System, implemented jointly by units of government within the county in cooperation with other public agencies and private firms. The Plan's Enforceable Program includes a "Management Component" that defines details of who will take responsibility for implementation and how that will be accomplished. This Authorized Management Component is described briefly below and further detailed in Part III of the Plan under a section with the same name.

The Authorized Management Component builds on the County's current organizational and management structure including the County's solid waste ordinance, system of intergovernmental agreements, contractual arrangements for plan implementation and all related features.

Further development of this organizational and management structure as part of the Plan's Authorized Management Component is provided for as part of the Plan's Enforceable Program. These developments may take a number of forms and will only be initiated after an evaluation of the best steps that can be taken to build on the strengths of the current system already in place. These steps will be detailed in an "implementation action plan" that the Plan's implementation agency will coordinate development of in order to provide for necessary details required to carry out the Plan's Enforceable Program. These action steps are expected to follow some, if not all, of the following description of an enhanced management system that will provide for a method of funding the selected alternative including the construction of the MRF/Transfer Station and other aspects of the Selected Alternative.

- User fees will continue to be the backbone of the Plan's Management Component funding system, as they are right now.
- A supporting network of service contract arrangements will be used to achieve Plan goals, structured to be compatible with and supportive of the County's solid waste ordinance #17 and the licensing and facility designation features of that ordinance.
- A supporting revenue generating system will be developed that provides an additional funding source for a system enterprise fund in order to cover strategic capital requirements of the Selected Alternative.

INTRODUCTION

- Other supporting mechanisms will be used to organize and direct resources towards implementing the Selected Alternative and other aspects of the Plan's Enforceable Program.

TIMETABLE - IMPLEMENTING THE PLAN'S ENFORCEABLE PROGRAM

The Plan's Enforceable Program includes an implementation timeline for the Plan's Authorized Management Component and Selected Alternative. The following table summarizes key milestones for implemented the Plan's Enforceable Program and is further detailed in Part III of the Plan under a section with the same name.

MANAGEMENT COMPONENTS	TIMELINE
1) Designate Office of Solid Waste as Implementation Agency	1999
2) Designate Solid Waste Council as Imp. Oversight Committee	1999
3) Develop/Adopt Implementation Action Plan	1999
4) Amend Intergovernmental Agreements/Ordinance/Rules/Regs	1999
5) Preliminary Program Specifications for Planned Programs	1999
6) Establish Budgets for Planned Programs	1999
7) Determine Ownership/Operation Arrangements for MRF/TS	1999
8) Finalize Funding Structure and Mechanisms	1999
9) Engineer, design & construct transfer station/MRF	1999/2000
10) Initiate all outreach/education programs	1999/2000
11) Procure all other system improvements	1999/2000
12) Final Implementation of Funding Mechanisms	1999/2000
13) Trigger Ban on Selected Items from Landfill Disposal	2000-2008
14) Negotiate/Adhere to Contract for Disposal Capacity	2000-2003
15) Evaluation of Options for Long Term Disposal Capacity	2000-2003
16) Implement Options for Long Term Disposal Capacity	2002-2008
17) Data Tracking to Assess Program Performance	Annual/Ongoing
18) Update Implementation Action Plan	Annual/Ongoing

INTRODUCTION

I-2 INTRODUCTION

To comply with Part 115 and its requirements, the Grand Traverse County Solid Waste Plan establishes an Enforceable Program and Process that is directed toward goals and objectives based on the purposes stated in Part 115, Section 11538.(1)(a), 11541.(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 711 (b)(i) and (ii).

GOALS AND OBJECTIVES

Goals and Objectives for the Grand Traverse County Plan's Enforceable Program and Process as adopted by the Solid Waste Planning Committee follow:

Goal 1. Develop Capacity to manage 100% of the organic waste in Grand Traverse County

- Objective 1.1. Develop guidelines for optimum usage of sludge in the production of a compost soil amendment.
- Objective 1.2. Determine the regulatory parameters for the development and operational needs of compost management
- Objective 1.3. Provide public education to citizens about what materials may be composted, the benefits and various opportunities for composting organic materials.
- Objective 1.4. Select a source with established timeframe/benchmarks success criteria that will indicate a finished quality compost and provide to the public.
- Objective 1.5. Determine ownership/operation of various composting facilities to adequately manage 100% of the County's organic residuals.
- Objective 1.6. Develop procurement specifications for the use of compost for a variety of applications.
- Objective 1.7. Develop organic waste handling strategies for business, institutional, and residential organic food waste materials.

Goal 2. Establish competitive waste management services for Grand Traverse residents and businesses.

- Objective 2.1. Research comparable community costs for trash and recycling collection and processing.
- Objective 2.2. Define what legal/management alternative options for the Grand Traverse County has to encourage competitive waste services.
- Objective 2.3. Facilitate cost effective partnership with the County/Municipalities and the waste handling industry.
- Objective 2.4. Assess if contracting for services will provide an adequate level of solid waste, recycling, composting, HHW, and bulk material collection to meet the needs of Grand Traverse County.
- Objective 2.5. Provide public education on available services.
- Objective 2.6. Implement a coordinated waste handling system.

INTRODUCTION

Goal 3. No Illegal Dumping - provide a system to eliminate illegal dumping and enforce litter regulations.

- Objective 3.1. Provide public education on the costs of illegal dumping, economical accessible options as well as fines and penalties.
- Objective 3.2. Identify locations of illegal dumping and what materials are most often discarded as well as what legal methods (recycling, composting, reuse or disposal) of material management exist.
- Objective 3.3. Ensure enforcement resources are available to preserve and protect our environment.
- Objective 3.4. Develop partnership with MDNR's adopt a forest program to minimize dumping of waste on public lands.
- Objective 3.5. Review and strengthen the County Solid Waste Ordinance with stiff penalties for non-compliance.

Goal 4. Provide opportunities to encourage local manufacturing

- Objective 4.1. Economic incentives - promote the procurement of recycled products purchased by local government and businesses by encouraging the option to adopt a policy which encourages the purchase of recycled products that meet building codes and performance standards, work with local economic development organizations to recruit local manufacturing business development.
- Objective 4.2. Develop construction specification requirements for commercial development, home buyers and builders which preference remanufactured products for remodeling and new construction.
- Objective 4.3. Identify the product categories and/or materials for reuse prior to recycling and composting.
- Objective 4.4. Provide public education - on recycled and reusable product procurement opportunities, specifications, and performance throughout the community.

Goal 5. Develop a method for establishing adequate Solid Waste Management Facilities.

- Objective 5.1. Develop siting criteria for landfills, transfer stations, recycling centers, and composting facilities.
- Objective 5.2. Identify primary/secondary designated disposal facilities, transfer stations, recycling processing
- Objective 5.3. Identify inventory of suitable sites.

Goal 6. Provide disposal opportunities for households, small quantity generators and agricultural hazardous materials.

- Objective 6.1. Provide facilities and/or services that manage disposal of household hazardous waste (HHW), small quantity generators (SQG), and agricultural pesticide materials.
- Objective 6.2. Develop adequate funding for the disposal of hazardous waste.

INTRODUCTION

Objective 6.3. Provide public education throughout the community on non-hazardous alternatives, plus the hazards of improperly handling certain types of products.

Objective 6.4. Identify material types that may cause hazards to individuals and the community if improperly handled.

Goal 7. Provide adequate revenues to fund County Solid Waste programs.

Objective 7.1. Modify the County Ordinance to collect fines from illegal dumping that will support Solid Waste programs.

Objective 7.2. Develop a system that will make people financially responsible for their waste materials.

Objective 7.3. Increase surcharges at designated disposal facilities to meet the growing demand for services.

Objective 7.4. Research other legal revenue sources.

Goal 8. Create an educated public where citizens are aware of, and understand Solid Waste Management issues.

Objective 8.1. Promote waste reduction opportunities throughout the community.

Objective 8.2. Promote reuse and resale opportunities throughout the community.

Objective 8.3. Provide instructional training programs on solid waste management to all educators in the local school system.

Objective 8.4. Provide solid waste management information to all students in the educational system.

Objective 8.5. Develop a strategy to communicate information effectively through a variety of communication channels such as; public access, press, radio, television and outreach opportunities.

Objective 8.6. Maintain an office and staff to adequately meet the public demand for information regarding solid waste issues.

Objective 8.7. Implement plan.

II-1 DATA BASE

This section identifies sources of waste generation within the county, total quantity of solid waste generated to be disposed, and sources of the information

The following database is derived from the listed sources:

- County Business Patterns
- Northwest Michigan Council of Governments Population Study
- Grand Traverse County Planning Department
- Grand Traverse County Solid Waste and Recycling Office

RESIDENTIAL WASTE GENERATION

Residential solid waste data was calculated by the consultant, Resource Recycling Systems, Inc. using the rate of between 2.6 and 3.5 pounds of solid waste generated per person per day (urban and resort areas) and 2.0 pounds per person per day for rural areas. These numbers were then modified to reflect seasonal population adjustments and overall population growth estimates for the next ten years. Finally, actual reported disposal and waste reduction data were used to adjust generation rates. These generation calculations are then presented as "centers of solid waste generation" in the chart below as required by the Plan Format. More detailed description of how estimates were calculated may be found in Attachment E.

Table II-1 : Residential Waste Generation by Municipality

Municipality	1998 Tons	2003 Tons	2008 Tons
Acme township	2,735	3,063	3,283
Blair township	2,774	3,105	3,327
East Bay township	5,704	6,383	6,837
Fife Lake village	204	225	237
Balance of Fife Lake township	447	465	463
Garfield township	8,398	9,444	10,166
Grant township	394	442	473
Green Lake township	1,971	2,226	2,406
Long Lake township	3,160	3,539	3,793
Mayfield township	509	568	607
Kingsley village	387	431	460
Balance of Paradise township	935	1046	1120
Peninsula township	2295	2570	2755
Traverse City *	12,471	12,347	11,701
Union township	135	151	162
Whitewater township	965	1081	1158
Grand Traverse County Total	43,483	47,084	48,949

**population numbers for Traverse City and thus solid waste generation rates were projected to decline, according to the population trends calculated from past experience; it should be noted, however, the actual numbers may increase as heavy growth in the area is experienced.*

COMMERCIAL/INDUSTRIAL WASTE GENERATION

Commercial waste generation was determined by multiplying estimated pounds per employee per day for specific Standard Industrial Codes (SIC) by the actual employment numbers in Grand Traverse County. Pounds per employee per day figures were generated by Resource Recycling Systems based on previous SIC code-specific surveys and studies of various counties in the United States. Employment numbers were obtained for the year 1995 from U.S. Census data on County Business Patterns. Waste generation numbers were then modified based on actual reported waste generation by a phone survey of major generators within the County. The number of work days per year is assumed to be 260. The resulting waste generation calculations are presented below as "centers of generation" for commercial and industrial SIC groups, as required by the Plan Format.

Table II-2: Commercial/Industrial Waste Generation by SIC

SIC	SIC Description	# of employees (1995)*	lbs/ person/ day	Tons/ year (1995)
0700-0999	Agriculture, Forestry, Fishing	179	5	116
1000-1499	Mining	575	4	299
1500-1999	Construction	2,558	23	7,648
2000-3999	Manufacturing	5,680	19	14,030
4000-4999	Transportation/Public Utilities	1,344	5	874
5000-5199	Wholesale trade	1,628	12	2,540
5200-5999	Retail trade	9,825	12	15,327
6000-6999	Finance, Insurance, Real Estate	1,916	16	3,985
7000-7999	Services	12,949	8	13,467
99--	Unclassified establishments	168	6	131
		36,822	12.20	58,417
		Total	Average	Total

*from 1995 County Business Patterns Data

SPECIAL WASTE STREAMS

Sewage sludge is generated by the municipalities of Traverse City, Kingsley and Fife Lake. Currently, the Traverse City facility serves approximately 33 percent of the population of the County, with growth in treatment needs increasing by approximately 4% per year. Sludge generated by the facility is currently land applied (injection), although composting is a future consideration. Kingsley is currently formulating a plan for sludge management and is in the process of going out for bids. At present, none of the wastewater treatment plants has any plans to landfill or incinerate sludge.

Table II-3: Special Waste Streams

Source	Material	Tons per year	Tons landfilled
City of Traverse City	Sewage sludge	4 mil gal/year	0
Kingsley	Sewage sludge	n.a.	0
Fife Lake	Sewage sludge	n.a.	0

MAJOR WASTE GENERATORS

Grand Traverse County continue to experience growth in the business sector, particularly retail, while recycling opportunities remain somewhat limited. Local waste haulers do offer collection services for corrugated cardboard and office paper, however, these collection programs to date have not diverted a significant amount of waste. Some businesses provide their own recovery services through backhaul arrangements with distributors, including groceries and other retailers such as Target. A few small and medium sized businesses haul corrugated directly to the United Waste processing facility in Traverse City. Table II-4 a is a list of major business and industrial waste generators in the County.

Table II-4 a: Major Waste Generators in Grand Traverse County

Generator	Location	Type
Cherry Growers	Traverse City	Growers coop
United Technologies	Traverse City	Manufacturer
Munson Medical Center	Traverse City	Hospital
Record Eagle	Traverse City	Printer
Noverr Publishing Inc.	Traverse City	Printer
Northwestern Michigan College	Traverse City	University
Traverse City Area Public Schools	Traverse City	Schools
Grand Traverse Mall	Garfield Twp.	Retail
Sara Lee	Garfield Twp.	Manufacturer

WASTE GENERATION

Waste generation is shown in Table II-4 b below. Generation data was calculated using waste projection models (pounds per person per day for residential, and pounds per employee per day for commercial/industrial). Adjustments were made for seasonal population fluctuations and differences between rural and urban areas. Waste generation was projected into the future based on projected population growth patterns.

Table II-4 b: Total Quantity of Solid Waste Generated

Sector	1998 Tons Generated	2003 Tons Generated	2008 Tons Generated
Residential	43,483	37,543	39,194
Commercial	46,531	49,955	53,390
Industrial	14,707	15,789	16,875
<i>Grand Traverse County Total</i>	<i>104,722</i>	<i>112,828</i>	<i>119,215</i>

DATA BASE

Total waste generation for 1998 was projected and compared to actual 1997 landfill disposal statistics for Grand Traverse County waste plus actual recovery (recycling plus composting). Recovery (recycling and composting) was projected for the future by subtracted from total generation projections for the 2003 and 2008 planning years in order to obtain disposal estimates. Future recovery was based on expected growth for existing programs and achievement of stated County recovery goals. Actual recovery for 1997 was reported to be 5,959 tons of residential recyclables (through drop-off and curbside programs); 6,000 tons of commercial/industrial recovery, and 2,510 tons of yard waste composted.

Table II-5: Total Quantity of Solid Waste Needing Disposal

Sector	1998 Tons Disposed	2003 Tons Disposed	2008 Tons Disposed
Residential	35,014	33,384	31,324
Commercial/Industrial	55,238	52,595	52,699
<i>Grand Traverse County Total</i>	90,252	85,979	84,023

II-2 SOLID WASTE DISPOSAL AREAS

The following is an inventory and description of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

- Peninsula Township Transfer Station
- East Bay Township Transfer Station
- Ken's Transfer Station (WMI aka USA/United)
- Ken's Type III Landfill (WMI aka USA/United)
- Cedar Ridge Landfill (WMI)
- Manistee County Landfill (Allied/aka Harland's)
- Glen's Landfill (WMI aka USA/United)

Descriptions of these facilities follow.

Note that additional facilities outside the region have been identified for potential use and are included in the export authorization tables in Section III.

II-3 SOLID WASTE FACILITY DESCRIPTIONS

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: East Bay Township Transfer Station

County: Grand Traverse Location: Town T27N Range R10W Section(s) 34

Map identifying location included in Attachment Section: Yes X No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: CES Waters Landfill or Glen's Landfill

x Public Private Owner: East Bay Township (on state land)

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

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

Site Size:

Total area of facility property:	<u>30</u>	acres
Total area sited for use:	<u>not avail.</u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated:	<u> </u>	acres

Current capacity:	<u> </u>	
Estimated lifetime:	<u> </u>	years
Estimated days open per year:	<u>150</u>	days
Estimated yearly disposal volume:	<u>5,140</u>	compacted cubic yards
	<u>+ 2,906</u>	loose C&D cubic yards

(if applicable)

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

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Peninsula Township Transfer Station

County: Grand Traverse Location: Town T29N Range R10W Section(s) NE1/4 of 28

Map identifying location included in Attachment Section: Yes X No

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

 x Public Private Owner: Peninsula Township

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

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

Site Size:

Total area of facility property:	<u>2.1</u>	acres
Total area sited for use:	<u>not avail.</u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated:	<u> </u>	acres

Current capacity:	<u> </u>	
Estimated lifetime:	<u> </u>	years
Estimated days open per year:	<u>104</u>	days
Estimated yearly disposal volume:	<u>not avail.</u>	

(if applicable)

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

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station (operated as Type B)

Facility Name: Ken's Landfill Transfer Station

County: Grand Traverse Location: Town T27N Range R11W Section(s) NE1/4 of 7

Map identifying location included in Attachment Section: Yes x No

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

 Public x Private

Owner: Waste Management, Inc.

Operating Status (check)

 x

open

closed

 x

licensed

unlicensed

construction permit

open, but closure pending

Waste Types Received (check all that apply)

 x

residential

 x

commercial

industrial

construction & demolition

contaminated soils

special wastes *

other:

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

Site Size:

Total area of facility property:

part of landfill site acres

Total area sited for use:

 acres

Total area permitted:

 acres

Operating:

 acres

Not excavated:

 acres

Current capacity:

Estimated lifetime:

years

Estimated days open per year:

240

days

Estimated yearly disposal volume:

not avail.

(if applicable)

Annual energy production:

Landfill gas recovery projects:

N.A.

megawatts

Waste-to-energy incinerators:

N.A.

megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Ken's Landfill

County: Grand Traverse Location: Town T27N Range R11W Section(s) NE1/4 of 7

Map identifying location included in Attachment Section: X Yes No

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

 Public x Private Owner: Waste Management, Inc.

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

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

Site Size:

Total area of facility property:	<u>16.8</u>	acres
Total area sited for use:	<u>13.5</u>	acres
Total area permitted:	<u>13.5</u>	acres
Operating:	<u>6.0</u>	acres
Not excavated:	<u>1.0</u>	acres

Current capacity:	<u>150,000</u>	bank cubic yards
Estimated lifetime:	<u>2.0</u>	years
Estimated days open per year:	<u>240</u>	days
Estimated yearly disposal volume:	<u>70,000</u>	gate cubic yards

(if applicable)

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

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Glen's Sanitary Landfill

County: Leelanau Location: Town T28N Range 13W Section(s) 35

Map identifying location included in Attachment Section: X Yes No

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

 Public Private

Owner: Waste Management, Inc.

Operating Status (check)

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

Waste Types Received (check all that apply)

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

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

Asbestos (non-friable)

Site Size:

Total area of facility property:	<u>460</u>	acres
Total area sited for use:	<u>133</u>	acres
Total area permitted:	<u>133</u>	acres
Operating:	<u>14.8</u>	acres
Not excavated:	<u>89.3</u>	acres

Current capacity:	<u>22,000,000</u>	bank cubic yards
Estimated lifetime:	<u>60</u>	years
Estimated days open per year:	<u>264</u>	days
Estimated yearly disposal volume:	<u>300,000</u>	gate cubic yards

(if applicable)

Annual energy production:

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

3

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Cedar Ridge Landfill

County: Charlevoix Location: Town T33N Range R7W Section(s) 19

Map identifying location included in Attachment Section: X Yes No

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

 Public x Private

Owner: Waste Management, Inc.

Operating Status (check)

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

Waste Types Received (check all that apply)

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

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

Foundry sand and flyash from East Jordan Iron Works.

Site Size:

Total area of facility property:	<u>120</u>	acres
Total area sited for use:	<u>40</u>	acres
Total area permitted:	<u>40</u>	acres
Operating:	<u>21</u>	acres
Not excavated:	<u>0</u>	acres

Current capacity:	<u>370,000</u>	bank cubic yards
Estimated lifetime:	<u>2.5</u>	years
Estimated days open per year:	<u>260</u>	days
Estimated yearly disposal volume:	<u>311,000</u>	gate cubic yards

(if applicable)

Annual energy production:

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

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: City Environmental Svcs., Inc. of Waters (Crawford-Otsego Landfill)

County: Crawford Location: Town T28N Range R8E Section(s) 4

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

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

_____ Public ☒ Private

Owner: Waste Management, Inc.

Operating Status (check)

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

Waste Types Received (check all that apply)

☒ residential
☒ commercial
☒ industrial
☒ construction & demolition
☒ contaminated soils
☒ special wastes *
_____ other: _____

* Explanation of special wastes, including a specific list and/or conditions:
not avail _____

Site Size:

Total area of facility property:	<u>252.20</u>	acres
Total area sited for use:	<u>252.20</u>	acres
Total area permitted:	<u>79.07</u>	acres
Operating:	<u>9.7</u>	acres
Not excavated:	<u>64.87</u>	acres

Current capacity:	<u>8,200,000</u>	bank cubic yards
Estimated lifetime:	<u>>20</u>	years
Estimated days open per year:	<u>313</u>	days
Estimated yearly disposal volume:	<u>320,000</u>	gate cubic yards

(if applicable)

Annual energy production:

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

II-4 SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

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

Grand Traverse County in 1992, adopted an ordinance governing the management of solid waste in the County. It requires the licensing of waste haulers as well as the designation, development, and utilization of certain facilities to be used for the recovery, processing, composting, recycling and disposal of solid waste and other materials. By Ordinance, the BPW issues long term designated facility agreements and annual operating licenses for waste hauling. It requires haulers to provide regularly schedule curbside pickup services for yard waste and recyclables on a "targeted materials list" from all residences with a designated curbside recycling district (primarily the greater Traverse City area). Haulers may charge for this service, however, meaning individual households must subscribe to receive service. Haulers must also provide recycling collection services to businesses wishing to recycle. Fees for service must be volume-based.

Currently one hauler, Waste Management, Inc. ("WMI" formerly USA Waste, United Waste Systems, West Michigan Disposal, City Management, Ken's Pickup Service) handles more than 98% of all residential and commercial service in the County. WMI also operates a recycling facility and services the County's drop-off network, curbside district and commercial recovery.

Table II-6: Solid Waste Collection Services

Service Provider	Service Type	Service Area	Disposal Facility
Waste Management, Inc. (aka: USA Waste, United Waste Systems)	Residential, Commercial, Industrial	County-wide	Glen's LF (WMI)
Dave's Pickup	Residential	SW County	Glen's LF (WMI)
Northern Disposal	Commercial	Countywide	Glen's LF (WMI)

Table II-7: Recycling Collection Services

Service Provider	Service Type	Service Area	Recycling Facility
Waste Management, Inc. (aka: USA Waste, United Waste Systems)	Subscription curbside, drop-off; some commercial corrugated and office paper routes	Curbside district and county-wide drop-off system	Waste Management, Inc. MRF
Construction Waste Recycling	Recycling services for construction and demolition sites	County-wide	CWR
Grand Traverse County Drop-off Network - Serviced by Waste Management, Inc. aka United Waste	Drop-offs @ Peninsula Township, Acme Township, East Bay Township, Kingsley, Blair Township, Ken's Pick-up Service, Fife Lake Township, Record-Eagle Production Facility	County-wide	Waste Management, Inc. MRF
Builder's Waste Recycling	Construction/demolition recycling	County-wide	BWR

Table II-8: Yard Waste Collection Services

Service Provider	Service Type	Compost Facility
Anderson Outdoor Services	Landscaping	
Anderson's A-Z	Landscaping	
Authentic Lawn & Tree Services	Landscaping	
Zimmerman Landscaping	Landscaping	
Cherryland Lawncare	Landscaping	
Clearbrook Companies	Landscaping	
Grand Traverse Organic	Landscaping	
Green Grasshoppers	Landscaping	
Landscape Management/USA	Landscaping	
Lawn Jockey	Landscaping	
Livengood Outdoor Service	Landscaping	
Northern Green Lawn	Landscaping	
Rainbow Maintenance	Landscaping	
Thorpe-Lehman	Landscaping	
Amon Farm Market	Yard waste drop-off	Land applied
Waste Management (aka USA/United)	Yard waste drop-off	Private compost site
Ken's Pickup Service	Yard waste drop-off	Private compost site
Garden Goods	Yard waste drop-off	Private compost site
Grand Traverse Co. Drop-off	Yard waste drop-off	County compost facility
Peninsula Twp Drop-off	Yard waste drop-off	Farm site
East Bay Township Compactor Station	Yard waste drop-off	Land applied

Traverse City currently operates a yard waste compost facility, where it processes approximately 50,000 cubic yards of yard waste each year. The site consists of yard waste placed in windrows which are turned by a wildcat turner. Finished compost (about 4-8,000 cubic yards per year) is screened on the site and sold wholesale to three local retail outlets. Grand Traverse County also owns and operates a tub grinder, processing brush, and other contract wood such as demolition and construction materials. Material from the county's network of public drop-off sites is also processed at the County site.

II-5 EVALUATION OF DEFICIENCIES AND PROBLEMS

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

Overall, the County has experienced a dramatic decline in the availability of competitive solid waste collection services, with one hauler providing more than 98% of all service in the County. This is due in part to recent acquisitions of smaller haulers, as well as continued consolidation of the larger, traditional waste management companies.

This lack of competitive services has resulted in higher costs of service to the residential, commercial, industrial and institutional sectors in the County. Although the County's solid waste ordinance provides a sound foundation for maintaining a prescribed level of service it is not well equipped as it currently is structured to address the problem of lack of competition. A related deficiency is the way that volume-based fees are handled locally, which has meant residents lack a strong incentive to reduce waste.

Access to recycling services is a concern, in spite of the establishment of the designated curbside district. Contrary to the intent of the ordinance, residents still must sign up and pay extra for this service and many elect to use drop-off stations instead or do not recycle despite the availability of the service.

The ability of the existing recycling processing facility to handle growing volumes of recyclables is also an area of considerable deficiency. The facility is at or near capacity and also lacks basic capabilities to sort commingled fibers, to store tipped material prior to processing and to store finished product prior to shipping. These deficiencies will constrain expansion of recycling programs, preventing access to certain end-markets, limiting the addition of any new materials and limiting capability to service additional residential and commercial customers as well as special event recycling (such as at the National Cherry Festival). Population growth in the region will further aggravate this problem.

Traverse City's compost facility may also be unable to grow with the local population, and certainly lacks the ability to service any communities beyond what it currently handles. While some local orchards and landscapers have absorbed some of the yard waste collected beyond the scope of Traverse City, a good long-term approach to regional composting is lacking.

II-6 DEMOGRAPHICS

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

Population

Table II-9 below shows the permanent population of Grand Traverse County projected through the planning period. These figures include additional adjustments for seasonal population change were made (but not shown here) using a monthly multiplier for each jurisdiction ranging from 1.1 (January) to 1.36 (August). Adjusted population totals were multiplied by a per capita generation rate as shown in Table II-1.

Table II-9: Grand Traverse County Permanent Population

Municipality	1990 Population	1998 Projected	2003 Projected	2008 Projected
Acme township	3447	4157	4571	4991
Blair township	5249	6326	6951	7587
East Bay township	8317	10005	10991	11992
Fife Lake village	394	464	503	541
Balance of Fife Lake township	950	1019	1041	1056
Garfield township	10516	12766	14094	15454
Grant township	745	899	988	1080
Green Lake township	3677	4495	4983	5488
Long Lake township	5977	7206	7922	8649
Mayfield township	967	1160	1272	1384
Kingsley village	738	883	965	1049
Balance of Paradise township	1770	2131	2341	2554
Peninsula township	4340	5233	5753	6282
Traverse City *	15116	14967	14547	14043
Union township	255	308	338	369
Whitewater township	1825	2201	2419	2641
Grand Traverse County Total	64273	74220	79680	85160

**although past population trends showed an actual decrease in Traverse City's population, local planners predict population through infill will actually increase*

DATA BASE

Table II-10 below shows how the population of the county increases seasonally. By the height of the tourist season, (late summer), it has been estimated that the county experiences a population swell by an additional 39%.

Table II-10: Seasonal population change

Municipality	1998 pop	Peak Gain/Mo. (+39%)	Peak Population
Acme township	4,171	1,627	5,798
Blair township	6,347	2,475	8,823
East Bay township	10040	3,915	13,955
Fife Lake village	466	182	647
Balance of Fife Lake township	1022	399	1421
Garfield township	12,810	4,996	17,806
Grant township	902	352	1,254
Green Lake township	4,510	1,759	6,269
Long Lake township	7,231	2,820	10,051
Mayfield township	1,164	454	1,618
Kingsley village	886	345	1,231
Balance of Paradise township	2,139	834	2,973
Peninsula township	5,251	2,048	7,300
Traverse City (pt.)	15,019	5,857	20,876
Union township	309	120	429
Whitewater township	2208	861	3069
<i>Grand Traverse County Total</i>	74,476	29,045	103,521

Sources; U.S. Bureau of Census data, USA Counties - Grand Traverse.

II-7 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.

Grand Traverse County is approximately 466 square miles in size and features a wealth of natural resources, including lakes, forests, agricultural land and urban areas. The County's beauty has resulted in rapid growth in tourism, housing and commerce.

It has been estimated that development in the next twenty five years has the potential to sprawl over 188 square miles of the county. This represents 40% of the total county area. Much of this is due to an estimated growth trend, which estimates the population for the county will double over that same time frame. New private housing unit permits were granted at an average rate of 528 per year from 1979 to 1994. Other changes include the County as a growing commerce center for the entire northern Michigan region. This growth is having an impact on land use, as well as the generation of solid waste.

If total population does almost double in the next 25 years as has been estimated, it will add about 2,300 more people in the county on average per year. These new residents will need housing and other infrastructure services as well as jobs. Employment, as reported to by the U.S Bureau of the Census, shows the civilian labor force in 1990 was 35,814 employees, an increase of 53% since 1975. Accordingly, unemployment dropped from 10.4% in 1975 to 7.0% in 1990. Of total employees in 1990, Agriculture, Forestry and Fisheries accounted for only 3.3% of the total labor force. If population continues to grow as projected, land not in use for agricultural services will be utilized to support the growing population. The county has outlined "Strategies to Manage Growth" in the document, Focus 2020: A County Master Plan, prepared by the Grand Traverse County Planning Department.

According to the U.S. Census bureau, land in farms as a percent of that total is 22%, or approximately 93 square miles of farm land. The total number of farms declined 16% from 1978 to 1994, from 487 farms to 409. Overall the change in agricultural land use over that period was a loss in 14 square miles.

Following is a characterization of land use for the County under current conditions.

Land Use Type	% County Land
Surface Water	6 %
Developed Land	18 %
Public Open Space	21 %
Agriculture	22 %
Private Open Space	33 %
<i>Grand Traverse County Total</i>	100 %

II-8 SOLID WASTE MANAGEMENT ALTERNATIVES

The Designated Planning Agency (DPA) and the Solid Waste Planning Committee (SWPC) completed a comprehensive strategic planning process that outlined strengths, weaknesses, opportunities, and threats that are part of the current and potential future solid waste management system that services the County. This analysis was used to create goals and objectives which are provided immediately after this Executive Summary. These goals and the strategic analysis formed the basis for developing the solid waste management strategy and the selected alternative that is described in this Plan as the Plan's Enforceable Program and Process as provided for in Part 115, Section 11533 (1) of the Michigan Natural Resources and Environmental Protection Act (NREPA).

In developing the Plan's Enforceable Program and Process the DPA and SWPC first screened out strategies that were technically or economically unsuitable for the County. Certain waste management technologies, incineration, for example, were determined based on historical data for the region to not be economically and technically appropriate for further analysis.

The DPA and SWPC then reviewed a set of remaining solid waste management program strategies in the following eight areas that were viewed as technically and economically feasible:

- Clean Community
- Drop-Off Residential Recycling
- Residential Yard Waste Composting
- Material Transfer and Processing
- Recycling Incentives
- Curbside Residential Recycling
- Commercial Recycling
- Disposal

These program strategies were assembled as six potential System Alternatives that varied by level of landfill diversion, capital and operating cost and implementation requirements:

- A: Basic Waste Collection and Disposal Program
- B: Level 1 Basic Clean Community and Drop-Off Recycling Program
- C: Level 2 Expanded Clean Community and Drop-Off Recycling Program
- D: Level 3 Expanded Clean Community and Curbside Recycling Program
- E: Level 4 Expanded Clean Community and Comprehensive Recycling Program
- F: Level 5 Advanced Recovery System

Each of the six options were then examined based on their key features, advantages, disadvantages, overall performance and cost impact and applicability for the county. These features were evaluated and ranked as they applied to Grand Traverse County.

At this stage in the strategic planning process, some of the Strategic Alternatives were determined to be unsuitable for the County based on the evaluation and ranking of the overall technical and economic feasibility of each approach and its ability to:

- build on the strengths of the local and regional situation,
- address current deficiencies and weaknesses,
- work with organizational approaches that the County is willing to consider,
- be fundable through systems that the County can implement,
- respond to and build community involvement and support,
- be enforceable, and
- set measurable goals that can be tracked to determine progress.

DATA BASE

System Alternatives "A" , "B" & "C" were determined to be economically feasible yet inadequate to reach the adopted Plan's Goals and Objectives which incorporate the hierarchy of "reduce, reuse, recycle" consistent with the state solid waste plan and which targeted significant diversion of solid waste from landfill disposal during the planning period. System Alternative "F" was determined to be unachievable during the 10 year planning time frame given the technical and economic constraints of the existing solid waste management system and the current level of organization of system participants. Two of the strategic alternatives ("D" and "E") were further developed as GTC System Alternative 1 and GTC System Alternative 2, as described below, for further consideration in the strategic planning process.

GRAND TRAVERSE COUNTY SYSTEM ALTERNATIVE 1:

Expanded Clean Community and Curbside Recycling Program is adapted from System Option D. Key features include a Clean Community program that operates at highly effective levels. Incentives to recycle boost program performance, increasing tons and lowering unit costs. Expanded recycling drop-off capabilities at a flagship site increase options for recovering more materials. Curbside programs for cities, villages and towns increase convenience for a large sector of population. Commercial recycling and recycling processing capabilities mature and increase diversion. Organics management options exist throughout year with addition of drop-offs for yard waste.

GRAND TRAVERSE COUNTY SYSTEM ALTERNATIVE 2:

Expanded Clean Community and Comprehensive Recycling Program is adapted from System Option E. Key features include a comprehensive Clean Community program operating at high level of effectiveness in all sectors. Bans of certain materials at landfill (or transfer station) kick recycling programs into high gear for increased tonnage and lower unit costs. Incentives to recycle will boost program performance, increasing tons and lowering unit costs. Drop-off recycling system optimized for some cost savings as more convenient recycling opportunities become common. Commercial recycling and C&D recycling begin to broaden business opportunities for diversion. 100% of yard waste is diverted from landfill disposal through collection programs or source reduction techniques. Material Recovery Facility/Transfer Station maximized system flexibility for cost savings and landfill diversion. Innovative techniques for increasing diversion or reducing system costs are explored building a strong foundation for significantly lower reliance on landfills as primary means of waste management.

The strategic planning process was carried through to final conclusions regarding the program strategies that would make up the Plan's Selected Alternative and become the foundation for the Plan's Enforceable Program as required by statute. The strategic planning process included final evaluation and ranking against the criteria as well as surveying of the views of key stakeholders in the planning process, and others considered to be critical to implementation of the plan - primarily local government officials.

The DPA and SWPC concluded that "GTC System Alternative 2" was the optimum choice as the Selected Alternative for the Plan's Enforceable Program. This Selected Alternative is described briefly below and in the balance of the Plan with further detail provided in Appendix A of the Plan. Appendix B of the Plan contains further detail regarding the System Alternatives that were not selected as part of the Plan's Enforceable Program.

THE PLAN'S SELECTED ALTERNATIVE

During Years 1 through 10 of the Planning Period the Plan's Enforceable Program provides for the implementation of the System Alternative 2 as described below, detailed further in Part III of this Plan with additional supporting material provided in Appendix A:

GRAND TRAVERSE COUNTY SYSTEM ALTERNATIVE 2 EXPANDED CLEAN COMMUNITY AND CURBSIDE RECYCLING PROGRAM

Key features include a Comprehensive Clean Community program, operating at a high level of effectiveness in all sectors. Bans on collection/disposal of certain materials as solid waste will kick recycling programs into high gear for increased tonnage and lower unit costs. Incentives to recycle boost program performance, increasing tons and lowering unit costs. The drop-off recycling system is optimized for some cost savings as more convenient recycling opportunities become common. Commercial recycling and C&D recycling begin to broaden business opportunities for diversion. Yard waste recovery approaches 100% through expanded collection programs and source reduction techniques. A Material Recovery Facility/Transfer Station maximizes system flexibility for cost savings and landfill diversion. Innovative techniques for increasing diversion or reducing system costs are explored building a strong foundation for significantly lower reliance on landfills as primary means of waste management.

SELECTED SYSTEM

III-1 THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing Grand Traverse 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 to area residents and businesses. 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.

Through the Strategic Planning Process the County has selected a system alternative that builds off of Alternative 2, modified to tailor the program specifics to the County's needs and phased in to allow system development to take place for the complete 10 year planning period.

During Years 1 through 10 of the Planning Period the County will phase in System Alternative 2 modified as follows:

GRAND TRAVERSE COUNTY SYSTEM ALTERNATIVE 2 EXPANDED CLEAN COMMUNITY AND CURBSIDE RECYCLING PROGRAM

Key features include a Comprehensive Clean Community program, operating at a high level of effectiveness in all sectors. Bans on collection/disposal of certain materials as solid waste will kick recycling programs into high gear for increased tonnage and lower unit costs. Incentives to recycle boost program performance, increasing tons and lowering unit costs. The drop-off recycling system is optimized for some cost savings as more convenient recycling opportunities become common. Commercial recycling and C&D recycling begin to broaden business opportunities for diversion. Yard waste recovery approaches 100% through expanded collection programs and source reduction techniques. A Material Recovery Facility/Transfer Station maximizes system flexibility for cost savings and landfill diversion. Innovative techniques for increasing diversion or reducing system costs are explored building a strong foundation for significantly lower reliance on landfills as primary means of waste management.

Following is a more detailed description of the specific program elements that are part of the Selected Alternative and the Plan's Enforceable Program and Process provided for in Part 115, Section 11533 (1) of NREPA. Specific details on who will implement the Plan's Enforceable Program are covered in the next section covering the Plan's Authorized Management Program. The timing of implementation of the Plan's Enforceable Program are then provided in the Plan's Timetable for Implementation that follows. The Plan's Enforceable Program, also to be known as the Grand Traverse County Solid Waste Management Program, implemented jointly by units of government within the county in cooperation with other public agencies and private firms will include features as follows:

Clean Community:

Comprehensive solid waste collection services will be made available to all households and businesses in the County. Households in a curbside collection district will receive the service as defined in the County's solid waste ordinance. Strong illegal dumping and litter policing will continue. Spring/fall cleanup days will be provided in an urban service district with scavenging/trading/reuse encouraged. A permanent hazardous waste collection site will be provided that services households, agricultural hazardous waste generators and unregulated small quantity hazardous waste generators. Adopt a "____" programs will be organized with volunteers and business/service group sponsorship for periodic cleaning of roadsides,

SELECTED SYSTEM

streambanks, lakeshores, parks and forests. Many of these programs are already in place in some parts of the County.

Recycling Incentives:

Proactive education and promotion strategies will encourage responsible solid waste management and strong reduce/reuse/recycle behavior. Pay As You Throw (PAYT) programs will be widespread throughout the County. Recycling collection programs will add more materials to encourage participation by more citizens and businesses. Selected materials (e.g. OCC and ONP) will be banned from collection and disposal as solid waste as part of the County's solid waste ordinance.

Drop-Off Residential Recycling:

The existing network of drop-off sites for recycling will be upgraded, made more permanent and be open 24-hours per day. One or more "flagship" drop-off sites will be staffed, have an educational component, and collect the largest number of types of materials. Small, satellite drop-offs will also be added in high-use tourist areas and parks.

Curbside Residential Recycling:

Two stream commingled curbside recycling will be provided to all residents in an expanded curbside collection district as defined in the County's solid waste ordinance. Steps will be taken to adjust program design and operation to significantly increase participation. Subscription service outside this district will be strongly encouraged.

Residential Yard Waste Composting:

Seasonal weekly yard waste collection as well as fall leaf collection will be provided in an urban service district. Backyard composting will be encouraged through distribution of backyard bins at discount rates expanding on programs that have been run in the past. A similar mulching mower program will encourage grass cycling. Permanent drop-off options for yard waste will be provided throughout the County with one "flagship" site taking all types of yard waste and providing finished compost for distribution to residents and area municipalities. Selected processing of food waste will be included.

Commercial Recycling:

A permanent site will be provided for businesses to drop-off a wide variety of recyclables including commingled containers and commingled paper. A business recycling service district will be established and development of services to businesses within the district will be facilitated (linked to bans on collection and disposal of selected materials as solid waste) through an umbrella contract for the collection services provided by licensed haulers. Services for recycling of construction and demolition waste will continue to grow.

Material Transfer and Processing:

A material recovery facility (MRF) will be made available to all recycling collectors in the system and be integrated with a transfer station for solid waste to allow longer distance waste transfer. The facility will be able to process commingled containers and commingled fibers as well as presorted recyclables like OCC. Commercial recyclables will be able to be tipped at the facility for a reasonable fee that is lower than the tipping fee at area landfills. Mixed loads of commercial solid waste that have a high percentage of recyclable materials will be sorted. The MRF will have full waste transfer capabilities for MSW at high compaction rates (900 to 1000 lbs per cy) and be permitted as such through MDEQ.

SELECTED SYSTEM

Disposal:

At the beginning of the planning period the current practice of direct haul to regional landfills will continue. Once construction of the MRF and waste transfer facility is complete, compacting collection vehicles will then primarily haul to the transfer station which then will initially ship waste to landfills in Northern Michigan that offer the most competitive rate. During this period there will be a competitive evaluation of landfill disposal options to service the County's needs, including potential for long term contracts for disposal at predetermined prices, potential "ownership" of a facility that already is in operation or development of a new "green fields" disposal facility either within the County's jurisdiction on a site already owned by the County and identified in this plan for this purpose or outside of the County's jurisdiction at a new site still to be identified. A network of drop-off facilities for solid waste will be available including a "flagship" site that takes other types of waste (bulky, C&D, etc.) with this system preferably located at the same sites as recycling drop-offs and the flagship site located at the MRF/Transfer Station.

The remainder of the descriptions that follow cover, as required by the Plan Format, the details regarding specific components of the Plan's Enforceable Program and Process, that answer the "who, what, when, where, and how" aspects of the Selected Alternative, including:

- Solid Waste Efforts including:
 - Current and Future Import/Export Authorization and Related Conditions
 - Disposal Areas to be Used in the Plan's Enforceable Program
 - Solid Waste Collection Services and Transportation
- Resource Conservation Efforts, including:
 - Projections of Diversion in Table III-1
 - Waste Reduction, Recycling and Composting Programs
 - Volume Reduction Techniques
- Resource Recovery and Recycling Efforts, including:
 - Overview of Resource Recovery and Recycling Programs
 - Recycling and Composting
 - Details of Current and Future Programs in Tables III-3 through III-8
 - Identification of Resource Recovery Management Entities
 - Projections of Diversion in Table III-9
 - Market Availability in Table III-10
 - Educational and Informational Programs

These aspects of the Plan's Enforceable Program provide sufficient export capacity and specific disposal areas identified to document the necessary 10 years disposal capacity for the Planning Period. Further details on the "who, what, when, where, and how" of the Plan's Enforceable Program then continue with the following sections:

- Timetable for Selected System Implementation
- Siting Review Procedures
- Solid Waste Management Components
- Identification of Responsible Parties
- Local Ordinances and Regulations Affecting Solid Waste Disposal
- Capacity Certifications

II-2 IMPORT AUTHORIZATION

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

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

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS ²
Grand Traverse	Mecosta	NA			HHW and recycling in place
Grand Traverse	Leelanau	NA	NA	NA	HHW and recycling in place
Grand Traverse	Manistee	NA	NA	NA	HHW and recycling in place
Grand Traverse	Crawford	NA	NA	NA	HHW and recycling in place
Grand Traverse	Benzie	NA	NA	NA	HHW and recycling in place
Grand Traverse	Antrim	NA	NA	NA	HHW and recycling in place

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

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

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

SELECTED SYSTEM

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

Table 1-B: FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS ²
Grand Traverse	Leelanau	Ken's Landfill	NA	NA	*
Grand Traverse	Manistee	Ken's Landfill	NA	NA	*
Grand Traverse	Crawford	Ken's Landfill	NA	NA	*
Grand Traverse	Mecosta	Ken's Landfill	NA	NA	*
Grand Traverse	Antrim	County Selected Site	*	*	*
Grand Traverse	Benzie	County Selected Site	*	*	*
Grand Traverse	Charlevoix	County Selected Site	*	*	*
Grand Traverse	Crawford	County Selected Site	*	*	*
Grand Traverse	Emmet	County Selected Site	*	*	*
Grand Traverse	Kalkaska	County Selected Site	*	*	*
Grand Traverse	Leelanau	County Selected Site	*	*	*
Grand Traverse	Manistee	County Selected Site	*	*	*
Grand Traverse	Missaukee	County Selected Site	*	*	*
Grand Traverse	Wexford	County Selected Site	*	*	*
Grand Traverse	Montmorency	County Selected Site	*	*	*
Grand Traverse	Oscoda	County Selected Site	*	*	*
Grand Traverse	Cheboygan	County Selected Site	*	*	*
Grand Traverse	Otsego	County Selected Site	*	*	*

X_____ Conditions for those authorizations are listed on an attached page.

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

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

SELECTED SYSTEM

Table 1-B Attachments Section

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

* Condition for Future Imports to Ken's Landfill:

Only Type III construction and demolition waste may be imported for disposal at Ken's Landfill.

* Condition for Future Imports to the County Selected Site:

Up to 100% of Type II and Type III solid waste will be able to be imported from a listed county to a future landfill to be located at the County Selected Site (see Siting Review Procedures Section) and then only if the exporting county and Grand Traverse County sign an intergovernmental contract that includes two key provisions; 1) exporting county must have arranged to provide comprehensive waste management services to their residential households and businesses including recycling services, composting services, household hazardous waste collection services and business waste assessment services; and 2) a specific authorized daily and annual quantity of waste to be imported is negotiated, potentially up to 100% of the Type II and Type III solid waste generated in the exporting county.

SELECTED SYSTEM

II-3 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

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS ²
Crawford	Grand Traverse	CES Waters	NA	NA	P *
Leelanau	Grand Traverse	NA	NA	NA	P *
Manistee	Grand Traverse	NA	NA	NA	P *
Antrim	Grand Traverse	NA	NA	NA	P *
Benzie	Grand Traverse	NA	NA	NA	P *
Kalkaska	Grand Traverse	NA	NA	NA	P *
Emmet	Grand Traverse	NA	NA	NA	P *
Missaukee	Grand Traverse	NA	NA	NA	P *
Mecosta	Grand Traverse	NA	NA	NA	P *
Chippewa	Grand Traverse	NA	NA	NA	P *
Presque Isle	Grand Traverse	NA	NA	NA	P *
Charlevoix	Grand Traverse	NA	NA	NA	P *
Montmorency	Grand Traverse	NA	NA	NA	P *
Wexford	Grand Traverse	NA	NA	NA	P *
Bay	Grand Traverse	NA	NA	NA	P *
Clare	Grand Traverse	NA	NA	NA	P *
Osceola	Grand Traverse	NA	NA	NA	P *
Muskegon	Grand Traverse	NA	NA	NA	P *
Saginaw	Grand Traverse	NA	NA	NA	P *
Sanilac	Grand Traverse	NA	NA	NA	P *
Ottawa	Grand Traverse	NA	NA	NA	P *
Kent	Grand Traverse	NA	NA	NA	P *
Clinton	Grand Traverse	NA	NA	NA	P *
Shiawasee	Grand Traverse	NA	NA	NA	P *
Genesee	Grand Traverse	NA	NA	NA	P *
Kalamazoo	Grand Traverse	NA	NA	NA	P *
Barry	Grand Traverse	NA	NA	NA	P *
Ingham	Grand Traverse	NA	NA	NA	P *
Oakland	Grand Traverse	NA	NA	NA	P *
Macomb	Grand Traverse	NA	NA	NA	P *
Calhoun	Grand Traverse	NA	NA	NA	P *
Jackson	Grand Traverse	NA	NA	NA	P *
Washtenaw	Grand Traverse	NA	NA	NA	P *

 X Additional authorizations and Condition for those authorizations are listed on an attached page.

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

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

SELECTED SYSTEM

Table 2-A: Cont.: CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS ²
Wayne	Grand Traverse	NA	NA	NA	P *
Berrien	Grand Traverse	NA	NA	NA	P *
St. Joseph	Grand Traverse	NA	NA	NA	P *
Lenawee	Grand Traverse	NA	NA	NA	P *
Monroe	Grand Traverse	NA	NA	NA	P *
Midland	Grand Traverse	NA	NA	NA	P *
Montcalm	Grand Traverse	NA	NA	NA	P *
Menominee	Grand Traverse	NA	NA	NA	P *
Delta	Grand Traverse	NA	NA	NA	P *
Ontonagon	Grand Traverse	NA	NA	NA	P *

Table 2-A Attachments Section: CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

* Condition for Current Exports:

Export of Type II and Type III waste will be allowed to the identified counties only if such waste collected for export is collected in compliance with all applicable laws, ordinances, rules and regulations of the Grand Traverse County Solid Waste Management System, Ordinance and Intergovernmental Agreement consistent with the Plan's Enforceable Program.

SELECTED SYSTEM

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

**Table 2-B: FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED**

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS ²
Crawford	Grand Traverse	CES Waters	NA	NA	P *
Leelanau	Grand Traverse	NA	NA	NA	P *
Manistee	Grand Traverse	NA	NA	NA	P *
Antrim	Grand Traverse	NA	NA	NA	P *
Missaukee	Grand Traverse	NA	NA	NA	P *
Mecosta	Grand Traverse	NA	NA	NA	P *
Chippewa	Grand Traverse	NA	NA	NA	P *
Presque Isle	Grand Traverse	NA	NA	NA	P *
Charlevoix	Grand Traverse	NA	NA	NA	P *
Montmorency	Grand Traverse	NA	NA	NA	P *
Wexford	Grand Traverse	NA	NA	NA	P *
Bay	Grand Traverse	NA	NA	NA	P *
Clare	Grand Traverse	NA	NA	NA	P *
Osceola	Grand Traverse	NA	NA	NA	P *
Muskegon	Grand Traverse	NA	NA	NA	P *
Saginaw	Grand Traverse	NA	NA	NA	P *
Sanilac	Grand Traverse	NA	NA	NA	P *
Ottawa	Grand Traverse	NA	NA	NA	P *
Kent	Grand Traverse	NA	NA	NA	P *
Clinton	Grand Traverse	NA	NA	NA	P *
Shiawasee	Grand Traverse	NA	NA	NA	P *
Genesee	Grand Traverse	NA	NA	NA	P *
Kalamazoo	Grand Traverse	NA	NA	NA	P *
Barry	Grand Traverse	NA	NA	NA	P *
Ingham	Grand Traverse	NA	NA	NA	P *
Oakland	Grand Traverse	NA	NA	NA	P *
Macomb	Grand Traverse	NA	NA	NA	P *
Calhoun	Grand Traverse	NA	NA	NA	P *
Jackson	Grand Traverse	NA	NA	NA	P *
Washtenaw	Grand Traverse	NA	NA	NA	P *
Wayne	Grand Traverse	NA	NA	NA	P *

 X Conditions for those authorizations are listed on an attached page.

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

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

SELECTED SYSTEM

Table 2-B (continued): FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS ²
Berrien	Grand Traverse	NA	NA	NA	P *
St. Joseph	Grand Traverse	NA	NA	NA	P *
Lenawee	Grand Traverse	NA	NA	NA	P *
Monroe	Grand Traverse	NA	NA	NA	P *
Midland	Grand Traverse	NA	NA	NA	P *
Montcalm	Grand Traverse	NA	NA	NA	P *
Menominee	Grand Traverse	NA	NA	NA	P *
Delta	Grand Traverse	NA	NA	NA	P *
Ontonagon	Grand Traverse	NA	NA	NA	P *
Kalkaska	Grand Traverse	NA	NA	NA	P *
Emmet	Grand Traverse	NA	NA	NA	P *

Table 2-B Attachments Section: FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED

* Condition for Future Exports:

Export of Type II and Type III waste will be allowed to the identified counties only if such waste collected for export is collected in compliance with all applicable laws, ordinances, rules and regulations of the Grand Traverse County Solid Waste Management System, Ordinance and Intergovernmental Agreement consistent with the Plan's Enforceable Program.

III- 4 SOLID WASTE DISPOSAL AREAS

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within Grand Traverse County for the next five years and, if possible, the next ten years. Descriptions of those facilities are included on Pages III-11 through III-20. Additional facilities which may be used during the planning period are included in the export authorization tables on Pages III-5 to III-8. 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. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

Glen's Sanitary Landfill (WMI)

Manistee County Landfill (Allied/Harlan's)

Montmorency-Oscoda Sanitary Landfill

Type A Transfer Facility:
Type B Transfer Facility:

East Bay Township Transfer Station

Peninsula Township Transfer Station

Ken's Landfill Transfer Station (WMI)

Type III Landfill:

Ken's PS Type III Landfill (WMI)

Processing Plant:
Incinerator:

n/a

Waste Piles:

n/a

Waste-to-Energy Incinerator:

n/a

Other:

n/a

x _____ Letters from or agreements with the listed disposal areas owners/operators stating their facility capacity and willingness to accept Grand Traverse County's solid waste are in the Attachments Section.

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: East Bay Township Transfer Station

County: Grand Traverse Location: Town T27N Range R10W Section(s) 34

Map identifying location included in Attachment Section: Yes x No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: CES Waters Landfill or Glen's Landfill

 x Public Private Owner: East Bay Township (on state land)

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

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

Site Size:

Total area of facility property:	<u>30</u>	acres
Total area sited for use:	<u>not avail.</u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated:	<u> </u>	acres

Current capacity:	<u> </u>	
Estimated lifetime:	<u> </u>	years
Estimated days open per year:	<u>150</u>	days
Estimated yearly disposal volume:	<u>5,140</u>	compacted cubic yards
	<u>+ 2,906</u>	loose C&D cubic yards

(if applicable)

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Peninsula Township Transfer Station

County: Grand Traverse Location: Town T29N Range R10W Section(s) NE1/4 of 28

Map identifying location included in Attachment Section: Yes x No

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

 x Public Private Owner: Peninsula Township

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

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

Site Size:

Total area of facility property:	<u>2.1</u>	acres
Total area sited for use:	<u>not avail.</u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u> </u>	acres
Not excavated:	<u> </u>	acres

Current capacity:	<u> </u>	
Estimated lifetime:	<u> </u>	years
Estimated days open per year:	<u>104</u>	days
Estimated yearly disposal volume:	<u>not avail.</u>	

(if applicable)

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station (operated as Type B)

Facility Name: Ken's Landfill Transfer Station

County: Grand Traverse
NE1/4 of 7

Location: Town T27N Range R11W Section(s)

Map identifying location included in Attachment Section: Yes x No

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

Public x Private Owner: Waste Management Inc.

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

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

Site Size:

Total area of facility property:	<u>part of landfill site</u>	acres
Total area sited for use:	<u></u>	acres
Total area permitted:	<u></u>	acres
Operating:	<u></u>	acres
Not excavated:	<u></u>	acres

Current capacity:	<u></u>	
Estimated lifetime:	<u></u>	years
Estimated days open per year:	<u>240</u>	days
Estimated yearly disposal volume:	<u>not avail.</u>	

(if applicable)

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Ken's Landfill

County: Grand Traverse
NE1/4 of 7

Location: Town

T27N Range R11W Section(s)

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

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

_____ Public ☒ Private

Owner:

Waste Management, Inc.

Operating Status (check)

Waste Types Received (check all that apply)

<input checked="" type="checkbox"/> _____	open	_____	residential
_____	closed	_____	commercial
<input checked="" type="checkbox"/> _____	licensed	_____	industrial
_____	unlicensed	<input checked="" type="checkbox"/> _____	construction & demolition
_____	construction permit	_____	contaminated soils
_____	open, but closure pending	_____	special wastes *
		_____	other: _____

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

Site Size:

Total area of facility property: 16.8 acres

Total area sited for use: 13.5 acres

Total area permitted: 13.5 acres

Operating: 6.0 acres

Not excavated: 1.0 acres

Current capacity: 150,000 bank cubic yards

Estimated lifetime: 2.0 years

Estimated days open per year: 240 days

Estimated yearly disposal volume: 70,000 gate cubic yards

(if applicable)

Annual energy production:

Landfill gas recovery projects: NA megawatts

Waste-to-energy incinerators: NA megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Glen's Sanitary Landfill

County: Leelanau Location: Town T28N Range 13W Section(s) 35

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

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

_____ Public ☒ Private Owner: Waste Management, Inc.

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

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

Asbestos (non-friable)

Site Size:

Total area of facility property:	<u>460</u>	acres
Total area sited for use:	<u>133</u>	acres
Total area permitted:	<u>133</u>	acres
Operating:	<u>14.8</u>	acres
Not excavated:	<u>89.3</u>	acres

Current capacity:	<u>22,000,000</u>	bank cubic yards
Estimated lifetime:	<u>60</u>	years
Estimated days open per year:	<u>264</u>	days
Estimated yearly disposal volume:	<u>300,000</u>	gate cubic yards

(if applicable)

Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Manistee County Landfill (Harland's)

County: Manistee Location: Town T21N Range R16W Section(s) 32

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

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

☐ Public ☒ Private Owner: Allied

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

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

Site Size:

Total area of facility property:	<u>336</u>	acres
Total area sited for use:	<u>40</u>	acres
Total area permitted:	<u>40</u>	acres
Operating:	<u>40</u>	acres
Not excavated:	<u>13</u>	acres

Current capacity:	<u>1,700,000</u>	bank cubic yards
Estimated lifetime:	<u>14</u>	years
Estimated days open per year:	<u>250</u>	days
Estimated yearly disposal volume:	<u>200,000</u>	gate cubic yards

(if applicable)

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Montmorency-Oscoda Joint Sanitary Landfill

County: Montmorency Location: Town R29N Range R3E Section(s) 6

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

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

☒ Public ☐ Private Owner: Montmorency /Oscoda /Alpena Counties

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

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

Site Size:

Total area of facility property:	<u>80</u>	acres
Total area sited for use:	<u>80</u>	acres
Total area permitted:	<u>80</u>	acres
Operating:	<u>3-4</u>	acres
Not excavated:	<u>37</u>	acres

Current capacity:	<u>3,500,000</u>	bank cubic yards
Estimated lifetime:	<u>30</u>	years
Estimated days open per year:	<u>310</u>	days
Estimated yearly disposal volume:	<u>145,000</u>	gate cubic yards

(if applicable)

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

SELECTED SYSTEM

III-5 SOLID WASTE COLLECTION SERVICES & 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 Plan's Enforceable Program comprehensive solid waste collection services will be made available to all households and businesses in the County. Illegal dumping and litter will be policed with enforcement of violations. Spring/fall cleanup days will be provided on a local governmental service district with scavenging/trading/reuse encouraged and arrangements made for recycling of as many materials left as possible. A permanent hazardous waste collection site will be provided that services households, agricultural hazardous waste generators and unregulated small quantity hazardous waste generators. Adopt a "____" programs will be organized with volunteers and business/service group sponsorship for periodic cleaning of roadsides, streambanks, lakeshores, parks and forests. Many of these programs are already in place for all or some of the County and will be expanded as described above.

Proactive education and promotion strategies will encourage responsible solid waste management and strong reduce/reuse/recycle behavior. Pay As You Throw (PAYT) programs will be widespread throughout the County with current PAYT programs redesigned for increased effectiveness. Recycling collection programs will add more materials to encourage participation by more citizens and businesses. Selected materials will be banned from landfill and transfer station disposal.

During the first few years of the planning period, existing landfills in the region will be used with direct haul by compacting collection vehicles being the primary method of transportation to the landfills. During this same time period a combination material recovery facility/solid waste transfer station (MRF/TS) will be made available to all solid waste and recycling collectors in the system. The MRF/TS will be equipped with a high density (900 to 1,000 lbs/cy) solid waste compaction system to allow longer distance waste transfer.

Once the MRF/TS has opened (during years 2-4 of the planning period), compacting vehicles collecting solid waste will primarily haul to the transfer station which then will ship waste to landfills under contract and in compliance with the export provisions of this plan and under terms that will provide the most favorable rates and guarantees of long term price stability and capacity availability. Waste export by other sources within the County will then be authorized as a primary disposal option only if the material is exempt under the terms of this solid waste plan (special industrial waste) or if the material is first tipped at the MRF/TS. Bans on landfill disposal of certain materials will also take effect as provided for in the ordinance, rules and regulations of the County's solid waste management system.

The conditions for export read specifically as follows:

Export of Type II and Type III waste will be allowed to the identified counties only if such waste collected for export is collected in compliance with all applicable laws, ordinances, rules and regulations of the Grand Traverse County Solid Waste Management System, Ordinance and Intergovernmental Agreement consistent with the Plan's Enforceable Program.

SELECTED SYSTEM

During the first five years of the planning period there will be a competitive evaluation of landfill disposal options to service the County's needs, that includes analysis of 1) potential for long term contracts for disposal at predetermined prices, 2) potential "ownership" of a facility that already is in operation or 3) development of a new "green fields" disposal facility either within the County's jurisdiction on a site already owned by the County and identified in this plan for this purpose or outside of the County's jurisdiction at a new site still to be identified. This evaluation will, to the degree possible, take into consideration the larger regional needs for cost competitive disposal options that could be impacted by the disposal strategy that the County finally selects. Based on the results of this landfill disposal option evaluation, the County will then take implementation steps as appropriate either during the first five years of the planning period or at a later time.

A network of drop-off facilities for solid waste will be made available with these services preferably located in conjunction with recycling drop-offs. One or more of the drop-off's will be "flagship" sites that take other types of waste (bulky, C&D, etc.). At least one of these sites will be located at the MRF/TS.

III-6 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'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.

The Resource Conservation Efforts will use education and incentives to encourage source reduction, reuse and recycling with the following projected impact in measurable programs and additional impact in source reduction that cannot be measured.

Table III-1: Resource Conservation Effort

Effort Description	Est. Diversion Tons/Yr		
	<u>Current</u>	<u>5th yr</u>	<u>10th yr</u>
Recycling Drop-off	3,198	4,200	6,125
Curbside recycling	2,761	2,500	4,500
Commercial recycling	6,001	13,150	17,566
Yard waste collection	2,510	7,000	7,000
Household hazardous waste collection	23	25	50
<i>Grand Traverse County Totals</i>	14,493	26,875	35,241

III-7 WASTE REDUCTION, RECYCLING, & COMPOSTING:

VOLUME REDUCTION TECHNIQUES

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

The Plan's Enforceable Program provides for high compaction waste transfer in order to increase the density of loads that are transported to landfills, thus lowering tip fees at those landfills and/or reducing transportation costs. This will reduce the gate yards taken in at these landfills but will not impact bank yards (i.e.: estimated air space conserved in cubic yards) since the final compaction density at landfills is not expected to change. Landfills will use less energy, fuel, etc. to reach those densities, however, which does provide some economic benefit to the landfill owner.

Table III-2 Volume Reduction Techniques

Not Applicable

OVERVIEW OF RESOURCE RECOVERY AND RECYCLING 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.

Total waste generation for Grand Traverse County was calculated using pounds per person per day (residential) and pounds per employee per day (commercial and industrial) models. These numbers were compared and reconciled with actual disposal and recovery data to determine a final generation number. Using population projected out over the planning period (adjusted for seasonal population variation) waste generation was then estimated. The County then evaluated various material recovery and waste reduction strategies, and compared actual recovery rates for the current system against what may be possible given new program implementation. With target recovery goals in mind (25+ percent for 2003 and 30+ percent for 2008), the County was able to determine target material tonnage for recovery and then matched actual programs and recovery benchmarks from other communities, needed to meet those goals.

RECYCLING AND COMPOSTING PROGRAMS

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis Tables III-3, III-4 and III-5 list the existing recycling, composting, and source separation of

SELECTED SYSTEM

hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of tables, Tables III-6, III-7 and III-8, list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

Recycling

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

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

The following recycling systems would be developed:

Recycling Incentives:

Proactive education and promotion strategies will encourage responsible solid waste management and strong reduce/reuse/recycle behavior. Pay As You Throw (PAYT) programs will be widespread throughout the County and existing PAYT programs redesigned as needed to increase effectiveness. Recycling collection programs will add more materials to encourage participation by more citizens and businesses. An ambitious outreach and education program will promote all aspects of the expanded system and its improvements. Selected materials (e.g. OCC and ONP) will be banned from collection and disposal as solid waste to further encourage recovery.

Drop-Off Residential Recycling:

The existing network of drop-off sites for recycling will be upgraded, made more permanent and be open 24-hours per day. One or more "flagship" drop-off sites will be staffed, have an educational component, and collect the largest number of types of materials. Small, satellite drop-offs will also be added in high-use tourist areas and parks. Material will be collected in a commingled form to make use of the facilities easier. The range of recyclable materials collected at each of the drop-off sites will become standardized between all sites.

Curbside Residential Recycling:

Two stream commingled curbside recycling will be automatically provided to all residents in an expanded curbside service district. Steps will be taken to adjust program design and operation to significantly increase participation (linked to bans on collection and disposal of selected materials as solid waste). Subscription service outside this district will be strongly encouraged.

Commercial Recycling:

A permanent site will be provided for businesses to drop-off a wide variety of recyclables including commingled containers and commingled paper. A business recycling service district will be established and development of services to businesses within the district will be facilitated (linked to bans on landfilling selected materials) through an umbrella contract for the collection services provided by licensed haulers. Existing programs for recovery of construction and demolition materials will be expanded.

Material Transfer and Processing:

A material recovery facility (MRF) will be made available to all recycling collectors in the system and be integrated with a transfer station for solid waste to allow longer distance waste transfer.

SELECTED SYSTEM

The facility will be able to process commingled containers and commingled fibers as well as presorted recyclables like OCC. Commercial recyclables will be able to be tipped at the facility for a reasonable fee that is lower than the tipping fee at area landfills. Mixed loads of commercial solid waste that have a high percentage of recyclable materials will be sorted. The MRF will have full waste transfer capabilities for MSW at high compaction rates (900 to 1000 lbs per cy) and be permitted as such through MDEQ.

SELECTED SYSTEM

Composting

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

The following composting systems would be developed:

Residential Yard Waste Composting:

Seasonal yard waste collection including fall leaf collection will be automatically provided in an urban service district. Backyard composting will be encouraged through distribution of backyard bins at discount rates building off of successful efforts in the past. A similar mulching mower program will encourage grass cycling. Permanent drop-off options for yard waste will be provided throughout the County with at least one "flagship" site taking all types of yard waste and providing finished compost for distribution to residents and area municipalities. Selected processing of food waste will be included.

SELECTED SYSTEM

Clean Community

- ☒ Programs for source separation of potentially hazardous materials are feasible and details are included on the following pages
- ☐ Separation of potentially hazardous materials from the County's waste stream has been evaluated and it has been determined that it is not feasible to conduct any separation programs because of the following:

The following clean community systems would be developed:

Clean Community Programs:

A permanent hazardous waste collection site will be provided that services households, agricultural hazardous waste generators and unregulated small quantity hazardous waste generators. The County will also participate in the Department of Agriculture's Clean Sweep program for pesticides and fertilizers.

SELECTED SYSTEM - Grand Traverse County

Table III-3: RECYCLING: Based on Current Programs

<u>Program Name</u>	<u>Service Area</u>	<u>Public or Private</u>	<u>Collection Point²</u>	<u>Collection Frequency³</u>	<u>Materials⁴</u>	<u>Program Management Responsibilities¹</u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
<u>8-station drop-off</u>	<u>County-wide</u>	<u>Private</u>	<u>d</u>	<u>d</u>	<u>A, B, C, D, E,</u>	<u>5</u>	<u>5</u>	<u>1</u>
<u>Subscription curbside</u>	<u>Designated Service Area as well as County-wide</u>	<u>Private</u>	<u>c</u>	<u>w</u>	<u>A, B, C, D, E, G,</u>	<u>5</u>	<u>5</u>	<u>1</u>
<u>Subscription commercial</u>	<u>County-wide</u>	<u>Private</u>	<u>c</u>	<u>w</u>	<u>C</u>	<u>5</u>	<u>5</u>	<u>1</u>

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Department of Public Works; 4= Environmental Group; 5=Private Owner/Operator; 6=Other

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Material types: A=Plastics; B=Newspaper; C= Corrugated Containers; D=Other paper; E=Total Glass; F1=Other materials; G=Grass and Leaves; H=Wood waste; I=Construction & Demolition; J=Food & food processing; K=Tires; L=Total metals

3/31/99

Grand Traverse County Solid Waste Plan Update
Approved by Local Municipalities

III-26

Table III-4: COMPOSTING: Based on Current Programs

<u>Program Name</u>	<u>Service Area</u>	<u>Public or Private</u>	<u>Collection Point²</u>	<u>Collection Frequency³</u>	<u>Materials⁴</u>	<u>Program Management Responsibilities¹</u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
<u>Fall leaf pickup</u>	<u>Urban areas</u>	<u>Public/Private</u>	<u>c</u>	<u>Fa</u>	<u>L, BR</u>	<u>5, 6</u>	<u>5, 6</u>	<u>5, 6</u>
<u>Yard waste drop-off</u>	<u>County-wide</u>	<u>Public</u>	<u>d</u>	<u>d</u>	<u>L, Br, W</u>	<u>1, 5, 6</u>	<u>1, 5, 6</u>	<u>1, 5, 6</u>
<u>Yard waste collection</u>	<u>County-wide</u>	<u>Public/private</u>	<u>d</u>	<u>d</u>	<u>Gr, L, Br, W</u>	<u>5</u>	<u>5</u>	<u>1, 5</u>
<u>Compost processing</u>	<u>County-wide</u>	<u>P</u>	<u>c</u>	<u>Fa, Su</u>	<u>L, Br</u>	<u>1, 6</u>	<u>3, 6</u>	<u>1, 6</u>

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Board of Public Works; 4=Environmental Group; 5=Private Owner/Operator; 6=Other =Municipality

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Material types: G=Grass; L=Leaves F=Food; W=Wood; P=Paper; S=Municipal Sewage Sludge; A=Animal Waste/Bedding; M=Municipal Solid Waste

Table III-5: SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS: Based on Current Programs

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

<u>Program Name</u>	<u>Service Area</u>	<u>Public or Private</u>	<u>Collection Point²</u>	<u>Collection Frequency³</u>	<u>Materials⁴</u>	<u>Program Management Responsibilities¹</u>		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
<u>County Household Hazardous Waste Program</u>	<u>County-wide</u>	<u>Public</u>	<u>d</u>	<u>Sp, Su, Fa</u>	<u>AN, A, P, PS, PH, OT, AR, B1, B2, C, H, P, PS</u>	<u>1</u>	<u>1, 5</u>	<u>1</u>

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Board of Public Works; 4= Environmental Group; 5=Private Owner/Operator; 6=Other

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Materials: AR=Aerosol Cans; A=Automotive Products except Used Oil, Oil Filters & Antifreeze; AN=Antifreeze; B1=Lead Acid Batteries; B2=Household Batteries; C=Cleaners and Polishers; H=Hobby and Art Supplies; OF=Used Oil Filters; P=Paints and Solvents; PS=Pesticides and Herbicides; PH=Personal and Household Products; U=Used Oil; OT=Other Materials and identified

Table III-6: PROPOSED RECYCLING:

Program Name	Service Area	Public or Private	Collection Point ²	Collection Frequency ³	Materials ⁴	Program Management Responsibilities ¹		
						Development	Operation	Evaluation
12-station drop-off	County-wide	Public/ Private	d	d	A, B, C, D, E, G, L, F1, H, I, J	1, 3	5, 6	1
Subscription curbside (years 1-5)	Outside of Urban Service Area	Private	c	w	A, B, C, D, E, G, L	1	5	1
Contract curbside	Urban Service Area	Public/ Private	c	w	A, B, C, D, E, G, L, F1	1	5	1
Expanded commercial collection	Urban Business districts	Public/ Private	o	w, bi, m	B, C, D, F1, H, L, J, I	1	5	1

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Board of Public Works; 4= Environmental Group; 5=Private Owner/Operator; 6=Other = Public sector

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Material types: A=Plastics; B=Newspaper; C= Corrugated Containers; D=Other paper; E=Total Glass; F1=Other materials; G=Grass and Leaves; H=Wood waste; I=Construction & Demolition; J=Food & food processing; K=Tires; L=Total metals

Table III-7: PROPOSED COMPOSTING:

Program Name	Service Area	Public or Private	Collection Point ²	Collection Frequency ³	Materials ⁴	Program Management Responsibilities ¹ Development Operation Evaluation
Seasonal and Fall leaf pickup	Urban areas	Public/ Private	c	Fa	L, BR	6 5.6 1.6
Yard waste drop-off	County-wide	Public/ Private	d	d	L, Br, W	1 1.5 1
Food waste drop-off	Selected Sources	Public/ Private	d	d	F	1 5 1
Compost processing - County site	County-wide	Public	d	d	L, Br, W	1 3 1
Compost processing - Traverse City site	Traverse City area	Public	c	Fa	L, Br	6 6 6
Yard waste collection	County-wide	Public/ private	o	w	G, L, F, Br, W, A	1 5 1

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Department of Public Works; 4= Environmental Group; 5=Private Owner/Operator; 6=Other=Municipality

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Material types: G=Grass; L=Leaves F=Food; Br=Brush; W=Wood; P=Paper; S=Municipal Sewage Sludge; A=Animal Waste/Bedding; M=Municipal Solid Waste

Table III-8: PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Program Name	Service Area	Public or Private	Collection Point ²	Collection Frequency ³	Materials ⁴	Program Management Responsibilities ¹		
						Development	Operation	Evaluation
County Household Hazardous Waste Collection Program	County-wide	Public	d	Sp, Su, Fa	AR, AN, B1, B2, C, H, A, P, PS, PH, OT	3	3, 5	3
Battery collection	County-wide	Public	d	d	B2	3	5	3
Clean Sweep Ag Waste	County-wide	Public	d	m	PS	3, 6		

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

¹ Program Management responsibilities: 1=Designated Planning Agency; 2= County Board of Commissioners; 3=Department of Public Works; 4= Environmental Group; 5=Private Owner/Operator; 6=Other=Department of Agriculture

² Collection Point: c=curbside; d=drop-off; o=onsite

³ Collection Frequency: d=daily; w=weekly; b=bi-weekly; m=monthly; Sp=Spring; Su=Summer; Fa=Fall; Wi=Winter

⁴ Materials: AR=Aerosol Cans; A=Automotive Products except Used Oil, Oil Filters & Antifreeze; AN=Antifreeze; B1=Lead Acid Batteries; B2=Household Batteries; C=Cleaners and Polishers; H=Hobby and Art Supplies; OF=Used Oil Filters; P=Paints and Solvents; PS=Pesticides and Herbicides; PH=Personal and Health Products; U=Used Oil; OT=Other Materials and identified

SELECTED SYSTEM

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

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

Various Service Providers including Waste Management, Inc (USA Waste, United Waste) and Renewable Waste, Inc.

These private sector and non-profit sector service providers will deliver solid waste and recycling services under the terms of the Plan's Enforceable Program as contained in the Grand Traverse County Solid Waste Management System and organized under the County Ordinance, Rules/Regulations and related contracts. Resource recovery management services from these entities are expected to include corrugated and office paper collection routes for businesses throughout the county; servicing of recycling drop-off facilities; recycling processing facility operations; curbside recycling collection in designated service district; curbside recycling collection for out-county subscribers; yard waste collection.

Various Service Providers including Construction Waste Recycling and Builder's Waste

These private sector and non-profit sector service providers will deliver on-site collection of construction and demolition material throughout the county

Various Landscaping/nursery companies

These private sector and non-profit sector service providers will deliver yard waste collection services and serve as hosts for yard waste drop-off sites

City of Traverse City

Operation of yard waste compost facility; fall leaf collection

Grand Traverse County Solid Waste and Recycling Office

Administration of the Plan's Enforceable Program and resource recovery efforts including promotion and education for all resource recovery programs; operation of household hazardous waste collection program; oversight of county recycling and yard waste drop-off sites

SELECTED SYSTEM

PROJECTED DIVERSION RATES:

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

Table III-9: Projected Diversion

<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:*</u>			<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:*</u>		
	Year 0	Year 5	Year 10		Year 0	Year 5	Year 10
A. TOTAL PLASTICS:	239	397	564	G. GRASS AND LEAVES:	2,510	7,000	7,000
B. NEWSPAPER:	2,392	3,970	5,638	H. WOOD WASTE:			
C. CARDBOARD:	5,143	8,535	12,122	I. CONSTR. & DEMO.	3,250	5,000	7,500
D. OTHER PAPER	2,272	3,771	5,356	J. FOOD PROCESSING			
E. GLASS	957	1,588	2,255	K. TIRES:			
F. OTHER MATERIALS:	598	992	1,410	L. TOTAL METALS:	359	595	846
TOTAL ALL MATERIAL:					17,720	31,848	42,691

*numbers are for residential/commercial recycling only, i.e. do not include industrial recovery programs

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.

Note that recyclable materials are commodity products and that the actual movement of these materials to end-markets fluctuates will change from time to time during the course of the plan. In some cases these commodities will only be used in-state due to the weight of the material, high transportation costs and relatively low value per ton. This is frequently the case for yard waste, wood waste and other similar materials. Other materials that have higher levels of demand worldwide will, from time to time, be shipped out-of-state and in some cases out of the country and overseas as market conditions dictate.

Table III-10: Market Availability

<u>Collected Material:</u>	<u>In-State Markets</u>	<u>Other Markets</u>	<u>Collected Material</u>	<u>In-State Markets</u>	<u>Other Markets</u>
A. TOTAL PLASTICS:	100 %		G. GRASS AND LEAVES:	100 %	
B. NEWSPAPER:	100 %		H. WOOD WASTE:	100 %	
C. CARDBOARD	100 %		I. CONSTR. & DEMO.:	100 %	
D. OTHER PAPER	100 %		J. FOOD PROCESSING	100 %	
G. GLASS	100 %		K. TIRES:	100 %	
F. OTHER MATERIALS:	100%		L. TOTAL METALS:	100 %	

SELECTED SYSTEM

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Following is a listing of the programs offered or proposed to be offered in Grand Traverse County.

<u>Program Topic</u>	<u>Delivery Medium</u>	<u>Targeted Audience</u>	<u>Program Provider</u>
Recycling	NPI phone book tips page/information hotline covering 75 subjects	General public, businesses	<u>Designated Planning Agency (DPA)</u>
Recycling/general solid waste education	Display at shopping mall, public events	General public	<u>DPA</u>
Recycling, Composting	Radio ads	General public	<u>DPA</u>
Recycling, Composting	Newspaper ads	General public	<u>DPA</u>
Recycling/general solid waste education	Public access television	General public	<u>DPA</u>
General solid waste education	School presentations (40-80 per year) and educational tools, include "Trash Can Quiz" and papermaking kit	School-age children	<u>DPA</u>
General solid waste education	Teacher Training/WISE curriculum	Teachers	<u>DPA and Math, Science and Technology Center</u>
Resource conservation	Presentations/workshops	Businesses/public	<u>DPA</u>
Buy Recycled	Guidebook; workshops; web page	Builders; general public	<u>DPA</u>
All programs	Brochures, flyers	General public; businesses	<u>DPA, Cooperative Extension, Realtors Association, area Environmental Groups</u>

III-8 TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implement components of the Plan's Enforceable Program. The Timeline gives a range of time in which the component will be implemented such as "1999-2000" or "On-going." Timelines may be adjusted later, if necessary.

MANAGEMENT COMPONENTS	TIMELINE
1) Designate Office of Solid Waste as Implementation Agency	1999
2) Designate Solid Waste Council as Imp. Oversight Committee	1999
3) Develop/Adopt Implementation Action Plan	1999
4) Amend Intergovernmental Agreements/Ordinance/Rules/Regs	1999
5) Preliminary Program Specifications for Planned Programs	1999
6) Establish Budgets for Planned Programs	1999
7) Determine Ownership/Operation Arrangements for MRF/TS	1999
8) Finalize Funding Structure and Mechanisms	1999
9) Engineer, design & construct transfer station/MRF	1999/2000
10) Initiate all outreach/education programs	1999/2000
11) Procure all other system improvements	1999/2000
12) Final Implementation of Funding Mechanisms	1999/2000
13) Trigger Ban on Selected Items from Landfill Disposal	2000-2008
14) Negotiate/Adhere to Contract for Disposal Capacity	2000-2003
15) Evaluation of Options for Long Term Disposal Capacity	2000-2003
16) Implement Options for Long Term Disposal Capacity	2002-2008
17) Data Tracking to Assess Program Performance	Annual/Ongoing
18) Update Implementation Action Plan	Annual/Ongoing

III-9 SITING REVIEW PROCEDURES

The Siting Review Procedures contained in this Plan begins with a description of *Authorized Disposal Area Types* followed by a description of the *Siting Criteria and Process*.

AUTHORIZED DISPOSAL AREA TYPES

Per the requirements of Part 115 Section 11533 of NREPA, this Plan includes an Enforceable Program and process that assures that the nonhazardous solid waste to be generated in the planning area over the next 10 years will be collected and recovered, processed, and disposed of at disposal areas that comply with state law and rules promulgated by the Michigan DEQ governing the location, design and operation of the disposal areas.

As provided for in Part 115 Section 11537 (a) of NREPA, this Plan demonstrates that the planning area has in excess of 66 months of available disposal capacity and will have in excess of 66 months of available disposal capacity for the duration of the 5 year planning period for which this Plan is provided. As a result, the County may refuse to utilize the siting mechanism contained herein until the County is no longer able to demonstrate 66 months of disposal capacity or until the County amends this Plan to provide for the annual certification process described in Part 115 Section 11538 (4) of NREPA.

This Plan does not include an annual certification process, as provided for in Part 115 Section 11538 (2) of NREPA, since specific disposal areas are identified in this Plan for the ten year period after approval of the Plan and, as such, is not required to provide the annual certification process described in Part 115 Section 11538 (4) of NREPA, or the interim siting mechanism described in Part 115 Section 11538 (3) of NREPA.

A: Facilities Included in this Plan:

This Plan's Enforceable Program and process, per the requirements of Part 115 Section 11533 of NREPA, includes new disposal areas within the County as described below. Disposal areas at specific sites identified in this Plan are automatically included in the Plan. Disposal areas without specific sites identified will be sited following the Plan's siting mechanism as provided for in this Chapter as will any changes in type or expansions of any existing disposal area unless provided for elsewhere in this Plan.

A.1: Type II Landfill Disposal Area: A Type II Landfill disposal area, as described in the Plan's Enforceable Program and sponsored by the County on land owned by the County, is included in the Plan for the 160 acre site that Grand Traverse County has secured in Whitewater Township (SE 1/4, Section 20, Town 27 North, Range 9 West). The site has been set aside for the purposes of constructing a Type II Landfill. No other Type II or Type III Landfill disposal areas may be sited by this Plan.

A.2: Solid Waste Transfer Station Disposal Area: A Solid Waste Transfer Station disposal area or areas, as described in the Plan's Enforceable Program, constructed with recycling/material recovery capabilities and sponsored by the County, is included in the Plan. Sponsorship by the County is defined to mean, at a minimum, ownership or long term lease (10 years or more) of the land on which the disposal area is located with solid waste directed to the disposal area by ordinance, contract or other similar mechanism as provided for in the Plan's Enforceable Program. Such a Solid Waste Transfer Station disposal area or areas will be sited following the Plan's siting mechanisms as provided for in this chapter since no specific sites have been identified in the Plan for a Solid Waste Transfer Station disposal area. No other Solid Waste Transfer Station disposal areas may be sited by this Plan.

SELECTED SYSTEM

B: Exempt Facilities:

The following types of facilities do not require a construction permit and operating license from DEQ under Part 115 of NREPA.

B.1: Solid Waste Transfer Facility Disposal Area: Part 115 of NREPA specifies that the following types of solid waste transfer facility disposal areas do not require a construction permit and operating license from DEQ if either of the following circumstances exist:

- i: The solid waste transfer facility disposal area is not designed to accept wastes from vehicles with mechanical compaction devices.
- ii: The solid waste transfer facility disposal area accepts less than 200 uncompacted cubic yards per day.

These types of solid waste transfer facility disposal areas are still subject to the Plan's siting mechanism as provided for in this chapter and are still exempt from local zoning.

B.2: Recycling and Compost Processing Facility: A processing facility that processes only source separated materials of any type does not require a construction permit and operating license from DEQ. These types of facilities do not have to be sited by the Plan in order to be constructed and are subject to local zoning. These types of facilities can be sited with the approval of the local unit of government that has jurisdiction over a proposed site with the enforcement of local ordinances, including zoning, applicable to that siting being authorized elsewhere in this Plan.

C: Facilities Not Included in this Plan:

A proposal for any other disposal area as defined in Part 115 of NREPA, whether a solid waste transfer facility, incinerator, sanitary landfill, processing plant or other solid waste handling or disposal area utilized in the disposal of solid waste is not included in this Plan and, thus, will not be allowed to trigger the Plan's siting mechanism.

D: Plan Amendment to Include a Facility Not Included in this Plan:

If a proposed facility is not consistent with or in compliance with this Plan, the facility proposer can request that the County amend the Plan. The procedure to amend this Plan is the same as the process for adopting this Plan, as provided for in Section 115 of NREPA. A request to amend the Plan should be made to the appropriate County Agency identified below. Upon receipt of such a request to amend the Plan, the County shall prepare a budget showing the costs anticipated to amend the Plan. Upon adoption of that Budget by the County Board of Commissioners the total amount of that budget shall become the fee charged to consider a proposed amendment to the Plan.

SITING CRITERIA AND PROCESS

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

If a disposal area being considered for development is included in the Plan's Authorized Disposal Area Types as described above then the Plan's Siting Review Process can be triggered as follows:

A: Initiating the Plan's Siting Review Process: To initiate the Plan's Siting Review Process, the Applicant shall submit 17 copies of an administratively complete application and the Application Fee to:

SELECTED SYSTEM

Grand Traverse County
Solid Waste and Recycling Office
400 S. Boardman
Traverse City, MI 49684
616 922-4576

The above office will act as the administrator and staffing for the County in this Siting Review Process and will be referred to below as the "Agency".

B: Application Fee: Application Fee Structure: An administratively complete application shall include the Application Fee in the form of a certified check or money order in the amount identified for the type of facility being proposed:

Type of Facility Requiring Permit	Application Fee
Landfill	\$15,000
Processing Facility	\$15,000
Transfer Station	\$4,000

The Application Fees will be used, at the discretion of the County, in evaluating the Application including but not limited to 1) staff time spent on the Siting Review Procedures and related tasks, 2) costs of required public meetings and related services, 3) costs for publication and mailing of notices and printing of documents, and 4) costs for consulting fees and other technical assistance as required related to the Siting Review Process. The above fee schedule may be modified by the County Board of Commissioners at their sole discretion. It is the responsibility of the Applicant to contact the County to determine the current fee amount that must be included with the application.

C: An Administratively Complete Application: An administratively complete application shall include all the items identified below. The required information shall be used in this Siting Review Process to apply the minimum siting criteria as provided for in Part 115 Section 11538 (3) or NREPA. Some of the requirements for an administratively complete application are for informational purposes in order to assist in completing the Siting Review Process.

- 1: Type of Facility (landfill, processing facility, transfer station)
- 2: Legal description of all parcels included in the proposed disposal area.
- 3: Name, address and telephone number for:
 - a) The applicant and its parent company, if any;
 - b) Property owner of the site (if different);
 - c) Operator of the proposed disposal area (if different);
 - d) Designer/Engineer of the proposed disposal area; and
 - e) Designated contact for the Siting Review Process.
- 4: A statement that the applicant is the owner of all the parcels involved in the application or, if the owner of any of the parcels is different than the applicant, documentation in the form of land contracts, purchase agreements, or other binding legal instruments which substantiate the applicant's ability to proceed with development and operation of all parcels involved in the application.
- 5: General site location map(s). The general site location map(s) shall include more than one drawing where required for clarity. One set of the general site location map(s) shall be

SELECTED SYSTEM

drawn at a scale and of such accuracy that one can readily interpret the general site location map(s). Another set of the general site location map(s) shall be reduced so each sheet shall fit on 8 1/2 by 11 inch, or 8 1/2 by 14 inch, paper. Such general site location map(s) shall be designed and prepared by a registered professional architect, landscape architect, engineer, land surveyor, or community planner. The general site location map(s) shall include the following information:

- a) The parcel(s) within the general site location map, identified by parcel lines and location including dimensions, angles and size, correlated with the legal description of said parcel(s).
 - b) The scale, north point, boundary dimensions, topography, and natural features such as woodlots, streams, rivers, lakes, drainage and similar features.
 - c) Existing man-made features such as roads, buildings, structures, high tension towers, pipelines, existing utilities such as water and sewer lines, excavations, bridges, culverts, drains and easements, and shall identify adjacent properties and their existing uses including:
 - i) Access roads to the site;
 - ii) Proposed access point(s) to the site;
 - iii) Location of any public use airports licensed by the Bureau of Aeronautics Michigan Department of Transportation that are within ten thousand (10,000) feet of the proposed active disposal area;
 - iv) Location of public and private water wells within one mile of the proposed active disposal area and showing established /approved wellhead protection areas; and
 - v) Residences, commercial establishments, industries, institutions including schools, churches, hospitals and historic or archaeological sites within one mile of the proposed active disposal area.
 - d) Current zoning at the site and for adjacent land uses.
- 6: A detailed site plan or plans describing 1) the site as it exists, and 2) the site in use as a solid waste disposal area. The site plan shall include more than one drawing where required for clarity. One set of the site plans shall be drawn at a scale not to be greater than one (1) inch equals twenty (20) feet nor less than one (1) inch equals two hundred (200) feet, and of such accuracy one can readily interpret the site plan. Another set of the site plan shall be reduced so each sheet shall fit on 8 1/2 by 11 inch, or 8 1/2 by 14 inch, paper. Such site plan shall be designed and prepared by a registered professional architect, landscape architect, engineer, land surveyor, or community planner. The site plan shall include the following information:
- a) The parcel(s), identified by parcel lines and location including dimensions, angles and size, correlated with the legal description of said parcel(s).
 - b) The scale, north point, boundary dimensions, existing topography (at least two (2) feet contour intervals), and existing natural features including woodlots, streams, rivers, ponds, lakes, wetlands, high risk erosion areas, slopes over 25%, beach, sand dunes, drainage and similar features, including:
 - i) One hundred year flood plains (as identified by DNR flood plain maps and as defined in the Part 115 Administrative Rules) within the boundaries of the site;
 - ii) Lands regulated under the Farmland and Open Space Preservation Act, 1974, Part 361 of NREPA, as emended, that are within the boundaries of the site;
 - iii) Location of surface water within the boundaries of the site;
 - iv) All wetlands (regulated and non-regulated) within the boundaries of the site;

SELECTED SYSTEM

- v) Location of drains within the boundaries of the site;
 - vi) Topography information based on USGS datum, or selected on-site elevations; and
 - vii) Soil analysis based on a Modern Progressive Soil Survey of the County. If such survey is not completed for the site, then generalized soil analysis data regarding the soils and their adaptability to the use must be submitted.
- c) Location and boundary dimensions of existing man-made features within the boundaries of the site including buildings, structures, high tension towers, pipelines, water wells, existing utilities including water and sewer lines, excavations, bridges, culverts, drains, easements and any known existing contamination.
- d) The location and boundary dimensions of proposed changes within the boundaries of the site including:
- i) Solid waste processing and disposal areas;
 - ii) Individual landfill cells (if applicable) with an estimate of volumetric air space capacities and when individual cells would be developed during the life of the facility.
 - iii) On site roads, driveways, sidewalks and other vehicular and pedestrian circulation features within and adjacent to the site including staging area for trucks waiting to use the facility, parking spaces in the off-street parking areas and the identification of service lanes and service parking;
 - iv) Main and accessory buildings, their relation one to another and to any existing structures on the site, the height of all buildings and square footage of floor space, finished floor and grade line elevations;
 - v) Open spaces, landscaping and buffering and security features, greenbelts, fences and walls;
 - vi) Connections to existing utilities and proposed extensions thereof;
 - vii) Soil erosion and sediment control measures including preventative soil erosion devices or measures, both during and after any site work related to the development, when required;
 - viii) Interior and exterior areas and structures to be used for storage, use, loading/unloading, recycling, or disposal of hazardous substances;
 - ix) Underground and above ground storage tanks for such uses as fuel storage, waste oil holding tanks, chemical storage, hazardous waste storage, collection of contaminated stormwater or wash water, and all similar uses;
 - x) Exterior and interior drains, on-site sewage systems, dry wells; catch basins; retention/detention areas; sumps and other facilities designed to collect, store or transport stormwater or wastewater including point of discharge for all drains; and
 - xi) Any other man-made features not specifically described above.
- e) Conceptual engineering plans for construction of the facility.
- 7: A written narrative that shall include the following information:
- a) Name and type of solid waste facility.
 - b) General description of the facility and how it functions (for informational purposes in the Permit Review Process) including the types and quantities of waste to be delivered to the facility, the targeted service area (e.g. communities, major commercial and industrial establishments, institutions, and waste haulers) for the facility, useful life

SELECTED SYSTEM

and capacities of the facility, description of how each type of material will be handled at the facility, the eventual disposition of the materials to be handled by the facility, the proposed operating schedules (days and hours), a description of any resource recovery, recycling and composting activity planned for the site, the expected employment of the facility, a discussion of the economic and engineering feasibility of the final use plan for the site, and the applicant's rationale for developing the facility.

- c) Summary of the results of the DEQ advisory analysis (if completed), with responses to any points raised in the advisory analysis and a copy of the advisory analysis attached as an exhibit.
- d) Summary of the results of an Environmental Permits Checklist (with a copy attached as an exhibit), with discussion regarding any required permits along with current permit status documentation including either copies of received permits attached as exhibits, letters of intent to approve and issue a permit, letters of understanding for concurrent approval (issuing a permit) from those agencies or summary of discussions held with authorities responsible for issuing those permits. The site plans should be drawn to show design/placement as required for compliance with each of the applicable permits. Permits to be covered where applicable include:
 - i) Well permit,
 - ii) Type II water supply permit,
 - iii) Type III water supply permit,
 - iv) On site sewage disposal permit,
 - v) Soil erosion permit,
 - vi) Land division or subdivision approval,
 - vii) Waste disposal or storage or monitor wells permit(s),
 - viii) Sand dune mining permit,
 - ix) Permit to cut forest products,
 - x) Forestry use or special use permit,
 - xi) Easements for utilities and public agencies (on state or federal lands),
 - xii) Dam construction permit,
 - xiii) Certificate of Public Convenience and necessity for pipelines,
 - xiv) Air quality installation permit, operating permit,
 - xv) National Pollutant Discharge Elimination System permit,
 - xvi) Groundwater discharge permit,
 - xvii) Wastewater collection and treatment facilities construction permit,
 - xviii) Great Lakes Shorelands permit,
 - xix) Inland Lakes and Streams permit, and
 - xx) Wetlands permit.
- e) An inventory of public services (fire protection, sewer, water, sanitation, emergency services/response, quasi-public utility companies (gas, electric, telephone)) showing:
 - i) Public services which are required by the solid waste facility,
 - ii) Public services which exist to service the site of the solid waste facility.
- f) Statements relative to the impact of the proposed development on soil erosion, shoreline protection, wildlife habitat, air pollution, water pollution (ground and surface), noise and the scale of development in terms of the surrounding environment.
- g) Other narrative statements necessary which specifically address the siting standards listed in part two of this chapter.
- h) Other narrative statements necessary regarding design and operation of the proposed facility in response to applicable requirements of County and local ordinances and rules/regulations.

D: Step One: Application Review - Administratively Complete Finding: Upon receipt of an

SELECTED SYSTEM

application the Agency shall review the application and determine if the application is complete. The Agency shall complete a checklist documenting the satisfactory submittal of each item required in an administratively complete application or noting the specific area that is not satisfactory. The checklist shall then be provided to the Applicant should additional information be required. This shall be completed within 60 days of submission of the Application. If the Agency does not make a finding the Application is either complete or not complete within the 60 days then the application automatically proceeds to the next step below.

E: Step Two: Application Review - Engagement of Review Committee: Upon receipt of an Application, the Agency shall notify the County Board of Commissioners (Board) who shall appoint the Solid Waste Facility Siting Committee (SWFSC) as described below. In the absence of an appointed SWFSC the County Board shall serve in its place.

The SWFSC will consist of membership as defined in Attachment A to this Plan Siting Mechanism. The County Board or designee shall call for the first meeting of the SWFSC and, upon election of the Chairperson, the Chair shall officially convene each meeting of the SWFSC. The SWFSC will be dissolved when either the Application is deemed inconsistent with the Plan, or the Michigan DEQ has issued the facility an operating permit (or, in the case of a Type B Transfer Station Disposal Area, the facility receives its building permits and all required inspections from the local government with jurisdiction over the site). The County Board shall make provisions for appropriate staff and technical resources through the Application Fee, or other funding mechanisms as may be identified.

The SWFSC will then review the Application as guided by this Permit Review Process and the Minimum Standard Siting Criteria contained in Attachment B to this Siting Review Process.

F: Step Three: Application Review - Public Notice of First SWFSC Meeting: Within 10 days of the determination of an administratively complete application, or the creation of the SWFSC, whichever is later, the Agency shall set a date for the first SWFSC meeting and mail agendas.

- a) The agenda shall be mailed to the routine list of recipients of County agendas as well as:
 - i) The applicant;
 - ii) The owners of the property for which approval is being considered;
 - iii) the owners of the property within 300 feet of the boundary of the property for which approval is being considered, as shown by the latest equalization roll;
 - iv) All occupants of structures within 300 feet of the property in question. If the name of an occupant is not known, the term "occupant" may be used in the notice. Notification need not be given to more than one (1) occupant of a structure, except that, if a structure contains more than one (1) dwelling unit or spatial area owned or leased by different individuals, partnerships, businesses or organizations, one (1) occupant of each unit or spatial area shall receive notice. In the case of a single structure containing more than four (4) dwelling units or other distinct spatial areas owned or leased by different individuals, partnerships, businesses, or organizations, notice may be given to the manager or owner of the structure who shall be requested to post the notice at the primary entrance to the structure;
 - v) The chief elected official of the municipality the site is proposed to be located in;
 - vi) Members of the SWFSC;
 - vi) Any other notification required by the Michigan Open Meeting Act; P.A. 267 of 1976, as amended; and
 - vii) Any other notification required by Part 115 of NREPA.

SELECTED SYSTEM

- b) The agenda shall indicate:
 - i) The applicant;
 - ii) The property which is the subject of the application;
 - iii) The date, time and location of the first SWFSC meeting;
 - iv) The order of business for the meeting with action items identified; and
 - v) A short overview of the Site Review Process.
- c) The agenda shall be sent out at least 10 days prior to the date of the meeting.

G: Step Four: Application Review - First SWFSC Meeting: Within 30 days of the determination of an administratively complete application, the SWFSC shall hold its first meeting.

- a) The SWFSC shall elect a chair and vice chair as the first order of business at the first meeting
- b) At, or prior to the meeting the Agency shall distribute the Application to the SWFSC along with documentation of it being administratively complete.
- c) The SWFSC shall make an initial discussion of the Application.
- d) The Agency shall then communicate its work plan for background review of the Application and preliminary scoring against the Minimum Standard Siting Criteria.
- e) The SWFSC shall then establish a date for their formal review and consideration of the Application.
- f) Public comment will then be received and the meeting adjourned.

H: Step Five: Application Review - Agency Evaluation of Application: Within 80 days of the first SWFSC meeting, the Agency shall complete its review of the Application and prepare a written review of the Application including preliminary findings and scoring of the Application against the Minimum Standard Siting Criteria provided in Attachment B to this Siting Mechanism.

I: Step Six: Application Review - Meeting to Consider Application: Within 90 days of the first SWFSC meeting, the SWFSC shall meet to formally consider the Application.

- a) The agenda shall be mailed to the routine list of recipients of County agendas as well as the list specified in E (a) above.
- b) The agenda shall indicate:
 - i) The applicant;
 - ii) The property which is the subject of the application;
 - iii) The date, time and location of the SWFSC meeting for formal consideration of the Application;
 - iv) The order of business for the meeting with action items identified; and
 - v) A short overview of the Site Review Process; and
 - vi) When and where written and verbal public comments can be delivered.
- c) A meeting packet, containing a copy of the Agency's written review of the Application, including preliminary findings and scoring of the Application against the Minimum Standard Siting Criteria, shall accompany the agenda for the following recipients of the agenda:
 - i) The applicant;
 - ii) The owners of the property for which approval is being considered;

SELECTED SYSTEM

- iii) the owners of the property within 300 feet of the boundary of the property for which approval is being considered, as shown by the latest equalization roll;
 - iv) All occupants of structures within 300 feet of the property in question. If the name of an occupant is not known, the term "occupant" may be used in the notice. Notification need not be given to more than one (1) occupant of a structure, except that, if a structure contains more than one (1) dwelling unit or spatial area owned or leased by different individuals, partnerships, businesses or organizations, one (1) occupant of each unit or spatial area shall receive notice. In the case of a single structure containing more than four (4) dwelling units or other distinct spatial areas owned or leased by different individuals, partnerships, businesses, or organizations, notice may be given to the manager or owner of the structure who shall be requested to post the notice at the primary entrance to the structure;
 - v) The chief elected official of the municipality the site is proposed to be located in;
 - vi) Members of the SWFSC; and
 - vii) Any individuals that have made a request in writing to the Agency to receive the meeting packet.
- d) The agenda and meeting packet shall be sent out at least 10 days prior to the date of the meeting.
- e) Notice of the meeting shall be published in a newspaper which circulates in the municipality the site is proposed to be located in and shall be mailed or personally delivered to the newspaper fifteen (15) days prior to the date the application will be considered. The Notice shall include information on where the meeting packet can be viewed.
- f) At the meeting the Agency shall present its findings resulting from completing the work plan for background review of the Application and preliminary scoring against the Minimum Standard Siting Criteria.
- g) The SWFSC shall then complete a discussion of the findings of the Agency in their review of the Application and preliminary scoring against the Minimum Standard Siting Criteria. The result of these discussions will be a vote by the SWFSC on the final scoring of the Application against the Minimum Standard Siting Criteria.
- h) Applications that do not meet the Minimum Standard Siting Criteria will be determined inconsistent with and not in compliance with the Plan and will not undergo further evaluation. Applications that do meet the Minimum Standard Siting Criteria will be determined to be consistent with and in compliance with the Plan. The written findings shall be communicated to the Michigan DEQ and the Applicant.

J: Step Seven: Application Review - Notification of Finding: Within 15 days of the conclusion of the formal SWFSC meeting to consider the Application, the Agency shall provide its recommendations to the County Board of Public Works (BPW) for the final consistency determination. If an Application is found to be consistent with the Plan, formal notice will be forwarded to the Michigan DEQ with a copy to the Applicant. If an Application is found to be not consistent with the Plan formal notice will be forwarded to the Applicant. If formal notice is not provided to the Applicant within 160 days from the initial determination of an administratively complete application, then the Application shall automatically be considered by the County to be consistent with the Plan whether or not such notice is provided to the Michigan DEQ by the County, unless both parties mutually agree in writing to extend this 160 day requirement for action. The Michigan DEQ will then make the final determination, to the extent provided for in Part 115 of NREPA, as part of its review of the Construction Permit application.

K: Step Eight: Application Review - Followup: The SWFSC shall receive formal written notice from the County Agency at the time that the Applicant receives its Construction Permit

SELECTED SYSTEM

from the Michigan DEQ or is rejected for that Construction Permit and at the time that the Applicant receives its Operating License. At the discretion of the chair or a simple majority of the members of the SWFSC it will reconvene as needed during this period (before its final dissolution 10 days after the Operating License is issued or after rejection of the Application by Michigan DEQ).

Attachment A to Plan Siting Mechanism Definition of the Facility Siting Committee

The SWFSC will consist of membership as defined below:

- 1 Person representing environmental concerns
- 1 Person representing the County Soil Conservation Service
- 1 Person representing the County Board of Public Works
- 1 Person representing the County Planning Commission
- 1 Person representing the County Road Commission
- 1 Person representing the Regional Solid Waste Planning Agency
- 2 Persons representing the municipality in which the facility site is proposed including the chief elected official or designee
- 2 Persons from any municipality located within three (3) miles of the active work area of the proposed site including the chief elected official or designee, and another representative from that municipality. Only one (1) of these persons will be a voting member, the other will be an ex-officio member. In the event that more than one municipality is located within three (3) miles of the active work area of the proposed site, then these municipalities will together choose only one person to be a voting member to represent these municipalities, and each municipality will designate one (1) ex-officio member.

The representatives from the County Road Commission and from the local municipality(s) will be selected by that agency and government(s), respectively. The names of the selected individuals will be submitted to the County Board for confirmation of appointment. All other members of the SWFSC will be appointed by the County Board.

The County Board or designee shall call for the first meeting of the SWFSC and, upon election of the Chairperson, the Chair shall officially convene each meeting of the SWFSC.

The SWFSC will be dissolved when either the Application is deemed inconsistent with the Plan, or 10 days after the Michigan DEQ issues an Operating License to the Applicant (or, in the case of a Type B Transfer Station Disposal Area, the facility receives its building permits and all required inspections from the local government with jurisdiction over the site).

Attachment B to Plan Siting Mechanism Minimum Standard Siting Criteria

Minimum Standard Siting Criteria are considered minimum standards that any proposed facility must meet. Each criterion listed below must be answered in the affirmative in order for a facility to fulfill the Minimum Standard Siting Criteria requirements. Detailed descriptions of each criteria follow the yes/no checklist below.

MINIMUM STANDARD SITING CRITERIA EVALUATION CHECKLIST

	YES	NO	CRITERION (See detailed descriptions following checklist)
A			Site Ownership
B			Frontage on Appropriate Roads
C			Distance from Wetlands
D			Distance from Farmland and Open Space Part 361 NREPA Lands
E			Distance from Designated Historic Sites
F			Distance from 100 Year Flood Plains
G			Distance from Designated Wellhead Protection Zones
H			Distance from Utility Easements, Public Right of Way
I			Distance from Water, Beaches
J			Distance from Water Well Serving a Dwelling
K			Distance from Specified Building Types
L			Distance from Land Conservancy Parcels
M			Distance from Schools and Educational Establishments
N			Distance from Certain Recreational Facilities
O			Distance from MDEQ Natural Features Inventory Lands
P			Distance from Specified Types of Natural Resource Lands
Q			Distance from Certain Additional Recreational Lands
R			Distance from a Licensed Public Use Runway
S			Design Incorporates Certain Setback Requirements w/Signed Statement
T			Analysis Submitted Documenting Availability of Required Public Services
U			Signed Statement to Abide by Certain Regulatory Requirements
V			Written Agreement to Abide by Certain Non-locational Zoning Requirements

MINIMUM STANDARD SITING CRITERIA DETAILED DESCRIPTIONS

- A. The site and respective parcel must be owned by the applicant or under long term lease (20 years or greater) from a state agency.
- B. The proposed site has frontage on or direct access to a paved county primary road or state trunk line.

SELECTED SYSTEM

- C. No part of the site and respective parcel(s) is located within or less than 100 feet from a regulated wetland as defined by Part 303 of P.A. 451 of 1994, as amended (being the Wetlands part of the Michigan NREPA, M.C.L. 324.30301 *et. seq.*) or as shown in the Grand Traverse County Wetlands and Steep Slopes Map, aka "the Composite Wetlands Map" (Map available from County).
- D. No part of the site and respective parcel(s) is located within or less than 100 feet from land enrolled under the Farmland and Open Space Preservation Act, 1974, Part 361 of NREPA.
- E. No part of the site and respective parcel(s) is located within or less than 100 feet from land that is a designated historic or archaeological area as defined by the State Historic Preservation Officer (SHPO) or by local historic preservation districts.
- F. No part of the site and respective parcel(s) is located within or less than 100 feet from one hundred year flood plains (as identified by Michigan DNR flood plain maps and as defined in the Part 115 Administrative Rules).
- G. No part of the site and respective parcel(s) is located within or less than 100 feet from the boundary edge of a Wellhead Protection Zone established around municipal Type I public water supplies as created pursuant to a Wellhead Protection Program established, or being established under Michigan Wellhead Protection guidelines unless the disposal area to be located on the site and respect parcel(s) is a Solid Waste Transfer Station.
- H. No part of the site and respective parcel(s) is located within or less than 100 feet from the boundary edge of:
 - 1. Existing public utility easements; and
 - 2. Existing public rights-of-way.
- I. No part of the site and respective parcel(s) is located within or less than 300 feet from the boundary edge of:
 - 1. Any surface water (as identified by Michigan DNR surface water maps and as defined in the Part 115 Administrative Rules);
 - 2. Beach contiguous to a lake or stream
- J. No part of the site and respective parcel(s) is located within or less than 300 feet from a water well which services a dwelling (which is drilled by a licensed well driller and a well log is filed with the Geological Survey Division of the DEQ and district Health Department) in existence on the date the disposal area application was found complete.
- K. No part of the site and respective parcel(s) is located within or less than 300 feet from dwellings, duplexes, apartment buildings, hospital, medical care facilities and foster care facilities in existence on the date the disposal area application was found complete.
- L. No part of the site and respective parcel(s) is located within or less than 300 feet from lands which are held by a land conservancy or which have development restrictions held by a land conservancy, either of which were in existence on the date the disposal area application was found complete..

[Return to
Amendment
Letter](#)

SELECTED SYSTEM

- M. No part of the site and respective parcel(s) is located less than one half mile from the boundary edge of schools and education establishments in existence on the date the disposal area application was found complete.
- N. No part of the site and respective parcel(s) is located less than one half mile from the boundary edge of certain recreation facilities, unless the proposed facility is only an enclosed solid waste transfer station or processing facility disposal area in which case the required distance will be 300 feet:
 - 1. Snowmobile and all terrain vehicle trails which are marked and signed and receive care, grooming with public funds;
 - 2. Horse, bicycle, hiking and ski trails which are marked and signed and receive care, grooming with public funds;
 - 3. Abandoned rail road right-of-ways when owned by a railroad company or a public agency;
 - 4. The parcel boundary of state game area;
 - 5. The parcel boundary of municipal and county parks with recreation facility improvements;
 - 6. A national park or recreation area designated by the U.S. Department of Interior;
 - 7. A national scenic river designated by the U.S. Department of Interior; and
 - 8. A special interest area as designated by the U.S. Forest Service.
- O. No part of the site and respective parcel(s) is located within or less than one half mile from land listed on the MDNR Natural Features Inventory, as determined by the MDNR through the Environmental Review process for compliance with Act 365, Endangered Species Protection, of the NREPA as amended, unless the proposed facility is only an enclosed solid waste transfer station or processing facility disposal area in which case the required distance will be 300 feet.
- P. No part of the site and respective parcel(s) is located within or less than one half mile from land regulated under parts 351 through 361 of P.A. 451 of 1994, as amended (being the Wilderness and Natural Areas, Sand Dunes, Biological Diversity, Natural Beauty Roads, Sanctuaries, Farmland and Open Space preservation part of the Michigan NREPA, M.C.L. 324.35101 *et. seq.* through 324.35101 *et. seq.*) and part 511 of P.A. 451 of 1994, as amended (being the Commercial Forests part of the Michigan NREPA, M.C.L. 324.51101 *et seq.*), unless the proposed facility is only an enclosed solid waste transfer station or processing facility disposal area in which case the required distance will be 300 feet.
- Q. No part of the site and respective parcel(s) is located less than one mile from the boundary edge of certain recreation lands, unless the proposed facility is only an enclosed solid waste transfer station or processing facility disposal area in which case the required distance will be 300 feet:
 - 1. The parcel boundary of a state park;
 - 2. The licensed area of public and private campgrounds licensed by the District Health Department;

SELECTED SYSTEM

3. The parcel boundary of day, summer and retreat camps;
 4. Federally designated wild and scenic river corridors;
 5. State designated natural river's water's edge; and
 6. The parcel boundary of arboretums, sanctuaries established under statute.
- R. No part of the site and respective parcel(s) is located less than 10,000 feet from the boundary edge of a licensed public use airport runway(s), unless the proposed facility is only an enclosed solid waste transfer station or processing facility disposal area.
- S. Applicant's Proposal demonstrates that the facility as designed and constructed will incorporate the following setback, buffering, screening and service access requirements and includes a written and signed statement from the Applicant indicating that they will abide by and remain in compliance with these requirements at all times. Submittal by the applicant of this signed statement is required to meet this criteria.
- 1: For facilities which are landfill disposal areas or landfill disposal area expansions, vegetation belt, buffer, screening and service access area shall meet standards which are not less than:
 - a: Vegetation Belt: A vegetation belt of 100 feet from the parcel line toward the center of the parcel will be maintained in natural vegetation to provide visual screening from roads and adjacent property. The vegetation belt will not include any improvements, buildings, fences, except for an entrance drive(s), utilities and identification signs.
 - i: If the site, prior to the date of application, has mature forest cover it will be maintained within this vegetation belt except for the entrance drive, utilities.
 - ii: If the site, prior to the date of application, does not have mature forest cover, or mature forest cover is lost at any time during the operation of the facility, then the mature forest will be established by planting a variety of native forest species under consultation of a professional forester. The planting will be designed with use of appropriate species to have fast maturing trees to have a mature forest as soon as possible and species which will be mature trees with a long life span.
 - iii: The mature forest cover will be maintained by the landfill operator and will not be removed.
 - b: Buffers: Toward the center of the landfill property, but not within the 100 foot vegetation belt, a buffer shall be established which will include an earth berm. The berm shall:
 - i: Be eight (8) feet, or more, higher than the original grade within the buffer area, and
 - ii: Not be sloped greater than one (1) unit vertical for each of the same two (2) units horizontal.
 - iii: Be covered with a healthy grass, lawn, ground cover or other indigenous vegetation.
 - c: Service Access Area: Toward the center of the Landfill property, but not within the 100 foot vegetation belt, or buffer will be established a minimum of a ten (10) foot wide service access area maintained between the berm and nearest edge of the landfill's active fill area.
 - 2: For facilities which are not landfill disposal areas, vegetation belt, buffer, screening and service access area shall meet standards which are not less than:
 - a: Vegetation Belt: A vegetation belt of five (5) feet from the parcel line toward

SELECTED SYSTEM

the center of the parcel will be maintained in woody plant vegetation to provide visual screening from roads and adjacent property. The vegetation belt will not include any improvements, buildings or fences except for an entrance drive(s), utilities and identification signs.

- b: Buffers: Measuring toward the center of the disposal area property, but not within the 5 foot vegetation belt, a buffer shall be established which:
 - i: Shall not be occupied by any structure, storage of equipment, materials, operations, or be similarly activities;
 - ii: Shall consist of the following for any side of the parcel that is adjacent to a industrial or commercial zoned area:
 - a buffer area setback of fifty (50) feet, or
 - a berm four (4) feet, or more high not sloped greater than (1) vertical for each of the same two units horizontal, or
 - a solid wall four (4) feet, or more, in height, or
 - a proportionately adjusted combination of the above.
 - ii: Shall consist of the following for any side of the parcel that is adjacent to all other uses:
 - a buffer area setback of one hundred (100) feet, or
 - a buffer area setback of fifty (50) feet followed by a berm four (4) feet, or more high not sloped greater than (1) vertical for each of the same two units horizontal, or
 - a buffer area setback of twenty-five (25) feet followed by a solid wall four (4) feet, or more, in height.
- c: No Service Access Area is required.

- T. An analysis has been submitted that defines the public services which are required by the solid waste disposal area, that inventories existing public services (fire protection, sewer, water, sanitation, County emergency services/response, and utilities including gas, electric, telephone) available at the site boundaries and that documents that the existing public services are the same as or exceed the public services required by the solid waste disposal area. Submittal by the Applicant of this analysis is required to satisfy this criteria. The adequacy of the submittal will not be used to determine if this criteria has been satisfied.
- U. Applicant has submitted a written and signed statement that the disposal area will abide by and remain in compliance with any applicable part of the Michigan Subdivision Control Act; Michigan Soil Erosion and Sedimentation Control Act; Michigan Construction Code; applicable state air and water pollution standards; local wellhead protection ordinances, applicable building codes, state and local health codes, local noise ordinances and local junk ordinances as determined with the advice of appropriate state and local officials and as specified in Section III of the Solid Waste Plan, Local Ordinances and Regulations. Submittal by the Applicant of this signed statement is required to satisfy this criteria. The adequacy of the submittal will not be used to determine if this criteria has been satisfied.
- V. Applicant has submitted a written and signed statement that the disposal area will abide by and remain in compliance with any applicable part of the respective zoning ordinance's regulations dealing with: parcel size, road frontage, setback requirements, buffering and screening, off street parking, signs, as specified in Section III of the Solid Waste Plan, Local Ordinances and Regulations but not subject to zoning regulation of location of a solid waste disposal area as a land use. Submittal by the Applicant of this signed statement is required to satisfy this criteria. The adequacy of the submittal will not be used to determine if this criteria has been satisfied.

III-10 SOLID WASTE MANAGEMENT COMPONENTS

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

NEEDS OF THE CURRENT MANAGEMENT SYSTEM

There are two principal gaps that need to be addressed in developing a management component capable of funding the Plan's Enforceable Program and Process.

- 1) Setting up a funding mechanism in the selected system is a critical element of the necessary management component. This is especially critical given the need for facilities to be open to all haulers and recycling collectors in the region "on the same terms" (i.e.: all users pay the same rates and have the same access).
- 2) Setting up a funding mechanism for "value added" programs is a critical element of the necessary management component. The "value added" programs are the services and program functions that are difficult to link to a particular user under a typical system and include household hazardous waste services, overall education/promotion of the programs, program management, planning and development costs, selected program capital and operating costs and other services as deemed necessary.

The Management Components that are authorized by the Plan's Enforceable Program and Process include all organizational mechanisms deemed necessary to enable the above two funding mechanisms to work.

STRENGTHS OF THE CURRENT MANAGEMENT SYSTEM

Some key components of the organizational and management structure required to develop a suitable funding mechanism to implement the Plan's Enforceable Program and Process are already in place and include:

- The County Solid Waste and Recycling Office as the designated implementation agency with its Director and staff and supporting County administrative leadership.
- The County Solid Waste Council of the Board of Public Works (BPW) as the oversight committee and as an official body with fiduciary responsibility to oversee the details of development and operation of the County's current system including responsibility for development and adoption of an annual strategic plan and budget and submittal of that plan to the BPW for final implementation authorization.
- The statutory authorities and powers of the County Department of Public Works as provided for by Michigan law, enabling it to support implementation of the selected alternative with appropriate legal, management and financial capabilities.
- The County Board of Public Works (BPW) serving as the representational committee responsible for fiduciary matters and oversight of the solid waste operations.
- The existing intergovernmental contracts assigning certain powers and responsibilities to the County BPW by all of the local units of government in the County.

SELECTED SYSTEM

- The Grand Traverse County Solid Waste Ordinance No. 17 that takes these powers and responsibilities and structures the basic framework of the solid waste and recycling system for the County solid waste management system.
- The Administrative Rules for the Grand Traverse County Solid Waste Ordinance No. 17 that prescribes in greater detail the specific components of the system.
- The Hauler Licensing Agreements authorized by the Ordinance and Administrative Rules.
- The Landfill and Material Recycling Facility Designation Agreements authorized by the Ordinance and Administrative Rules.
- The County Solid Waste Office's management/operational staff that oversee County programs.
- The County's contracting capability for operating programs (e.g. household hazardous waste services).
- The County's to negotiate and adhere to Resolutions adopted as part of its program implementation role, as it has with its resolution adopted on June 19, 1995 with an expiration date of October 1, 1998 that resolved the dispute between the County and what was then United Waste Systems of Northern Michigan regarding payment of the landfill surcharge and the issue of recycling processing and drop-off station operations.

The current organizational and management structure as just described is automatically incorporated into the Plan's Enforceable Program and Process and is authorized as the basis for further development of the Plan's Management Component with all the assignment of powers able to be provided for by the Plan's Enforceable Program and Process.

FURTHER DEVELOPMENT OF THE MANAGEMENT COMPONENT

The Authorized Management Component builds on the County's current organizational and management structure including the County's solid waste ordinance, system of intergovernmental agreements, contractual arrangements for plan implementation and all related features. Further development of the Plan's Authorized Management Component is provided for as part of the Plan's Enforceable Program and Process.

Further development of this organizational and management structure as part of the Plan's Authorized Management Component is provided for as part of the Plan's Enforceable Program. These developments may take a number of forms and will only be initiated after an evaluation of the best steps that can be taken to build on the strengths of the current system already in place. These steps will be detailed in an "implementation action plan" that the Plan's implementation agency will coordinate development of in order to provide for necessary details required to carry out the Plan's Enforceable Program. These action steps are expected to follow some, if not all, of the following description of an enhanced management system that will provide for a method of funding the selected alternative including the construction of the MRF/Transfer Station and other aspects of the Selected Alternative.

Every effort will be made during further development of the Management Component, to build a system that is supportive of and enables development of similar services and management capabilities throughout the region out-of-county.

A: User fees will continue to be the backbone of the Plan's Management Component funding system, as they are right now, with the majority of value added system costs folded into the user fee rate structures that are charged for waste as it moves from point of generation,

SELECTED SYSTEM

through to disposal and or recovery. Specifically:

- 1: *at point of waste generation* the current practice of a resident or business paying a monthly or quarterly fee for their solid waste management services will continue with the following enhancements: 1) continued effort to make sure that the fee structures include "pay as you throw" (PAYT) features that result in the generator incurring additional costs as volumes of solid waste increase, 2) costs for residential curbside and/or commercial recycling collection (e.g. OCC) will be bundled into the monthly or quarterly fee, and 3) the fee will be a single fee for solid waste, recycling and yard waste collection. The service provider's costs for the total service package (solid waste collection/processing as well as recycling collection/disposal) will be covered along with profit (if applicable), but the generator must also have a financial incentive to use the recycling systems as much as possible.
- 2: *at point of transfer/disposal* the user fee paid for tipping at the disposal facility (i.e.: the Transfer Station and/or Landfill tip fee) will have two key features that will encourage healthy competition and provide funds for system development and operation:

First, in order to support healthy competition, there will be a published disposal rate at the facility that is competitive in the regional marketplace and that is available to any generator or hauler that wants to provide solid waste collection services in the County. The rate will be tiered to acknowledge that a larger volume user (e.g. a major hauler or a major industry) will get some price advantages. However, the major hauler will have to pay this published rate, even if they are the same company that has some involvement in ownership/operation of these disposal facilities. If this is not acceptable to this type of operator then ownership of transfer/disposal facilities will be limited to an independent operator or a public/quasi public agency (e.g. solid waste authority). The County will negotiate a long term multi-year agreement for a published rate structure and have those rates be available to all companies that are authorized to provide collection services in the County.

Secondly, in order to make funds available for other system costs, the published rate will include a percentage or fixed per cubic yard amount that is set aside for system costs. This amount, which will need to be determined based on the specifics of the planned program and the mix of funding sources, will be deposited into a system enterprise fund and be managed by the BPW/Solid Waste Council. It will then be used for funding some operating costs (e.g. drop-off system collection/processing, household hazardous waste collection program, education/promotion) and some capital costs (e.g. specific amount set aside to assist with debt service on required facilities).

- 3: *at point of recycling processing* there will be a user fee paid for tipping at the recycling processing facility (i.e.: the recycling tip fee) that will have two key features - providing a needed revenue stream and providing an incentive for diverting materials:

First, information on processing costs (including both operating and capitalized debt retirement) for the recycling facility will be publicly available. These costs (budgeted and actuals) will form the basis for a published tipping fee rate that is charged to any generator or hauler that is authorized to provide recycling services in the county (or region). The County will negotiate a long term multi-year agreement for this published rate structure including rules on how costs are accounted for in establishing the rate structure. Recyclables collected at residential curbside, at commercial locations, or through recycling drop-offs will all be charged the published rates based on the type of material delivered.

Second, the revenue received from markets for these recyclable materials (net of any transportation costs to get the material to markets) will also be a matter of public record and these funds will be tracked and deposited into the same system enterprise fund or a similar system account that the transfer/disposal fees are deposited into -- managed by the BPW/Solid Waste Council. These revenues will then be distributed in ways that encourage community oriented recycling programming, modeled after some of the types of successful

SELECTED SYSTEM

volunteer incentives demonstrated elsewhere in the region.

- 4: *at point of yard waste processing* there will be a user fee paid for tipping at a yard waste composting site(s) (i.e.: the composting tip fee) that will have two key features - providing a needed revenue stream and providing an incentive for diverting materials:

First, as with recycling processing, the compost processing costs (including both operating and capitalized debt retirement if any) for the composting operations will be publicly available and these costs (budgeted and actuals) will form the basis for a published tipping fee rate that is available to any generator or hauler that is authorized to provide yard waste collection services in the county (or region). Yard waste collected at residential curbside, by landscape firms, or through other yard waste drop-offs will all be charged the published rates based on the type of material delivered (leaves, brush, etc.).

Secondly, yard waste products will be sold and some portion of the soil amendment, mulches, etc. may be made available at no or low cost for community beautification efforts by area municipalities, parks, residents, etc.. Rules will be established to limit quantities to any one party in order to assure that material is available to all users and is fairly distributed based on contributed volumes of incoming material.

Where possible the system of Agreements provided for in the County's Solid Waste Licensing System (Hauler License and Designated Facility Agreements) will be used to establish the conditions described above.

- B: A supporting network of service contracts will be used to consolidate a critical mass of residential and commercial customers into larger buyer groups, taking advantage of the contracting and franchising provisions in Michigan municipal solid waste law to direct waste and recyclables to specific facilities and to specify the terms under which those services will be provided. These contracting arrangements will be structured to be compatible with and supportive of the Ordinance #17 licensing and facility designation requirements. Amendments to the ordinance are authorized by this Plan as needed to enable these contracts and to enable designation of specific facilities to receive solid waste.

These arrangements for contracting or franchising services will be structured to introducing more competition into the marketplace as a means to reduce costs and control costs for solid waste services. The participants in the County's Ordinance #17 will authorize the County to take steps as needed to establish service categories, define specific service requirements, mark out geographic service zones and assist in coordinating purchase of solid waste and recycling services together from private sector service providers. Longer term contracts are authorized to be used to enable the service provider to deliver more services at lower pricing and to enable private and non-profit entities to seek any required bank financing for their capital equipment, providing a valuable source of capital for financing system equipment purchases.

- C: A parallel revenue generating system will also be developed that provides for an additional funding source for the System Enterprise Fund in order to address strategic capital requirements for the system (e.g. development of the MRF/TS) and to develop a mechanism for further strengthening the designation agreements. The latter will be accomplished through what is often referred to as "economic flow control" in which the competitiveness of the published rate structures for designated facilities in the marketplace is maintained by recovering some of the capital and/or operating costs through other mechanisms. Three potential mechanisms that will be considered as acceptable for this parallel revenue generating system are 1) licensed haulers paying a per customer user fee each month as a condition of their hauler licensing agreement (solid waste volume handled being an alternate approach); 2) setting up a user fee assessment through the provisions of the state statute that authorizes powers of a County public works program; and 3) the use of P.A. 138 funding mechanism in combination with the others (noting that P.A. 138 is limited to

SELECTED SYSTEM

residential households, unlike the first two which can be applied to all sectors).

- D: Leveraging of contributed resources will be encouraged in order to reduce program budget requirements. Green Lake, Fife Lake, Kingsley/Paradise, Peninsula Township, and local governmental units with potential facilities/services contracting for selected programs. These approaches will be used to reduce costs and to build the connection for residents and businesses that the "community recycling program" is theirs - run for their benefit and for an improved quality of life and better business climate. Area businesses and foundations will be approached for long term commitments (project sponsors, etc.) with appropriate recognition provided. Collaboration with workplace experience programs will be pursued and expanded (recognizing that this used to be one of the area's key strengths with the GTP Industries program). Public and private service agencies as well as school groups will be asked to get involved even more than they are already. Arrangements for drop-off sites should be assessed and carefully maintained in order to assure their availability for the future.
- E: Private bank financing will be available for capital improvements made by private companies and non-profits that are involved in the system -- especially if the contracting framework described above is well structured with long term service arrangements.
- F: Agency funds from public entities will be an important part of the mix of operating and capital funding that are needed to sustain the system. These funds may be part of ongoing operational cost areas that are already part of municipal budgets (e.g. current operations to collect and process yard waste that are part of some municipal budgets). In addition, these agency funds may be able to assist in part with capital requirements for some of the projects.
- G: Bond financing will be an option that will be investigated depending on the final details of how the overall system is structured to raise the required capital for solid waste, recycling, and composting system improvements.
- H: Further steps will be taken to access the fundraising capabilities of private giving and foundations. A "friends of Grand Traverse County recycling" or equivalent will be enabled in order to leverage additional private donations from individuals, estates, and foundations as well as corporations and other granting agencies that can strengthen the overall program across the County. These efforts will also be targeted at providing support for education and promotion of clean community initiatives, reduce/reuse/recycle programming and, in some cases, capital funds for informational exhibits, displays, educational facilities and school programs. As well this structure will be used for channeling volunteer time and overall community good-will to assure that funds are available to cover costs of quality programming that is supported by the public.

IMPLEMENTATION OF THE MANAGEMENT COMPONENT

The following key steps will be taken to further develop the Management Component as needed to implement the selected alternative:

- A: The Solid Waste and Recycling Office of Grand Traverse County is established in this Plan as the "designated implementation agency" to take responsibility for necessary program development through public and private sector channels, working with the Solid Waste Council (see below) and key stakeholders on the implementation process. The Office will be provided with continued staffing, supporting technical resources as well as a budget and all required delegated responsibilities in order to accomplish its task. The Solid Waste Office and BPW, as currently structured, will be modified as needed to give appropriate "implementation agency" status. Where appropriate, every effort will be made to link this implementation capability with other regional efforts out-of-county. As well, other alternate approaches for implementation will be allowed for should they be determined to be

SELECTED SYSTEM

necessary including 1) a multi-governmental Authority organized as provided for in Michigan law; 2) a quasi-governmental consortium with staff provided by its member agencies (County and Cities); 3) a newly created non-profit agency; or 4) an existing non-profit agency.

- B: The role, powers and authority of the Solid Waste Council will be further defined as a committee to the BPW that functions as the Plan's "implementation oversight committee" and is assigned the responsibility to facilitate program development through public and private sector channels, advising the BPW, the County Board of Commissioners and key stakeholders on the implementation process and advising for the enterprise fund. The Council will serve as the focal point for encouraging intergovernmental cooperation, regional collaboration and private sector participation as well as involving the local business sector and community groups.
- C: The current annual "strategic plan" will be expanded into a more comprehensive "Implementation Action Plan" covering all aspects of implementation of the Plan's Enforceable Program and Process where specific milestones will be identified for the coming years -- serving as a road map to guide the Implementation Oversight Committee and the designated implementation agency. This action plan will have a strong emphasis on "planning to plan" in order to define required decisions, important decision factors, and expected timing/outcomes, all consistent with the Plan's Enforceable Program and Process as provided by statute, but at a level of detail required for actual task assignments with coordination and accountability for measurable outcomes. The action plan format will also provide for a means to be updated on a regular basis based on monitoring of progress towards plan goals and targeted diversion rates and a mechanism for feeding these updates into the ordinance/contract structure should they need to be changed.
- D: The intergovernmental contracts between the County DPW and participating local units of government will be amended to allow implementation of the next steps in the system development as described above. Ordinance changes will follow as required for implementation of the Plan's Enforceable Program. Amendments to the Intergovernmental Agreements and Ordinance are authorized by this Plan, which will not need to be updated to reflect the amendments to the Agreements and Ordinance as long as such amendments are in compliance with relative provisions of Part 115 of NREPA.

A negotiation process will be initiated with communities in the County to identify and resolve specific issues that need to be addressed before the communities are expected to sign amended intergovernmental agreements. These communities as well as other key parties affected by the planned programs will be asked to participate in discussions on implementation details, scheduling and coordination issues. This process will include discussions and decisions about the various roles to be played by the public and private sectors in system implementation. The resulting recommendations will then be incorporated into the Implementation Action Plan and the Plan Management Component legal/financing mechanisms to the degree that they support implementation of the Plan's selected alternative. This process also will involve negotiations with nearby counties interested in working with the County on various program areas (e.g. recycling processing) on a regional basis so that these details can be worked out and incorporated into the Implementation Action Plan.

- E: System improvements, new services, required contract/licensing structures and processing facility expansions will be further detailed, incorporated into the Implementation Action Plan and then implemented. The implementation is expected to be handled by private and/or non-profit or other governmental agencies with service contracts being the principal means to define expected performance and the necessary flow of funds. In addition to updating the intergovernmental contract, County Ordinance and the hauler licensing and facility designation contracts, it is expected that service contracts will be needed for any recommended service zones or franchise arrangements. Other contracts will be needed for

SELECTED SYSTEM

purchased services such as the upgraded household hazardous waste program as well as other program components.

- F: Upon implementation progress will be tracked through methodical data compilation and analysis in order to measure, on an annual basis, overall waste generation, reduction and recycling, benchmark performance against goals, and target future implementation planning. Regular updates of system performance and new goals will be incorporated into the continuously updated Implementation Action Plan as they develop.

III-11 IDENTIFICATION OF RESPONSIBLE PARTIES

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

Grand Traverse County Board of Commissioners: The County Board is responsible for the overall supervision of the solid waste management system for the county acting through its Board of Public Works and Solid Waste and Recycling Office (SWRO).

Board of Public Works: This board is appointed by the County Commissioners and ultimately has responsibility for oversight of regulatory responsibilities within the County solid waste ordinance. This includes oversight of hauler licensing arrangements, collection of the solid waste disposal surcharge and provision of private sector recycling services as required by the ordinance. The BPW also oversees operations of the wastewater treatment plant, including disposition of sludge.

Solid Waste and Recycling Office: This office, which has a full-time staff person reporting to the Board of Public Works, provides day-to-day management of County solid waste management programs. This includes providing recycling and composting outreach and education; coordinating operation of the household hazardous waste collection and County yard waste handling programs; implementation and administration of the County solid waste ordinance; and providing general information to the public

Solid Waste Council: This nine-member council is appointed by the Board of Commissioners and has the first point of review for fiduciary responsibility regarding operations of County recycling, solid waste, household hazardous waste and composting programs.

Solid Waste Management Planning Committee (SWMPC): The Grand Traverse County SWMPC is responsible for updating the County five-year and 10-year Solid Waste Management Plan, 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.

Municipal and Township Governments: All local units of government have entered into an intergovernmental agreement, for certain solid waste handling and designation provisions.

Private Solid Waste Haulers: Private sector waste haulers provide for collection of solid waste and management of certain facilities as defined in the County solid waste licensing ordinance.

The following lists which entities within the County will have management responsibilities over various areas of the Plan:

Resource Conservation:

Source or Waste Reduction -
Product Reuse -
Reduced Material Volume -
Increased Product Lifetime -
Decreased Consumption -

Responsible Parties

Solid Waste and Recycling Office (SWRO)
SWRO/private/non-profit and waste generators
SWRO and waste generators
SWRO and waste generators
SWRO and waste generators

Resource Recovery Programs

Composting -
Recycling -
Energy Production -

Responsible Parties

Traverse City Department of Public Works
SWRO, Public Agencies & Private waste companies
SWRO, Public Agencies & Private waste companies
not applicable

SELECTED SYSTEM

Volume Reduction Techniques:

SWRO and waste generators

Collection Processes:

SWRO, Public Agencies & Private waste companies

Transportation:

SWRO, Public Agencies & Private waste companies

Disposal Areas:

Processing Plants -
Incineration -
Transfer Stations -
Sanitary Landfills -

SWRO, Public Agencies & Private waste companies
not applicable
SWRO
SWRO, Public Agencies & Private waste companies

Ultimate Disposal Area Uses:

Board of Public Works

Local Responsibility for Plan

Update Monitoring & Enforcement:

SWRO

Educational and Informational Programs:

SWRO

Documentation of acceptance of responsibilities is contained in Appendix D.

III-12 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:

- X 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.

There are two principal areas where the County's Solid Waste Management System is authorized to include ordinance provisions and appropriate rules and regulations. These are:

- A. Selected provisions of the Siting Mechanism contained in this Plan cover ancillary construction details and operational aspects of any permitted facility that is sited within the County. These provisions are considered to be consistent with the Plan and are enabled and authorized by the Plan including any ordinance and related rules and regulations required to implement them which may be adopted and implemented by the appropriate governmental unit without additional authorization from, or formal amendment to, the Solid Waste Management Plan. These include and are limited to the following:
 - a. Certain ancillary construction details,
 - b. Hours of operation,
 - c. Noise, litter, odor and dust controls as well as other site nuisances,
 - d. Operating records and reports,
 - e. Facility security and safety,
 - f. Monitoring requirements for wastes accepted, banned or prohibited, and
 - g. Volume reduction, recycling and composting requirements.
- B. The Plan's Enforceable Program and Process including the Authorized Management Component, the Authorized Export conditions and the Plan's authorized Ordinance provisions will be carried out through the County's system of intergovernmental contracts, the Ordinance 17 in current and future amended form, its administrative rules and regulations and the supporting hauler licensing, facility designation agreements and service contracts and system procurement provisions. These provisions and mechanisms are considered to be consistent with the Plan's Enforceable Program including any further amendments to ordinances and related rules and regulations as required to implement the Plan's Enforceable Program which may be adopted and implemented by the appropriate governmental unit without additional authorization from, or formal amendment to, the Solid Waste Management Plan, except that such amendments shall not exceed the authority provided for in Part 115 of NREPA with regards to the location of disposal areas.

SELECTED SYSTEM

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

A. Geographic area /Unit of government:	Whitewater Township
Type of disposal area affected:	Landfill Disposal Areas
Ordinance or other legal basis:	Township Ordinance
Requirement/restriction:	Buffer, Operations, Balance of Items on List in "1" above.

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

[Return to
amendment letter](#)

Regulations meeting these qualifications may be adopted and implemented by the appropriate governmental unit without additional authorization from, or formal amendment to, the Solid Waste Management Plan. Allowable areas of local regulation, beyond those specified elsewhere in this document, include:

- a. Certain ancillary construction details,
- b. Hours of operation,
- c. Noise, litter, odor and dust controls as well as other site nuisances,
- d. Operating records and reports,
- e. Facility security and safety,
- f. Monitoring requirements for wastes accepted, banned or prohibited, and
- g. Volume reduction, recycling and composting requirements.

III-13 CAPACITY CERTIFICATIONS

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

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

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

The table below identifies landfill disposal areas, their expected life, historical usage rates, and supporting analysis that demonstrates that the County will have more than ten years of disposal capacity for the duration of the ten year planning period. These facilities have all been included in the Plan and appropriate export arrangements made. Attachment B includes a letter from one of these facilities, Glen's Landfill (WMI) in Leelanau County, that indicates that they can supply Grand Traverse County with 10 years of landfill capacity.

Identified Disposal Area Capacity	Available Air Space (Gate CY)	Gate CY Delivered 1995/96	Landfill Life (in yrs) Based on 1995/96 Delivery Rates	Landfill Life (in yrs) Based on 1995/96 Rates w/2% Growth
Manistee (Allied)	7,000,000	151,083	74	60
Glen's (WMI)	22,000,000	278,469	126	102
Cedar Ridge (WMI)	370,000	279,593	2	2
Ken's (WMI)	140,000	77,020	3	2
Wexford	2,000,000	215,027	15	12
CES Waters (WMI)	8,200,000	217,314	60	49
TOTAL	39,710,000	1,218,506	52	42

The calculations of landfill life assume that 20% of available air space is lost to cover and liner components and that gate cubic yards to in-place compaction is 50%. Available air space and delivery rates are based on information provided by landfills either to the State of Michigan or directly to Resource Recycling Systems, Inc.. Available air space for Manistee (Allied) was estimated based on the site that is currently approved in the County Plan and assuming approximately 2 million cubic yards per 40 acres with 2 million cubic yards for overfill minus 1 million cubic yards for existing filled space.