



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

December 2, 2015

Mr. Joseph Baumann, Chairperson
Ottawa County Board of Commissioners
12220 Fillmore Street
West Olive, Michigan 49460

Dear Mr. Baumann:

The locally approved amendment to the Ottawa County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ), dated October 7, 2015; is hereby approved.

The Plan Amendment makes the following changes:

- Changes the isolation distances required for a new landfill or an expansion at an existing landfill; specifically, 100 feet from adjacent property lines, road right-of-way, and 400 feet from lakes, and perennial streams or minimum state isolation distances, whichever is greater.
- Clarifies that the active work area for a new landfill or an expansion of an existing landfill shall not be located closer than 1,000 feet from domiciles or public schools existing at the time of submission of the application.

The DEQ would like to thank Ottawa County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Christina Miller, Solid Waste Planning, Reporting and Surcharge Coordinator, Sustainable Materials Management Unit, Solid Waste Section, Office of Waste Management and Radiological Protection, at 517-614-7426; millerc1@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Bryce Feighner, P.E., Chief
Office of Waste Management and
Radiological Protection
517-284-6551

cc: Senator Arian B. Meekhof
Representative Amanda Price
Representative Daniela Garcia
Mr. Stew Whitney, Ottawa County DPA
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Chief Deputy Director, DEQ
Ms. Maggie Pallone, Director of Legislative Affairs, DEQ
Mr. Fred Sellers, DEQ
Mr. Duane Roskoskey, DEQ
Ms. Rhonda S. Oyer/Ms. Christina Miller, DEQ/Ottawa County File



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

April 26, 2000

Mr. Dennis Swartout, Chairperson
Ottawa County Board of Commissioners
414 Washington
Grand Haven, Michigan 49417

Dear Mr. Swartout:

The Department of Environmental Quality (DEQ) received the locally approved update to the Ottawa County Solid Waste Management Plan (Plan) on August 26, 1999. Except for the item indicated below, the Plan is approvable. As outlined in the letter dated February 3, 2000, from Mr. Stan Idziak, DEQ, Waste Management Division, and as confirmed by your letter dated February 25, 2000, the DEQ makes the following modification to the Plan:

On [Page III-56, paragraph 7](#) states:

The Facility Review Subcommittee may recommend that those isolation distances and design and operating standards established by this plan, but that are greater than Part 115 requirements, may be waived or modified if the applicant demonstrates and the Board finds, in writing, that the following conditions have been met: the Facility Review Subcommittee may authorize exemptions or variances from the County's criteria and standards upon a demonstration by the applicant that the County's requirement is not feasible and prudent, and that the substitute requirement will provide an equivalent degree of protection for the public health and environment, or that the public health, welfare, and environment will not be additionally impaired. The applicant must show that exception circumstances exist and that no impairment of current and future uses of natural resources will result.

This paragraph outlines a procedure that constitutes a discretionary act by the Facility Review Subcommittee that may arbitrarily alter the County's siting criteria. Section 11538 (3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), states: "An interim siting mechanism shall 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." Therefore, the paragraph referenced above is hereby deleted from the Plan.

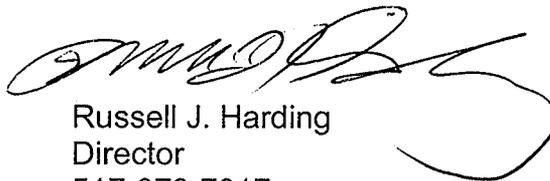
By this letter, the Plan with the above indicated modification, is hereby approved and the County now assumes responsibility for the enforcement and implementation of this Plan. The DEQ would like to thank the County for their efforts in addressing the County's solid waste management issues.

By approving the Plan, the DEQ has determined that it complies with the provisions of Part 115 of the NREPA and the Part 115 administrative rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms that authorize the state, a county, a municipality, or a person to take legal action to guarantee compliance with the Plan, as required by Part 115. The Plan is enforceable, however, only to the extent the County properly implements these enforceable mechanisms under applicable enabling legislation. The Plan itself does not serve as such underlying enabling authority, and the DEQ'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 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.

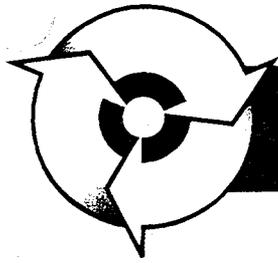
If you have any questions, please contact Mr. Seth Phillips, Chief, Solid Waste Management Unit, at 517-373-4750.

Sincerely,



Russell J. Harding
Director
517-373-7917

cc: Senator William Van Regenmorter
Senator Leon Stille
Representative James L. Koetje
Representative Jon Jellema
Representative Wayne Kuipers
Mr. Darwin J. Baas, Ottawa County Health Department
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Ms. Amy Lachance, DEQ - Grand Rapids
Mr. Seth Phillips, DEQ
Ms. Lynn Dumroese, DEQ
Ottawa County File



Ottawa County

Solid Waste

Management Plan

Update • 1999

Prepared by

Ottawa County Solid Waste Planning Committee

Ottawa County Health Department – Environmental Health Division

Westshore Consulting

OTTAWA COUNTY
COUNTY SOLID WASTE MANAGEMENT PLAN

February 1999

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

DEQ

**John Engler, Governor
Russell J. Harding, Director**

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

**This document is available to download from our Internet site at:
<http://www.deq.state.mi.us/wmd/sections/swpshome.html>**

EQP 5210 (8-97)

1997 PLAN UPDATE COVER PAGE

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

DATE SUBMITTED TO THE DEQ:

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

NA

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

Municipality	Original Planning County	New Planning County
NA	NA	NA

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Ottawa County Solid Waste Management Committee

CONTACT PERSON: Darwin J. Baas

ADDRESS:

County of Ottawa Health Department-Environmental Health Division
12251 James Street
Holland, MI 49424

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FAX: 616-393-5643

E-MAIL: (If Applicable)

CENTRAL REPOSITORY LOCATION(S):

ADDRESS: Ottawa County Clerk's Office, Ottawa County Building
414 Washington
Grand Haven, MI 49417

ADDRESS: Ottawa County Health Department, Environmental Health Division
12251 James Street - Suite 200
Holland, MI 49424

TABLE OF CONTENTS

Executive Summary

Introduction

I	Goals and Objectives	I-1
II	Database and Solid Waste Management Alternatives	II-1
II.1	Database	II-1
II.1.1	Identification of Sources of Waste Generation within the County, Total Quantity of Solid Waste Generated to be Disposed, and Sources of the Information	II-1
II.1.1.1	Type II Landfill Disposal	II-1
II.1.1.2	Holland BPW Type II and Consumers Energy Type III Facilities	II-1
II.1.1.3	Yard Waste	II-2
II.1.1.4	Household Hazardous Waste	II-2
II.1.2	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	II-7
II.1.2.1	Type II Facilities	II-7
II.1.2.2	Type III Facility	II-9
II.1.2.3	Processing Plant	II-9
II.1.2.4	Transfer Station	II-9
II.1.2.5	Other Facilities	II-9
II.1.3	Facility Descriptions	II-9
II.1.3.1	Facility Type: Processing Plant	II-11
II.1.3.2	Facility Type: Type II Solid Waste Landfill/Processing Plant	II-12
II.1.3.3	Facility Type: Type II Landfill	II-13
II.1.3.4	Facility Type: Type II Landfill	II-14
II.1.3.5	Facility Type: Type II Landfill and Industrial Waste Surface Impoundment Closed as Landfill	II-15
II.1.3.6	Facility Type: Transfer Station	II-16
II.1.4	Solid Waste Collection Services and Transportation Infrastructure	II-17
II.1.4.1	Collection Services	II-17
II.1.4.2	Transportation Infrastructure	II-17
II.1.5	Evaluation of Deficiencies and Problems	II-19
II.1.5.1	Data Collection	II-19
II.1.5.2	Targeted Education Efforts	II-19
II.1.5.3	Household Hazardous Waste and MDA Chemical Disposal Programs	II-19
II.1.5.4	Small Business Participation in Household Hazardous Waste Program	II-20
II.1.5.5	Current Solid Waste Management Plan	II-20
II.1.5.6	Pollution Prevention Efforts	II-20
II.1.5.7	Recycling	II-20

TABLE OF CONTENTS

II.1.6	Demographics	II-20
II.1.6.1	Population Trends and Growth Projections	II-20
II.1.6.2	Current and Projected Centers of Waste Generation	II-26
II.1.6.3	Projected Solid Waste Disposal	II-36
II.1.6.4	Projected Special Waste Disposal	II-38
II.1.6.5	Current Landfill Capacity	II-38
II.1.7	Land Development	II-39
II.2	Solid Waste Management Alternatives	II-42
II.2.1	Alternative #1 - Maintain Existing System	II-43
II.2.1.1	Resource Conservation	II-43
II.2.1.2	Resource Recovery	II-43
II.2.1.3	Volume Reduction	II-43
II.2.1.4	Sanitary Landfill	II-43
II.2.1.5	Collection	II-43
II.2.1.6	Transportation	II-43
II.2.1.7	Ultimate Disposal Area Uses	II-43
II.2.1.8	Institutional Arrangements	II-44
II.2.2	Alternative #2 - Improve Existing System	II-44
II.2.2.1	Resource Conservation	II-44
II.2.2.2	Resource Recovery	II-45
II.2.2.3	Volume Reduction	II-45
II.2.2.4	Sanitary Landfill	II-45
II.2.2.5	Collection	II-45
II.2.2.6	Transportation	II-45
II.2.2.7	Ultimate Disposal Area Uses	II-46
II.2.2.8	Institutional Arrangements	II-46
III	The Selected Solid Waste Management System	III-1
III.1	Overview	III-1
III.2	Five Year Plan	III-3
III.2.1	Public Information and Education Strategies	III-3
III.2.2	Waste Reduction, Recycling and Resource Recovery Strategies	III-4
III.3	Ten Year Plan	III-4
III.4	Import Authorization	III-5
III.5	Export Authorization	III-6
III.6	Solid Waste Disposal Areas	III-16
III.6.1	Facility Descriptions	III-18
III.6.2	Facility Type: Processing Plant	III-18
III.6.3	Facility Type: Type II Solid Waste Landfilling/Processing Plant	III-19
III.6.4	Facility Type: Type II Landfill	III-20
III.6.5	Facility Type: Type II Landfill	III-21
III.6.6	Facility Type: Type III Landfill and Industrial Waste Surface Impoundment Closed as Landfill	III-22

TABLE OF CONTENTS

III.6.7 Facility Type: Transfer Station	III-23
III.6.8 Facility Type: Type II Landfill	III-24
III.6.9 Facility Type: Type II Landfill	III-26
III.6.10 Facility Type: Type II and Type III Landfills	III-27
III.6.11 Facility Type: Type II Landfills	III-28
III.6.12 Facility Type: Type A Transfer Station	III-29
III.6.13 Facility Type: Waste to Energy	III-30
III.7 Solid Waste Collection Services and Transportation	III-31
III.8 Resource Conservation Efforts	III-31
III.9 Waste Reduction, Recycling and Composting Programs	III-32
III.9.1 Volume Reduction Techniques	III-32
III.9.2 Overview of Resource Recovery Program	III-33
III.10 Recycling and Composting	III-33
III.11 Identification of Resource Recovery Management Entities	III-41
III.11.1 Environmental Groups	III-41
III.11.2 Other	III-41
III.12 Projected Diversion Rates	III-41
III.13 Market Availability for Collected Materials	III-42
III.14 Educational and Informational Programs	III-42
III.15 Timetable for Implementation	III-45
III.16 Siting Review Procedures	III-46
III.16.1 Authorized Disposal Areas Types	III-46
III.16.2 Site Expansion Criteria and Process	III-46
III.16.3 Landfill Siting and Expansion Procedures	III-47
III.16.3.1 Authorized Disposal Area Types	III-47
III.16.3.2 Site Expansion Criteria and Process	III-47
III.16.4 Facility Operating Standards	III-47
III.16.5 Facility Development and Expansion Procedures	III-49
III.17 Solid Waste Management Components	III-56
III.17.1 Ottawa County Board of Commissioners	III-57
III.17.2 Ottawa County Solid Waste Planning Committee	III-57
III.17.3 Ottawa County Health Department - Environmental Health Division	III-57
III.17.4 Ottawa County Road Commission	III-58
III.18 Identification of Responsible Parties	III-50

TABLE OF CONTENTS

III.19 Local Ordinances and Regulations Affecting solid Waste Disposal	III-59
III.20 Capacity Certifications	III-59

Figures

Figure II-1	-	Household Hazardous Waste Program
Figure II-2	-	Type II Landfill Disposal (Tons)
Figure II-3	-	Solid Waste Facilities, Ottawa County, Michigan
Figure II-4	-	Transportation Infrastructure, Ottawa County, Michigan
Figure II-5	-	Population - 1998, Ottawa County, Michigan
Figure II-6	-	Population - 2003, Ottawa County, Michigan
Figure II-7	-	Population - 2008, Ottawa County, Michigan
Figure II-8	-	Residential Properties - 2003, Ottawa County, Michigan
Figure II-9	-	Residential Properties - 2008, Ottawa County, Michigan
Figure II-10	-	Commercial Properties - 2003, Ottawa County, Michigan
Figure II-11	-	Commercial Properties - 2008, Ottawa County, Michigan
Figure II-12	-	Industrial Properties - 2003, Ottawa County, Michigan
Figure II-13	-	Industrial Properties - 2008, Ottawa County, Michigan
Figure II-14	-	1992-93 Land Use Cover, Ottawa County, Michigan
Figure III-1	-	Solid and Special Waste Import Map and Export Map

Tables

Table II-1	-	Type II Landfill Disposal in Tons
Table II-2	-	Type III Landfill Coal Ash Disposal in Tons
Table II-3	-	Amount of Yard Waste Composted
Table II-4	-	Participation in County Household Hazardous Waste Program
Table II-5	-	Waste Disposal Trends
Table II-6	-	Ottawa County Population Data
Table II-7	-	Residential Classed Parcels
Table II-8	-	Commercial Classed Parcels
Table II-9	-	Industrial Classed Parcels
Table II-10	-	Solid Waste Disposal Projections
Table II-11	-	Projected Waste Generation Ottawa County Pounds per Capita Per Day Per U.S. EPA Figures
Table II-12	-	Projected Waste Generation - Ottawa County tons per year
Table II-13	-	Special Waste Disposal Projections
Table II-14	-	Land Use and Land Cover Change 1978-1992, Ottawa County
Table 1-A	-	Current Import Authorization Solid Waste
Table 1-B	-	Future Import Volume Authorization of Solid Waste Contingent on New Facilities Being Sited
Table 2-A	-	Current Export Authorization of Solid Waste
Table 2-B	-	Future Export Volume Authorization of Solid Waste Contingent on New Facilities Being Sited
Table 3-A	-	List of Counties for Import/Export of Solid Waste

TABLE OF CONTENTS

Table III-1	-	Selected System Recycling
Table III-2	-	Selected System Composting
Table III-3	-	Selected System Source Separation of Potentially Hazardous Materials
Table III-4	-	Selected System Proposed Recycling
Table III-5	-	Selected System Proposed Composting
Table III-6	-	Selected System Proposed Separation of Potentially Hazardous Materials
Table III-7	-	Timetable for Implementation

Appendices

Appendix A	-	Additional Information regarding the Selected System
Appendix B	-	Non-Selected System
Appendix C	-	Public Participation and Approval
Attachment C-1	-	Ottawa County Solid Waste Planning Committee Minutes, February 16, 1999: Approval of Plan Update.
Attachment C-2	-	Ottawa County Board of Commissioners meeting, April 27, 1999, Minutes Approving Plan Update.
Attachment C-3	-	Resolution of Approval - Local Municipality Support.
Appendix D	-	Attachments
Attachment D-1	-	Ordinance 93-1 As Amended
Attachment D-2	-	Capacity Information

EXECUTIVE SUMMARY

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

Overall View of Ottawa County (based on 1992-93 land use data)

OTTAWA COUNTY							
	URBAN	% URBAN	AGRICULTURE	% AGRICULTURE	RURAL	%RURAL	TOTAL
Allendale Township	2067.5	10.4	9920.0	49.7	7960.0	39.9	19947.5
Blendon Township	1280.0	5.5	14860.0	63.9	7105.0	30.6	23245.0
Chester Township	620.0	2.7	16987.5	74.6	5155.0	22.6	22762.5
Coopersville, City of	862.5	28.0	1560.0	50.7	655.0	21.3	3077.5
Crockery Township	2122.5	10.1	6485.0	31.0	12315.0	58.9	20922.5
Ferrysburg, City of	980.0	51.7	82.5	4.4	832.5	43.9	1895.0
Georgetown Township	8227.5	38.8	6992.5	32.9	6007.5	28.3	21227.5
Grand Haven, City of	2490.0	69.6	15.0	0.4	1072.5	30.0	3577.5
Grand Haven Township	3825.0	20.9	2520.0	13.7	11992.5	65.4	18337.5
Holland, City of	4117.5	77.4	345.0	6.5	855.0	16.1	5317.5
Holland Township	5635.0	32.5	7272.5	42.0	4412.5	25.5	17320.0
Hudsonville, City of	1437.5	60.1	597.5	25.0	357.5	14.9	2392.5
Jamestown Township	1692.5	7.4	17312.5	75.6	3897.5	17.0	22902.5
Olive Township	1465.0	6.3	14872.5	64.3	6785.0	29.3	23122.5
Park Township	4142.5	33.7	2042.5	16.6	6120.0	49.7	12305.0
Polkton Township	970.0	3.9	18492.5	73.5	5710.0	22.7	25172.5
Port Sheldon Township	1905.0	13.3	1507.5	10.6	10857.5	76.1	14270.0
Robinson Township	2050.0	8.3	8012.5	32.4	14630.0	59.2	24692.5
Spring Lake Township	2880.0	29.5	660.0	6.8	6227.5	63.8	9767.5
Spring Lake, Village of	542.5	81.0	0.0	0.0	127.5	19.0	670.0
Tallmadge Township	2732.5	13.2	8700.0	42.1	9210.0	44.6	20642.5
Wright Township	1067.5	4.6	17260.0	74.7	4770.0	20.7	23097.5
Zeeland, City of	1250.0	65.1	300.0	15.6	370.0	19.3	1920.0
Zeeland Township	2060.0	9.3	17012.5	77.2	2970.0	13.5	22042.5

Conclusions

The County has two goals for the Ottawa County Solid Waste Management Plan:

- To design and oversee an effective and environmentally sound, integrated solid waste management system that ensures that the solid waste generated within the County is properly managed and that the long term disposal needs for private sector businesses and County residents are met.
- To actively promote pollution prevention, waste reduction, hazardous waste management, recycling, reuse, and composting through a collaborative effort with private sector businesses, County residents, and local units of government.

Ottawa County is in an unusual position from a solid waste system standpoint because it does not own or operate any waste disposal, collection, processing, treatment, transportation, or disposal systems, and does not experience any disposal problems associated with residential and commercial solid waste, industrial sludges, pretreatment residues, municipal sewage sludge, air pollution control residue, cleanup wastes, or other solid wastes from industrial sources. With the exception of household hazardous waste, County residents and businesses rely solely upon private sector entities to meet their waste disposal needs.

The selected system alternative which is briefly summarized below will build on the success of the County's current solid waste management program by:

- strengthening the County's role as a liaison to the private sector and local communities on recycling, resource conservation, pollution prevention and other solid waste management issues;
- expanding the Household Hazardous Waste program to provide fee for service hazardous waste disposal for small quantity and conditionally exempt small quantity generators; and
- continuing to encourage the waste management industry to develop innovative programs to meet the solid waste management needs of the County.

Selected Alternatives

Because the day-to-day details of the solid waste management system are controlled by the private sector and are primarily market driven, the County's evaluation of solid waste management alternatives focused on the issues where the County could compliment the existing program and facilitate the goals and objectives of the Plan. The selected alternative for the ten year planning period from 1998 to 2008 consists of continued landfilling of solid wastes; relying on the private sector to work with local communities, industries and businesses to provide collection, transportation, disposal, recycling and composting services; serving as a liaison to the private sector and local communities on solid waste management issues including recycling, resource conservation, and pollution prevention; and expanding the successful household hazardous waste collection program. The support, involvement and partnership of local communities and a strong working relationship with the private sector will be significant parts of the successful implementation of the selected alternative.

The elements of the selected system are briefly summarized below:

- **Resource Conservation.** The County will develop public education efforts targeted at increasing public participation in the recycling and composting programs offered by the private sector waste haulers who service Ottawa County residents and businesses. Additional educational efforts will be directed at residents to develop a greater awareness of how the improper disposal of hazardous waste can have a detrimental impact on natural resources and public health and to increase their participation in the County's already successful household hazardous waste collection program. The County will expand the household hazardous waste program to include a fee for service program for small quantity generators to provide them with environmentally sound disposal alternatives and referrals to transportation and disposal companies.
- **Resource Recovery.** The County, while electing not to compete with companies who provide recycling or resource recovery services, does provide coordination for certain recycling efforts such as telephone directory recycling. The County will continue to coordinate these types of recycling activities and serve in an educational outreach role. The County will evaluate developing web page as an educational tool to provide County residents and businesses with recycling, resource recovery, composting, waste reduction and pollution prevention information. The County will continue to rely upon private sector companies for all collection, transportation and processing of materials recovered through recycling. Local communities also continue to participate in resource recovery programs.
- **Volume Reduction.** The County will continue to rely on the private sector to facilitate volume reduction.

- **Sanitary Landfill.** The County will continue to rely on existing, privately owned and operated landfills to meet its waste disposal needs for the planning period and will assure that those landfills have adequate capacity to accommodate in-County and imported waste disposal needs from counties as approved in the Plan. Disposal methods are described in the operating licenses for the individual facilities. The import agreements with surrounding counties will assure that the County's waste disposal needs are met while allowing the private sector waste management industry to be competitive.
- **Collection.** The County will continue to rely upon the private sector to provide waste collection services.
- **Transportation.** The County will continue to rely upon the private sector to meet the waste hauling and related solid waste transportation needs of residents, municipalities and businesses located within the County.
- **Ultimate Disposal Area Uses.** A Letter of Consistency was issued by the County for each landfill site which describes the ultimate disposal area uses contained in the construction permit application. Ultimate disposal area use will be determined by the County, local community, and MDEQ in accordance with Part 115 closure requirements.

INTRODUCTION

I GOALS AND OBJECTIVES

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

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

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

Goal 1: *To design and oversee an effective and environmentally sound, integrated solid waste management system that ensures that the solid waste generated within the County is properly managed and that the long term disposal needs for private sector businesses and County residents are met.*

Objective 1a: To fulfill the requirements of Part 115 of the Michigan Natural Resources and Environmental Protection Act (Act 451, of 1994, as amended) by preparing a Solid Waste Management Plan Update that is consistent with the Michigan Department of Environmental Quality's guidance and plan format.

Objective 1b: To prepare a Solid Waste Management Plan Update that is a practical management tool that will enable the County to implement the Plan Update and to update the document in the future.

Objective 1c: To establish and maintain inter-county cooperation and enlist the support of all local units of government and the participation of County residents and private sector business in developing and implementing an integrated solid waste management system.

Action No. 1: Disseminate accurate and timely information to local units of government, County residents, and private sector businesses concerning solid waste management issues facing the County.

Action No. 2: Solicit input from local units of government, County residents and private sector businesses regarding the Plan Update.

Goal No. 2: *To actively promote pollution prevention, waste reduction, hazardous waste management, recycling, reuse, and composting through a collaborative effort with private sector businesses, County residents, and local units of government.*

Objective No. 2a: To promote the protection of public health and natural resources by reducing the amount of hazardous substances in the solid waste stream through waste reduction and pollution prevention.

Action No. 1: Encourage County residents to minimize the volume of hazardous constituents placed in the solid waste stream through the County's comprehensive household hazardous waste management program.

Action No. 2: Serve as a liaison and point of contact for County residents and local units of government for information on public health, technical, and educational programs that relate to solid waste management (e.g.: mercury awareness and the collection center for agricultural pesticides).

Action No. 3: Encourage County private sector businesses to develop and implement pollution prevention programs based on successful and cost effective pollution prevention programs developed and implemented elsewhere in the State and the Nation. Examples of such programs include the Michigan Pollution Prevention Project, The West Michigan Sustainable Business Forum, and Clean Corporate Citizen program. Serve as a liaison and point of contact for information on these programs.

Objective No. 2b: To promote the protection of public health and natural resources through recycling, reuse and composting.

Action No. 1: Continue to rely on the private sector for recycling and composting programs. Serve as liaison and point of contact for information about opportunities for recycling and composting available to local units of government, County residents, and the private sector.

II. DATABASE AND SOLID WASTE MANAGEMENT ALTERNATIVES

II.1 Database

II.1.1 Identification of Sources of Waste Generation Within the County, Total Quantity of Solid Waste Generated to be Disposed, and Sources of the Information.

The following sections summarize the sources of waste generation within the County by general waste type.

II 1.1.1 Type II Landfill Disposal

Data which was provided by the County's landfill operators and compiled by the Coordinator of the County's Environmental Health Division Solid Waste Management Program was used to provide the following aggregate figures for waste generated in and to be disposed of in two of the County's Type II landfills.

Table II.1 presents an overview of the total amounts of solid and special wastes disposed of in two of the County's Type II landfills during the 1997-1998 reporting period. Solid waste figures represent an aggregate of all commercial, industrial and residential wastes. Special waste is a diversified waste stream classification consisting of Type II and III solid wastes not included in the commercial, residential, or industrial generated waste streams. These wastes may include construction and demolition debris, foundry sand, sludge, street sweepings, fly ash, bottom ash, slag, agricultural wastes and others. These wastes often require special handling and/or disposal methods. Special waste figures represent an aggregate of all special wastes.

TABLE II-1 TYPE II LANDFILL DISPOSAL IN TONS (3-1-97 -2-28-98)			
SOLID WASTE		SPECIAL WASTE	
Generated in County	249,291 tons	Generated in County	167,114 tons
Imported into County	268,332 tons	Imported into County	484,788 tons
Total solid waste	517,623 tons	Total special waste	651,902 tons
Total waste disposal in Type II landfills = 1,169,525 tons			

II.1.1.2 Holland BPW Type II and Consumers Energy Type III Facilities

Table II-2 presents an overview of the total amounts of coal ash disposed of in the City of Holland BPW Type II landfill and the Consumers Energy Type III landfill during the 1997-1998 reporting period. Separate figures for the Type II and Type III facilities are provided. These facilities are used exclusively by the City of Holland and Consumer's Energy Company, respectively.

TABLE II-2 TYPE II AND TYPE III LANDFILL COAL ASH DISPOSAL IN TONS	
Holland Board of Public Works Zeeland Township Type II facility	42,168.94 tons
Consumers Energy Company J.H. Campbell Type III facility	278,138.00 tons
Total coal ash disposed of in Type II and Type III landfills = 320,306.94	

II.1.1.3 Yard Waste

Table II-3 presents an overview of the amounts of yard waste composted at County compost sites. The figures include yard waste generated in and out of the County.

TABLE II-3 AMOUNT OF YARD WASTE COMPOSTED	
YEAR	TOTAL TONS COMPOSTED
1993	1,937 tons*
1994	15,557 tons
1995	36,417 tons
1996	37,896 tons
1997	39,765 tons

*Includes reports from two facilities only.

II.1.1.4 Household Hazardous Waste

Table II-4 and Figure II-1 present an overview of the number of persons participating in the County's household hazardous waste program. Figures for liquid and solid waste disposed of through the program are provided. A permanent collection facility is located at the Autumn Hills RDF facility in Zeeland Township. This permanent collection facility maintains regular operating hours. Temporary community collection centers are provided in various locations in the County on dates established annually by the County's Environmental Health Department.

**TABLE II-4
PARTICIPATION IN COUNTY HOUSEHOLD HAZARDOUS WASTE PROGRAM**

YEAR	PERSONS PARTICIPATION IN PROGRAM	GALLONS LIQUIDS	POUNDS SOLIDS	CYLINDERS*
1991	323	1,549	856	631
1992	320	1,782	777	806
1993	277	1,897	218	788
1994	371	2,229	1,977	1317
1995	519	2,820	1,124	1212
1996	980	4,969	3,721	1639
1997	1,419	8,570	3,609	2599

* Years 1995, 1996 and 1997 include number of propane cylinders/tanks and aerosol cans collected. Previous years include aerosol cans only.

Household Hazardous Waste Program

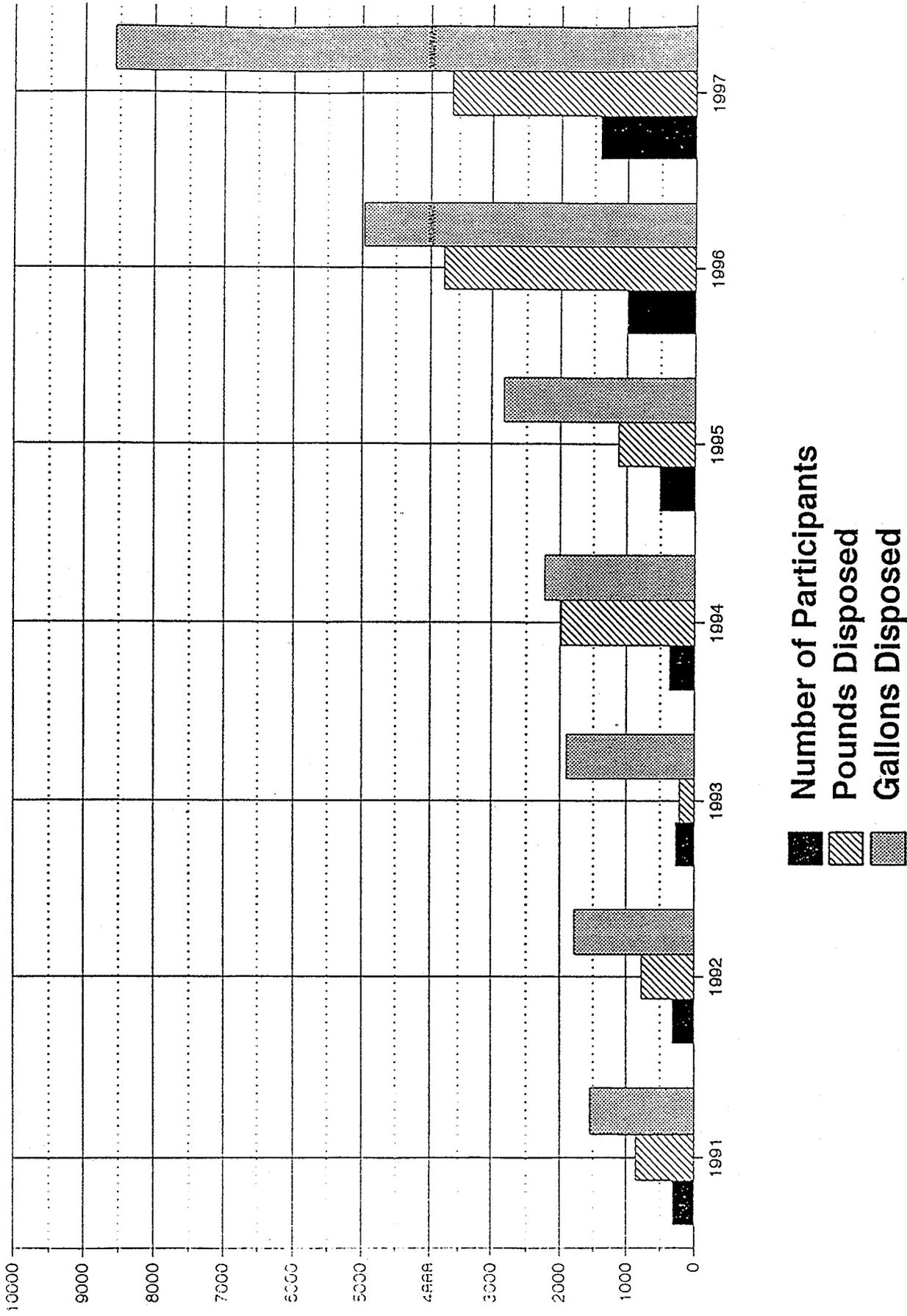


Figure II-1

Table II-5 illustrates the total amounts of solid waste generated in, exported from, and imported into the County since the 1991 - 1992 reporting period. Increases or decreases are indicated. Figure II-2 presents a graphic illustration of this data.

TABLE II-5 WASTE DISPOSAL TRENDS (TONS) 1991 - 1998							
	'91 - '92	'92 - '93	'93 - '94	'94 - '95	'95 - '96	'96 - '97	'97 - '98
Solid Waste Disposal Ottawa County	91,761	107,849 +16,088 tons or 18%	199,584 +91,735 tons or 85%	218,408 +18,824 tons or 9%	182,783 -35,625 tons or 16%	177,656 -5,127 tons or 3%	249,291 +71,635 40%
Solid Waste Exported from County	31,735	31,735	31,735	31,735	45,000	18,469	
Total Solid Waste Generated in County	123,496	263,080	231,319	250,143	227,783	196,125	
Solid Waste Disposal Imported	97,711	107,445 +9,744 tons or 10%	178,775 +71,330 tons or 66%	261,746 +82,991 tons or 46%	305,699 +43,953 tons or 17%	345,261 +35,592 tons or 13%	268,322 -76,939 22%
Total Solid Waste Disposal	189,472	215,294 +25,882 tons or 14%	378,359 +163,065 tons or 76%	480,154 +101,795 tons or 27%	488,482 +8,328 tons or 2%	522,917 +34,435 tons or 2%	517,613 5,304 1%
Special Waste Disposal Ottawa County	85,428	82,380 -3,048 tons or 4%	378,359 +163,065 tons or 14%	105,262 +34,676 tons or 49%	120,783 +15,521 tons or 15%	122,621 +1,838 tons or 2%	167,114 +44,493 36%
Special Waste Disposal Imported	208,775	144,082 -64,693 tons or 31%	216,480 +72,398 tons or 50%	279,253 +62,773 tons or 29%	344,389 +65,136 tons or 23%	400,092 +55,703 tons or 16%	484,788 +84,696 21%
Total Special Waste Disposal	294,203	226,462 -67,741 tons or 23%	287,066 +60,604 tons or 27%	384,515 +97,449 tons or 34%	465,172 +80,657 tons or 21%	522,713 +57,541 tons or 12%	651,902 +129,189 25%
Total Waste Disposal	483,765	441,756 -42,009 tons or 9%	665,425 +223,669 tons or 51%	864,669 +199,244 tons or 30%	953,654 +88,985 tons or 10%	1,045,630 +91,976 tons or 10%	1,169,515 +123,885 12%

Source: Data provided by landfill operators. Exports before '95 - '96 reporting period are average of '95 - '96 and '96 - '97 reporting periods. Yard waste ban became effective on March 28, 1995. '95 - '96 through '97 - '98 reporting periods reflect removal of yard waste from the County's waste stream. Importing counties include Allegan, Kent, Montcalm, Muskegon, and Oceana.

Type II Landfill Disposal (Tons)

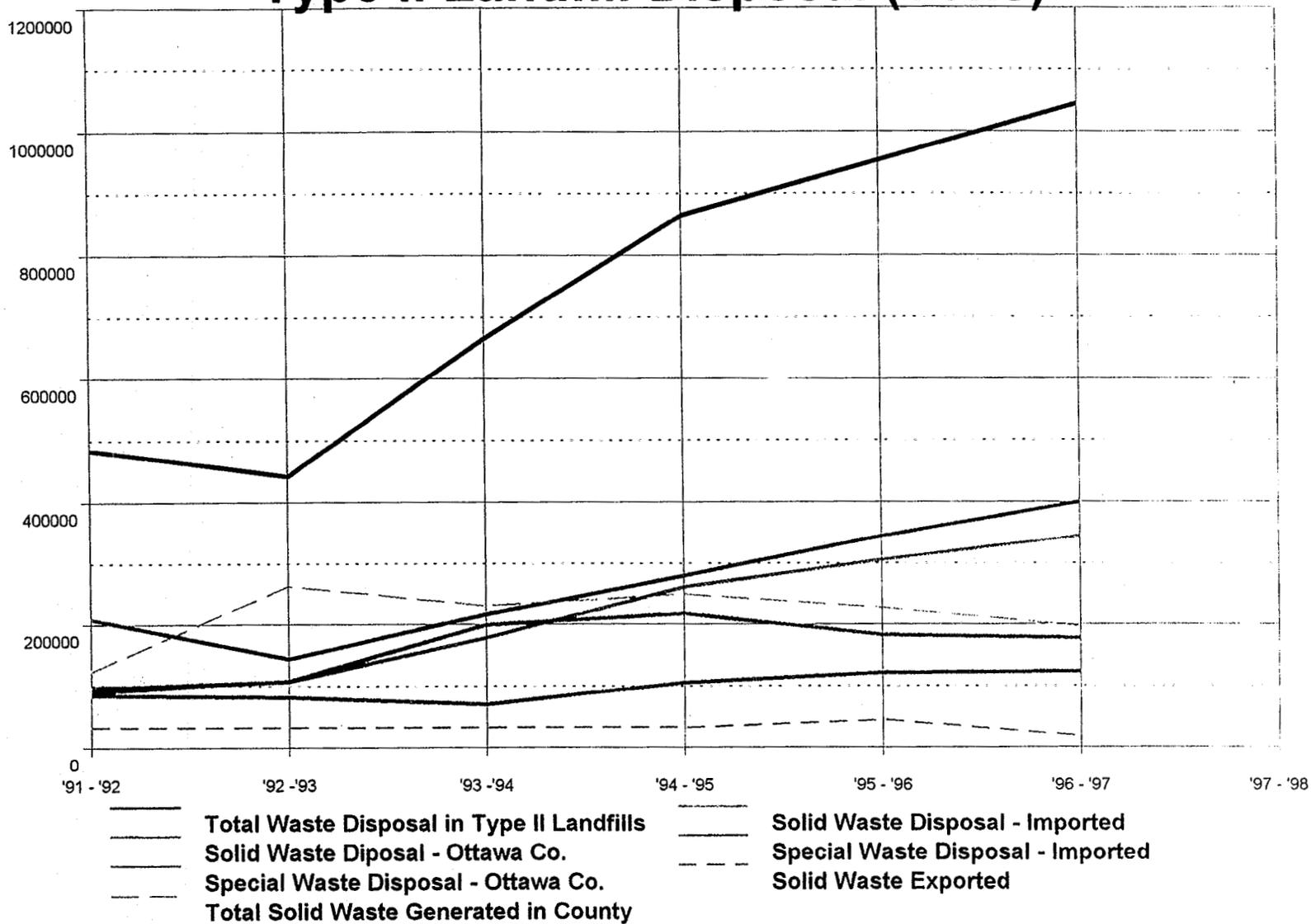


Figure II-2

II.1.2 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.

There are three Type II landfills, one Type III landfill, one Resource Recovery Center, and one Transfer Station located in the County (see Figure II-3). Each of these facilities, except the City of Holland Board of Public Works Type II facility, are privately owned and operated. These facilities will be utilized by the County for its disposal needs for the planning period. Detailed facility descriptions are provided on the following pages. Out-of-county facilities that may be used for waste that may be exported by Ottawa County are described in Section III.6. General descriptions for in-county facilities are as follows:

The closed Type II FEI International, Ltd, Landfill (Fenske Landfill) facility is located in Section 12 of Tallmadge Township at the extreme eastern edge of the County. Much of this facility's overall operation was located in Kent County but the former active fill area for the Type II landfill is within Ottawa County. At the present time, Phase II of the facility is closed pursuant to a cease and desist order issued by the Department of Natural Resources (see Appendix D for more information).

II.1.2.1 Type II Facilities

Name: *Autumn Hills Recycling and Disposal Facility*

Location: Zeeland Township

This facility accepts solid and special waste generated in and out of the County. The facility also houses the County's permanent Household Hazardous Waste collection center.

Name: *City of Holland Board of Public Works Zeeland Township Landfill*

Location: Zeeland Township

This facility is used exclusively by the City of Holland for the disposal of coal ash generated at a City owned electrical power generating plant.

Name: *Ottawa County Farms*

Location: Polkton Township

This facility accepts solid and special waste generated in and out of the county.

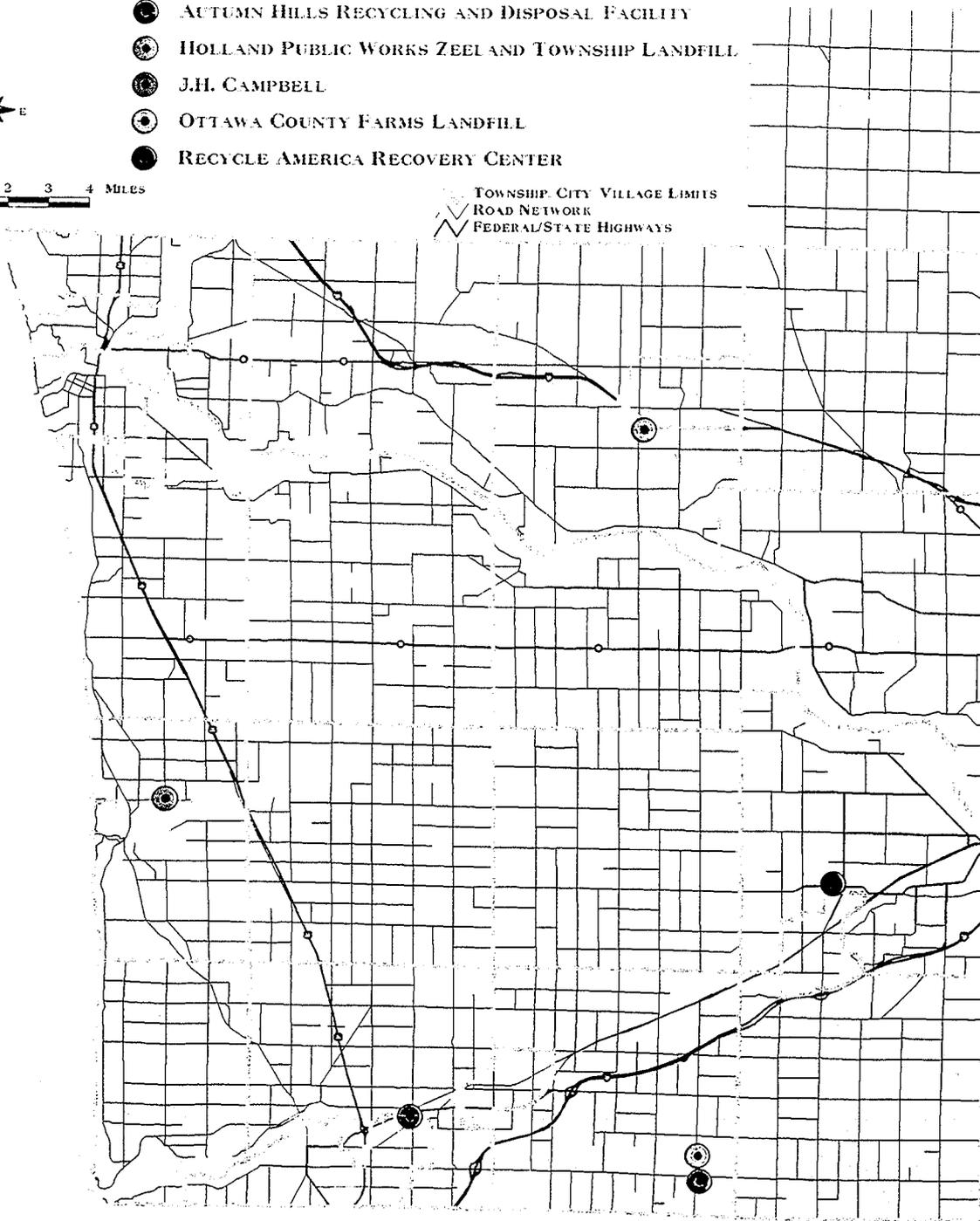
SOLID WASTE FACILITIES OTTAWA COUNTY, MICHIGAN

- ALLIED WASTE SYSTEM TRANSFER STATION
- AUTUMN HILLS RECYCLING AND DISPOSAL FACILITY
- HOLLAND PUBLIC WORKS ZEEL AND TOWNSHIP LANDFILL
- J.H. CAMPBELL
- OTTAWA COUNTY FARMS LANDFILL
- RECYCLE AMERICA RECOVERY CENTER



1 0 1 2 3 4 MILES

TOWNSHIP, CITY, VILLAGE LIMITS
ROAD NETWORK
FEDERAL/STATE HIGHWAYS



INFORMATION SERVICES CENTER
ROBERT B. ANNIS WATER RESOURCES INSTITUTE
GRAND VALLEY STATE UNIVERSITY

DATA SOURCES: BASE INFORMATION, MICHIGAN
DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
SOLID WASTE FACILITIES, OTTAWA COUNTY HEALTH
DEPARTMENT, 1998.

Figure II-3

II.1.2.2 Type III Facility

Name: *J.H. Campbell*

Location: Port Sheldon Township

This landfill is used exclusively by Consumers Energy Company for the disposal of coal ash generated at the J.H. Campbell electrical power generating facility.

II.1.2.3 Processing Plant

Name: *Recycle America Recovery Center*

Location: Holland Township

This facility processes a wide variety of recyclable materials generated in the County.

II.1.2.4 Transfer Station

Name: *Allied Waste Systems Refuse Transfer Facility*

Location: Georgetown Township

This licensed facility is not in operation as of the date of this plan.

II.1.2.5 Other Facilities

Name: *Herman Miller, Inc.*

Location: Zeeland

This office furniture manufacturer operates a modular incinerator at its plant's energy center. The incinerator burns homogeneous source separated wood waste with some cardboard and paper. The steam and heat generated by the incinerator are used in the firm's manufacturing plant.

Name: *Granger Electric*

Location: Polkton Township

This methane fired electric power generation plant is located adjacent to the Ottawa County Farms Landfill. Methane generated by the landfill is used to generate up to 4.565 megawatts of electricity.

Name: *Resource Recovery Corporation*

Location: This facility recycles foundry sand and is located adjacent to the Ottawa County Farms Landfill.

II.1.3 Facility Descriptions

II.1.3.1 Facility Type: Processing Plant

Facility Name: Recycle America Recovery Center

County: Ottawa **Location:** *Town:* 5N *Range:* 15W *Section(s):* 22

Map identifying location included in Attachment Section: Yes No

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

Public Private **Owner:** Waste Management of Michigan - Holland

Operating Status

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

Waste Types Received

- residential
- Commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes*

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

Site Size:

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

Current capacity:	<u>NA</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>NA</u>	years
Estimated days open per year:	<u>NA</u>	days
Estimated yearly disposal volume:	<u>NA</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual gas production:

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

II.1.3.2 Facility Type: Type II Solid Waste Landfill/Processing Plant

Facility Name: Autumn Hills Recycling & Disposal Facility

County: Ottawa **Location:** Town: 5N Range: 14W Section(s): 36

Map identifying location included in Attachment Section: Yes No

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

 Public Private **Owner:** Autumn Hills RFD - A Division of Waste Management of Michigan, Inc.

Operating Status

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

Waste Types Received

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

*Explanation of special wastes, including a specific list and/or conditions:
exhausted oak wood trays, minor first aid waste, contaminated pharmaceuticals manufacture, paint booth filters, dewatered waste water treatment sludge, out of spec/out of date food supplements, spent epoxy powder coatings, sand blasting sand, woodchips/dust from production, shot blast, construction and demolition materials, foundry sand, filter press cake, incinerator ash, saw dust, contaminated soils, auto fluff, asbestos, grinding sludge, carwash sand pit/traps, and food materials.

Site Size:

Total area of facility property:	<u>314</u>	acres
Total area sited for use:	<u>197</u>	acres
Total area permitted:	<u>99.3</u>	acres
Operating:	<u>35.1</u>	acres
Not excavated:	<u>64.2</u>	acres

Current capacity:	<u>20.75 mil</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>30.2</u>	years
Estimated days open per year:	<u>286</u>	days
Estimated yearly disposal volume:	<u>500,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

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

II.1.3.3 Facility Type: Type II Landfill

Facility Name: Holland Public Works Zeeland Township Landfill

County: Ottawa **Location:** *Town:* 5N *Range:* 14W *Section(s):* 25

Map identifying location included in Attachment Section: Yes No

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

Public Private Owner: City of Holland, Holland Public Works

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	<u>40</u>	acres
Total area sited for use:	<u>17.8</u>	acres
Total area permitted:	<u>5.1</u>	acres
Operating:	<u>5.1</u>	acres
Not excavated:	<u>15</u>	acres

Current capacity:	<u>Pending</u>	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>25</u>	years
Estimated days open per year:	<u>208</u>	days
Estimated yearly disposal value:	<u>25,166</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds ³

Annual energy production:

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

II.1.3.4 Facility Type: Type II Landfill

Facility Name: Ottawa County Farms Landfill

County: Ottawa **Location:** Town: 8N Range: 14W Section(s): 26 & 27

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: NA

Public Private Owner: Allied Waste Systems

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	<u>240</u>	acres
Total area sited for use:	<u>197</u>	acres
Total area permitted:	<u>240</u>	acres
Operating:	<u>37</u>	acres
Not excavated:	<u>125</u>	acres

Current capacity:

Estimated lifetime:	<u>16,500,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated days open per year:	<u>25-30</u>	years
Estimated yearly disposal value:	<u>286</u>	days
	<u>500,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

Landfill gas recovery projects:	<u>4,565</u>	megawatts
Waste-to-energy incinerators:	<u>NA</u>	megawatts

**II.1.3.5 Facility Type: Type III Landfill and Industrial Waste Surface Impoundment
Closed as Landfill**

Facility Name: J. H. Campbell

County: Ottawa **Location:** Town: 6N Range: 16W Section(s): 10, 11 & 14

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: NA

Public Private Owner: Consumer's Energy Company

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	<u>410</u>	acres
Total area sited for use:	<u>410</u>	acres
Total area permitted:	<u> </u>	acres
Operating:	<u>18</u>	acres
Not excavated:	<u>125</u>	acres

Current capacity:	<u>8,856,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>36</u>	years
Estimated days open per year:	<u>365</u>	days
Estimated yearly disposal value:	<u>246,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

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

II.1.3.6 Facility Type: Transfer Station

Facility Name: Able Sanitation Refuse Transfer Facility - Ottawa County

County: Ottawa **Location:** *Town:* 6N *Range:* 13W *Section(s):* 21

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: **NA**

Public Private **Owner:** Allied Waste Systems
not accepting solid waste as of the date of this plan.

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	_____	acres
Total area sited for use:	_____	acres
Total area permitted:	_____	acres
Operating:	_____	acres
Not excavated:	_____	acres

Current capacity:

Estimated lifetime:	_____	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated days open per year:	_____	years
Estimated yearly disposal value:	_____	days
		<input type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

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

II.1.4 Solid Waste Collection Services and Transportation Infrastructure

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

II.1.4.1 Collection Services

All waste hauling, recycling and composting services in the County are provided by private sector entities. The cities of Coopersville, Grand Haven and Holland have waste hauling franchise agreements or contracts with private entities for the collection and disposal of residential solid waste. Fees for the franchised services are paid directly to haulers by residential customers.

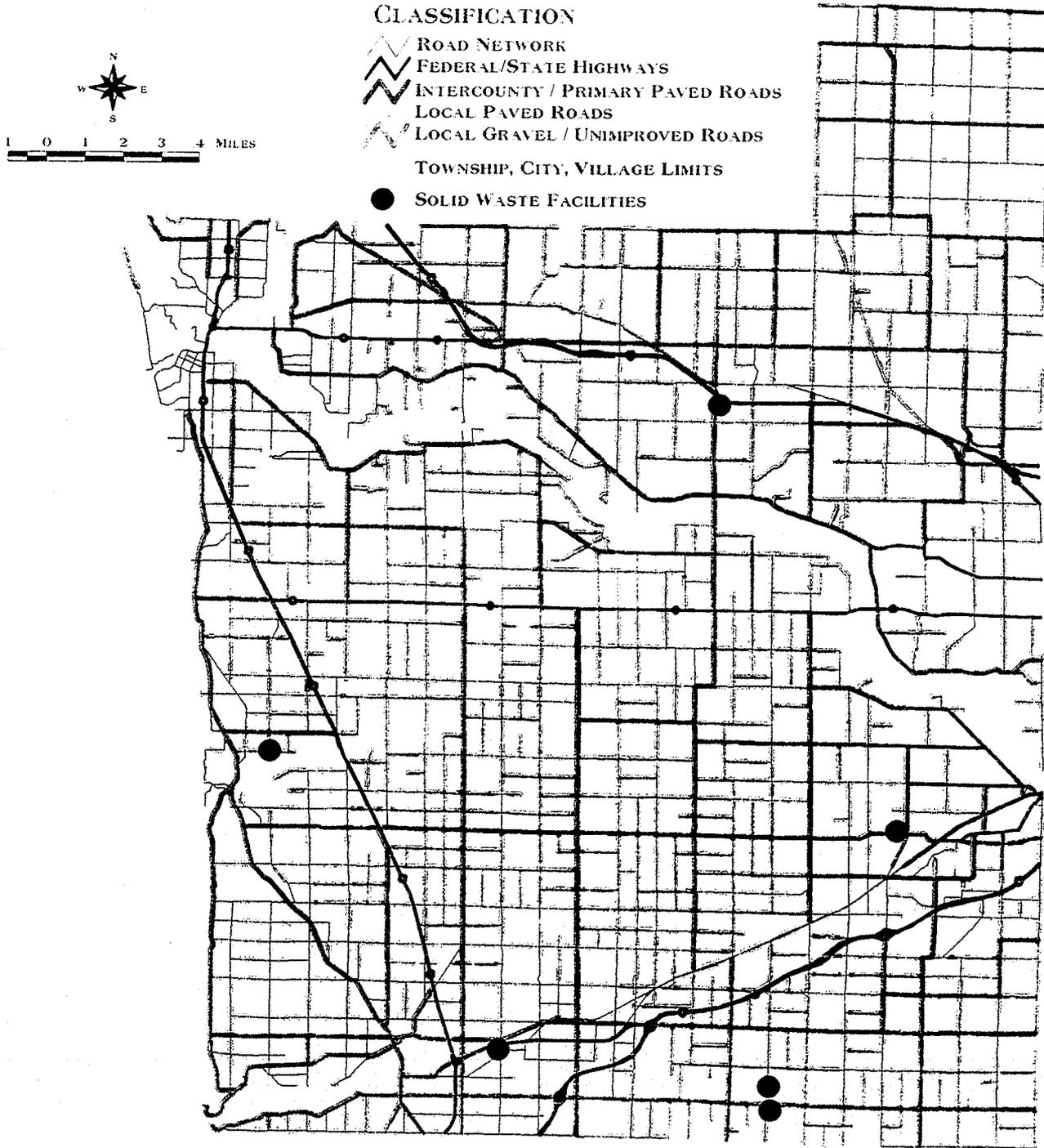
II.1.4.2 Transportation Infrastructure

The transportation infrastructure utilized by waste haulers collecting and disposing of waste generated in the County consists of interstate, state, county and local roadways. This roadway system is capable of meeting the County's transportation infrastructure needs for the planning period. Figure II-4 is a map which illustrates this roadway system.

The Autumn Hills and Ottawa County Farms Type II landfills are located on or have direct access to all weather (Class A) County roads. These roads provide convenient and direct access to the local, county, and state road system. The location of these landfills serves to reduce the potential for cross-county travel by waste haulers. This serves to potentially reduce the impact of in-county waste hauling on the County's roadway network. Additionally, the proximity of the two landfills to controlled access freeways (I-96 and I-196) minimizes the need for haulers to transport waste into the County on County roads.

TRANSPORTATION INFRASTRUCTURE

OTTAWA COUNTY, MICHIGAN



INFORMATION SERVICES CENTER
 ROBERT B. ANNIS WATER RESOURCES INSTITUTE
 GRAND VALLEY STATE UNIVERSITY

DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 ROAD NETWORK, OTTAWA COUNTY ROAD COMMISSION, 1994.

Figure II-4

II.1.5 Evaluation of Deficiencies and Problems

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

Ottawa County is in an unusual position from a solid waste system standpoint because it does not own or operate any waste disposal, collection, processing, treatment, transportation, or disposal systems, and does not experience any disposal problems associated with residential and commercial solid waste, industrial sludges, pretreatment residues, municipal sewage sludge, air pollution control residue, cleanup wastes, or other solid wastes from industrial sources. There are currently no deficiencies in disposal capacities, nor with any component of these solid waste streams. With the exception of household hazardous waste, County residents and businesses rely solely upon private sector entities to meet their waste disposal needs. This existing solid waste system presents no significant problems or deficiencies, although it does offer opportunities for improvement or enhancement. An overview of problem and deficiency related issues is presented below.

II.1.5.1 Data Collection

The 1991 Plan appears to have relied upon a very limited database as a basis for identifying waste disposal trends and possible projections for the planning period. The County has since developed more comprehensive data gathering mechanisms that track solid and special waste generated in and imported into the County. The County could benefit from a mechanism to track the business community's participation in the household hazardous waste program, because small businesses that generate unregulated amounts of hazardous waste will be encouraged to dispose of hazardous materials for a fee with the implementation of a conditional exempt small quantity generator (CESQG) program.

II.1.5.2 Targeted Education Efforts

The County could benefit from enhancing its status as a point of contact for information on private sector recycling and composting, household hazardous waste, and Michigan Department of Agriculture (MDA) agricultural chemical disposal programs.

II.1.5.3 Household Hazardous Waste and MDA Chemical Disposal Programs

The County would like to expand public participation in these already successful programs. The County would benefit from the establishment of an additional permanent collection facility in the northern portion (North of M-45) of the County.

II.1.5.4 Small Business Participation in Household Hazardous Waste Program

The County encourages small businesses that generate unregulated amounts of hazardous waste to dispose of same for a fee utilizing the household hazardous waste program. The County would benefit from raising awareness of this program in the business community.

II.1.5.5 Current Solid Waste Management Plan

One of the goals of this Plan is to assure that it can be used as an effective management tool. The Solid Waste Management Plan Update - 1991 is formatted in a manner that makes it difficult to use as an effective tool.

II.1.5.6 Pollution Prevention Efforts

The County could benefit from enhancing its status as a point of contact for information regarding pollution prevention within the private sector.

II.1.5.7 Recycling

The responsibility for delivering recycling opportunities to residents has shifted primarily to the private sector waste haulers with the costs associated with collecting and processing these materials to the resident. The County will continue to rely on the private sector. The County could benefit from enhancing its status as a point of contact for information to the private sector and local communities on recycling.

II.1.6 Demographics

The following demographic information 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 where indicated.

II.1.6.1 Population Trends and Growth Projections

West Michigan is one of the fastest growing areas in Michigan and Ottawa County is the fourth fastest growing county in the State. Ottawa County housing starts have climbed from 1650 in 1990 to 1875 in 1997.

Ottawa County's 1960 population totaled 98,719 persons. The County's population increased to 187,760 persons by 1990. This represents a 90.2 percent increase over a thirty year period. The thirty year growth trend is significant, but does not tell the whole story about population trends in the County. Some local units of government grew faster than others. Georgetown Township witnessed a 300 percent increase (7,989 persons in 1960 and 32,672 persons in 1990) over the same time period. Port Sheldon and Allendale townships grew by 290 and 258 percent respectively. Park, Grand Haven, Holland, and Robinson Townships, and the City of Hudsonville increased by 235, 179, 170, 143, and 133 percent respectively.

Table II-6 presents an overview of population trends in the County, an estimate of population for 1998, and population growth projections for the years 2003 and 2008. The growth projections have been calculated on the basis of a growth rate method that projects future population growth or decline based on the rate of growth in the past. The growth rate was calculated using the County's rate of growth between the years 1990 and 1996 as based on U.S. Census Bureau figures. An average rate of growth was calculated for that six year period for each municipality in the County. The average growth rate was then used in the growth projections for the years 1998, 2003 and 2008. Figures II-5, II-6, and II-7 are maps that present graphic illustrations of current and projected population centers and centers of solid waste generation for the years 1998, 2003 and 2008.

The five most populated communities based on 1998 estimates are Georgetown Township, the City of Grand Haven, Holland Township, the City of Holland, and Park Township. The five most populated communities based on year 2003 projections are Georgetown Township, Grand Haven Township, Holland Township, the City of Holland and Park Township. The five most populated communities based on year 2008 projections are Georgetown Township, Grand Haven Township, Holland Township, The City of Holland, and Park Township.

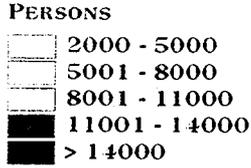
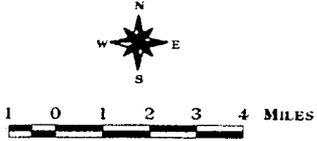
**TABLE II-6
OTTAWA COUNTY POPULATION DATA**

MUNICIPALITY	1940	1950	1960	1970	1980	1990	AVG. % GROWTH (90-96)	1998 EST.	2003 EST.	2008 EST.
Allendale Township	1377	1663	2238	3554	6080	8022	2.92	9984	11528	13310
Blendon Township	1709	1849	2237	2927	3763	4740	3.01	5938	6887	7988
Chester Township	1243	1343	1492	1786	2034	2133	1.09	2323	2453	2590
Coopersville, City of	1083	1371	1548	2129	2889	3421	1.88	3950	4335	4757
Crockery Township	1412	1763	2402	2861	3536	3599	1.03	3900	4105	4320
Ferrysburg, City of	0	0	0	2196	2440	2919	1.02	3160	3324	3497
Georgetown Township	2592	3990	7989	17615	26104	32672	3.22	41526	48649	56994
Grand Haven Township	1185	1997	3479	5489	7238	9710	2.98	12140	14061	16285
Grand Haven, City of	8799	9536	11066	11844	11763	11951	0.27	12207	12370	12536
Holland Township	4913	6224	6498	8455	13739	17523	4.59	24455	30615	38325
Holland, City of	14616	15858	22140	22991	21767	25086	1.10	27327	28859	30477
Hudsonville, City of	837	1101	2649	3523	4844	6170	1.59	6973	7544	8161
Jamestown Township	1928	2049	2258	2926	3546	4059	2.37	4858	5462	6140
Olive Township	1304	1460	1755	2072	2449	2866	1.41	3196	3427	3675
Park Township	1974	3295	4043	6461	10354	13541	3.01	16966	19679	22827
Polkton Township	1572	1759	2075	1962	2027	2277	1.29	2517	2683	2860
Port Sheldon Township	416	473	750	1078	2206	2929	2.86	3631	4182	4815
Robinson Township	1041	1281	1618	2051	3018	3925	5.02	5634	7199	9198
Spring Lake Township	2063	3700	5953	4979	6857	8214	2.86	10183	11725	13501
Spring Lake, Village of	1329	1824	2063	3034	2731	2537	-0.19	2498	2475	2451
Tallmadge Township	1728	2240	3243	4883	5927	6300	1.61	7131	7722	8362
Wright Township	1653	2139	2507	2983	3387	3285	1.10	3580	3781	3994
Zeeland Township	1879	2194	2655	2934	3711	4472	4.01	5720	7306	8893
Zeeland, City of	3007	3075	3702	4734	4764	5417	1.23	5960	6335	6733
COUNTY TOTAL	59660	72814	96396	125467	157174	18776	2.14	226038	256702	292687

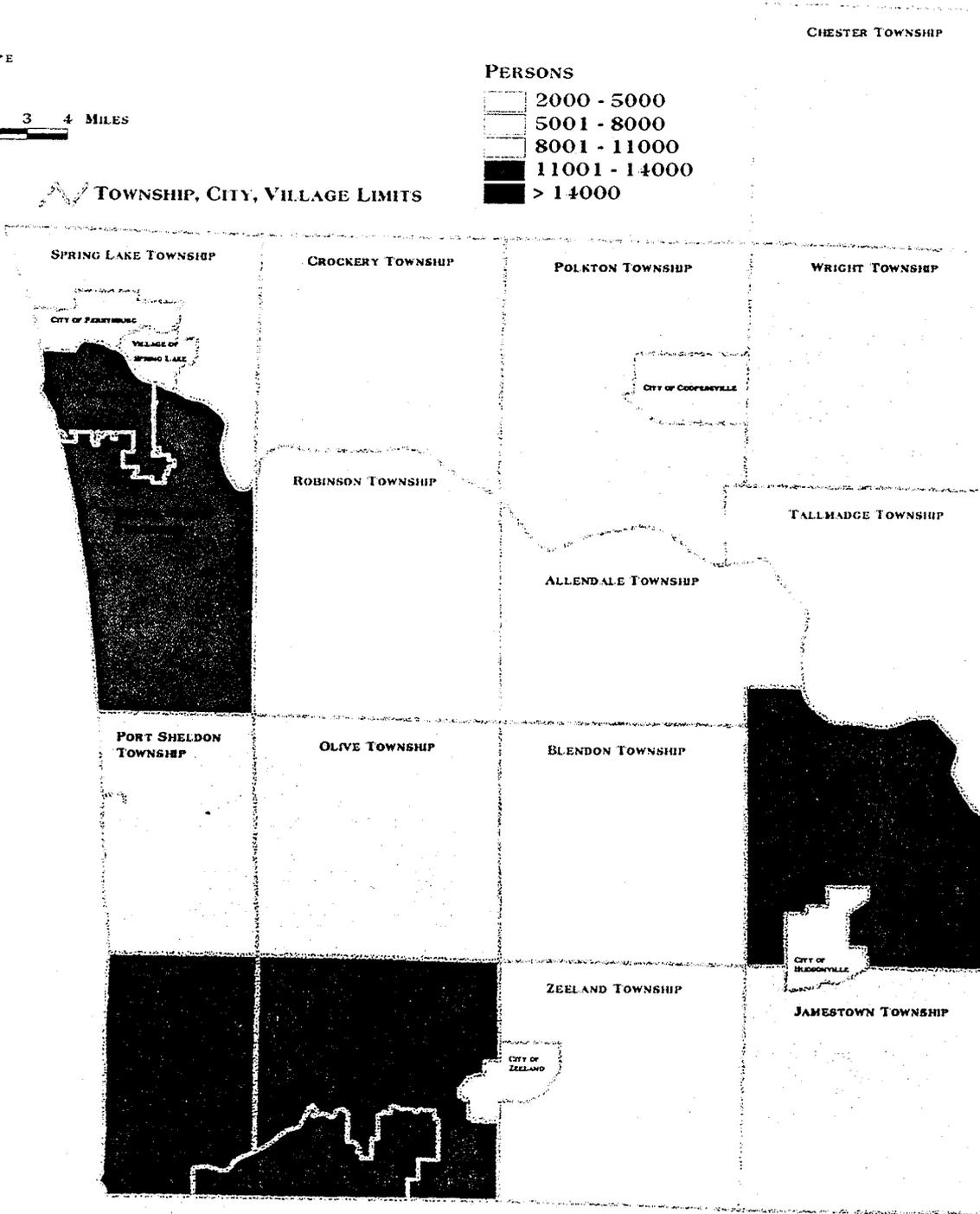
Data provided by the U.S. Bureau of Census and Grand Valley State University Water Resources Institute.

POPULATION - 1998

OTTAWA COUNTY, MICHIGAN



TOWNSHIP, CITY, VILLAGE LIMITS



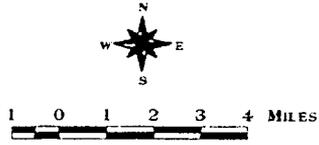
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DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 POPULATION DATA BASED ON PROJECTIONS BY GVSU-WRI, 1998.

Figure II-5

POPULATION - 2003

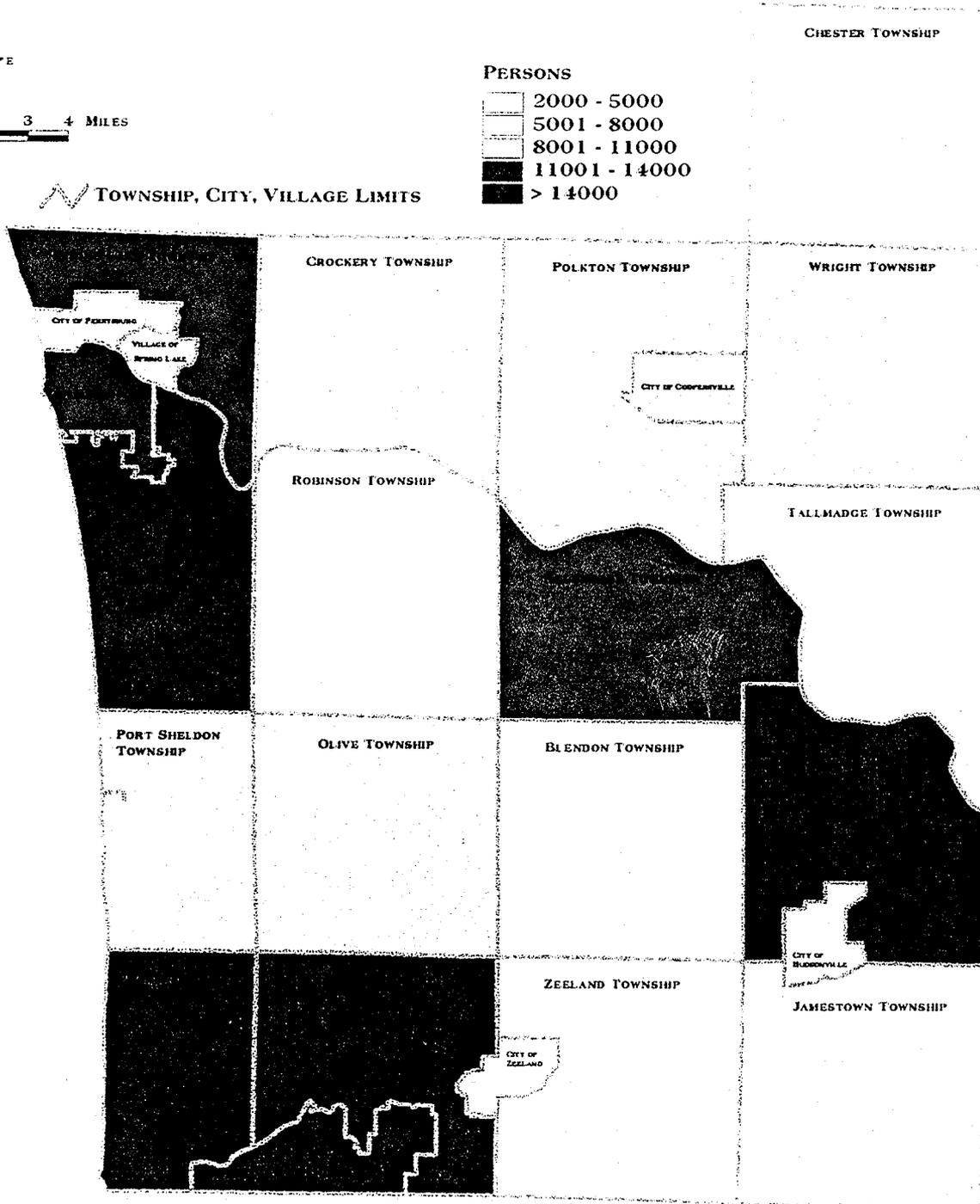
OTTAWA COUNTY, MICHIGAN



TOWNSHIP, CITY, VILLAGE LIMITS

PERSONS

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	8001 - 11000
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	> 14000



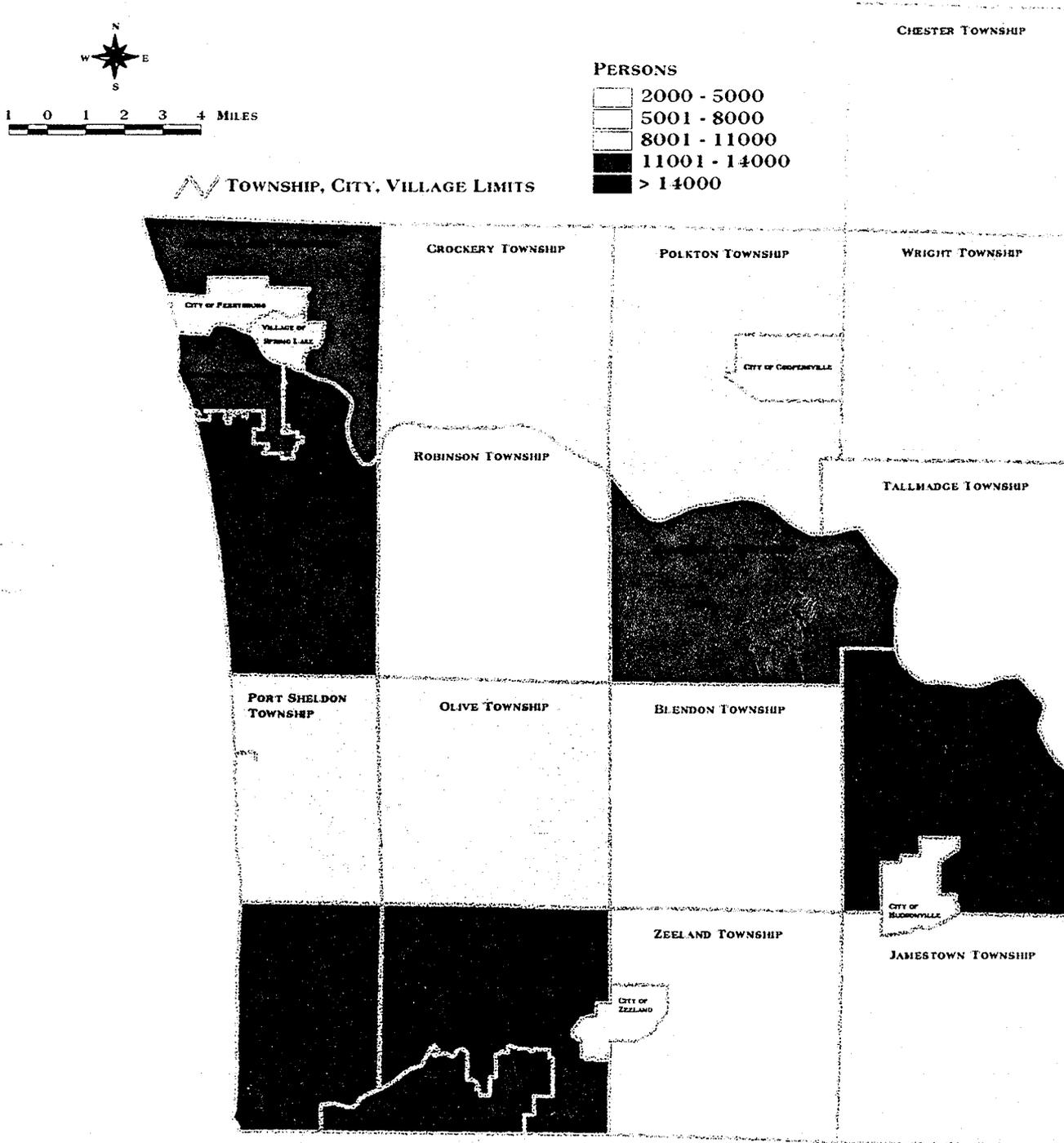
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DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 POPULATION DATA BASED ON PROJECTIONS BY GVSU-WRI, 1998.

Figure II-6

POPULATION - 2008

OTTAWA COUNTY, MICHIGAN



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DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 POPULATION DATA BASED ON PROJECTIONS BY GVSU-WRI, 1998.

Figure II-7

II.1.6.2 Current and Projected Centers of Waste Generation

Tables II-7, II-8 and II-9 utilize the Ottawa County Equalization Department's parcel classification system for taxation to estimate current and future centers of solid waste generation. Three parcel classifications (residential, commercial and industrial) were utilized. Parcel class estimates for the year 1998 and projections for the years 2003 and 2008 were calculated on the basis of a growth rate method that projects growth or decline using the average rate of growth within each class between 1990 and 1997. Figures II-8, II-9, II-10, II-11, II-12, and II-13 illustrate centers of residential, commercial and industrial waste generation.

The top five centers of residential waste generation in 1998 are estimated to be Georgetown Township, Holland Township, the City of Holland, Park Township, and Spring Lake Township. The top five centers for the year 2003 are projected to be Georgetown Township, Grand Haven Township, Holland Township, The City of Holland and Park Township. Centers for the year 2008 are projected to include Georgetown Township, Grand Haven Township, Holland Township, Park Township and Spring Lake Townships. Figures II-8 and II-9 present a graphic illustration of centers of residential waste generation.

The top five centers of commercial waste generation in 1998 are estimated to be Georgetown Township, The City of Grand Haven, Holland Township, The City of Holland and Park Township. Projections for years 2003 and 2008 include these same communities. Figures II-10 and II-11 present a graphic illustration of centers of commercial waste generation.

The top five centers of industrial waste generation in 1998 are estimated to be Georgetown Township, Holland Township, The City of Holland, Spring Lake Township, and the City of Zeeland. Projections for the year 2003 include Georgetown Township, Holland Township, The City of Holland, The City of Hudsonville and Tallmadge Township. Projections for the year 2008 include Georgetown Township, The City of Holland, The City of Hudsonville, Spring Lake Township and Tallmadge Township. Figures II-12 and II-13 present a graphic illustration of centers of industrial waste generation.

**TABLE II-7
RESIDENTIAL GLASSED PARCELS**

MUNICIPALITY	PARCELS	PARCELS	% OF TOTAL PARCELS - '1	ANNUAL % CHANGE 1990 - 1997	1998EST	2003EST	2008EST
Allendale Township	1840	2304	87.4	3.60	2387	2849	3401
Blendon Township	1171	1754	79.3	7.11	1879	2649	3735
Chester Township	549	612	57.0	1.64	622	675	732
Coopersville, City of	868	989	82.8	1.99	1009	1113	1229
Crockery Township	1621	1650	83.9	0.26	1654	1675	1697
Ferrysburg, City of	1446	1605	97.3	1.57	1630	1762	1905
Georgetown Township	10038	12371	94.2	3.32	12782	15049	17719
Grand Haven Township	3997	4802	94.7	2.88	4940	5693	6560
Grand Haven, City of	4348	4270	88.3	-0.26	4259	4205	4151
Holland Township	4976	6671	83.6	4.87	6996	8872	11251
Holland, City of	7151	7297	90.0	0.29	7318	7426	7535
Hudsonville, City of	1758	2002	90.1	1.98	2042	2252	2485
Jamestown Township	1102	1333	79.7	2.99	1373	1591	1844
Olive Township	704	856	57.8	3.08	882	1027	1196
Park Township	5828	6812	94.4	2.41	6976	7859	8854
Polkton Township	644	689	58.7	1.00	696	731	769
Port Sheldon Township	1868	2001	92.4	1.02	2021	2126	2237
Robinson Township	1437	1991	79.7	5.51	2101	2746	3591
Spring Lake Township	4292	4865	75.3	1.91	4958	5449	5989
Spring Lake, Village of							
Tallmadge Township	2272	2533	87.7	1.64	2575	2793	3030
Wright Township	927	1017	62.8	1.39	1031	1105	1183
Zeeland Township	1120	1588	70.9	5.97	1683	2249	3005
Zeeland, City of	1809	2003	85.2	1.53	2034	2194	2368

NOTE: Number of parcels for years 1998, 2003, and 2008 based on Growth Rate Projection Method. Number of parcels in Spring Lake Village are not calculated as separate figures.

1990 & 1997 data provided by Ottawa County Equalization Department.

**TABLE II-8
COMMERCIAL CLASSED PARCELS**

MUNICIPALITY	PARCELS 1990	PARCELS 1997	% OF TOTAL PARCELS '97	ANNUAL % CHANGE 1990 - 1997	1998EST	2003EST	2008EST
Allendale Township	102	109	4.1	0.98	110	116	121
Blendon Township	27	29	1.3	1.06	29	31	33
Chester Township	31	34	3.2	1.38	34	37	40
Coopersville, City of	125	127	10.6	0.23	127	129	130
Crockery Township	75	87	4.4	2.29	89	100	112
Ferrysburg, City of	39	41	5.1	0.73	41	43	44
Georgetown Township	357	436	3.3	3.16	450	526	614
Grand Haven Township	74	100	2.0	5.02	105	134	171
Grand Haven, City of	455	457	9.4	0.06	457	459	460
Holland Township	753	840	10.5	1.65	854	927	1006
Holland, City of	694	669	8.3	-0.61	665	645	625
Hudsonville, City of	127	110	6.7	2.47	153	173	195
Jamestown Township	52	49	2.9	-0.82	49	47	45
Olive Township	41	51	3.1	3.48	53	63	74
Park Township	300	297	4.1	-0.14	297	294	292
Polkton Township	33	36	3.1	1.3	36	39	41
Port Sheldon Township	17	32	1.5	12.61	36	65	118
Robinson Township	17	21	0.8	3.36	22	26	30
Spring Lake Township	161	216	3.3	4.88	227	287	365
Spring Lake, Village of							
Tallmadge Township	94	71	2.5	-3.50	69	57	48
Wright Township	62	68	4.2	1.38	69	74	79
Zeeland Township	41	60	2.7	6.62	64	88	121
Zeeland, City of	179	180	7.7	0.08	180	181	182

NOTE: Number of parcels for years 1998, 2003, and 2008 based on Growth Rate Projection Method. Number of parcels in Spring Lake Village are not calculated as separate figures.

1990 & 1997 data provided by Ottawa County Equalization Department.

**TABLE II-9
INDUSTRIAL CLASSED PARCELS**

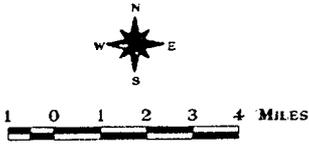
MUNICIPALITY	PARCELS 1990	PARCELS 1997	% OF TOTAL PARCELS '97	ANNUAL % CHANGE 1990 - 1997	1998EST	2003EST	2008EST
Allendale Township	12	27	1.0	17.86	21	72	165
Blendon Township	32	33	1.5	0.45	33	34	35
Chester Township	21	24	2.2	2.04	24	27	30
Coopersville, City of	25	40	3.4	8.57	43	66	99
Crockery Township	0	0	0.0	0.00	0	0	0
Ferrysburg, City of	41	42	2.5	0.35	42	43	44
Georgetown Township	127	159	1.2	3.60	165	197	235
Grand Haven Township	56	64	1.3	2.04	65	72	80
Grand Haven, City of	104	107	2.2	0.41	107	110	112
Holland Township	339	310	3.9	-1.22	306	288	271
Holland, City of	116	132	1.6	1.97	135	148	164
Hudsonville, City of	24	51	2.3	16.07	59	125	263
Jamestown Township	1	0	0.0	0.00	0	0	0
Olive Township	50	60	4.0	2.86	62	71	82
Park Township	15	0	0.0	0.00	0	0	0
Polkton Township	0	0	0.0	0.00	0	0	0
Port Sheldon Township	38	43	2.0	1.88	44	48	53
Robinson Township	34	27	1.1	-2.94	26	23	19
Spring Lake Township	114	119	1.8	0.63	120	124	127
Spring Lake, Village of							
Tallmadge Township	21	58	2.0	25.17	73	223	685
Wright Township	51	52	3.2	0.28	52	53	54
Zeeland Township	34	81	3.6	19.75	97	239	588
Zeeland, City of	105	135	5.7	4.08	141	172	210

NOTE: Number of parcels for years 1998, 2003, and 2008 based on Growth Rate Projection Method. Number of parcels in Spring Lake Village are not calculated as separate figures.

1990 - 1997 data provided by Ottawa County Equalization Department.

RESIDENTIAL PROPERTIES - 2003

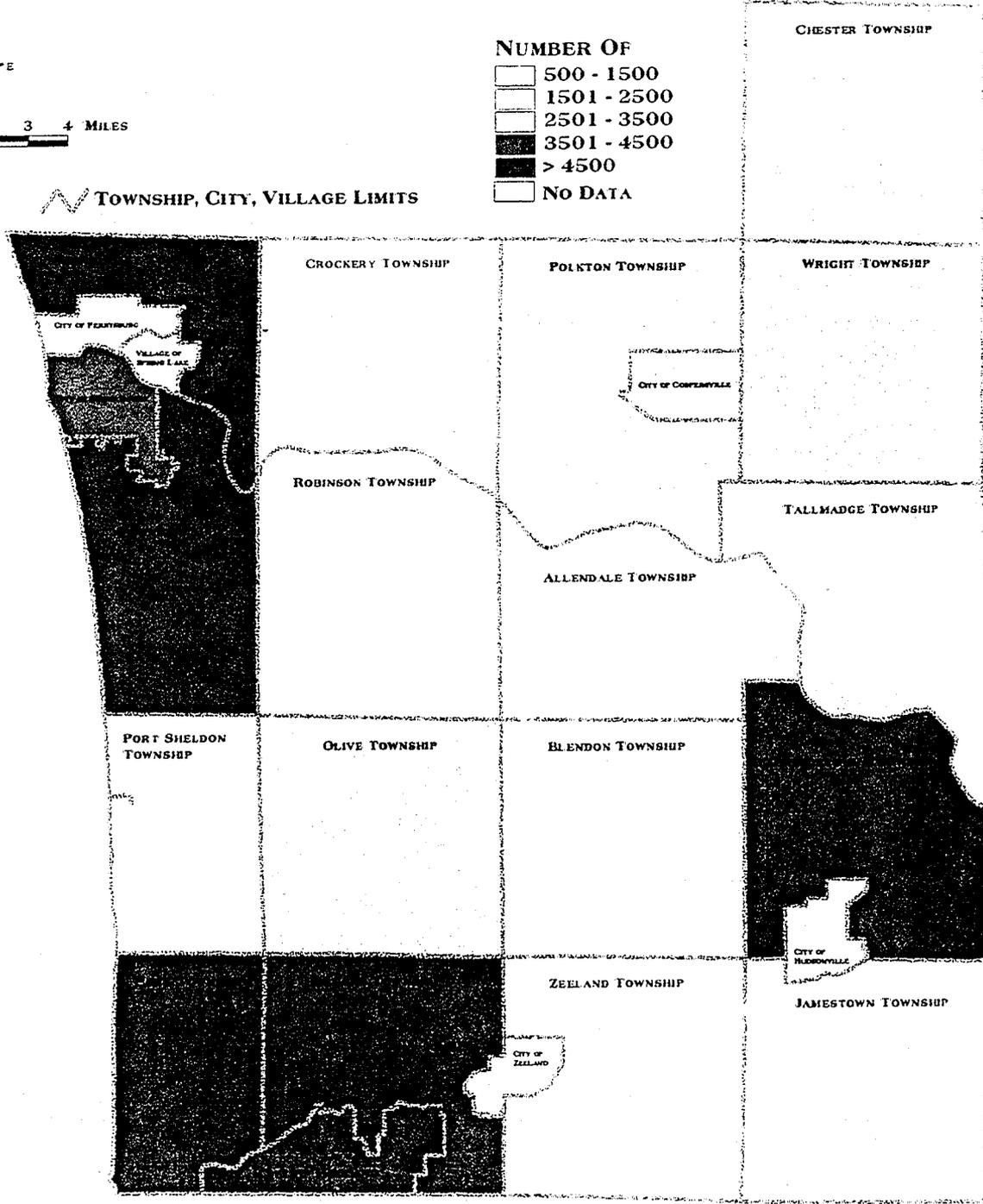
OTTAWA COUNTY, MICHIGAN



NUMBER OF

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TOWNSHIP, CITY, VILLAGE LIMITS



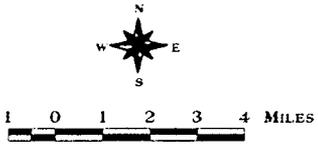
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 GRAND VALLEY STATE UNIVERSITY

DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 NUMBER OF PARCELS BASED ON DATA FROM OTTAWA COUNTY
 EQUALIZATION DEPARTMENT, PROJECTIONS BY GVSU-WRI, 1998.

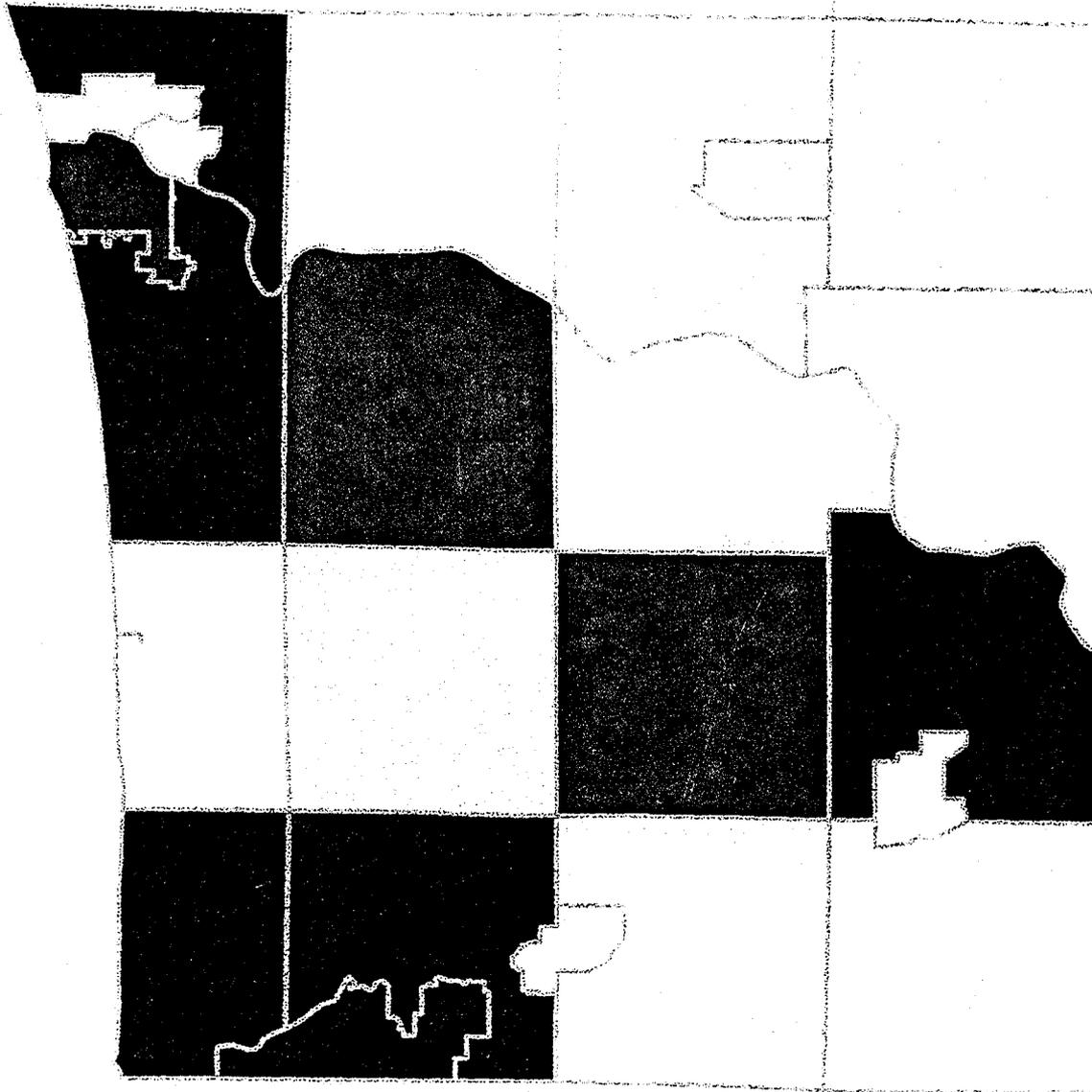
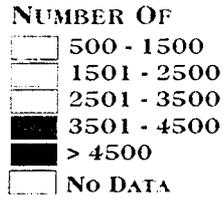
Figure II-8

RESIDENTIAL PROPERTIES - 2008

OTTAWA COUNTY, MICHIGAN



TOWNSHIP, CITY, VILLAGE LIMITS



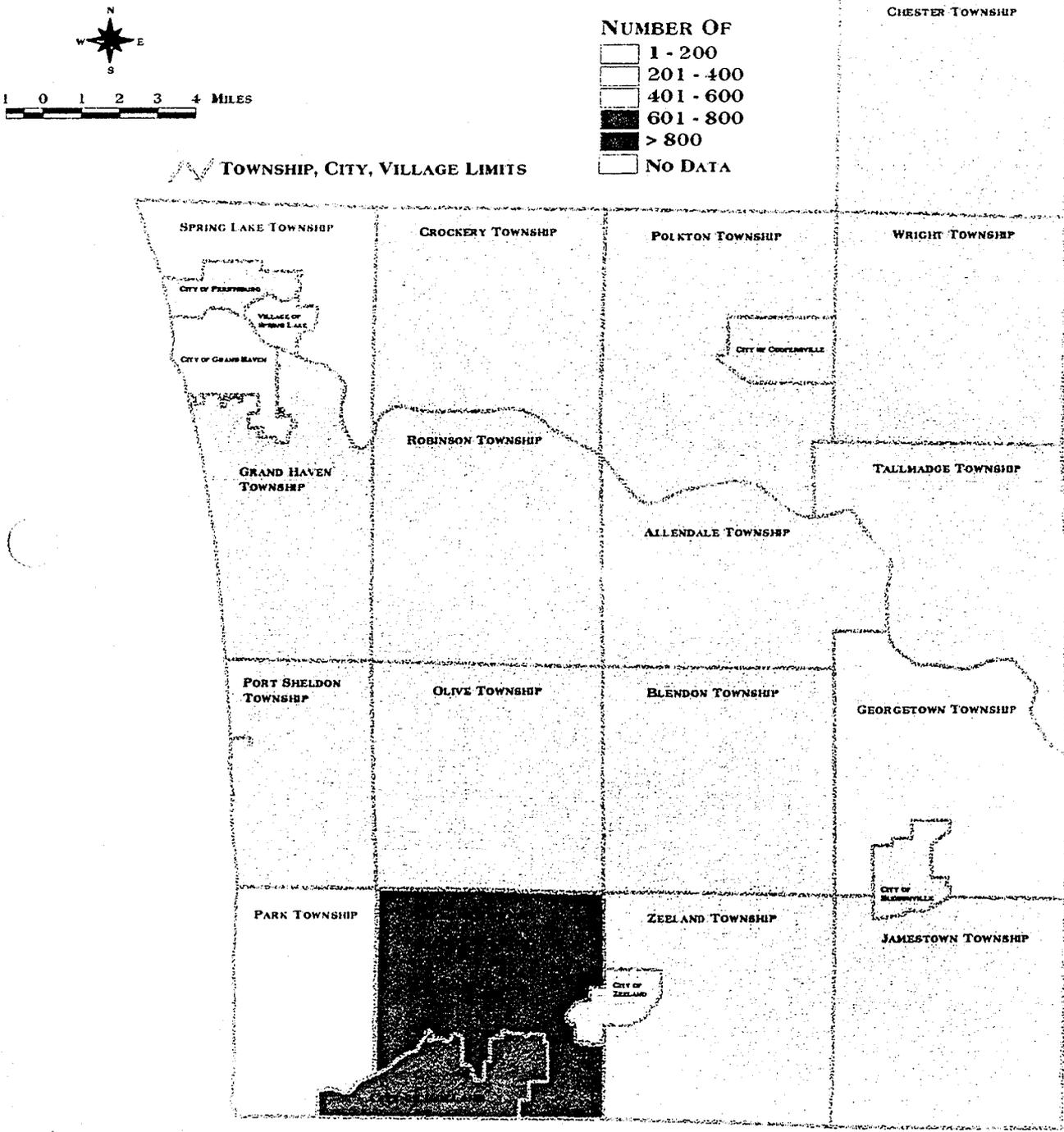
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DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 NUMBER OF PARCELS BASED ON DATA FROM OTTAWA COUNTY
 EQUALIZATION DEPARTMENT, PROJECTIONS BY GVSU-WRI, 1998.

Figure II-9

COMMERCIAL PROPERTIES - 2003

OTTAWA COUNTY, MICHIGAN



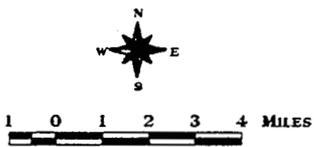
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DATA SOURCES: BASE INFORMATION, MICHIGAN DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 NUMBER OF PARCELS BASED ON DATA FROM OTTAWA COUNTY EQUALIZATION DEPARTMENT, PROJECTIONS BY GVSU-WRI, 1998.

Figure II-10

COMMERCIAL PROPERTIES - 2008

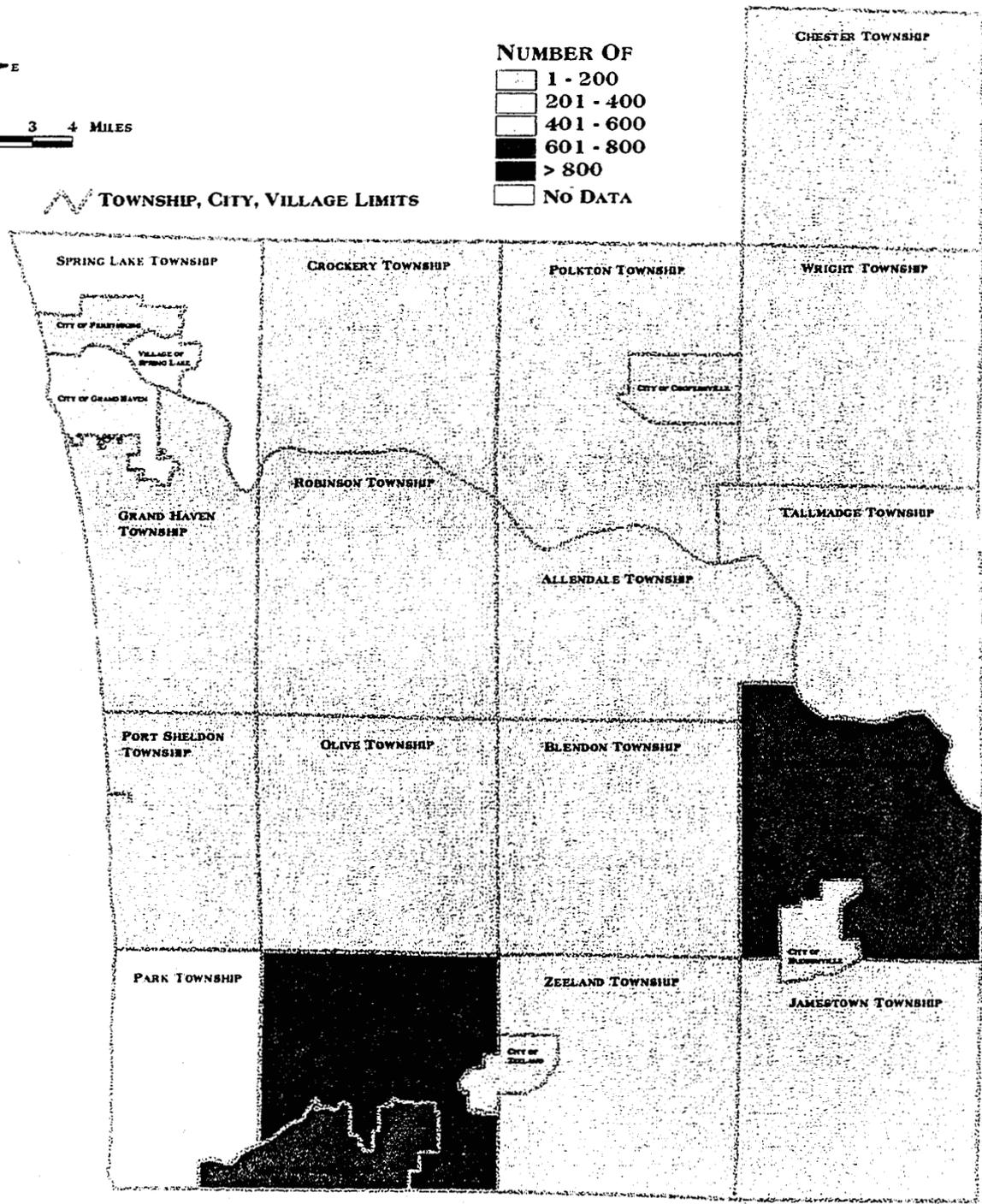
OTTAWA COUNTY, MICHIGAN



NUMBER OF

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TOWNSHIP, CITY, VILLAGE LIMITS



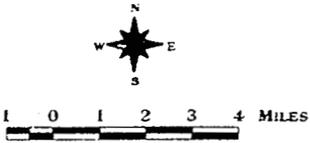
INFORMATION SERVICES CENTER
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DATA SOURCES: BASE INFORMATION, MICHIGAN DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 NUMBER OF PARCELS BASED ON DATA FROM OTTAWA COUNTY EQUALIZATION DEPARTMENT, PROJECTIONS BY GVSU-WRI, 1998.

Figure II-11

INDUSTRIAL PROPERTIES - 2008

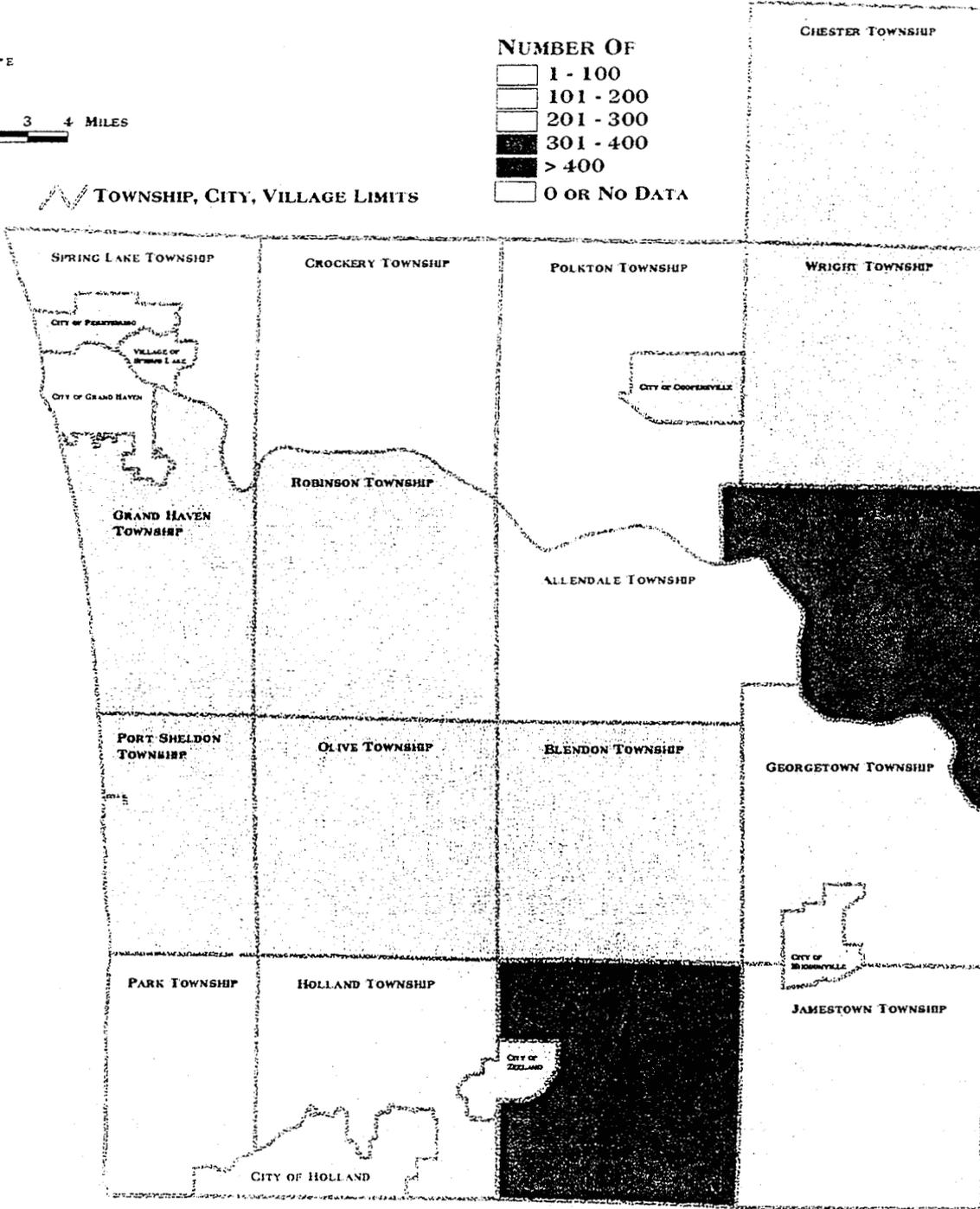
OTTAWA COUNTY, MICHIGAN



NUMBER OF

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TOWNSHIP, CITY, VILLAGE LIMITS



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DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 NUMBER OF PARCELS BASED ON DATA FROM OTTAWA COUNTY
 EQUALIZATION DEPARTMENT, PROJECTIONS BY GVSU-WRI, 1998.

Figure II-13

II.1.6.3 Projected Solid Waste Disposal

Making estimates of future waste generation trends is essential to assuring that the County reserves adequate landfill capacity to meet its waste disposal needs over the planning period and beyond. The establishment of projections is also important to the task of developing a Plan that can be used by the County as an effective management tool. This component of the Plan attempts to establish estimates of future waste generation using two separate methods. The first method utilizes annual in-County waste disposal data provided by the County's landfill operators to project disposal trends. The second method utilizes United States Environmental Protection Agency (EPA) national per capita waste generation estimates to project future waste generation and disposal trends. The local data method can be useful if it can be used to establish an identifiable and meaningful trend in waste generation. The EPA method can be useful if no local data is available.

In-County Data Method

Table II-5 presents an overview of solid and special wastes generated in and imported into the County between 1991 and 1997. The solid waste category does not include yard waste, though does include an unknown amount of recyclable materials. There is substantial variation in the increases (as much as 85%) in solid waste disposed of in County landfills between certain reporting periods, and less variation in decreases (as little as 3%) between others. Table II-5 does not illustrate a meaningful historic trend, because it covers the period before and after the Autumn Hills Recycling and Disposal Facility came on line in 1993. It is therefore impractical to rely on it to project future waste generation and disposal trends with any degree of certainty.

Figure II-2 presents a graphic illustration of estimated increases and decreases in the amount of per capita per day solid waste disposed of in County landfills on the basis of data appearing in Table II-5 and the County's estimated population between the years 1991 and 1997. These data indicate a low per capita per day disposal rate of 2.6 pounds per capita during the 1991 - 1992 reporting period, a high of 5.83 pounds per capita during the 1995 - 1996 reporting period, and an average of 4.36 pounds between the 1991 - 1992 and 1996 - 1997 reporting periods. As indicated above, it is difficult to rely on these figures to project future waste generation and disposal trends with any degree of certainty.

For the purpose of this Plan, the historic average per capita disposal rate (5.70 pounds per person per day) can be used to estimate future capacity needs. If it is assumed that the per capita disposal rate remains constant each year through the year 2008, and is used in combination with population projections to calculate total in-County solid waste disposal needs, then the County could anticipate annual disposal volumes of 267,034 tons between 1998 and 2003 (a total of 1,335,170 tons), and 304,468 tons between 2003 and 2008 (a total of 1,522,340 tons). Both of these figures presented in Table II-10 are higher than the EPA estimates discussed below. It should be noted that future population, land development, waste generation, and recycling trends will have an unknown and unpredictable influence on the actual amounts of solid waste needing disposal.

TABLE II-10 SOLID WASTE DISPOSAL PROJECTIONS	
2003	2008
267,034 tons	304,468 tons

EPA Estimate Method

EPA estimates of national per capita solid waste generation indicate a steady increase in per capita generation from 2.7 pounds per person per day in 1960 to 4.3 pounds per person per day in 1995, and a projection of 4.4 and 4.7 pounds per person per day in the years 2000 and 2010. EPA also provides estimates and projections of the per capita amounts of materials recovered for recycling or composting for the same years.

EPA per capita generation figures and County population projections were used to generate estimates of the total amounts of waste generated, materials recovered for recycling or composting, and materials remaining for disposal in County landfills. Waste generation estimates for the years 1998, 2003, and 2008 were determined on the basis of the percent of annual increase in EPA's estimates of waste generation between the years 1995 and 2000, and 2000 and 2010. Table II-11 presents per capita generation rates using this method.

TABLE II-11 PROJECTED WASTE GENERATION OTTAWA COUNTY POUNDS PER CAPITA PER DAY PER U.S. EPA FIGURES			
	1998	2003	2008
Total amount of waste generated.*	4.36	4.43	4.45
Materials recovered for recycling and composting.	1.27	1.42	1.57
Materials remaining for disposal in landfills.	3.09	3.01	2.88
Estimates are based on U.S. EPA per capita waste generation figures and GVSU WRI population projections. EPA recovery estimates for years 2001 and 2010 are 30% and 35% of waste stream respectively.			
*Includes solid waste, recyclables, and materials available for composting.			

The EPA method is also useful for establishing a projected estimate of the total amounts of waste generated, materials recovered for recycling and composting, and materials remaining for disposal in landfills for the planning period. Table II-12 presents estimates of these figures.

TABLE II-12 PROJECTED WASTE GENERATION - OTTAWA COUNTY TONS PER YEAR			
	1998	2003	2008
Total amount of waste generated.	179,858	207,537	237,698
Materials recovered for recycling and composting.	52,390	66,524	83,862
Materials remaining for disposal in landfills.	127,469	141,013	153,836
Estimates are based on U.S. EPA per capita waste generation figures and GVSU WRI population projections. EPA recovery estimates for years 2003 and 2010 are 30% and 35% of waste stream respectively.			

This method estimates that the County should reserve landfill capacity for materials remaining for disposal of 127,469 tons in 1998, 141,013 tons in 2003, and 153,836 tons in 2008. It should be noted that actual population, future population, land development, waste generation, and recycling trends will have an unknown and unpredictable influence on the actual amounts of solid waste needing disposal.

II.1.6.4 Projected Special Waste Disposal

Special waste disposal (see Table II-13) has averaged 2.16 pounds per capita per day since the 1991 - 1992 reporting period, though has shown an increased disposal trend (1.92 pounds to 3.12 pounds) since the 1993 - 1994 reporting period. For the purpose of this Plan, the 3.12 pounds per capita per day figure should be used to estimate future capacity needs for in-County generated special waste.

If it is assumed that the 3.12 pounds per capita disposal rate remains constant each year through the year 2008, and is used in combination with population projections to calculate total in-County special waste disposal needs, then the County could anticipate annual disposal volumes of 146,166 tons between 1998 and 2003 (a total of 730,831 tons), and 166,656 tons between 2003 and 2008 (a total of 833,280 tons). It should be noted that actual population, future population, land development, waste generation, and recycling trends will have an unknown and unpredictable influence on the actual amounts of special waste needing disposal.

TABLE II-13 SPECIAL WASTE DISPOSAL PROJECTIONS	
2003	2008
146,166 tons	166,656 tons

II.1.6.5 Current Landfill Capacity

Data provided by County landfill operators report a landfill capacity of 1,536,866 tons each year for the next thirty years. This capacity is adequate to accommodate the waste generated under either of the scenarios (in-county or EPA data methods) plus the special waste disposal volumes discussed above.

II.1.7 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.

Table II-14 presents data describing urban/built-up and other types of land use and land cover based on 1992 Consolidated Farm Services Agency aerial photographs of the County. This data was taken from a document prepared by the Grand Valley State University Water Resources Institute titled *An Analysis of Land Use and Land Use Cover Change 1978 - 1992, Ottawa County, Michigan*, and is the most recent and accurate of its type available. Figure II-14 is a map depicting 1992 land use and land cover data.

Tables II-7, II-8 and II-9 and Figures II-8, II-9, II-10, II-11, II-12, and II-13 discussed in the previous section can also be used to project general land development patterns during the planning period on a municipality by municipality basis.

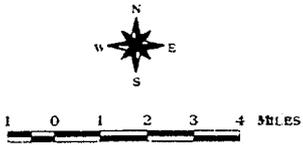
TABLE II-14
LAND USE AND LAND COVER CHANGE 1978-1992, OTTAWA COUNTY, MICHIGAN

	1978 ACRES	PERCENT OF TOTAL	1992 ACRES	PERCENT OF TOTAL	DIFFERENCE 78-92	PERCENT CHANGE
Urban/Built-up	43792.5	11.86	56422.5	15.29	12630	28.84
Agricultural	201757.5	54.66	173810	47.09	-27947.5	-13.85
Open Field	23505.0	6.37	40745	11.04	17240	73.35
Hardwood Forests	66475.0	18.01	64922.5	17.59	-1552.5	-2.34
Coniferous Forests	19120.0	5.18	18412.5	4.99	-707.5	-3.70
Wetland	5770.0	1.56	5772.5	1.56	2.5	0.04
Water	8072.5	2.19	8465	2.29	392.5	4.86
Barren	605.0	0.16	547.5	0.15	-57.5	-9.50
Totals	369097.5	100.00	369097.5	100.00		

Data developed by Grand Valley State University Water Resources Institute.

1992-93 LAND USE / COVER

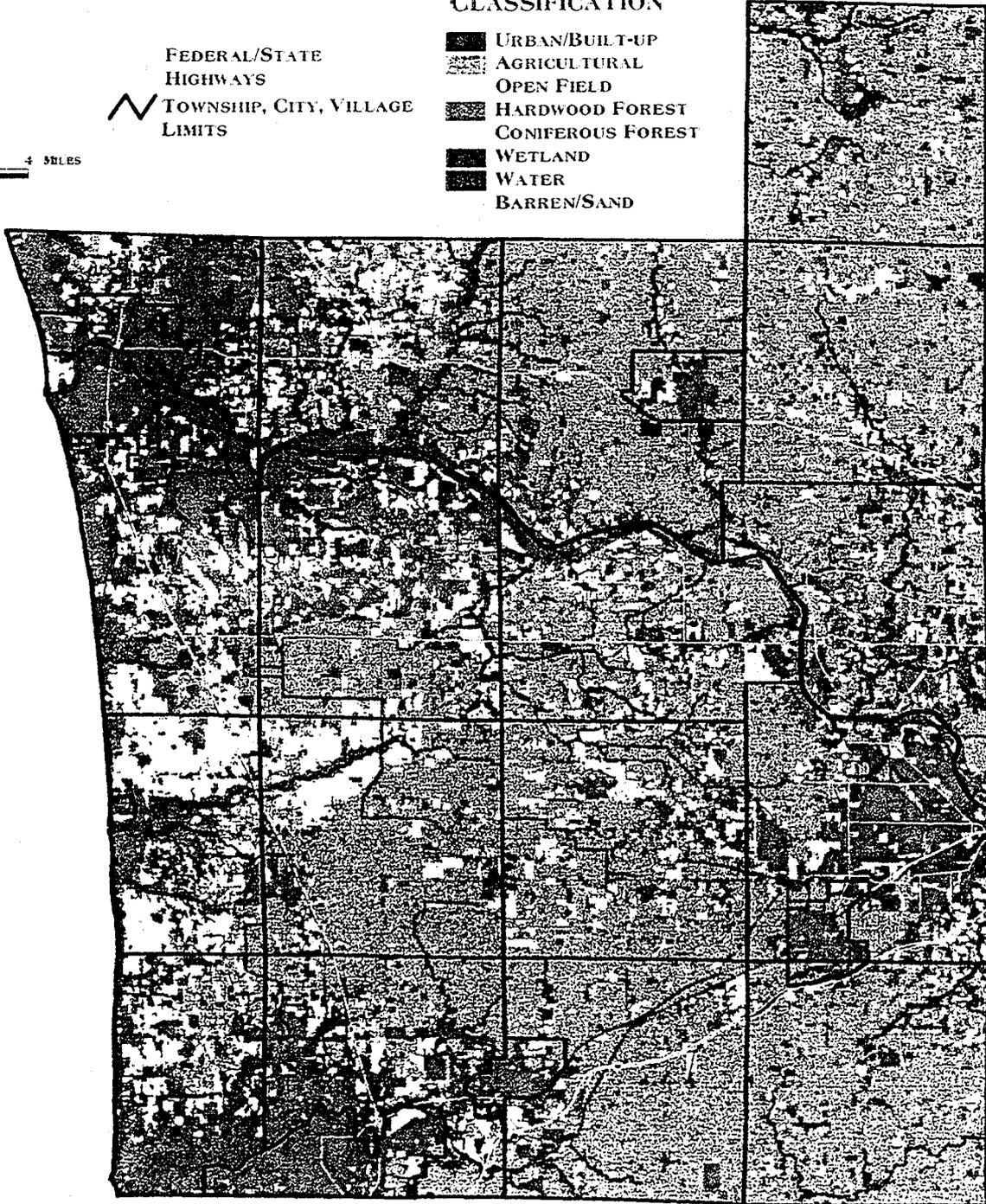
OTTAWA COUNTY, MICHIGAN



FEDERAL/STATE
HIGHWAYS
 TOWNSHIP, CITY, VILLAGE
LIMITS

CLASSIFICATION

-  URBAN/BUILT-UP
-  AGRICULTURAL
OPEN FIELD
-  HARDWOOD FOREST
CONIFEROUS FOREST
-  WETLAND
-  WATER
-  BARREN/SAND



INFORMATION SERVICES CENTER
 ROBERT B. ANNIS WATER RESOURCES INSTITUTE
 GRAND VALLEY STATE UNIVERSITY

DATA SOURCES: BASE INFORMATION, MICHIGAN
 DEPARTMENT OF NATURAL RESOURCES, MIRIS, 1978.
 LAND USE INFORMATION, BASED UPON AERIAL PHOTOGRAPHS
 INTERPRETED BY WRI IN 1993.

Figure II-14

II.2 SOLID WASTE MANAGEMENT ALTERNATIVES

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

Rule 711(d) requires that solid waste management system alternatives be identified to address any identified problems and deficiencies under Rules 711(c)(i) and (ii). Rule 711(d) also requires that those alternatives address specific solid waste management components including (as applicable):

- Resource conservation (including source reduction);
- Resource recovery (including source separation, materials, energy and markets);
- Volume reduction;
- Sanitary landfill;
- Collection;
- Transportation;
- Ultimate disposal area uses (including recreational potential); and
- Institutional arrangements.

Neither the Solid Waste Management Act nor the Part 115 Rules require that a specific number of alternatives be included in this element of the database.

As stated in Section II.1.5, the County has not identified any problems or deficiencies with the existing solid waste management system or the solid waste stream. This means that there are no specific alternatives that need to be developed in order for this element of the database to comply with the provisions of Rule 711(d). The following is a discussion of two solid waste management alternatives. Alternative 1 is a summary of the current program. Alternative 2 presents a number of system improvements that are designed to achieve the goals and objectives in Section I.

Because only two alternatives were evaluated a mathematical ranking system was not utilized. The two alternatives were evaluated for their ability to meet the goals and objectives in Section 1 and then the individual management components for each alternative were compared to determine which alternative was best suited to achieve the County's goals. Each alternative was also evaluated based upon technical feasibility, economic feasibility, access to land, access to transportation networks, effects on energy and environmental impacts, and public acceptability for 5 and 20-year periods.

II.2.1 Alternative #1 - Maintain Existing System

This alternative provides for the maintenance of the current solid waste management system. This alternative would result in no expenditures of additional funds, and would not require that any additional administrative duties be assumed or provided by the County. An overview of specific solid waste management components under this alternative is as follows:

II.2.1.1 Resource Conservation

The County retains its Household Hazardous Waste Program, though plays no greater role in additional waste reduction, pollution prevention or resource conservation efforts.

II.2.1.2 Resource Recovery

The County will continue with current one-on-one educational and liaison efforts associated with waste reduction and pollution prevention. The County will rely upon private sector companies for resource recovery efforts.

II.2.1.3 Volume Reduction

The County will continue to rely on the private sector to encourage volume reduction.

II.2.1.4 Sanitary Landfill

The County will continue to rely on privately owned and operated landfills to meet waste disposal needs throughout the planning period. Disposal methods are described in the operating licenses for the individual facilities.

II.2.1.5 Collection

The County will continue to rely upon the private sector to provide waste collection services.

II.2.1.6 Transportation

The County will continue to rely upon the private sector to meet the waste hauling and related transportation needs of residents, businesses and municipalities located within the County.

II.2.1.7 Ultimate Disposal Area Uses

The County will remain consistent with the approval of the ultimate disposal area uses contained in the construction permit application as approved by the Letter of Consistency issued by the County for each landfill site. Ultimate disposal area use will be determined by the County, local community, and MDEQ in accordance with Part 115 closure requirements.

II.2.1.8 Institutional Arrangements

The Solid Waste Management Committee continues with its duties. The Solid Waste Management program coordinator's office continues its duties though assumes no additional ones. The County continues to implement the Plan update, manage the Household Hazardous Waste Program, gather data from landfill operators and waste haulers, and administer the waste hauler licensing ordinance.

Alternative 1 relies upon the private sector to evaluate technical feasibility for 5 and 20 year periods based upon their facility's needs and financial plan. The existing Type II and Type III landfills have 20 years of capacity based upon current, technically achievable designs. Economic feasibility is dependent upon market demand and operating costs, the County cannot control these factors. Access to land is not a critical issue because no new landfills will be allowed under this plan and the two disposal facilities have 20 years of capacity. Access to transportation networks is currently adequate, the County will continue to maintain the roads within their area of responsibility for the next 20 years. Energy production from solid waste facilities will be controlled by the private sector. Environmental impacts for the existing disposal facilities were evaluated in the owner/operator's construction permit. The County's approach of relying upon the private sector is based upon public input to ensure public acceptability (see Section 111.1).

II.2.2 Alternative #2 - Improve Existing System

II.2.2.1 Resource Conservation

The County could benefit from the development of public education efforts targeted at increasing public participation in recycling and composting programs offered by the private sector waste haulers who service Ottawa County residents and businesses. Additional educational efforts directed at residents, to develop a greater awareness of how the improper disposal of hazardous waste can have a detrimental impact to natural resources and public health could increase participation in the County's already successful Household Hazardous Waste Collection Program. The County could benefit from an expanded awareness by small businesses of the proper disposal of hazardous waste. Outreach efforts directed toward small businesses that fall into a conditionally exempt small generator status is one example. By providing environmentally sound disposal alternatives and referrals to transportation and disposal companies, small companies that have lacked the knowledge or resources to define better management methods for hazardous waste will benefit. The County would serve as a liaison to the regulated community, public waste water treatment facilities, landfill operations, waste haulers and disposal companies while not directly competing with them.

The result of these activities will enhance the County's status as point of contact for assistance on the proper management and disposal of hazardous waste, recycling, and waste minimization in a non-regulatory environment. The increased participation by residents and industry alike will further the waste reduction and pollution prevention goals of the County.

II.2.2.2 Resource Recovery

II.2.2.2 Resource Recovery

The County, while electing not to compete with companies providing recycling or resource recovery services, does provide coordination for certain recycling efforts such as telephone directory recycling. In this instance, the County assists telephone directory distributors with securing drop off site collection containers, transportation and promotion assistance. The County will continue to coordinate these types of recycling activities and serve in an educational outreach role. Utilizing new technology such as a Web page for residents and businesses to access for recycling information would be evaluated. The County will continue to rely upon private sector companies for all collection, transportation and processing of materials recovered through recycling.

Some local communities also participate in resource recovery programs. The City of Holland's Project Pride program and Zeeland Township collect scrap metal for recycling. The City of Zeeland collects Christmas trees with the help of the Boy scouts to chip and use for mulch.

II.2.2.3 Volume Reduction

The County will continue to rely on the private sector to facilitate volume reduction.

II.2.2.4 Sanitary Landfill

The County will continue to rely on existing, privately owned and operated landfills to meet its waste disposal needs for the planning period and will assure that those landfills have adequate capacity to accommodate in-County and imported waste disposal needs from counties as approved in the Plan. Disposal methods are described in the operating licenses for the individual facilities.

II.2.2.5 Collection

The County will continue to rely upon the private sector to provide waste collection services.

II.2.2.6 Transportation

The County will continue to rely upon the private sector to meet the waste hauling and related transportation needs of residents, municipalities and businesses located within the County.

II.2.2.7 Ultimate Disposal Area Uses

The County will remain consistent with the approval of the ultimate disposal area uses contained in the construction permit application as approved by the Letter of Consistency issued by the County for each landfill site. Ultimate disposal area use will be determined by the County, local community, and MDEQ in accordance with Part 115 closure requirements.

II.2.2.8 Institutional Arrangements

Data Gathering

The County uses effective data gathering mechanisms to keep track of waste disposal activities. The evaluation of the data generated since the last Plan update has identified several areas where data gathering may be improved. For example, the current system does not separately track recycling and composting from residential sources and commercial sources of generation. Likewise, yard waste collected within the County and outside the County for composting is not reported separately by waste haulers. Better tracking of these categories would augment the County's ability to assess the success of the waste reduction and diversion efforts during the next Plan update process.

Enhanced Educational and Pollution Prevention Efforts

Enhanced educational and pollution efforts are discussed under the Resource Conservation heading.

Alternative 2 is basically identical to Alternative 1 in terms of technical feasibility, economic feasibility, access to land, access to transportation networks, energy production, environmental impacts, and public acceptability. Alternative 2 relies upon the private sector to evaluate technical feasibility for 5 and 20 year periods based upon their facility's needs and financial plan. The existing Type II and Type III landfills have 20 years of capacity based upon current, technically achievable designs. Economic feasibility is dependent upon market demand and operating costs, the County cannot control these factors. Access to land is not a critical issue because no new landfills will be allowed under this plan and the two disposal facilities have 20 years of capacity. Access to transportation networks is currently adequate, the County will continue to maintain the roads within their area of responsibility for the next 20 years. Energy production from solid waste facilities will be controlled by the private sector. Environmental impacts for the existing disposal facilities were evaluated in the owner/operator's construction permit. The County's approach of relying upon the private sector is based upon public input to ensure public acceptability (see Section 111.1).

III THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

III.1 Overview

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal area locations and capacity to accept the 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 Systems is included in Appendix A. Following is an overall description of the Selected System:

As discussed in Section II.2, Ottawa County's solid waste management system relies on the private sector for collection, transportation, disposal, recycling, and composting. The County serves as a facilitator and informational resource for recycling, waste reduction and pollution prevention. They also contract for specific services that serve a governmental purpose and that are not provided by the private sector as part of their standard household service, such as the Household Hazardous Waste Collection program.

The choice of relying on the private sector for solid waste management services was a deliberate one based upon community preferences, cost-effectiveness, scope of services, and experience with other options. The history of the County's recycling program illustrates this process.

Pollution prevention, waste reduction, and recycling remain a priority for Ottawa County. Encouraging industry and residents alike to reduce what they place in the trash certainly is not a new concept to the County. While Ottawa County's current recycling program relies on the private sector and market incentives, the County's first efforts to encourage recycling began in the mid 1980's. A brief history is provided here to provide background on the current program.

In 1988, the County took a proactive role by sponsoring a residential recycling program. Through an agreement with Recycle Unlimited, a nonprofit company located in West Michigan, Ottawa County developed a network of residential drop-off stations partially funded by the County. In 1989, the County recycled 840 tons of material which represents less than 1 percent of the residential waste stream. The cost incurred by the County was \$58,087. In 1990 the County assumed the full cost for operating the recycling drop off sites. By 1991, the County had spent \$256,840 to recycle 3,951 tons of collected material.

The County projected that it would cost \$1.59 million to achieve a 25 percent waste diversion rate through the residential drop-off program based on a collection and processing cost of \$64 a ton. After realizing that the cost for collecting and processing would continue to increase and that the County could not afford to fund an effective program, the County began to explore other options for encouraging and financing residential recycling programs. These options included:

- franchising waste collection and recycling services by the local municipalities for all its residents through a contract with a waste hauler.
- licensing haulers or adopting an ordinance by local municipalities, regulating waste hauling services and requiring curbside recycling.
- licensing of waste haulers by the local municipality, allowing residents to select the hauler of their choice, while contracting with a single company to provide curbside recycling for the municipality. Volume-based rates would be offered to encourage residents to bring less trash and more recyclables to the curb.
- offer unattended recycling drop-off sites funded by the local municipality.
- offer staffed recycling drop-off sites funded by the local municipality.
- encourage the private sector to provide all recycling opportunities to residents through waste haulers offering a subscription service to their customers.

The phase out of the County sponsored recycling drop off sites was implemented in 1992. The recycling stations were closed by the end of 1993. The following programs are currently in place to provide recycling opportunities to County residents:

- Three municipalities, the City of Holland, the City of Grand Haven, and the City of Coopersville have waste hauling franchise agreements with waste haulers that provide curbside recycling.
- Port Sheldon Township continues to provide a drop-off recycling station for its residents that is funded by the Township.
- Zeeland Township residents have a drop-off recycling station available at the Autumn Hills Recycling and Disposal Facility through a host community agreement with Waste Management of Michigan.
- Polkton Township residents have a drop-off recycling station available at the Ottawa County Farms Landfill through a host community agreement with Allied Waste Systems.
- Residents throughout the County, who subscribe for trash service, can also request curbside and/or yard waste collection.
- Ottawa County has three \$5,000 seed money grants available for waste reduction projects for small businesses.

Because the day-to-day details of the solid waste management system are controlled by the private sector and are primarily market driven, the County's evaluation of solid waste management alternatives focused on the issues where the County could compliment the existing program and facilitate the goals and objectives of the Plan. The first alternative is the status quo. The second alternative involves expanding the current educational programs, liaison services and the Household Hazardous Waste Management program. This limited number of alternatives is based upon the fact that there are no significant problems or deficiencies with the existing program.

The obvious choice is the second alternative because it would improve an already good system while not unreasonably increasing burdens on County staff or placing unnecessary restrictions on the private sector. The five year and ten year plans based upon the selected alternative are summarized below.

III.2 Five Year Plan

The Ottawa County solid waste management plan for the five year planning period from 1998 to 2003 consists of continued landfilling of solid wastes; relying on the private sector to work with local communities, industries and businesses to provide collection, transportation, disposal, recycling and composting services; serving as a liaison to the private sector and local communities on solid waste management issues including recycling, resource conservation, and pollution prevention; and expanding the successful Household Hazardous Waste Collection program. The support, involvement and partnership of local communities and a strong working relationship with the private sector will be significant parts of the successful implementation of the selected alternative. Nothing in this Plan should be interpreted as discouraging a local unit of government from independently undertaking waste reduction, recycling, or resource conservation programs.

III.2.1 Public Information and Education Strategies

- The County through the Environmental Health Division of the Health Department will serve as a liaison to the public, local communities, and private sector industries on solid waste management issues.
- The County, through the Environmental Health Division, will evaluate the feasibility, cost, and utility of developing an Internet web page on the solid waste management program. The web page would include links to available information sources on the Internet such as the MDEQ's homepage and the West Michigan Sustainable Business Forum's web page.
- The existing databases which track landfills will be maintained and updated. This information will continue to be made available to the public through the Environmental Health Division.
- The County will continue to monitor, through the Environmental Health Division, the performance of the solid waste management industry.

III.2.2 Waste Reduction, Recycling and Resource Recovery Strategies

- The County Board of Commissioners will continue their recycled products procurement policy and will work through the Environmental Health Division to encourage local units of government and public institutions to do the same.
- The County Board of Commissioners will continue to discourage the use of single-use, disposable items for county-sponsored activities whenever a reusable item can be practically substituted and will work through the Environmental Health Division to encourage local units of government and public institutions do to the same.
- The County will continue to recycle office paper and corrugated cardboard.
- The County, through the Environmental Health Division, will continue to implement its successful Household Hazardous Waste Collection program and will attempt to increase residential use of the program through public education, outreach through local employers and advertising.
- The County, through the Environmental Health Division, will attempt to reduce improper disposal of hazardous wastes by small businesses who are small quantity or conditionally exempt small quantity generators by serving as a liaison to haulers and to treatment, recycling and disposal facilities and by encouraging the CESQG business owner to use the existing household hazardous waste collection program on a fee for service basis.
- The County, through the Environmental Health Division, will continue to work with the private sector to provide telephone directory recycling.
- The County, through the Environmental Health Division, will serve as a liaison to local businesses and residents to assist them in the proper management of used motor oil, tires and lead-acid batteries.
- The County, through the Environmental Health Division, will continue to serve as an information resource for local units of government as they work with the private sector to manage solid wastes in their communities.

III.3 Ten Year Plan

The selected alternative (Alternative 2) for the ten year planning period will consist of continuing the strategies outlined in Section III.2.2

III.4 Import Authorization

In order to account for current and projected rates of growth in population, commercial development, and the overall increase of the industrial base, Ottawa County has developed long-term disposal capacity reserves at existing Type II landfill facilities to ensure the proper management of the solid waste stream generated within the County.

The primary use of these licensed disposal facilities and the reserve capacity is designed for the disposal of solid wastes generated in Ottawa County. In consideration of existing markets within the waste management industry and the movement of solid waste among counties, the Plan recognizes certain counties in Michigan and therefore authorizes waste transfers to allow for the effective, environmentally sound, and competitive management of the solid waste stream. By designating those counties from which Ottawa County landfills can accept wastes, the County is maintaining a proactive role in ensuring that its waste disposal needs are met and the long-term solid waste management goals of the County are realized through the implementation of this Plan. The Ottawa County Farms Landfill is authorized under an agreement with the County to receive 750,000 tons of Type II and Type III solid waste per year and the Autumn Hills Recycling and Disposal Facility is authorized under an agreement with the County to receive 750,000 tons of Type II and Type III solid waste per year. Copies of these agreements are provided in Attachment D-2.

The counties listed in Table 3-A are authorized by Ottawa County to dispose of a combined total of 1,500,000 tons per year of Type II and Type III solid wastes in licensed facilities in Ottawa County, if authorized by the exporting County's Solid Waste Management Plan. This allows the private sector waste management companies to be competitive and to service clients based upon market demand. Figure III-1 shows the counties that import solid and special waste into Ottawa County. Table 1-A shows the current import authorization volume. Table 1-B is the same as Table 1-A because Ottawa County does not intend to site any new facilities.

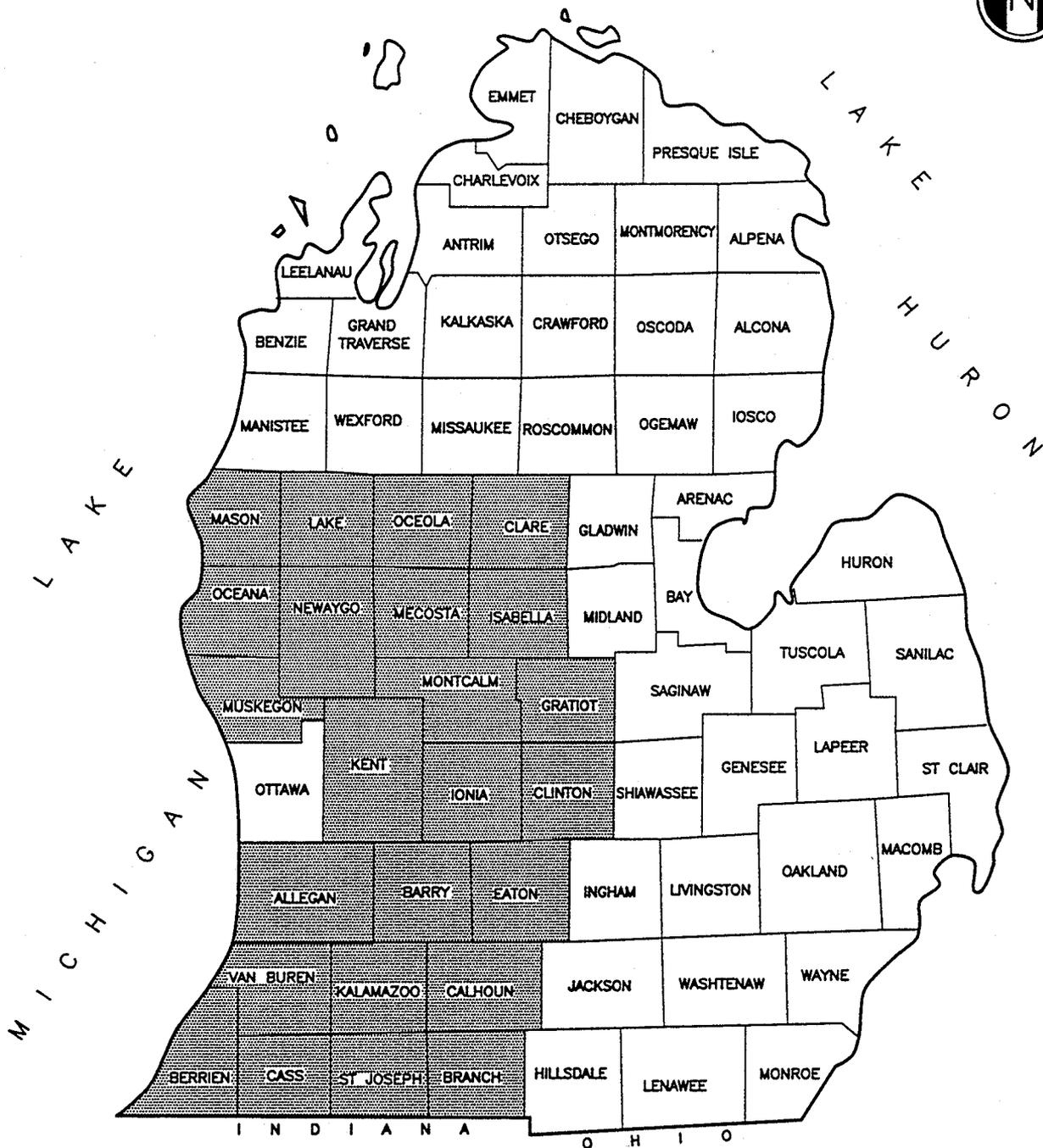
Counties that import solid wastes from or export solid wastes to Ottawa County are to provide a copy of the county's approved Solid Waste Management Plan to the Ottawa County Environmental Health Division when completed.

These arrangements are to be effective for five years or until this Plan is amended or updated. The implementation of these arrangements will be through the reports prepared every six months by the operators of the landfills in Ottawa County. The Ottawa County Environmental Health Division will monitor the quantities and the county of origin for these wastes based upon these reports.

Table 3-A List of Counties for Import/Export of Solid Waste				
Ottawa	Allegan	Barry	Berrien	Branch
Calhoun	Cass	Clare	Clinton	Eaton
Gratiot	Ionia	Isabella	Kalamazoo	Kent
Lake	Mason	Mecosta	Muskegon	Montcalm
Newaygo	Oceana	Osceola	St. Joseph	Van Buren

III.5 Export Authorization

Ottawa County authorizes the exportation of up to 100 percent of Ottawa County's solid waste to be exported to any of the counties listed below whose Solid Waste Management Plan specifically authorizes the importation of Ottawa County Waste. Figure III-1 shows the counties that currently accept wastes from Ottawa County. Table 2-A shows the current export authorization volume. Table 2-B is the same as Table 2-A because Ottawa County's export volume is not dependent upon new facilities being sited in any of the importing communities.



WESTSHORE CONSULTING

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OTTAWA COUNTY SOLID WASTE PLAN

SOLID AND SPECIAL WASTE IMPORT & EXPORT MAP

Checked: SRM

Date: 04/06/98

Drawn by: BJ

Date: 04/06/98

File No.: 914-4

Figure:

III-1

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 I-A.

TABLE I-A CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE					
IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ³	AUTHORIZED QUANTITY/ANNUAL ⁴	AUTHORIZED CONDITIONS ²
Ottawa	Calhoun	NA			P
Ottawa	Gratiot	NA			P
Ottawa	Lake	NA			P
Ottawa	Newaygo	NA			P
Ottawa	Allegan	NA			P
Ottawa	Cass	NA			P
Ottawa	Ionia	NA			P
Ottawa	Mason	NA			P
Ottawa	Oceana	NA			P
Ottawa	Barry	NA			P
Ottawa	Clare	NA			P
Ottawa	Isabella	NA			P
Ottawa	Mecosta	NA			P
Ottawa	Osceola	NA			P

TABLE 1-A CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE					
IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ³	AUTHORIZED QUANTITY/ANNUAL ⁴	AUTHORIZED CONDITIONS ²
Ottawa	Berrien	NA			P
Ottawa	Clinton	NA			P
Ottawa	Kalamazoo	NA			P
Ottawa	Muskegon	NA			P
Ottawa	St. Joseph	NA			P
Ottawa	Branch	NA			P
Ottawa	Eaton	NA			P
Ottawa	Kent	NA			P
Ottawa	Montcalm	NA			P
Ottawa	Van Buren	NA			P
					TOTAL 1,500,000 TONS PER YEAR

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

³ Authorization is based upon annual maximum from all exporting counties listed in Table 1-A

⁴ Authorization is based upon annual maximum combined total of 1,500,000 tons from all exporting counties listed in Table 1-A

TABLE I-B
FIGURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ⁴	AUTHORIZED QUANTITY/ANNUAL ⁵	AUTHORIZED CONDITIONS ²
Ottawa	Calhoun	NA			P
Ottawa	Gratiot	NA			P
Ottawa	Lake	NA			P
Ottawa	Newaygo	NA			P
Ottawa	Allegan	NA			P
Ottawa	Cass	NA			P
Ottawa	Ionia	NA			P
Ottawa	Mason	NA			P
Ottawa	Oceana	NA			P
Ottawa	Barry	NA			P
Ottawa	Clare	NA			P
Ottawa	Isabella	NA			P
Ottawa	Mecosta	NA			P
Ottawa	Osceola	NA			P
Ottawa	Berrien	NA			P
Ottawa	Clinton	NA			P
Ottawa	Kalamazoo	NA			P

TABLE I-B FIGURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED					
IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ⁴	AUTHORIZED QUANTITY/ANNUAL ⁵	AUTHORIZED CONDITIONS ²
Ottawa	Muskegon	NA			P
Ottawa	St. Joseph	NA			P
Ottawa	Branch	NA			P
Ottawa	Eaton	NA			P
Ottawa	Kent	NA			P
Ottawa	Montcalm	NA			P
Ottawa	Van Buren	NA			P
TOTAL 1,500,000 TONS PER YEAR					

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

³ No new facilities are planned for Ottawa County

⁴ Authorization is based upon annual maximum from all exporting counties listed in Table 1-A

⁵ Authorization is based upon annual maximum combined total of 1,500,000 tons from all exporting counties listed in Table 1-A

**TABLE 2-A
CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY³	AUTHORIZED QUANTITY/ANNUAL⁴	AUTHORIZED CONDITIONS ²
Ottawa	Calhoun	NA			P
Ottawa	Gratiot	NA			P
Ottawa	Lake	NA			P
Ottawa	Newaygo	NA			P
Ottawa	Allegan	NA			P
Ottawa	Cass	NA			P
Ottawa	Ionia	NA			P
Ottawa	Mason	NA			P
Ottawa	Oceana	NA			P
Ottawa	Barry	NA			P
Ottawa	Clare	NA			P
Ottawa	Isabella	NA			P
Ottawa	Mecosta	NA			P
Ottawa	Osceola	NA			P
Ottawa	Berrien	NA			P
Ottawa	Clinton	NA			P
Ottawa	Kalamazoo	NA			P

**TABLE 2-A
CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ³	AUTHORIZED QUANTITY/ANNUAL ⁴	AUTHORIZED CONDITIONS ²
Ottawa	Muskegon	NA			P
Ottawa	St. Joseph	NA			P
Ottawa	Branch	NA			P
Ottawa	Eaton	NA			P
Ottawa	Kent	NA			P
Ottawa	Montcalm	NA			P
Ottawa	Van Buren	NA			P
					TOTAL MAXIMUM OF 100% GENERATED

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

³ Ottawa County does not have an authorized daily quantity limitation with any of the importing counties.

⁴ Ottawa County is authorized to export up to 1,500,000 tons/yr

TABLE 2-B
FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED¹

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ⁴	AUTHORIZED QUANTITY/ANNUAL ⁵	AUTHORIZED CONDITIONS ²
Ottawa	Calhoun	NA			P
Ottawa	Gratiot	NA			P
Ottawa	Lake	NA			P
Ottawa	Newaygo	NA			P
Ottawa	Allegan	NA			P
Ottawa	Cass	NA			P
Ottawa	Ionia	NA			P
Ottawa	Mason	NA			P
Ottawa	Oceana	NA			P
Ottawa	Barry	NA			P
Ottawa	Clare	NA			P
Ottawa	Isabella	NA			P
Ottawa	Mecosta	NA			P
Ottawa	Osceola	NA			P
Ottawa	Berrien	NA			P
Ottawa	Clinton	NA			P
Ottawa	Kalamazoo	NA			P

**TABLE 2-B
FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE CONTINGENT ON NEW FACILITIES BEING SITED³**

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME ¹	AUTHORIZED QUANTITY/DAILY ⁴	AUTHORIZED QUANTITY/ANNUAL ⁵	AUTHORIZED CONDITIONS ²
Ottawa	Muskegon	NA			P
Ottawa	St. Joseph	NA			P
Ottawa	Branch	NA			P
Ottawa	Eaton	NA			P
Ottawa	Kent	NA			P
Ottawa	Montcalm	NA			P
Ottawa	Van Buren	NA			P
TOTAL MAXIMUM OF 100% OF WASTE GENERATED PER YEAR					

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

³ Export quantities listed in Table 2-B are not dependent upon the importing communities

⁴ Authorization is based upon annual maximum from all exporting counties listed in Table 1-A

⁵ Authorization is based upon annual maximum combined total of 1,500,000 tons from all exporting counties listed in Table 1-A

III.6 Solid Waste Disposal Areas

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the plan period. Pages III-15 through III-27 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period.

Ottawa County

Type II Landfill:

- Autumn Hills Recycling and Disposal Facility
- Ottawa County Farms
- City of Holland Board of Public Works Zeeland Township Landfill

Transfer Facility:

Allied Waste Systems Refuse Transfer Facility (not currently in operation)

Type III Landfill:

J.H. Campbell

Processing Plant: Recycle America Recovery Center

Incinerator: Herman Miller, Inc.

Waste Piles: NA

Waste-to-energy Incinerator: N/A Corp.

Other: Resource Recovery
(Foundry Sand)

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

Outside Ottawa County

Type II Landfill:

- City Environmental Services Landfill, Inc (Hastings, Barry County)
- Pitsch Sanitary Landfill (Ionia County)
- Westside Recycling and Disposal Facility (St. Joseph County)
- South Kent County Landfill (Kent County)
- Central Sanitary Landfill (Montcalm County)

Type A Transfer Facility:

North Kent County Transfer Station (Kent County)

Type B Transfer Facility: NA

Type III Landfill: NA

Processing Plant: NA

Incinerator: NA

Waste Piles: NA

Waste-to-Energy Incinerator: NA

Other: NA

**Kent County Waste to Energy Facility
(Kent County)**

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

III.6.1 Facility Descriptions

III.6.2 Facility Type: Processing Plant

Facility Name: Recycle America Recovery Center

County: Ottawa **Location: Town:** 5N **Range:** 15W **Section(s):** 22

Map identifying location included in Attachment Section: Yes No

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

Public Private

Owner: Waste Management of Michigan - Holland

Operating Status

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

Waste Types Received

- residential
- Commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes
- other:

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

Site Size:

Total area of facility property: NA acres
Total area sited for use: NA acres
Total area permitted: NA acres
 Operating: NA acres
 Not excavated: NA acres

Current capacity:

Estimated lifetime: NA years
Estimated days open per year: NA days
Estimated yearly disposal volume: NA tons or yds³

Annual gas production:

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

Annual energy production:

Landfill gas recovery projects: NA megawatts

Waste-to-energy incinerators: NA megawatts

III.6.4 Facility Type: Type II Landfill

Facility Name: Holland Public Works Zeeland Township Landfill

County: Ottawa **Location:** Town: 5N Range: 14W Section(s): 25

Map identifying location included in Attachment Section: Yes No

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

Public Private **Owner:** City of Holland, Holland Public Works

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property: 40 acres

Total area sited for use: 17.8 acres

Total area permitted: 5.1 acres

Operating: 5.1 acres

Not excavated: 15 acres

Current capacity: Pending tons or yds³

Estimated lifetime: 25 years

Estimated days open per year: 208 days

Estimated yearly disposal value: 25,166 tons or yds³

Annual energy production:

Landfill gas recovery projects: -NA- megawatts

Waste-to-energy incinerators: -NA- megawatts

III.6.5 Facility Type: Type II Landfill

Facility Name: Ottawa County Farms Landfill

County: Ottawa **Location:** *Town:* 8N *Range:* 14W *Section(s):* 26 & 27

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: NA

Public Private Owner: Allied Waste Systems

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	<u>314</u>	acres
Total area sited for use:	<u>197</u>	acres
Total area permitted:	<u>99.3</u>	acres
Operating:	<u>37</u>	acres
Not excavated:	<u>125</u>	acres

Current capacity:	<u>16,500,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>25-30</u>	years
Estimated days open per year:	<u>286</u>	days
Estimated yearly disposal value:	<u>500,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

Landfill gas recovery projects:	<u>4,565</u>	megawatts
Waste-to-energy incinerators:	<u>NA</u>	megawatts

III.6.6 Facility Type: Type III Landfill and Industrial Waste Surface Impoundment closed as Landfill

Facility Name: J. H. Campbell

County: Ottawa **Location:** Town: 6N Range: 16W Section(s): 10, 11 & 14

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: NA

Public Private **Owner:** Consumer's Energy Company

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property: 410 acres
Total area sited for use: 410 acres
Total area permitted: _____ acres
Operating: 18 acres
Not excavated: 125 acres

Current capacity: 8,856,000 tons or yds³
Estimated lifetime: 36 years
Estimated days open per year: 365 days
Estimated yearly disposal value: 246,000 tons or yds³

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

III.6.7 Facility Type: Transfer Station

Facility Name: Able Sanitation Refuse Transfer Facility - Ottawa County

County: Ottawa **Location:** *Town:* 6N *Range:* 13W *Section(s):* 21

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: **NA**

Public Private **Owner:** Allied Waste Systems *not accepting solid waste as of the date of this plan.*

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property:	_____	acres
Total area sited for use:	_____	acres
Total area permitted:	_____	acres
Operating:	_____	acres
Not excavated:	_____	acres

Current capacity:

Estimated lifetime:	_____	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated days open per year:	_____	years
Estimated yearly disposal value:	_____	days
	_____	<input type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

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

Facility Type: Landfill

Facility Name: Central Sanitary Landfill

County: Montcalm Location: Town: 11 Range: 10 Section(s): 21

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: NA

Public Private

Owner: Waste Management of Michigan - Holland

Operating Status

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

Waste Types Received

- residential
- Commercial
- industrial
- construction & demolition
- contaminated soils
- special wastes
- other:

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

Site Size:

Total area of facility property:	<u>315</u>	acres
Total area sited for use:	<u>4032</u>	acres
Total area permitted:	<u>18.45</u>	acres
Operating:	<u>18.45</u>	acres
Not excavated:	<u>5.76</u>	acres

Current capacity:	<u>373,428</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>2</u>	Years
Estimated days open per year:	<u>306</u>	days
Estimated yearly disposal volume:	<u>100,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual gas production:

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

III.6.8 Facility Type: Type II Landfill

Facility Name: City Environmental Services Landfill Inc., of Hastings

County: Barry **Location:** *Town:* 3W *Range:* 8N *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: **NA**

Public Private **Owner:** USA Waste

Operating Status

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

Waste Types Received

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

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

Foundry sand, fly ash, waste water sludges, trees and stumps

Site Size:

Total area of facility property:	<u>330</u>	acres
Total area sited for use:	<u>330</u>	acres
Total area permitted:	<u>48</u>	acres
Operating:	<u>19.5</u>	acres
Not excavated:	<u>28.5</u>	acres

Current capacity:	<u>5,000,000</u>	<input type="checkbox"/> Tons or <input checked="" type="checkbox"/> yds ³
Estimated lifetime:	<u>10+</u>	years
Estimated days open per year:	<u>308</u>	days
Estimated yearly disposal value:	<u>175,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds ³

Annual energy production:

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

III.6.9 Facility Type: Type II Landfill

Facility Name: Pitsch Sanitary Landfill

County: lonia **Location:** Town: 7E Range: 8N Section(s): 7

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: **NA**

Public Private **Owner:** Pitsch Companies

Operating Status

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

Waste Types Received

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

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

Construction & demolition, foundry sand, sludge, contaminated soils, street sweepings, fly ash, bottom ash, and slag.

Site Size:

Total area of facility property:	<u>300</u>	acres
Total area sited for use:	<u>80</u>	acres
Total area permitted:	<u>40</u>	acres
Operating:	<u>20</u>	acres
Not excavated:	<u>60</u>	acres(pending construction permit)

Current capacity:	<u>150,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³
Estimated lifetime:	<u>30</u>	years (pending construction permit)
Estimated days open per year:	<u>312</u>	days
Estimated yearly disposal value:	<u>100,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds ³

Annual energy production:

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

III.6.10 Facility Type: Type II and Type III Landfills

Facility Name: Westside Recycling and Disposal Facility

County: St. Joseph **Location:** Town: 6S Range: 12W Section(s): 23,24,25,26

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: **NA**

Public Private Owner: Waste Management of Michigan, Inc.

Operating Status

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

Waste Types Received

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

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

Non-hazardous, non-liquid industrial wastes, such as contaminated soils, foundry sands, asbestos, ash.

Site Size:

Total area of facility property:	<u>640</u>	acres
Total area sited for use:	<u>490</u>	acres
Total area permitted:	<u>85</u>	acres
Operating:	<u>51</u>	acres
Not excavated:	<u>34</u>	acres

Current capacity:	<u>6,430,000</u>	<input type="checkbox"/> Tons or <input checked="" type="checkbox"/> yds ³
Estimated lifetime:	<u>12</u>	years
Estimated days open per year:	<u>300+</u>	days
Estimated yearly disposal value:	<u>1,200,000</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds ³

Annual energy production:

Landfill gas recovery projects:	<u>2</u>	megawatts
Waste-to-energy incinerators:	<u>NA</u>	megawatts

III.6.12 Facility Type: Type A Transfer Station

Facility Name: North Kent County Transfer Station

County: Kent **Location: Town:** 8N **Range:** 11W **Section(s):** 2,3
 Map identifying location included in Attachment Section: Yes No

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

Public Private Owner: Kent County

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property: _____ acres
 Total area sited for use: _____ acres
 Total area permitted: _____ acres
 Operating: _____ acres
 Not excavated: _____ acres

Current capacity: _____ tons or yds³

Estimated lifetime: _____ years

Estimated days open per year: 310 days

Estimated yearly disposal value: 22,000 tons or yds³

Annual energy production:

Landfill gas recovery projects: NA megawatts

Waste-to-energy incinerators: NA megawatts

III.6.13 Facility Type: Waste to Energy

Facility Name: Kent County Waste to Energy Facility

County: Kent **Location:** Town:___ Range:___ Section(s): City of Grand Rapids
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: South Kent County Landfill.

Public Private **Owner:** Kent County

Operating Status

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

Waste Types Received

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

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

Site Size:

Total area of facility property: _____ acres
Total area sited for use: _____ acres
Total area permitted: _____ acres
Operating: _____ acres
Not excavated: _____ acres

Current capacity: 625/day Tons or yds³

Estimated lifetime: _____ years

Estimated days open per year: 310 days

Estimated yearly disposal value: 194,000 tons or yds³

Annual energy production:

Landfill gas recovery projects: NA megawatts
Waste-to-energy incinerators: 72 Megawatts/day
(116,000 lbs. of steam/hr)

III.7 Solid Waste Collection Services and Transportation

The solid waste collection services and transportation infrastructure that will be utilized under the selected system are the same that are used currently. A description of collection services is provided in Section II.1.4.1 above. Transportation infrastructure is discussed in Section II.1.4.2 above.

III.8 Resource Conservation Efforts

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

As discussed in Section III.1 above, the County's selected system will rely on the private sector to initiate resource conservation efforts. Many local industries are evaluating their raw materials, manufacturing processes and waste streams to identify resource conservation opportunities. Herman Miller is an excellent example of this type of private sector initiative. Ottawa County will serve as a liaison to assist businesses, particularly small to medium size industries, in accessing information on resource conservation strategies.

The County does not collect data on diversion rates. Local solid waste generators as well as disposal and recycling facilities were contacted in an attempt to complete the table below. The parties either did not have the data on the amount of solid waste currently diverted or were unwilling to divulge proprietary information. Similar problems were encountered when inquiring about future diversion predictions. The information provided in the following Table is from Herman Miller. They run an exemplary program which is probably not reflective of the average solid waste generator.

EFFORT DESCRIPTION	EST. DIVERSION TONS/YR.		
	CURRENT	5TH YR.	10TH YR.
Herman Miller waste reduction programs (includes reduction in packaging, remanufacture of by-products and new use of waste products)	4,000	6,300	8,625

III.9 Waste Reduction, Recycling and Composting Programs

For the reasons discussed in Section III.1, the County has made the decision not to directly provide waste reduction, recycling, and composting programs. As discussed in the preceding section, Ottawa County relies on the private sector to provide these services. Recycling is particularly driven by end markets, which are in turn driven by consumer demand. The County does not have control of either end markets or consumer demand.

III.9.1 Volume Reduction Techniques

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

Both Ottawa County Farms Landfill and the Autumn Hills Recycling and disposal facility use a combination of separating recyclables out of the waste stream prior to disposal and physical compaction to reduce volume. The calculated volumes for future capacity are based upon the use of compaction.

III.9.2 Overview of Resource Recovery Program

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.

Selected System

The County does not have the financial resources to track these private sector programs in detail.

- Recycling programs within the County are feasible. Details of existing and planned programs are included in 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 County's recycling program is described above.

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 County's composting program is managed by the private sector.
- 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: Ottawa County's Household Hazardous Waste program is described in Section II.1.1.4 above.

III.10 Recycling and Composting

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis, the tables

on pages III-32 through III-34 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-35 through III-37 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

TABLE III-1								
PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ³	COLLECTION FREQUENCY ⁴	MATERIALS COLLECTED ⁵	PROGRAM MANAGEMENT RESPONSIBILITIES ²		
						DEVELOPMENT	OPERATION	EVALUATION
Herman Miller	In-house	Private	o	d	A,C,D,F,W	5	5	5
RRC Foundry Sand	Muskegon, Ottawa, Kent	Private	o	d	Molding Sand	5	5	5
Recycle Tech #2 HDPE	Holland, North MI	Private	o,d	d	A	5	5	5
Vreisland Plastic Pesticide Containers	Ottawa	Private	d	d	A	5	5	5
Waste Management (Holland)	Holland & Ottawa	Private	c	w	A,B,C,E,F	5	5	5
Sunset Waste	Ottawa Co. +	Private	c	w	A,B,C,D,E,F	5	5	5
City Management	Ottawa Co. +	Private	c	w	A,B,C,D,E,F	5	5	5

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

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

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

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

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

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

Composting

TABLE III-2								
PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ³	COLLECTION FREQUENCY ⁴	MATERIALS COLLECTED ⁵	PROGRAM MANAGEMENT RESPONSIBILITIES ²		
						DEVELOPMENT	OPERATION	EVALUATION
Compost yard waste, wood scraps and food waste	Ottawa, Grand Rapids, Wyoming	Private	o,d	d,Sp, Fa	G,L,F,W	5	5	5
				Sp,Fa				
Spring/Fall Leaf Pickup	Ottawa County, Local Municipalities	Public	d	Sp, Fa	L	3	3	3

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

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

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

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

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

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

Source Separation of Potentially Hazardous Materials:

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

TABLE III-3								
PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ³	COLLECTION FREQUENCY ⁴	MATERIALS COLLECTED ⁵	PROGRAM MANAGEMENT RESPONSIBILITIES ²		
						DEVELOPMENT	OPERATION	EVALUATION
Ottawa County Household Waste	Ottawa County	Public	d	6	AR,A,AN,B1 B2,C,H,P, PH,OF	1	1	1,2
MDA Clean Sweep Pesticide Program	Ottawa County	Public	d		PS			

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

² Identified by 1 = designated planning agency; 2 = county board of commissioners; 3 = department of public works; 4 = environmental group; 5 = private owner/operator; 6 = other

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

⁴ Identified by d = daily; w = weekly= b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su= Summer; Fa = Fall; Wi = Winter; 6= Permanent collection center has regular hours. The County also establishes periodic collection dates.

⁵ Identified by the materials collected by listing of the letter located by that material type. AR = aerosol cans; A = automotive products except used oil, oil filters and antifreeze; AN = antifreeze; B1 = lead acid batteries; B2 = household batteries; C = cleaners and polishers; H = hobby and art supplies; OF = used oil filters; P = paints and solvents; PS = pesticides and herbicides; PH. = personal and health care products; U = used oil; OT = other materials and identified.

Proposed Recycling

TABLE III-4								
PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ³	COLLECTION FREQUENCY ⁴	MATERIALS COLLECTED ⁵	PROGRAM MANAGEMENT RESPONSIBILITIES ²		
						DEVELOPMENT	OPERATION	EVALUATION
Herman Miller waste reduction	In-house	Private	o	d	Various Packaging	5	5	5
Plastic Film	City of Holland	Private	d	unknown	plastic film	6 (City of Holland)	6	6

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

¹ Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.
² Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3= Department of Public Works; 4= Environmental Group; 5 = Private Owner/Operator; 6 = Other
³ Identified by c = curbside; d = drop-off; o - onsite; and if other, explained.
⁴ Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; WI = Winter
⁵ Identified by the materials collected by listing of the letter located by that material type A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals P = Pallets; J = Construction/Demolition; K = Tires, L1, L2.

Proposed Composting

TABLE III-5						PROGRAM MANAGEMENT RESPONSIBILITIES ²		
PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ³	COLLECTION FREQUENCY ⁴	MATERIALS COLLECTED ⁵	DEVELOPMENT	OPERATION	EVALUATION
Compost yard waste, wood scraps, and food waste	Ottawa, Grand Rapids, Wyoming	Private	o,d	d,Sp, Fa	G,L,F,W	5	5	5
Spring/fall leaf pickup	Ottawa, Grand Rapids, Wyoming	Public	d	Sp, Fa	L	3	3	3

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

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

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

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

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

Proposed Source Separation of Potentially Hazardous Materials

TABLE III-6

PROGRAM NAME	SERVICE AREA ¹	PUBLIC OR PRIVATE	COLLECTION POINT ²	COLLECTION FREQUENCY ³	MATERIALS COLLECTED ⁴	PROGRAM MANAGEMENT RESPONSIBILITIES ⁵		
						DEVELOPMENT	OPERATION	EVALUATION
Ottawa County Household Waste	Ottawa County	Public	d	6	AR, A, AN, B1 B2, C, H, P, PH, OF	1	1	1, 2
MDA Clean Sweep Pesticide	Ottawa County	Public	d		PS			

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

² Identified by 1 = designated planning agency; 2 = county board of commissioners; 3 = department of public works; 4 = environmental group; 5 = private owner/operator; 6 = other

³ Identified by c = curbside; d = drop-off; o = onsite; and if other explain.
⁴ Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter; 6 = Permanent collection center has regular hours. The County also establishes periodic collection dates.

⁵ Identified by the materials collected by listing of the letter located by that material type. AR = aerosol cans; A = automotive products except used oil, oil filters and antifreeze; AN = antifreeze; B1 = lead acid batteries; B2 = household batteries; C = cleaners and polishers; H = hobby and art supplies; OF = used oil filters; P = paints and solvents; PS = pesticides and herbicides; PH = personal and health care products; U = used oil; OT = other materials and identified.

⁶ Permanent collection center has regular hours. The county also establishes periodic collection dates.

III.11 Identification of Resource Recovery Management Entities

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

III.11.1 Environmental Groups

No environmental groups have any management responsibilities under the Selected System.

III.1.11.2 Other

None

III.12 Projected Diversion Rates

An estimate of the annual amount of solid waste which is expected to be diverted from landfills is provided below.

COLLECTED MATERIAL	PROJECTED ANNUAL TONS DIVERTED			COLLECTED MATERIAL	PROJECTED ANNUAL TONS DIVERTED		
	CURRENT	5TH YR.	10TH YR.		CURRENT	5TH YR.	10TH YR.
A. Total Plastic	358	455	573	G. Grass and Leaves	25,700	32,600	41,100
B. Newspaper	6,900	10,030	13,240	H. Total Wood Waste	12,630	16,040	20,208
C. Corrugated Containers	8,200	10,414	13,120	I. Construction and Demolition	76,500	97,155	172,400
D. Total Other Paper	2,500	3,175	4,000	J. Food and Food Processing	1,560	2,310	3,052
E. Total Glass	71	90	114	K. Trees	39	50	62
F. Other Materials F1 Foundry Sand	3,000	8,750	10,500	L. Total Metals	4,000	5,080	6,400

III.13 Market Availability for Collected Materials

The market for recyclables is very fluid, the following is a rough estimate.

COLLECTED MATERIAL	IN-STATE % MARKETS	OUT-OF- STATE % MARKETS	COLLECTED MATERIAL	IN-STATE % MARKETS	OUT-OF- STATE % MARKETS
A. Total Plastic	33	66	G. Grass and Leaves	100	0
B. Newspaper	65	35	H. Total Wood Waste	75	25
C. Corrugated Containers	75	25	I. Construction and Demolition	99	1
D. Total Other Paper	80	20	J. Food and Food Processing	98	2
E. Total Glass	unavailable		K. Tires		
F. Other Materials F1 Foundry Sand	100	0	L..Total Metals		

III.14 Educational and Informational Programs

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participate in such programs as waste reduction and waste recovery. The County does not have staff or financial resources necessary to provide comprehensive educational and information programs. Following is a listing of the programs offered or proposed to be offered in this County.

- To best utilize existing resources, the Environmental Health Division focuses on one-on-one communication not in providing general information to groups.
- The Environmental Health Division publishes flyers on the Household Hazardous Waste program and issues press releases prior to scheduled collection dates. The flyers are also distributed through the townships.
- The annual newsletter published by the Environmental Health Division, covers composting, waste reduction, recycling, and household hazardous waste.
- The "Clean Sweep" agricultural pesticide collection program is promoted by MDA field staff and through agricultural trade journals.

- The MSU Extension Service is promoting the agricultural use of plastic film recycling program.
- The County makes presentations to local high school students on the Household Hazardous Waste program upon request.
- The County has also had an informational booth at Local Emergency Planning Committee meetings.
- The County services as a liaison to the community on solid waste issues and encourages industrial groups to increase their outreach.

PROGRAM TOPIC ¹	DELIVERY MEDIUM ²	TARGETED AUDIENCE ³	PROGRAM PROVIDER ⁴
2	w,o	p	MSU Master Gardener/Home Assistance Program
3	o,f,e	p,b,i	Ottawa County Environmental Health Division
2	o	p	Ottawa County Environmental Health Division
6	ot,o	p,b	Michigan Department of Agriculture & Clean Sweep Pesticide Program Ottawa County Environmental Health Division
1	f	p,b	MSU Extension Service

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

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

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

⁴ Identified by EX = MSU extension; EG = environmental group (Identify name); OO = private owner/operator (identify name); HD = health department (identify name); DPA = designated planning agency; CU = college/university (identify name); LS = local school (identify name); ISD = intermediate school district (identify name); O = other which is explained.

Projected Diversion Rates:

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

TECHNIQUE DESCRIPTION	EST. AIR CONSERVED YDS ³ /YR		
	CURRENT	5TH YR.	10TH YR.
Recycling plastic pesticide containers	3	3	3
Herman Miller Recycling	10,650	12,960	15,270
Herman Miller Sawdust to Cogen Facility	4,100	4,100	4,100
Composting Wood Scrap	2,000	3,000	3,000
Yard Waste	8,000	8,000	8,000
Compost Food Waste	1,440	2,160	2,860
Reclaimed Foundry Sand (RRC)	7,000	8,150	10,500
Padnos Fiber Recycling (Paper/corrugated)	9,000	10,800	12,600
Nu-wool (newsprint to cellulose insulation)	5,500	8,250	11,000
Brewer sand, gravel and concrete	76,500	97,155	177,400

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

Market Availability for Collected Materials:

The volatility of markets, current market conditions, the regional, national and global nature of import and export markets, as well as a reliance on a complex network of private sector recycling companies makes identifying the volume of recovered materials that can be absorbed by the marketplace and the resulting demand for such material too unpredictable to determine at the county level.

III.15 Timetable for Implementation

TABLE III-12 TIMETABLE FOR SOLID WASTE MANAGEMENT PLAN IMPLEMENTATION	
ACTIVITY	ESTIMATED DATE
Maintain and publicize repository of solid waste management information	Ongoing
Perform an evaluation on feasibility of web site	1999
Create web page (optional - see above)	2000
Maintain County recycle material procurement policy	Ongoing
Promote the use of reusable products at County activities	Ongoing
Maintain and attempt to expand residential use of the Household Hazardous Waste Collection program	Ongoing
Establish fee for service hazardous waste disposal program for small businesses who are small quantity and conditionally exempt small quantity generators through the existing Household Hazardous Waste Collection program	1999
Organize telephone directory recycling	Annually
Update Solid Waste Management Plan	2003

III.16 Siting Review Procedures

The solid waste facility siting review process has been established in Ottawa County to provide a forum for reviewing proposed facilities prior to the MDEQ permit or license application process to ensure compliance with the County's Plan and to determine whether the proposed facility meets the criteria necessary to issue a letter of consistency with the approved plan. The facility review process determines the following:

- determine the suitability of the proposed facility for satisfying the siting, design, operation, and other requirements of the county plan and to consider the ability of the proposed facility to receive a construction permit;
- consider compliance and consistency of proposed facilities with those local ordinances and land use planning that are not inconsistent with the county plan;
- provide for the involvement and input of local interested parties so that their concerns can be expressed and addressed in the design and operation of the proposed facility;
- provide a reasonable time frame, before the construction permit application time clock begins, in which local issues can be addressed before too many resources are committed by the applicant as well as by local communities in the permitting process; and
- ensure that the proposed solid waste facility will represent an improvement to the solid waste management system in Ottawa County.

III.16.1 Solid Waste Transfer Stations

As defined by PA 451 Part 115, (MCL 324.11506) a solid waste transfer facility means a tract of land, a building and any appurtenances, or a container, or any combination of land, buildings, or containers that is used or intended for use in the rehandling or storage of solid waste incidental to the transportation of the solid waste, but is not located at the site of generation or the site of disposal of the solid waste.

Section III pages 49 - 55 contains the criteria and process for reviewing a proposed solid waste transfer facility.

III.16.2 Solid Waste Processing Plants

As defined by PA 451, Part 115, (MCL 324.11506) a solid waste processing plant means a tract of land, building, unit, or appurtenance of a building or unit or a combination of land, buildings, and units that is used or intended for use for the processing of solid waste or the separation of material for salvage or disposal, or both, but does not include a plant engaged primarily in the acquisition, processing, and shipment of ferrous or non ferrous metal scrap, or a plant engaged primarily in the acquisition, processing, and shipment of slag or slag products.

Section III pages 50 - 57 contains the criteria and process for reviewing a proposed solid waste processing plant.

III.16.3 Landfill Siting and Expansion Procedures

As discussed in Section II.1.6 above the County has adequate disposal capacity through at least 2008 based upon conservative projections. Therefore no new facilities will be sited during the planning period.

The County does not anticipate allowing any expansions within the planning period because of existing capacity. Section III pages 49 - 55 contains the criteria and process for site expansions.

III.16.3.1 Authorized Disposal Area Types

No new facilities will be sited in Ottawa County during the planning period because adequate capacity exists.

III.16.3.2 Site Expansion Criteria and Process

Ottawa County has a established site expansion procedure for land disposal, transfer, and processing facilities. These procedures are in addition to those required under Part 115. This review takes place prior to the submittal of the construction permit application to MDEQ to allow the County to prepare a letter of consistency with the Plan.

The site expansion of an existing solid waste disposal facility is more than just meeting technical design requirements. It must involve the public and local unit of government that will be affected by the proposed expansion. Ottawa County's process is designed to ensure that any expansions are well designed and that local concerns are addressed. The process is outlined in Section III pages 50-57.

III.16.4 Facility Operating Standards

The following operating standards apply to landfills transfer stations and solid waste plants operating in Ottawa County, in addition to the terms in the facility's operating license:

1. On-site interior roads, from site entrance to fill areas must be maintained to control dust and to prevent the tracking of mud off the site. Disturbed areas adjacent to on-site interior roads should be vegetated or otherwise stabilized to reduce erosion and dust generation.
2. An entrance sign must be established prior to opening and maintained at the facility. The sign must be at least three feet by four feet; constructed of a durable, weather-resistant material with a light background and contrasting letters and numbers of a minimum height of three inches showing name,

business address, and telephone number of the facility operator; the operating hours; and the number of the current permit. The sign must be located at the entrance of the facility not more than twenty feet from the public road that the facility fronts.

3. Copies of all Part 115 required reports (e.g. monitoring well sampling, leachate system monitoring, and air monitoring) and the results of the quarterly private and public well testing shall be submitted to the Ottawa County Environmental Health Division and the clerk of the municipality in which the facility is located within ten days of their submittal to the MDEQ.

The landfill operator is required to have all private wells with 1,200 feet of the landfill perimeter tested annually and such testing shall continue through a five year maintenance period following closure of the landfill site.

4. The Ottawa County Environmental Health Division and the municipality in which the facility is located must be notified in writing within 30 days when the facility is closing, when there has been a transfer in property rights to the facility, or when there has been a change in facility management personnel.

5. All operators of solid waste facilities permitted and licensed under Part 115 in Ottawa County shall submit to the Ottawa County Environmental Health Division and the clerk of the municipality, a semi-annual report on a form provided by the Ottawa County Environmental Health Division which covers the preceding six-month period. This report must include, at a minimum, the following information.

- a. Name, location, and permit number of the facility;
- b. Name, address, and telephone number of the facility owner;
- c. Name, address and telephone number of the facility operator;
- d. Any cited violations and the status of these violations;
- e. Total quantity of waste received at the facility during the past six months by weight (using a conversion factor of three cubic yards equals one ton);
- f. Average quantity of waste received at the facility on a daily basis by weight (using the conversion factor);
- g. Total quantities of waste received at the facility during the past six months that were recovered, recycled, or composted; and
- h. For landfills, an estimated remaining capacity for continued waste disposal. The method for calculating this capacity must also be included.

The report for January to June is due on July 20 and the July to December report is due January 20.

Failure to provide this report on time to the Ottawa County Environmental Health Division may result in a fine for each day that the report is late. The amount of any fines is established by the Board of Commissioners.

6. The operator may not allow litter to be blown or otherwise be deposited off site. Litter shall be collected at least daily by the end of the work day from fences, roadways, tree line barriers, surface waters, and other barriers and disposed of or stored in accordance with Part 115. Litter shall not be allowed to be carried off the site via any streams, creeks, rivers, storm runoff, or other means.
7. If the Ottawa County Environmental Health Division determines that a situation exists that may impact on the health or lives of residences by reason of actual or potential contamination of certain water supplies, which is caused in a significant part or in total by the solid waste facility, the owner/operator shall immediately provide an alternate source of water meeting the Safe Drinking Water Standards to those affected and designated users. The quantity shall be sufficient to satisfy all normal drinking and household uses.

Failure by the operator or owner to comply with these operating standards may subject them to ordinance enforcement proceedings. These operating standards are incorporated by reference in the Ottawa County Ordinance No. 93-1, as amended (see Appendix D-1).

III.16.5 Facility Development and Expansion Procedures

The first step in the review process is for the facility developer to submit 20 copies of a summary report to the Ottawa County Environmental Health Division. The County may also request that a fee is submitted with the summary report to cover the Solid Waste Planning Committee's review expenses (including retaining the services of a technical consultant). The facility developer must also submit two copies of their construction permit application.

The Ottawa County Environmental Health Division will determine the administrative completeness of the summary report within 30 calendar days of receipt. If the summary report is not administratively complete the Ottawa County Environmental Health Division will send the facility developer a letter specifically outlining any deficiencies.

If the summary report is administratively complete, the Environmental Health Division will send a written notification to the following parties:

- the facility developer;
- the County Board of Commissioners
- the local unit of government for the host community; and
- the heads of any county departments designated by the County Boards of Commissioners.

Copies of the summary report will be provided as follows:

- three copies to the host community; and
- one copy to each member of the Facility Review Subcommittee.

The remaining copies will be maintained by the Ottawa County Environmental Health Division. At least one copy will be made available to the public at the County Building. The Ottawa County Environmental Health Division will advertise the report's availability. The Ottawa County Environmental Health Division will provide a copy of the summary report to an interested individual on no less than 48 hours notice.

The Ottawa County Environmental Health Division will request that the host community review the summary report for compliance with local ordinances and present their determination in writing at the first meeting of the Facility Review Subcommittee. The determination must include a discussion of how to cure any noncompliance issues.

Facility Review Subcommittee

The members of the Facility Review Subcommittee will be selected by the Solid Waste Planning Committee upon the receipt of an administratively complete summary report.

The membership will be comprised of five individuals representing the following:

- A member of the Ottawa County Board of Commissioners who also serves on the Solid Waste Planning Committee but does not represent the district of the host community (an alternate commissioner will be selected when a conflict in district representation results);
- An elected official of the host community's government recommended by its board or council;
- A local government representative from the Solid Waste Planning Committee not from the host community but representing the type (city or township) of host community;
- A general public representative who is a member of the Solid Waste Planning Committee but not a resident of the host community; and
- An environmental representative who is a member of the Solid Waste Planning Committee.

Membership of the Facility Review Subcommittee of the Solid Waste Planning Committee will be selected in a manner that minimizes the potential for any conflicts regarding the objective review of proposed solid waste facilities in the County.

The Environmental Health Division will also serve as staff to the Subcommittee to ensure that the requirements and procedures of the facility review process are satisfied. Other County

departments and local units of government in the County will be consulted during the review process whenever issues require their expertise and input into the process.

The Facility Review Subcommittee will convene its first meeting within 60 calendar days after the determination that the summary report is administratively complete. The Facility Review Subcommittee will, at its first meeting, select a chairperson from its membership who will be responsible for implementing the requirements of the solid waste facility review process. The chairperson will conduct the meetings of the Facility Review Subcommittee.

The Environmental Health Division will publish a public notice of a public meeting in a widely distributed newspaper that includes the host community in which the proposed facility is to be located at least 15 calendar days prior to the first meeting of the Facility Review Subcommittee. The public notice will include the date, time, location, and purpose of the meeting and advise the public that a copy of the summary report is available for inspection and copying at the Environmental Health Division.

Public Meetings of Facility Review Subcommittee

All meetings of the Facility Review Subcommittee will be held in accordance with the Open Meetings Act which include the requirements that the meeting be open to the public, minutes be kept and filed, a quorum must be present for decision-making, and the purpose of the meeting be stated. The meetings will be conducted as follows:

- Purpose and agenda of meeting;
- Names and roles of those conducting the meeting;
- Requirements of Part 115 and local solid waste facility review process;
- Time limit for presentations and remarks from members of the audience;
- Summary of meeting, decisions made, and further actions to be taken; and
- Any other matters deemed appropriate by the Facility Review Subcommittee.

The first meeting will serve the following purposes:

- Public presentation of the proposal for developing a solid waste facility;
- Information-gathering for decision-making by the Facility Review Subcommittee;
- Recommendations from the host community's Planning Commission regarding proposed facility's compliance with local ordinances, including zoning and land use plans;
- Statement of any concerns and issues, as raised by interested parties;

- Presentation of a report on the proposed facility from the independent consultant hired to assist in the facility review process;
- Identification of any conditions or variances that are necessary to address special local concerns; and
- Determination of the ability of the proposed site to meet County Plan requirements.

If the Facility Review Subcommittee can determine that the proposed expansion is consistent and complies with the County Plan during the first meeting, then a further meeting need not be scheduled. If this determination cannot be made at the first meeting, then additional meetings may be scheduled with no less than seven calendar day public notice.

Subcommittees of the Facility Review Subcommittee can be formed to deal with specific issues at the discretion of the Facility Review Subcommittee.

If the County's staff fails to communicate any deficiencies in the application to the developer within ninety (90) days of the application's submission, the application will be deemed "administratively complete," and staff must submit the application to the Facility Review Subcommittee upon the further request of the developer. The fact that an application has been deemed administratively complete at the staff level; however, shall not preclude the Facility Review Subcommittee or Solid Waste Planning Committee from subsequently recommending or deciding that the proposed facility or facility expansion is not consistent with the County's Plan in whole or in part because the application is incomplete.

The Facility Review Subcommittee must complete its review and take final action on the application within 120 calendar days after the application's summary report is determined to be administratively complete.

Final Action

Within one hundred twenty (120) days after an application is found or deemed administratively complete, the Facility Review Subcommittee will recommend to the Solid Waste Planning Committee one of the following actions:

- Recommend that the Solid Waste Planning Committee find that the facility or facility expansion is not consistent with the County Plan. The Facility Review Subcommittee must include the reasons why it is recommending that the facility or facility expansion is not consistent with the County's Plan.
- Recommend that the Solid Waste Planning Committee find that the expansion is consistent with the County Plan; or
- Recommend that the Solid Waste Planning Committee find that the expansion is consistent with the County Plan, subject to the conditions, agreements, and/or variances recommended by the Facility Review Subcommittee.

If the Facility Review Subcommittee fails to make its recommendation to the Solid Waste Planning Committee within one hundred twenty (120) days of submission, the proposed facility or facility expansion will be deemed to be recommended by the Facility Review Subcommittee as "consistent with the County's plan," and the application submitted to the Solid Waste Planning Committee upon the further written request of the developer. The fact that the proposed facility or facility expansion has been deemed recommended as consistent with the County's Plan; however, shall not preclude the Solid Waste Planning Committee from subsequently deciding that the proposed facility or facility expansion is not consistent with the County's Plan.

If the Facility Review Subcommittee recommends that the Solid Waste Planning Committee find that the proposed expansion is not consistent with the County Plan, the facility developer shall have thirty (30) days to cure any noted deficiencies by submitting an amended application within that time period.

The Solid Waste Planning Committee shall have ninety (90) days from the date it receives a recommendation from the Facility Review Subcommittee in which to make a decision on the Facility Review Subcommittee's recommendation.

The Solid Waste Planning Committee shall take one of the following actions:

- Determine that the facility or facility expansion is not consistent with the County Plan. The Solid Waste Planning Committee must include the reasons why it is determining that the facility or facility expansion is not consistent with the County's Plan.
- Determine that the expansion is consistent with the County Plan; or
- Determine that the expansion is consistent with the County Plan subject to the conditions, agreements, and/or variances that the Solid Waste Planning Committee establishes.

If the Solid Waste Planning Committee fails to make a determination within ninety (90) days of its receipt of the recommendation of the Facility Review Subcommittee, the facility or facility expansion shall be deemed consistent with the County's Plan and the application shall be submitted to the Solid Waste Planning Committee upon the further written request of the developer.

The letter of consistency is in effect for one (1) year from the date of issuance. If the construction permit is not issued by the MDEQ within this one (1) year period, the letter of consistency becomes null and void. This limitation should be stated on the letter of consistency, although the failure of the letter to contain this limitation shall not extend the life of the letter.

The fact that a facility or facility expansion is determined or deemed "consistent with the County Plan" shall not be binding on the MDEQ, which shall review the decision or deemed decision of the Solid Waste Planning Committee to ensure compliance with the Plan criteria and review procedures and may determine that the facility or facility project is not consistent with the Plan.

The letter of consistency is in effect for one year from the date of issuance. If the construction permit is not issued by the MDEQ within this one year period, the letter of consistency becomes null and void. This limitation will be clearly stated on the letter of consistency.

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

Contents of the Summary Report

The summary report shall include a name, address, and telephone number for: the applicant (including partners and other ownership interests), the property owner(s) of the site, any consulting engineers and geologists that will be involved in the project, a designated contact person for the facility developer (if different than the applicant) and shall specify the type of expansion being proposed.

The summary report shall contain information on the site location and orientation. This shall include a legal land description of the project area, a site map showing all roadways and principal land features within two miles of the site, a topographic map with contour intervals of no more than ten feet for the site, a map and description of all access roads showing their location, type of surface material, proposed access point to facility, haul route from access roads to nearest state truckline, and a current map showing the proposed site and surrounding zoning, domiciles, and present usage of all property within one mile of the site.

The summary report shall contain a description of the current site use and ground cover, a map showing the locations of all structures within 1200 feet of the perimeter of the site, the location of all existing utilities, the location of the 100 year floodplain as defined by Rule 323.311 of the administrative rules of Part 31, Water Resources Protection, of Act 451, as amended within 1200 feet of the site, location of all wetlands as defined by Part 303, Wetlands Protection, of Act 451 within 1200 feet of the site, and the site soil types and general geological characteristics.

The summary report shall contain a description of the proposed site and expansion design. This shall consist of a written proposal including the final design capacity of the expansion.

The summary report shall contain a description of the operations of the facility and shall provide information indicating the planned annual usage, anticipated sources of solid waste, and the facility life expectancy of the proposed facility or facility expansion.

A signed statement may be required from the developer concerning necessary road improvements and/or road maintenance as they relate to the proposed facility.

Consistency with County Plan

Requirements to be found consistent with the Plan, a proposed solid waste disposal area must comply with all the criteria and requirements described below:

1. The active work area for a new facility or an expansion of an existing facility shall not be located closer than 500 feet from adjacent property lines, road rights-of-way, lakes, and perennial streams.
2. The active work area for a new facility or an expansion of an existing facility shall not be located closer than 1,000 feet from domiciles or public schools existing at the time of submission of the application.
3. A sanitary landfill shall not be constructed within 10,000 feet of a licensed airport runway.
4. An expansion of an existing facility shall not be located in a 100 year floodplain as defined by Rule 323.311 of the administrative rules of Part 31, Water Resources Protection, of Act 451.
5. An expansion of an existing facility shall not be located in a wetland regulated by Part 303, Wetlands Protection, of Act 451, unless a permit is issued.
6. An expansion of an existing facility shall not be constructed in lands enrolled under Part 361, Farmland and Open Space Preservation, of Act 451.
7. An expansion of an existing facility shall not be located in an environmental area as defined in Part 323, Shorelands Protection and Management, of Act 451, or in areas of unique habitat as defined by the Department of Natural Resources, Natural Features Inventory.
8. An expansion of an existing facility shall not be located in an area of groundwater recharge as defined by the United State Geological Survey or in a wellhead protection area as approved by the Michigan Department of Environmental Quality.
9. An expansion of an existing facility shall not be located in a designated historic or archaeological area defined by the State Historical Preservation officer.
10. An expansion of an existing facility shall not be located or permitted to expand on land owned by the United States of America or the State of Michigan. Disposal areas may be located on state land only if both of the following conditions are met:
 - a) Thorough investigation and evaluation of the proposed site by the facility developer indicates, to the satisfaction of the MDEQ, that the site is suitable for such use.
 - b) The State determines that the land may be released for landfill purposes and the facility developer acquires the property in fee title from the State in accordance with State requirements for such acquisition.
11. Facilities may only be located on property zoned as agricultural, industrial or commercial at the time the facility developer applies to the county for a determination of consistency under the Plan. Facilities may be located on unzoned property, but may not be located on property zoned residential.

RETURN TO
APPROVAL
LETTER

12. The owner and operator of a facility shall submit a statement to cooperate with the County on recycling and composting activities.
13. An expansion of an existing facility shall be located on a paved, all weather "Class A" road. If a facility is not on such a road, the developer shall submit a statement to provide for upgrading and/or maintenance of the road serving the facility.
14. Proposed expansions of landfills and transfer stations must establish recycling drop-off centers and/or composting facilities, open to the public, unless it can be successfully demonstrated to the Facility Review Subcommittee that such a facility or center is not feasible or practical.
15. The intersection of any facility access road with an existing highway must be designed to provide sufficient sight distance and minimum interference with traffic on the highway in accordance with the American Association of State Highway and Transportation Organization - Policy of Geometric Design of Highways design guidelines.
16. There must be waiting space for vehicles using the facility, so that the access road remains free of waiting vehicles, and there must also be parking space for stand-by vehicles, facility employees, and visitors.
17. The facility shall have a water supply and equipment at the site for the purpose of extinguishing fires.

The Facility Review Subcommittee may recommend that those isolation distances and design and operating standards established by this plan, but that are greater than Part 115 requirements, may be waived or modified if the applicant demonstrates and the Board finds, in writing, that the following conditions have been met: the Facility Review Subcommittee may authorize exemptions or variances from the County's criteria and standards upon a demonstration by the applicant that the County's requirement is not feasible and prudent, and that the substitute requirement will provide an equivalent degree of protection for the public health and environment, or that the public health, welfare, and environment will not be additionally impaired. The applicant must show that exception circumstances exist and that no impairment of current and future uses of natural resources will result.

III.17 Solid Waste Management Components

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

The roles of U.S. EPA and MDEQ in the implementation of County Solid Waste Management systems is well documented elsewhere. The MDEQ has the authority under Part 115 of Act 451 and the associated administrative rules to regulate the collection, transportation and disposal of solid waste. The County relies upon the MDEQ for technical guidance and enforcement. The primary enforcement mechanism for the land disposal facilities operating

in the County is the facility's operating license. The following outlines the County's management responsibilities within this State and Federal regulatory framework.

III.17.1 Ottawa County Board of Commissioners

Responsibilities:

- Approve budgets for Plan implementation
- Appoint membership of Solid Waste Planning Committee
- Develop ordinances as needed for implementing the Plan.

III.17.2 Ottawa County Solid Waste Planning Committee

Responsibilities:

- Direct Solid Waste Management Plan updates and Plan amendments
- Review progress of plan implementation
- Serve as members of Facility Review Committee
- Review recommendations of Facility Review Subcommittee
- Advise the County on solid waste issues.
- Work with local units of government, industry, and residents in coordinating the County's solid waste management system.
- Work with other counties in coordinating inter-county solid management activities.

III.17.3 Ottawa County Health Department - Environmental Health Division

Solid Waste Management Coordinator

Responsibilities:

- Serve as the designated planning agency under PA 451, Part 115 and monitor implementation of and compliance with the County's Solid Waste Management Plan Update.
- Serve as staff (deputy secretary) to the Solid Waste Planning Committee and Facility Review Subcommittees.
- Maintain an information database and act as a liaison to disseminate information to local units of government, county residents, and industry.
- Review proposed Solid Waste Facility Summary Report for administrative completeness.
- Collect and administer the waste disposal surcharge.
- Promote pollution prevention, waste reduction, and recycling efforts with industry and residents.
- Implement pollution prevention programs that include household hazardous waste collections and other related County programs.

III.17.4 Ottawa County Road Commission

Responsibilities:

Review proposed processing or disposal facility and advise the Facility Review Subcommittee on the facility's relation to the county's road as they concern right-of-way issues and the use of Class A roads and any upgrades that may be necessary to meet facility siting criteria.

III.18 Identification of Responsible Parties

Document which entities within the County will have management responsibilities over the following areas of the Plan. Documentation of acceptance of responsibilities is contained in Appendix D.

Resource Conservation:

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

Resource Recovery Programs:

Composting	Private Sector
Recycling	Primarily private sector. County Health Department Environmental Health Division serves as an information liaison to private industry, the County and local units of government within the County and the public.

Energy Production	Private Sector
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Volume Reduction Techniques:	Private Sector
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Collection Processes:	Private Sector
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Transportation:	Private Sector. Ottawa County Road Commission enters into agreements with facilities to address right-of-way and site access.
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Disposal Areas:

Processing Plants	Private Sector
Incineration	Private Sector
Transfer Stations	Private Sector
Sanitary Landfills	Private Sector
Ultimate Disposal Area Uses:	Private Sector, MDEQ and local unit of government

Local Responsibility for Plan Update Monitoring & Enforcement:

The Ottawa County Health Department - Environmental Health Division will be responsible for monitoring implementation of and compliance with the Plan Update. The Ottawa County Board of Commissioners may augment the County's authority to enforce the Plan Update by passing a Solid Waste Ordinance with civil and criminal penalties in accordance with state law.

Educational and Informational Programs:

Ottawa County Health Department - Environmental Health Division provides educational and informational programs.

III.19 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:

- 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.

Ottawa County ordinance No. 93-1, as amended
A copy of the ordinance is provided in Attachment D-1

III.20 CAPACITY CERTIFICATIONS

Every County with less than ten years of capacity identified in their Plan is required to annually prepare and submit 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.

Documentation of capacity is provided in Attachment D-2. Ottawa County Farms Landfill and Autumn Hills RFD have entered into agreements with the County to provide capacity for Type II/III waste generated in Ottawa County for 17 years from the date of the agreement (or until July, 2015). Both facilities agreed to limit their annual waste volumes to an average of 750,000 tons per year.

Ottawa County Farms Landfill has considerably greater capacity based upon the calculations provided in Attachment D-2. They have 17 years of life based upon 855,270 tons/year. At the 750,000 tons/year limit they would have 20 years of capacity.

Autumn Hills RFD has 24.1 years of capacity based upon accepting 625,000 tons/year. If they accepted the maximum allowed of 750,000 tons/year they would have 20 years of capacity.

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

APPENDIX A

ADDITIONAL INFORMATION

REGARDING THE

SELECTED SYSTEM

EVALUATION OF RECYCLING

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

Detailed Features of Recycling and Composting Programs:

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

Recycling

Composting

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

Equipment Selection: Ottawa County does not own any recycling or composting equipment and does not offer collection services, and does not intend to do so during the Plan period.

Existing Programs: NA

Proposed Programs: NA

Site Availability and Selection

Existing Programs:

The facilities for recycling and composting are described in Section II.1.3.

Proposed Programs:

The siting of any additional facilities is dependent upon private sector initiative, market demand, local zoning and compliance with any applicable environmental regulations.

Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs. **The monitoring of composting programs is the responsibility of the private companies who own and operate them, not the County.**

Existing Programs:

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

Proposed Programs: The owners of any future composting programs will be responsible for monitoring them.

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

Coordination Efforts:

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

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

The Ottawa County Board of Commissioners has entered into a contact with Autumn Hills Recycling and Disposal Facility and the Ottawa County Farms Landfill which establishes the volume of solid waste which may be disposed of annually at each facility. The volume limitations were developed based upon the County's import limits and other relevant factors.

The County does not have formal import/export agreements with the counties identified in the Plan. The total volume of disposed waste may not exceed 1,500,000 tons per year. Ottawa County may export up to 100 percent of the waste generated in the County. If, in the future, Ottawa County negotiates formal agreements with other counties regarding waste disposal they will forward a copy of the agreements to MDEQ.

The Environmental Health Division is charged with being cognizant of pertinent ordinances or approved land use plans or well head protection plans within the county and any pertinent restrictions or ongoing commitments contained in air quality, water quality or waste management plans that may be required to meet federal and state waste management standards. Any county-level decision affecting current or anticipated programs for solid waste management, air quality or land use planning that impact the selected system outlined in this Plan will be made in consultation with the Solid Waste Planning Committee.

Costs and Funding

The following is the budget estimate for the County's Solid Waste Management program. This table does not include proprietary information from the private owners and operators of waste collection, transportation, processing or disposal facilities.

1.	Ottawa County Environmental Health Division Solid Waste Management Program	\$230,000.00
	a. Implementation of Solid Waste Management Plan and oversight of solid waste management activities	\$55,000.00
	b. Pollution prevention, waste reduction and recycling programs ..	\$175,000.00
2.	Ottawa County Board of Commissioners	\$2,500.00
3.	Ottawa County Solid Waste Planning Committee	\$4,500.00
4.	Ottawa County Road Commission (Facility review of a proposed expansion or development of solid waste disposal facility)	\$6,500.00

Evaluation Summary of the Selected System:

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

The Selected System described in this Plan is an enhanced version of the existing solid waste management system. The public already accepts the existing system's reliance on the private sector and the County's role as a liaison to private industry, the public, and local units of government.

Only two alternatives (i.e., the existing system and the Selected System) were evaluated. As a result, a formal ranking procedure is not necessary. No significant problems or deficiencies were identified in the existing solid waste collection, management, processing, treatment, transportation or disposal systems for residential and commercial solid waste, industrial sludges, pretreatment residues, municipal sewage sludge, air pollution control residue, or contaminated site cleanup wastes. The following table summarizes the evaluation of the Selected System.

Criteria	Comments
Technical Feasibility	The future use of new technologies by private facility owner/operators will be dependent upon many factors, including the owner/operator's needs, the cost of the equipment or process and the terms of any operating license or permit.
Economic Feasibility	The economics of the Selected System are driven by private sector markets.
Access to Land and Transportation Routes	As described in Section II.1.4.2, the Selected System is adequately served by the existing transportation system.
Energy Consumption and Production	Energy conservation is the responsibility of the owner/operator of the equipment or facility.

Environmental Impacts
Public Acceptability

No new facilities will be sited within the Plan period. The public accepts the existing program and is therefore likely to accept the Selected System. The increased use of the household hazardous waste program is a strong indication of public acceptance of the County's role in the program.

Advantages and Disadvantages of the Selected System:

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

Advantages:

1. Increased public participation in the household hazardous waste program.
2. Increased RCRA compliance by small quantity and conditionally exempt small quantity generators.
3. Flexibility in responding to markets for waste disposal and recyclable materials.
4. Reduced environmental liability (compared to County ownership/operation of collection services and disposal and recycling facilities).
5. Lower program operation costs (compared to County ownership/operation of collection services and disposal and recycling facilities).
6. Improved record keeping.

Disadvantages:

1. Lack of price control for waste collection and disposal services.

APPENDIX B

NON-SELECTED

SYSTEMS

Complete one evaluation summary for each non-selected alternative system.

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

System Components:

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

Resource Conservation Efforts:

The "maintain existing system" alternative (i.e., non-selected system) relies upon the private sector to initiate resource conservation efforts. The county operates a Household Hazardous Waste Program.

Volume Reduction Techniques:

The county relies on the private sector to encourage volume reduction.

Resource Recovery Programs:

The County provides one-on-one educational and liaison services to the public, businesses and local units of government on waste reduction and pollution prevention. The county relies on the private sector to initiate resource recovery programs.

Collection Processes:

The County relies on the private sector to provide private waste collection services.

Transportation:

The County relies on the private sector to meet the waste hauling and related transportation needs of residents, businesses and municipalities located within the County.

Disposal Areas:

Ultimate disposal area use is determined by the County, local community and MDEQ in accordance with Part 115 closure requirements, the facility's license, and local zoning.

Institutional Arrangements:

Individual municipalities are responsible for establishing any agreements or arrangements with private sector collection, disposal and recycling service providers. The County contracts with a private company for the characterization and disposal of household hazardous waste.

Educational and Information Programs:

The County provides one-on-one educational and liaison services to the public, businesses and local units of government on waste reduction and pollution prevention. The County publishes an annual newsletter with information on composting, waste reduction, and household hazardous waste.

Capital, Operational, and Maintenance Costs:

The only program operated by the County is the Household Hazardous Waste Program.

Evaluation Summary of Non-Selected System:

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

As discussed in Section II.1.5, there are no significant problems or deficiencies with the existing system. The existing system was not chosen because the Selected System provides for enhancements to current programs.

Criteria	Comments
Technical Feasibility	The use of new technologies by private facility owner/operators is dependent upon many factors, including the owner/operator's needs, the cost of the equipment or process and the terms of any operating license or permit.
Economic Feasibility	The economics of the existing system are driven by private sector markets.
Access to Land and Transportation Routes	As described in Section II.1.4.2, the existing system is adequately served by the existing transportation system.
Energy Consumption and Production	Energy conservation is the responsibility of the owner/operator of the equipment or facility.
Environmental Impacts Public Acceptability	No new facilities will be sited within the Plan period. The public accepts the existing program. The increased use of the Household Hazardous Waste Program is a strong indication of public acceptance of the County's role in the program.

Advantages and Disadvantages of the Non-Selected System:

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

Advantages:

1. Flexibility in responding to markets for waste disposal and recyclable materials.
2. Lower program operation costs (compared to County ownership/operation of collection services and disposal and recycling facilities).
3. Reduced environmental liability (compared to County ownership/operation of collection services and disposal and recycling facilities).

Disadvantages:

1. Household Hazardous Waste Program does not include SQGs.
2. Lack of price control for waste collection and disposal.

APPENDIX C

PUBLIC PARTICIPATION

AND APPROVAL

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

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

- Yes No Opportunities for public participation were provided as required per act/rules
- Yes No The DPA conducted a public participation program to encourage public and municipal participation and involvement in the development and implementation of the Plan. [Rule 706(1)]
- Yes No The DPA maintained a mailing list of all municipalities, affected public agencies, private sector, and all interested persons who requested information regarding the Plan. [Rule 706(2)]
- Yes No The DPA notified by letter, each chief elected official of each municipality and any other person requesting within the county at least ten days before planning committee's public meeting. [SEC. 11535(c)]
- Yes No Public meetings had time for questions and comments from the general public. [Rule 706(3)]
- Yes No Public meetings were scheduled at convenient times for public. [Rule 706(4)]
- Yes No The DPA held public meetings with the planning committee as least quarterly during Plan preparation. [Rule 706(5)] (Meetings of the planning committee with DPA staff support fulfill this requirement.)
- Yes No The DPA maintained at least one central repository where all documents related to the Plan could be inspected by the public. [Rule 706(7)]
- Yes No The DPA allowed a period of at least three months for review and comment on the proposed Plan following authorization by the planning committee for public review. A copy of the proposed Plan was sent to the Director, to each municipality, to adjacent counties and municipalities that may be affected by the Plan or which have requested the opportunity to review the Plan, and the designated regional solid waste management planning agency for that county. [Sec. 11535(d) Rule 707(3)]

All of these comments were submitted with the Plan to the governmental unit that filed notice of intent. (Sec. 11535(d), Rule 707(2))

- Yes No A notice was published at the time the Plan was submitted for review under Sec. 11535 (d) as to the availability of the Plan for inspection or copying. [Sec. 11535(e)]
- Yes No The DPA held a public hearing on the proposed Plan during the public comment period. [Sec. 11535(f), Rule 707(3)]
- Yes No The DPA published notice in a paper with major circulation in the county not less than 30 days before such hearing, which included a location where the public could inspect copies of the Plan and the time and place of the public hearing. [Sec. 11535(f)]
- Yes No The DPA prepared a transcript, recording, or other complete record of the public hearing proceedings, and this record could be copied or inspected by the general public upon request after the public hearing. [Rule 707(3)]
- Yes No If necessary, the DPA revised the Plan in response to public hearing comments and then submitted the Plan to the planning committee. [Rule 707(4)]
- Yes No A listing of the meeting locations and dates, along with a copy of the dated notice as published in the newspaper is included in Appendix C.
- Yes No Record of attendance at public meetings included in Appendix C. [Rule 711 (g)(i)]
- Yes No Record of citizen concerns and questions included in Appendix C. [Rule 711(g)(ii)]

PLANNING COMMITTEE APPOINTMENT PROCEDURE

Statement of Policy

This policy establishes guidelines for selecting persons to fill positions on various boards, commissions, and advisory bodies. The Authority for this policy is the statutory responsibility of the Ottawa County Board of Commissioners to make such appointments. This policy applies in all instances where a specific procedure is not otherwise set by statute.

Implementation:

General Responsibilities:

The County Clerk shall be responsible for processing applications to fill positions on any board, commission, or advisory body. The County Administrator shall work with the County Clerk to distribute copies of all pertinent information regarding the applicants for such appointments to the members of the Board of Commissioners.

Filling of Vacancies:

- A. Notice and Application Process: Potential vacancies shall be publicly noticed by the County Clerks' Office a minimum of ninety (90) days prior to the term expiration date. The notice shall state that applications to fill the positions(s) may be picked up at the County Clerk's Office. The completed application must be returned to the County Clerk's Office within the thirty (30) day time period following the first public advertisement of the vacancy or vacancies. The deadline for returning the application shall be stated in the public notice.
- B. Committee Review and Board Action: Approximately sixty (60) days prior to the occurrence of the vacancy, all completed applications will be submitted to the appropriate committee of the Ottawa County Board of Commissioners.

The Board Committee may interview each applicant within the next forty-five (45) days. The Committee may request the submission of up to three (3) letters of recommendation to the Board of Commissioners within fifteen (15) days of the term expiration date. At the next following Ottawa County Board of Commissioner's meeting the appointment will be made.

If there are, in the judgement of the Board of Commissioners, not enough qualified applicants, the process will be repeated until the position is filled.

- C. Attendance: Subsequent to selection, all appointees are encouraged to maintain at least a seventy-five percent (75%) attendance record at meetings, and to not miss more than three (3) consecutive meeting without acceptable written reasons.
- D. Variations in Application of Policy: The timeliness and procedural requirements set forth in this Policy may be varied by the Ottawa County Board of Commissioners to fill unexpected vacancies occurring due to resignations, illness, death, or other disability, or to fill new positions created by the Board of Commissioners.

Planning Committee

Committee member names and the company, group, or governmental entity represented from throughout the County are listed below. The list is from March 1998. The members are appointed to two year terms which end on December 31, 1998.

Four Representatives of the Solid Waste Management Industry

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Robert Carr	Ottawa County Farms Landfill 15558-68th Avenue, Zeeland MI 49464	837-8195 (wk)
2.	Mark Sylvester	Waste Management, Inc. 521 - 64th Avenue, Zeeland, MI 49464	688-5287 (hm)
3.	Larry Haveman	Arrowaste, Inc. 235 Dyken Road, Holland, MI 49424	786-4335 (hm)
4.	Randy Dozeman	Autumn Hills RFD 700 - 56th Avenue, Zeeland, MI 49464	688-5777 (wk)

Two Representatives from Environmental Interest Groups from Organizations that are Active in the County

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Kurt Koella	Lakeshore Environmental, Inc. 1810-F Industrial Dr. Grand Haven, MI 49417	844-5050 (wk)
2.	Scott Blease	1636 Grant Street Grand Haven, MI 49417	977-8400 (wk) x2533

One Representative From County Government

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Harris Schipper	Ottawa County Board of Commissioners 7610 - 112th Avenue Holland, MI 49424	875-8009 (hm)

One Representative from Township Government

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Arthur Lucas	Polkton Township Supervisor 18240 - 80th Avenue Coopersville, MI 49404	837-8904 (hm)

One Representative from City Government

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Gary Raterink	City of Hudsonville Planning Commission 3176 New Holland Street Hudsonville, MI 49426	669-6191 (hm)

One Representative from the Regional Solid Waste Planning Agency

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Robert J. Rinck	West Michigan Regional Planning Commission 13575 42nd Avenue Marne, MI 49435	677-3422 (hm)

One Representative from an Industrial Waste Generator

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Jim Gillespie	Herman Miller, Inc. 855 East Main Avenue Zeeland, MI 49464	654-5020 (wk)

Three Representatives of the General Public

	<u>Name</u>	<u>Address</u>	<u>Phone</u>
1.	Jack Sage	1310 Taylor Grand Haven, MI 49417	842-5869 (wk)
2.	Doug Hehl	14468 88th Avenue Coopersville, MI 49404	834-8241 (hm)
3.	Peter Alberda	542 - 84th Avenue Zeeland, MI 49464	399-6940 (wk) x208 688-5288 (hm)

Designated Planning Agent/Deputy Secretary

Darwin J. Baas, Solid Waste Management Coordinator
Ottawa County Environmental Health Department
12251 James Street, Ste. 200
Holland, MI 49424
(616) 393-5638 (wk)

LIST OF MEETING LOCATIONS AND DATES

- November 4, 1997, 7:00 p.m. at the Ottawa County Building, Ottawa County Board Room 205, 414 Washington Street, Grand Haven, Michigan 49417
- December 16, 1997, 7:00 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- February 17, 1998, 7:00 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- April 21, 1998, 7:00 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- May 19, 1998, 7:30 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- June 16, 1998, 7:30 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- August 25, 1998, 7:30 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- November 17, 1998, 7:30 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- February 16, 1999, 7:00 p.m. at the Ottawa County Building, Ottawa County Board Room 209, 414 Washington Street, Grand Haven, Michigan 49417
- April 27, 1999, 2:00 p.m. at the Fillmore Complex, Ottawa County Board Room, 12220 Fillmore Street, West Olive, Michigan 49460

Attachment C-1

**Ottawa County Solid Waste Planning Committee Minutes,
February 16, 1999: Approval of Plan Update**

**OTTAWA COUNTY SOLID WASTE PLANNING
COMMITTEE MEETING**

Minutes

DATE: February 16, 1999

TIME: 7:00 p.m.

PLACE: Ottawa County Building - Board Room - Room 209, Grand Haven, MI.

PRESENT: Rob Carr, Harris Schipper, Jim Gillespie, Kurt Koella, Doug Hehl, Scott Blease, Art Lucas, Larry Haveman, Randy Dozeman, Jack Sage, Doug Carson.

ABSENT: Gary Raterink

STAFF: Darwin Baas, Solid Waste Management Coordinator

GUESTS: Steve Essling - Waste Management

SUBJECT: APPROVE AGENDA

99-01 Motion: To approve Agenda

Moved by: Schipper Supported by: Haveman
UNANIMOUS

SUBJECT: NOMINATION FOR CHAIRPERSON

99-02 Motion: To nominate Art Lucas as chairperson of the committee for 1999.

Moved by: Schipper Supported by: Sage
UNANIMOUS

SUBJECT: ELECTION FOR CHAIRPERSON

99-03 Motion: To close nominations and cast a unanimous ballot for Art Lucas to serve as chairperson of the committee for 1999.

Moved by: Schipper Supported by: Dozeman
UNANIMOUS

SUBJECT: NOMINATION FOR VICE CHAIRPERSON

99-04 Motion: To nominate Jim Gillespie as vice chairperson of the committee for 1999.

Moved by: Dozeman
UNANIMOUS

Supported by: Haveman

SUBJECT: ELECTION FOR VICE CHAIRPERSON

99-05 Motion: To close nominations and cast a unanimous ballot for Jim Gillespie to serve as chairperson of the committee for 1999.

Moved by: Schipper
UNANIMOUS

Supported by: Koella

SUBJECT: NOMINATION FOR SECRETARY

99-06 Motion: To nominate Jack Sage as secretary of the committee for 1999.

Moved by: Hehl
UNANIMOUS

Supported by: Haveman

SUBJECT: ELECTION FOR SECRETARY

99-07 Motion: To close nominations and cast a unanimous ballot for Jack Sage to serve as chairperson of the committee for 1999.

Moved by: Schipper
UNANIMOUS

Supported by: Carr

SUBJECT: APPROVE MINUTES

99-08 Motion: To approve the Minutes of November 17, 1998.

Moved by: Dozeman
UNANIMOUS

Supported by: Gillespie

SUBJECT: APPROVAL OF PLAN UPDATE

99-09

Motion: To approve the Solid Waste Management Plan Update - February 1999 and forward to the Ottawa County Board of Commissioners for their review and approval.

Moved by: Dozeman

Supported by: Carr

Roll Call Vote:

YEAS: Robert Carr, John Van Tholen, Larry Haveman, Randy Dozeman, Jack Sage, Doug Hehl, Doug Carson, Kurt Koella, Scott Blease, Arthur Lucas, Harris Schipper, Jim Gillespie.

NAYS: None.

UNANIMOUS

SUBJECT: ADJOURNMENT

99-10

Motion: To adjourn meeting at 8:20 p.m.

Moved by: Sage

Supported by: Schipper

UNANIMOUS

OTHER ITEMS DISCUSSED

1. Staff thanked the committee for their assistance and time commitment during the 14 month plan update process.
2. A discussion concerning recycling and the development of a subcommittee for later in the year to evaluate future programs.

Attachment C-2

**Ottawa County Board of Commissioners Meeting,
April 27, 1999, Minutes Approving Plan Update**

APPROVED
PROCEEDINGS OF THE OTTAWA COUNTY
BOARD OF COMMISSIONERS
APRIL SESSION - SECOND DAY

The Ottawa County Board of Commissioners met on Tuesday, April 27, 1999 at 1:30 P.M. and was called to order by the Chairman.

Mr. Haveman pronounced the invocation.

Present at roll call: Messrs. Rinck, Rycenga, Vander Kam, Mohr, Vander Laan, Berghorst, Schipper, Schrotenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Langeland and Swartout. (13)

Mr. Vander Kam asked for comments on the Minutes of the April 13, 1999 meeting, there being none the Minutes were approved as presented.

A letter was read from Barbara Denker, Vice President of Human Resources of A & E Products informing the County of the closing of the Batts facilities located in Zeeland permanently.

3/C 99-151 Mr. Rinck moved the letter be received for information. Mr. Vander Laan supported the motion and the motion passed.

3/C 99-152 Mr. Schipper moved to approve the agenda of today as presented. Mr. Vander Laan supported the motion.

3/C 99-153 Mr. Swartout moved to amend the motion to change in No. 1 Health and Human Services to "To approve the Solid Waste Management Plan Update", and delete Closed Session under Planning and Policy agenda. Mr. Langeland supported the amendment and the amendment passed.

A vote was then taken on the amended motion and the motion passed.

3/C 99-154 Mr. Schipper moved to accept the annual report of the Ottawa County Public Health Department. Mr. Vander Laan supported the motion and the motion passed.

3/C 99-155 Mr. Schipper moved to approve the Community Health Assessment and Improvement mini-grants to Zeeland Community Hospital (\$1,500) and Communities That Care (\$1,500). Mr. Vander Laan supported the motion and the motion passed as shown by the following votes: Yeas: Mr. Haveman, Mrs. Kortman, Messrs. Langeland, Swartout, Rinck, Rycenga, Mohr, Vander Laan, Berghorst, Schipper, Schrotenboer, Ms. Visscher and Mr. Vander Kam. (13)

3/C 99-156 Mr. Schipper moved to nominate the following individuals for appointment to the Human Services Coordinating Council to fill one vacancy representing senior citizens: Julie Bouma and Larry Erlandson. Mr. Vander Laan supported the motion.

The result of the roll call vote was as follows:

Mrs. Kortman - Bouma	Mr. Berghorst - Bouma
Mr. Langeland - Bouma	Mr. Schipper - Bouma
Mr. Swartout - Erlandson	Mr. Schrotenboer - Bouma
Mr. Rinck - Erlandson	Ms. Visscher - Bouma
Mr. Rycenga - Bouma	Mr. Haveman - Bouma
Dr. Mohr - Bouma	Mr. Vander Kam - Bouma
Mr. Vander Laan - Bouma	

Total votes were as follows: Ms. Bouma - 11, Mr. Erlandson - 2

The Chairman declared that Julie Bouma has been elected to serve on the Ottawa County Human Services Coordinating Council to fill the vacancy representing senior citizens.

- B/C 99-157 Mr. Rycenga moved to approve the general claims in the amount of \$13,430,068.49 as presented by the summary report for April 1 through April 16, 1999. Mr. Rinck supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Langeland, Swartout, Rinck, Rycenga, Mohr, Vander Laan, Berghorst, Schipper, Schrotenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman and Mr. Vander Kam. (13)
- B/C 99-158 Mr. Rycenga moved to approve the Project Impact Grant in the amount of \$300,000. Requires a match of \$100,000. Approve \$75,000 from contingency and \$25,000 anticipated from local units of government and private sector. Mr. Vander Laan supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Swartout, Rinck, Rycenga, Mohr, Vander Laan, Berghorst, Schipper, Schrotenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Langeland and Vander Kam. (13)
- B/C 99-159 Mr. Rinck moved to open the Public Hearing for the Solid Waste Management Plan Update. Mr. Vander Laan supported the motion and the motion passed.
- Mr. Darwin Baas, Solid Waste Management Coordinator explained the Update. Mr. Doug Fenski of Fenske Enterprises appeared before the Board to request to be reinstated in the operation of the Plan. Attorney Douglas Van Essen spoke to the Board on the history of the Plan.
- B/C 99-160 Mr. Haveman moved to close the Public Hearing. Mr. Rinck supported the motion and the motion passed.
- B/C 99-161 Mr. Schipper moved to approve the Solid Waste Management Plan Update. Mr. Berghorst supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Rinck, Rycenga, Mohr, Vander Laan, Berghorst, Schipper, Schrotenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Langeland, Swartout and Vander Kam. (13)

Mr. Langeland left the meeting at 3:20 P.M.

B/C 99-162 Mr. Rycenga moved to approve the appropriation changes approved by the Administrator and Finance Director for \$20,000 or less for the period January 1, 1999 to March 31, 1999, which changed the total appropriation from the amended budget. Mr. Schrottenboer supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Rycenga, Mohr, Vander Laan, Berghorst, Schipper, Schrottenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Swartout, Rinck and Vander Kam. (12)

B/C 99-163 Mr. Rycenga moved to approve the payroll for April 27, 1999 in the amount of \$635.01. Mr. Vander Laan supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Mohr, Vander Laan, Berghorst, Schipper, Schrottenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Swartout, Rinck, Rycenga and Vander Kam. (12)

B/C 99-164 Mr. Haveman moved to approve the Resolution of endorsement and support for the candidacy of Cornelius Vander Kam for membership on the MAC Board of Directors (District 3). Mr. Schrottenboer supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Vander Laan, Berghorst, Schipper, Schrottenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Swartout, Rinck, Rycenga, Mohr and Vander Kam. (12)

B/C 99-165 Mr. Haveman moved to approve the Resolution regarding the content of the MAC Judiciary and Public Safety Platform. Mr. Swartout supported the motion and the motion passed as shown by the following votes: Yeas: Messrs. Berghorst, Schipper, Schrottenboer, Ms. Visscher, Mr. Haveman, Mrs. Kortman, Messrs. Swartout, Rinck, Rycenga, Mohr, Vander Laan and Vander Kam. (12)

Several Commissioners gave reports on meetings attended and future meetings to be held.

The Administrators Report was presented.

B/C 99-166 Mr. Rycenga moved to adjourn at 3:58 P.M. subject to the call of the Chairman. Mr. Vander Laan supported the motion and the motion passed.

DANIEL C. KRUEGER, Clerk
Of the Board of Commissioners

CORNELIUS VANDER KAM, Chairman
Of the Board of Commissioners

I hereby certify that the attached is a true and correct copy that was reproduced in our office.

DANIEL C. KRUEGER
Ottawa County Clerk

by Sherril A. Hayles
Deputy Clerk

Attachment C-3

Resolution of Approval - Local Municipality Support

Synopsis of Resolutions of Approval for the Ottawa County
 Solid Waste Management Plan Update - 1999
 Received from Local Municipalities

<u>Municipality</u>	<u>Resolution on File</u>	<u>Approval of Plan Update</u>
City of Coopersville	Yes	Yes
City of Ferrysburg	Yes	Yes
City of Grand Haven	Yes	Yes
City of Holland	Yes	Yes
City of Hudsonville	Yes	Yes
City of Zeeland	Yes	Yes
Village of Spring Lake	Yes	Yes
Allendale Township	Yes	Yes
Blendon Township	No	No
Chester Township	Yes	Yes
Crockery Township	Yes	Yes
Georgetown Township	Yes	Yes
Grand Haven Township	Yes	Yes
Holland Township	Yes	Yes
Jamestown Township	No	No
Olive Township	Yes	Yes
Park Township	Yes	Yes
Polkton Township	Yes	Yes
Port Sheldon Township	Yes	Yes
Robinson Township	Yes	Yes
Spring Lake Township	Yes	Yes
Tallmadge Township	Yes	Yes
Wright Township	Yes	Yes
Zeeland Township	Yes	Yes

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of the Village of Spring Lake, held
at the Barber School Community Bldg., Ottawa County, MI, on July 19, 1999.

MEMBERS PRESENT: Bench, Draeger, Hall, Hammond, Keller, VanStrate

MEMBERS ABSENT: Fischer

The following preamble and resolution were offered by Hammond
and supported by Bench.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the 1999 Update of the Ottawa County Solid Waste Management Plan - April 1991;
and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT the Village of Spring Lake approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: Bench, Draeger, Hall, Hammond, Keller, VanStrate

NAYS: None

ABSTAIN: None


Signature of Chief Elected Official

Louis Draeger, Village President


Signature of Clerk

Judith L. VanBemmel, Village
Clerk

OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN

At a meeting of the Holland City Council, Regular Meeting, held at the Holland City Hall, Ottawa County, MI, on July 21, 1999.

MEMBERS PRESENT: Councilmembers Falstad, Trethewey, Orozco, Rich Vande Vusse, Ribbens, Hearn and Kobes & Mayor McGeehan.

MEMBERS ABSENT: None.

The following preamble and resolution were offered by Councilmember Kobes and supported by Councilmember Trethewey.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

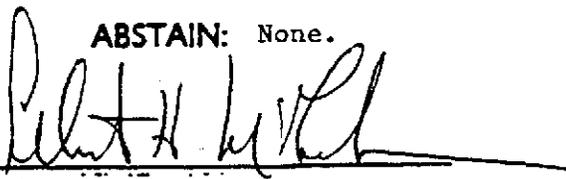
WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Holland City Council approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

YEAS: Councilmembers Falstad, Trethewey, Orozco, Rich, Vande Vusse, Ribbens Hearn and Kobes, and Mayor McGeehan.

NAYS: None.

ABSTAIN: None.


Albert McGeehan, Mayor


Jodi S. Syens, City Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the ~~Board of~~ GRAND HAVEN CITY COUNCIL, held
at the GRAND HAVEN CITY HALL, Ottawa County, MI, on JULY 26, 1999.

MEMBERS PRESENT: LYSTRA, SCOTT, WIERSEMA, NASER

MEMBERS ABSENT: RINGELBERG

The following preamble and resolution were offered by SCOTT
and supported by WIERSEMA.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

THEREFORE, BE IT RESOLVED THAT GRAND HAVEN CITY COUNCIL approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

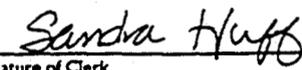
YEAS: LYSTRA, SCOTT, WIERSEMA, NASER.

NAYS: NONE.

ABSTAIN: NONE.



Signature of Chief Elected Official



Signature of Clerk

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DEPT. ENVIRONMENTAL QUALITY
MICHIGAN

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Wright Township, held
at the Wright Township Office, Ottawa County, MI, on July 14, 1999.

MEMBERS PRESENT: Becker, Gavin, Miller, Rander, Schoenborn

MEMBERS ABSENT: None

The following preamble and resolution were offered by Rander
and supported by Becker.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

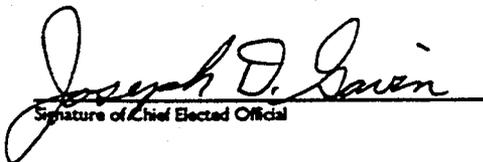
WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

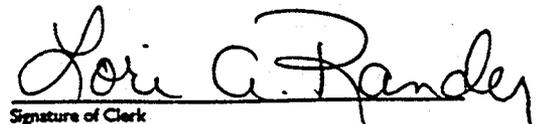
THEREFORE, BE IT RESOLVED THAT Wright Township approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: Becker, Gavin, Miller, Rander, and Schoenborn

NAYS: None

ABSTAIN: None


Signature of Chief Elected Official


Signature of Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

RESOLUTION NO. 99-06-06

At a meeting of the Board of Grand Haven Charter Township, held
at the Township Hall, Ottawa County, MI, on June 15, 1999.

MEMBERS PRESENT: Nortier, Olds, Vermeer, Karell, Kieft, Jenkins,
VanOosterhout

MEMBERS ABSENT: None

The following preamble and resolution were offered by Trustee Jenkins
and supported by Treasurer Vermeer.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update of the 1999 Update of the Ottawa County Solid Waste Management Plan - April 1991;

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

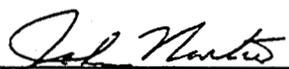
WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Grand Haven Township approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

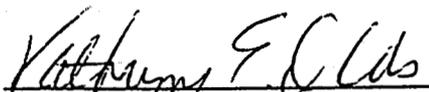
YEAS: Jenkins, Nortier, VanOosterhout, Olds, Kieft, Karell, Vermeer

NAYS: None

ABSTAIN: None



Signature of Chief Elected Official



Signature of Clerk

200

**City of Coopersville
Resolution No. 99-158
To Approve the 1999 Update of the
Ottawa County Solid Waste Management Plan**

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan – April 1991; and

WHEREAS, The Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update – 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

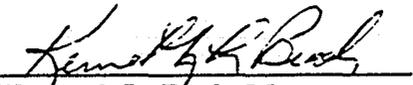
WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

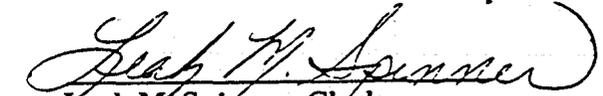
THEREFORE, BE IT RESOLVED THAT the Coopersville City Council approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

- YES: Council Members Wolfsen, Brown, Fisher, Scherff, Place, Parish and Mayor Bush**
- NO: None**
- ABSENT: None**
- ABSTAIN: None**

Date: June 28, 1999



Kenneth L. Bush, Mayor



Leah M. Spinner, Clerk

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
JUN 29 1999

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**GEORGETOWN TOWNSHIP RESOLUTION TO APPROVE THE 1999 UPDATE
OF THE OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Georgetown Charter Township, held at the Township Office, 1515 Baldwin St., Ottawa County, Michigan, on June 28, 1999, the following resolution was adopted:

Present: Henry Hilbrand, Daniel Carlton, James Holtvluwer, Del South, Stanley Sterk, R. J. Poel, and Bernard Mackus

Absent: none

#990628-14 - 1999 Update of the Ottawa County Solid Waste Management Plan

Moved by Stanley Sterk, seconded by R. J. Poel, to approve the resolution as follows:

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan-April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update-1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

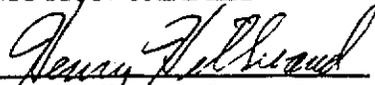
WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

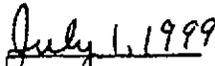
THEREFORE, BE IT RESOLVED THAT the Georgetown Township Board approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

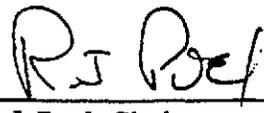
Yeas: Henry Hilbrand, Daniel Carlton, James Holtvluwer, Del South, Stanley Sterk, Bernard Mackus, and R. J. Poel

Nays: none

MOTION CARRIED.


Henry Hilbrand, Supervisor


Date


R. J. Poel, Clerk

RESOLUTION
(To approve the 1999 Update of the
Ottawa County Solid Waste Management Plan)

**City of Zeeland
County of Ottawa, Michigan**

Portions of minutes of a Regular Meeting of the City Council of the City of Zeeland, County of Ottawa, Michigan, held in the Howard Miller Community Center in said City on June 21, 1999, at 7:00 o'clock p.m., Local Time.

PRESENT: Council Members - Mayor Hoogland, Gruppen, Hamstra, Meppelink,
Klynstra and Curnick

ABSENT: Council Members - Huizenga

The following preamble and resolution were offered by Council Member Meppelink and supported by Council Member Curnick.

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999;

AND WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update;

AND WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government;

AND WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The City of Zeeland approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

2. All resolutions and parts of resolutions insofar as they conflict with the provisions of this resolution be and the same hereby are rescinded.

AYES: Council Members Hamstra, Meppelink, Curnick, Klynstra, Gruppen
and Hoogland

NAYS: Council Members None

ABSENT: Council Members Huizenga

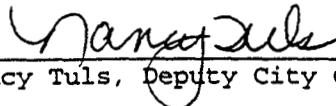
RESOLUTION DECLARED ADOPTED.



David V. Baron, City Clerk

CERTIFICATE

I hereby certify that the foregoing constitutes a true and complete copy of a Resolution adopted by the City Council of the City of Zeeland, County of Ottawa, Michigan, at a Regular Meeting held on June 21, 1999, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act 267, Public Acts of Michigan, 1976, as amended, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.



Nancy Tuls, Deputy City Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

#99-06-07

At a meeting of the Board of Trustees, Robinson Township, held
at the Robinson Township Hall, Ottawa County, MI, on June 21, 1999.

MEMBERS PRESENT: Raymond Masko, Jackie Frye, Cheryl Clark,
Earl Ralya and John Kuyers

MEMBERS ABSENT: None

The following preamble and resolution were offered by Earl Ralya
and supported by Jackie Frye.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Robinson Township Board approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

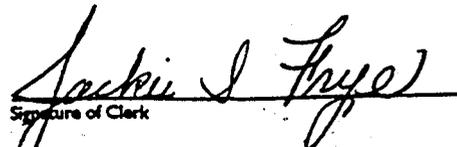
YEAS: Raymond Masko, Jackie Frye, Cheryl Clark,
Earl Ralya and John Kuyers

NAYS: None

ABSTAIN: None



Signature of Chief Elected Official



Signature of Clerk

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**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Holland Charter Township, held
at the Township hall, Ottawa County, MI, on June 17, 1999.

MEMBERS PRESENT: Nienhuis, Karsten, Kreun, Hossink

MEMBERS ABSENT: Israels, Nykamp, and Cartier

The following preamble and resolution were offered by Israels
and supported by none
Nykamp.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

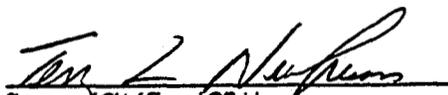
WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Holland Charter Township approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

YEAS: unanimous

NAYS: none

ABSTAIN: none


Signature of Chief Elected Official


Signature of Clerk



Olive Township

6480 - 136th Ave.
Holland, MI 49424

Phone (616) 786-9996
FAX (616) 786-3133

RESOLUTION TO APPROVE THE 1999 UPDATE OF THE OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN

At a meeting of the Board of Olive Twp, held
at the Olive Twp Hall, Ottawa County, MI, on July 22, 1999.

MEMBERS PRESENT:

MEMBERS ABSENT:

The following preamble and resolution were offered by Randy Vander Zwaag
and supported by Arlan B. Meekhof.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Olive Twp approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: UNANIMOUS

NAYS: NONE

ABSTAIN: NONE

Jim Dykstra
Signature of Chief Elected Official

Randy Vander Zwaag
Signature of Clerk

9 AUG 1999 2:08 PM
TOWNSHIP CLERK

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Spring Lake Township, held
at the Township Hall, Ottawa County, MI, on June 14, 1999.

MEMBERS PRESENT: Jeske, Miller, Timmerman, Peterson and
Mierle

MEMBERS ABSENT: Beauregard and VandenBosch

The following preamble and resolution were offered by Mierle
and supported by Timmerman.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Spring Lake Township approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: Jeske, Miller, Timmerman, Peterson and Mierle

NAYS: None

ABSTAIN:



Signature of Chief Elected Official

James A. Jeske II, Supervisor



Signature of Clerk

Donald E. Miller

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of CHESTER TOWNSHIP, held
at the CHESTER TOWNSHIP HALL, Ottawa County, MI, on JUNE 15, 1999.

MEMBERS PRESENT: MEERMAN, DENHOF, BERENBROCK, REDDING
& JOINER

MEMBERS ABSENT: NONE

The following preamble and resolution were offered by REDDING
and supported by JOINER.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT CHESTER TOWNSHIP approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: ALL

NAYS: NONE

ABSTAIN: NONE

James Meerman
Signature of Chief Elected Official

Janice Redding
Signature of Clerk
RESOLUTION # 99-6-1

RECEIVED
ENVIRONMENTAL HEALTH
JUN 21 2:27 PM '99

CITY of HUDSONVILLE
RESOLUTION NO 99-

A RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN

At a regular meeting of the City Commission of the City of Hudsonville, Ottawa County, State of Michigan, held at 3275 Central Boulevard, Hudsonville, MI on the 8th day of June 1999 at 7:00 PM, Eastern Standard Daylight Savings time:

PRESENT: Commissioners
ABSENT: Commissioners

The following motion was made by Commissioner RATERINK and seconded by Commissioner BRANDSEN at a regular meeting of the Hudsonville City Commission, Ottawa County, State of Michigan, held at 3275 Central Boulevard, Hudsonville, MI on the 8th day of June 1999 at 7:00 PM, Eastern Standard Daylight Savings time:

WHEREAS, the Ottawa County Solid Waste Planning Committee approved an update of the Ottawa county Solid Waste Management Plan in April 1991, and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan 1999, and

WHEREAS, Public Act 451, Part 115 requires sixty seven percent (67%) of local units within the county to approve the update, and

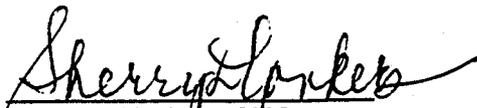
WHEREAS, the update provides Ottawa County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure pollution prevention through composting refuse, recycling, waste reduction and hazardous waste management through a collaborative effort with private sector business, residents and local units of government, and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local government involvement issues,

NOW, THEREFORE, BE IT RESOLVED, that the City of Hudsonville approves the 1999 Update to the Solid Waste Management Plan for Ottawa County as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

Yea: 7
Nay: 0

Resolution Declared Adopted this 8th day of June 1999


Sherry L. Yonkers, CMC
Hudsonville City Clerk

CERTIFICATION

I, the undersigned and City Clerk of the City of Hudsonville, do hereby certify that the foregoing is a regular meeting held on June 8, 1999, the original of which is on file with the records of the City Clerk and that public notice of said meeting was given pursuant to and in compliance with Act 287 of the Public Acts of Michigan of 1976, as amended.

Sherry L. Yonkers, CMC
City of Hudsonville





Dan

CITY OF FERRYSBURG

408 FIFTH STREET, P.O. BOX 38
FERRYSBURG, MI 49409-0038

PHONE 616-842-5803
FAX 616-844-0200

RESOLUTION

1999 UPDATE OF THE OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

NOW, THEREFORE, BE IT RESOLVED THAT the City of Ferrysburg approves the 1999 Update of the Ottawa County Solid Waste Management Plan as presented, and encourages the Michigan Department of Environmental Quality to approve the 1999 Update as submitted.

Offered by Council Member Kinney

Seconded by Council Member Hatton

Yeas: 6

Nays: 0

Absent: 1

Resolution Adopted

 June 7, 1999

 Craig Bessinger
Craig Bessinger, City Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Zeeland Charter Township, held
at the Townhall, Ottawa County, MI, on June 1, 1999.

MEMBERS PRESENT: Ellens, Evink, Nykamp, Ter Haar, Wolfert,
Miedema

MEMBERS ABSENT: Myaard

The following preamble and resolution were offered by Wolfert
and supported by Ter Haar.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

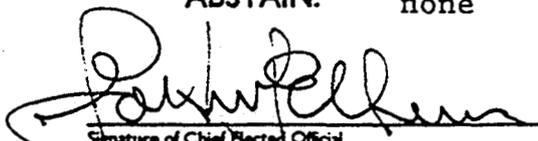
THEREFORE, BE IT RESOLVED THAT Zeeland Charter Town^{ship} approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

YEAS: Ellens, Evink, Nykamp, Ter Haar, Wolfert, Miedema

NAYS: none

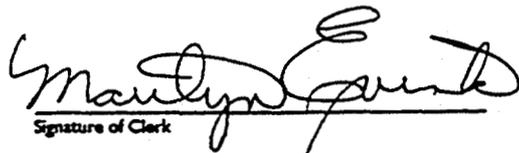
ABSENT: Myaard

ABSTAIN: none



Signature of Chief Elected Official

Gordon Ellens, Supervisor



Signature of Clerk

Marilyn Evink, Clerk

Resolution 1999-26
Ottawa County Solid Waste Management Plan

At a regular meeting of the Township Board of the Charter Township of Allendale, held at the Township hall, at 6676 Lake Michigan Drive, Allendale, Michigan, at 7:30 pm on May 24, 1999.

Present: Beelen, Kraker, Roon, Knoper, Mohr, Sall and Tanis

Absent: none

The following resolution was offered by Mohr and seconded by Tanis.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan – April 1999; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update – 1999; and

WHEREAS, PA 451, Part 115, requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

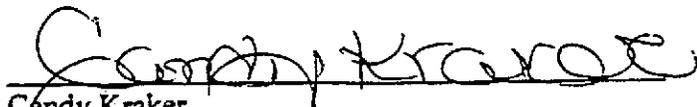
WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues.

THEREFORE, BE IT RESOLVED that Allendale Charter Township approves the 1999 Update of the Solid Waste Management plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

Yes: Beelen, Kraker, Roon, Knoper, Mohr, Sall and Tanis

No: none

Resolution declared adopted on May 24, 1999.


Candy Kraker
Allendale Charter Township Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

RECEIVED
ENVIRONMENTAL QUALITY
99 JUN -9 AM 10:41
At a meeting of the Board of CHARTER TOWNSHIP OF POLKTON, held
at the TOWNSHIP HALL, Ottawa County, MI, on JUNE 3, 1999.

MEMBERS PRESENT: J. KIEFT, A. LEMIEUX, H. SHERIDAN, M.A. SMOES
A. LUCAS, M. HECKSEL, M. DYKE

MEMBERS ABSENT: NONE

The following preamble and resolution were offered by HECKSEL
and supported by SHERIDAN.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

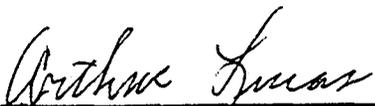
WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

THEREFORE, BE IT RESOLVED THAT POLKTON CHARTER TOWNSHIP approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

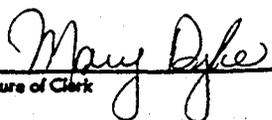
YEAS: SHERIDAN, LEMIEUX, KIEFT, SMOES, HECKSEL, DYKE, LUCAS.

NAYS: NONE

ABSTAIN: NONE



Signature of Chief Elected Official



Signature of Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Park Township, held
at the Township Office 52-152nd, Ottawa County, MI, on June 10, 1999.

MEMBERS PRESENT: Stuart Visser, Howard VanRaalte, Jan Steggerda, Jim DeGraaf,
Amanda Price, Paul VanDyke

MEMBERS ABSENT: Jim Seymour

The following preamble and resolution were offered by Jim DeGraaf
and supported by Jan Steggerda.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

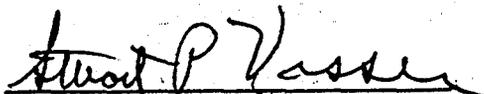
WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Park Township Board approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: Stuart Visser, Howard VanRaalte, Jan Steggerda, Jim DeGraaf,
Amanda Price, Paul VanDyke

NAYS: —

ABSTAIN: —


Signature of Chief Elected Official


Signature of Clerk

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of PORT SHELDON TOWNSHIP, held
at the PORT SHELDON TOWNSHIP HALL, Ottawa County, MI, on JUNE 10, 1999.

MEMBERS PRESENT: HOWARD BAUMANN JR., KATHY VAN VOORST, ESTHER VAN SLOOTEN
BILL J. MONHOLLON, GERALD SMITH

MEMBERS ABSENT: NONE

The following preamble and resolution were offered by BILL J. MONHOLLON
and supported by GERALD SMITH.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an
Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners unanimously approved the
Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to
approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively
oversee an environmentally sound and integrated solid waste management system to ensure
that the County's solid waste stream is properly managed and provides opportunities for
pollution prevention through composting, reuse, recycling, waste reduction, and hazardous
waste management through a collaborative effort with private sector businesses, County
residents, and local units of government; and

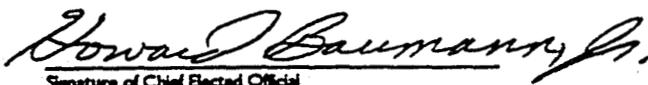
WHEREAS, the Plan Update was developed through a process that encouraged public
comment and local government involvement and provides for continued local involvement in
solid waste management issues;

THEREFORE, BE IT RESOLVED THAT PORT SHELDON TOWNSHIP approves the
1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan
Department of Environmental Quality to approve the Update as submitted.

YEAS: MONHOLLON, SMITH, VAN VOORST, VAN SLOOTEN, BAUMANN

NAYS: NONE

ABSTAIN:


Signature of Chief Elected Official
HOWARD BAUMANN JR.


Signature of Clerk
KATHY VAN VOORST

**RESOLUTION TO APPROVE THE 1999 UPDATE OF THE
OTTAWA COUNTY SOLID WASTE MANAGEMENT PLAN**

At a meeting of the Board of Tallmadge Charter Township, held at the Tallmadge Township Hall, Ottawa County, MI, on June 9, 1999.

MEMBERS PRESENT: William Wiersma, Frank Sessions, Lenore Cook, Gerry Neubecker, Gerald Walt, Clifford Bronkema, Roy Bolthouse.

MEMBERS ABSENT: None

The following preamble and resolution were offered by Clifford Bronkema and supported by Gerald Walt.

WHEREAS, the Ottawa County Solid Waste Planning Committee has prepared an Update to the Ottawa County Solid Waste Management Plan - April 1991; and

WHEREAS, the Ottawa County Board of Commissioners' unanimously approved the Solid Waste Management Plan Update - 1999; and

WHEREAS, PA 451, Part 115 requires 67 percent of all local units within the County to approve the Plan Update; and

WHEREAS, the Plan Update provides the County a management tool to effectively oversee an environmentally sound and integrated solid waste management system to ensure that the County's solid waste stream is properly managed and provides opportunities for pollution prevention through composting, reuse, recycling, waste reduction, and hazardous waste management through a collaborative effort with private sector businesses, County residents, and local units of government; and

WHEREAS, the Plan Update was developed through a process that encouraged public comment and local government involvement and provides for continued local involvement in solid waste management issues;

THEREFORE, BE IT RESOLVED THAT Tallmadge Charter Township Board approves the 1999 Update of the Solid Waste Management Plan as presented and encourages the Michigan Department of Environmental Quality to approve the Update as submitted.

YEAS: Sessions, Botthouse, Walt, Neuberger
Brockema, Wiersma, Cook

NAYS: None

ABSTAIN:

None
William E. Wiersma
William Wiersma, Supervisor

Lenore D. Cook
Lenore D. Cook, Clerk



County of Ottawa
Health Department

RECEIVED JUN 24 1998

KPL
914-1

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5615
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator
Darwin Baas

DATE: October 24, 1997

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, November 4, 1997

TIME: 7:00 p.m.

PLACE: Ottawa County Building
Ottawa County Board Room 205

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brower.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator
Darwin Baas

DATE: December 5, 1997

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, December 16, 1997

TIME: 7:00 p.m.

PLACE: **Ottawa County Building**
Ottawa County Board Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brower.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator

DATE: February 6, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, February 17, 1998

TIME: 7:00 p.m.

PLACE: **Ottawa County Building**
Ottawa County Board Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brower.

Enclosures



County of Ottawa

Health Department

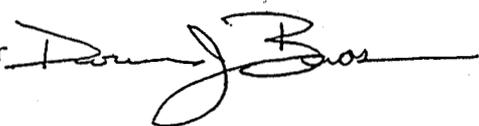
Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393 5645
Fax (616) 393 5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator 

DATE: April 10, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, April 21, 1998

TIME: 7:00 p.m.

PLACE: **Ottawa County Building**
Ottawa County Board Room - Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brouwer.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator

DATE: May 8, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, May 19, 1998

TIME: 7:30 p.m.

PLACE: Ottawa County Building
Ottawa County Board Room - Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brouwer.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator

DATE: June 4, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, June 16, 1998

TIME: 7:30 p.m.

PLACE: **Ottawa County Building**
Ottawa County Board Room - Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brouwer.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator

DATE: August 14, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, August 25, 1998

TIME: 7:30 p.m.

PLACE: Ottawa County Building
Ottawa County Board Room - Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brouwer.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

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(616) 393-5645
Fax (616) 393-5643

MEMORANDUM

TO: Ottawa County Solid Waste Planning Committee
Interested Parties
Media

FROM: Darwin Baas, Solid Waste Management Coordinator

DATE: November 5, 1998

SUBJECT: Meeting Notice

There will be an Ottawa County Solid Waste Planning Committee meeting on:

DATE: Tuesday, November 17, 1998

TIME: 7:30 p.m.

PLACE: **Ottawa County Building**
Ottawa County Board Room - Room 209

414 Washington Street
Grand Haven MI 49417

An Agenda for this meeting is enclosed.

The County of Ottawa will provide necessary auxiliary aids or services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon ten (10) working days notice to the County of Ottawa. Individuals with disabilities requiring auxiliary aids or services should contact the County of Ottawa by writing or calling the following: Daniel C. Krueger, Ottawa County Clerk, 414 Washington Street - Room 301, Grand Haven, MI 49417. Phone (616) 846-8310, ext. 8324, Nancy Brouwer.

Enclosures



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

Solid Waste Planning Committee Meeting - Public Hearing

A public hearing was held to receive comments on the Ottawa County Solid Waste Management Plan Update on a draft dated August, 1998.

DATE: Tuesday, November 17, 1998

TIME: 7:30 p.m.

LOCATION: Ottawa County Building
414 Washington Street
Grand Haven, MI 49417

SOLID WASTE PLANNING COMMITTEE MEMBERS IN ATTENDANCE:

Robert Carr
Mark Sylvester
Doug Hehl
Peter Alberda
Kurt Koella
Scott Blease
Arthur Lucas
Gary Raterink
Harris Schipper
Robert Rinck
Jim Gillespie

STAFF PRESENT

Darwin Baas
Solid Waste Management Coordinator
Environmental Health Division

AUDIENCE

Dean Vander Meulen, Dell Engineering
Steve Essling, Waste Management, Inc.

COMMENTS RECEIVED: None.



County of Ottawa
Health Department

COPY

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

November 25, 1997

XXXX
XXXX
XXXX
XXXX

Dear

On November 4, 1997, the solid waste planning committee, an advisory committee to the Ottawa County Board of Commissioners, commenced the process whereby during the next 13 months, the County will prepare an update to the existing Solid Waste Management Plan. This planning document provides the framework for the solid waste management system and oversight of the operation of solid waste disposal and transfer facilities located in the County. As a requirement of P.A. 451 of 1994, (the Natural Resources and Environmental Protection Act), Part 115, the Commissioners will submit this Plan to the State for approval. The deadline for submittal is December 1, 1998.

To ensure that local officials have an opportunity to bring forward any issue of concern early in the Plan Update process relating to the management of the municipal solid waste stream that impacts their community, the committee has expressed a desire in receiving your comments. Such concerns might include curbside recycling, waste reduction, managing yard waste, household hazardous waste, waste hauling and disposal, or any other issue relating to managing the municipal solid waste stream in Ottawa County.

The committee also recognizes the visible growth throughout the County. To better plan for future development and its impact on the generation of municipal solid waste, the committee is also requesting the following information:

1. the number of single family housing starts in the past five years
2. the number of multifamily housing units constructed in the past five years
3. the development of new industry by number and type in the past five years

In the next several weeks I will be contacting you regarding the above requested information. In the interim, if you have any questions concerning the Plan Update process please feel free to contact me at 616/393-5638. The committee would appreciate hearing your

comments and receiving the requested information by January 15, 1998. I encourage your input on these issues.

Cordially

Darwin J. Baas
Solid Waste Management Coordinator



County of Ottawa
Health Department

Environmental Health Division

12251 James Street Suite 200 Holland, MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

September 22, 1998

Mr. Jim Johnson
MDEQ - Waste Management Division
PO Box 30241
Lansing MI 48909

Dear Mr. Johnson

Enclosed is a copy of the draft Ottawa County Solid Waste Management Plan Update for your review. Ottawa County has initiated the 90 day public comment period and will accept comments on this draft until December 28, 1998.

Please feel free to contact me if you have any questions or comments at 616-393-5638.

Cordially

Darwin J. Baas
Solid Waste Management Coordinator

enclosure



County of Ottawa

Health Department

Environmental Health Division

12251 James Street Suite 200 Holland MI 49424-9675

(616) 393-5645
Fax (616) 393-5643

Memorandum

To: City Managers
Township Supervisors
From: Darwin Baas, Solid Waste Management
Coordinator
Date: Wednesday, September 23, 1998
Subject: Notification of Ottawa County Solid Waste
Management Plan Update - 90 Day Review &
Comment Period

Enclosed is a copy of the draft Ottawa County Solid Waste Management Plan update for your review. The solid waste planning committee has initiated a 90 day review and comment period and will accept comments until December 28, 1998.

A public hearing will be scheduled to address any concerns regarding the content of the plan. Once the date is set, you will receive notice of the time and date. Members of the general public may obtain a copy of the Plan Update by contacting our office. In addition, the Plan is available for inspection at the Ottawa County Health Department - Environmental Health Division at 12251 James Street in Holland.

At the conclusion of the 90 day review period, the committee will consider all questions and concerns, and make any changes deemed necessary. Once the plan has been approved by the Board of Commissioners, each municipality will be asked to formally review and approve the Plan by resolution.

Please feel free to contact me regarding the Plan Update or the review process if you have any questions. I can be reached at 393-5638.

Zeeland Charter Township

6582 Byron Road
Zeeland, Michigan 49464

March 31, 1998

Phone (616) 772-6701
FAX (616) 772-1857

Mr. Darwin Baas
Solid Waste Management Coordinator
Ottawa County Environmental Health Department
12251 James Street - Suite 200
Holland, MI 49424

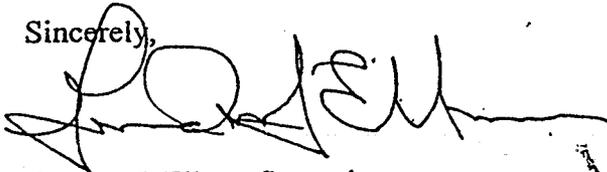
Dear Darwin:

I appreciated the opportunity to meet with you last week to discuss the solid waste planning process.

Pursuant to our discussion, Zeeland Charter Township supports the current restrictions on transfer of waste as it applies to geographic area. However, we would strongly recommend a cap on the total tons imported from surrounding counties rather than any type of restriction or cap by county. Our perspective is that this would apply to both the special and normal waste streams.

Additionally, the impact quotas should be similar for all landfills in the county.

Sincerely,



Gordon J. Ellens, Supervisor
ZEELAND CHARTER TOWNSHIP

vz

cc: Solid Waste Planning Committee
Board Members

09 APR - 1 PM 11:10



CITY OF GRAND HAVEN
PUBLIC HEALTH
98 DEC -4 PM 1:01

December 3, 1998

Mr. Darwin Baas
Solid Waste Management Coordinator
12251 James St., Suite 200
Holland, MI 49424-9675

Dear Mr. Baas:

Thank you for allowing the City of Grand Haven the opportunity to review the Ottawa County Solid Waste Management Plan.

In concept, the City of Grand Haven does not have any major concerns with the draft plan. However, several observations came to mind while reviewing the plan. These observations are as follows:

1. Ottawa County is relying solely on private businesses to collect and haul refuse and recyclables and to dispose of the refuse in a private, for profit landfill.
2. As you know, the solid waste disposal area is extremely competitive with companies being bought and sold on a continuous basis.

Is there any possibility that the private hauling firms and private landfills will no longer be available in Ottawa County or nearby counties? Have we thought of any contingency plans if this scenario occurs?

3. The municipalities annually receive notice of the Ottawa County Hazardous Waste collection program. My question is, what number of citizens participate or what volumes of materials are being collected during the program? It appears to not be heavily used at the RV Terrill (DPW) site in the City of Grand Haven.

Thank you for your time and contact me if you have any questions.

Sincerely,

Mitch Deisch
Assistant City Manager

MDD:cal

CITY OF COOPERSVILLE



January 21, 1998 289 DANFORTH
P.O. BOX 135
COOPERSVILLE, MICHIGAN 49404-0135
616-837-9731 • FAX 616-837-6679

Mr. Darwin J. Boss
Ottawa County Environmental Health Division
12251 James Street Suite 200
Holland, MI 49424-9675

Dear Dar;

The reason no one has responded to your November 25, 1997 letter is that in the letter you stated you would be contacting us. I for one have been waiting for additional contact with great anticipation – only joking.

Information for Coopersville follows:

1. Single family starts past five years – 153
2. Multi-family starts past five years – 68
3. New industry by number and type past five years
 - a. Best Packaging, 106,480 sq. ft. , Industrial Corrugated Parking
 - b. Modern Interiors 10,000 sq. ft. expansion, Home/Office/Store Furnishings
 - c. Custom Source, Inc., 102,000 sq. ft. expansion, Home/Office/Store Furnishings
 - d. Saturn Electronics & Engineering, 15,000 sq. ft. expansion, Auto Parts Manufacturing
 - e. Self Lube, 10,000 sq. ft. Self-lubricating Die, Mold and Automation Component
 - f. Hollamer, Inc., 20,000 sq. ft. plus two kilns, Custom Kiln Drying and Surfacing
 - g. Midwest Fabricating, 10,000 sq. ft., Fabricating Platework
 - h. Recycletech Inc., 10,000 sq. ft., Recycling
 - i. Laidlaw Waste Systems Inc., 20,000 sq. ft., Recycling
 - j. Erb Lumber, 12,000 sq. ft., Lumber Processing
 - k. Farr Side Electronics Co., 10,000 sq. ft. Electronics Motor Wiring
 - l. Delphi Automotive Systems, \$56,000,000 new investment in equipment and facilities, Auto Parts Manufacturing

Coopersville has conducted curbside recycling for the last eight years. The program has worked well with one exception. The public is not supporting the legislation concerning yard waste disposal. As a result, much yard waste is being dumped in unauthorized locations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tom", written in dark ink.

Thomas C. O'Malley
City Manager

Home Communities That Care Correspondence L. Dar

The Holland Sentinel

54 West 8th Street, Holland, Michigan 49423
(616) 392-2311, Fax (616) 392-3526

AFFIDAVIT OF PUBLICATION

Ottawa County
Environmental Health

ACCOUNT
NUMBER

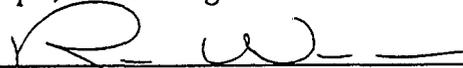
A COPY OF
THE ORIGINAL
INVOICE DATED

09-30-98

DATE	TYPE	PRODUCT DESCRIPTION	GROSS RATE	SIZE	TOTAL LINAGE	GROSS AMOUNT
09-27-98	A	Public Notice	\$6.60	1x3.75"	3.75"	\$24.75

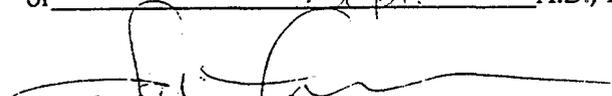
STATE OF MICHIGAN }
County of Ottawa } ss.

Ronald Wallace, of said county, being duly sworn, deposes and says that the notice, a printed copy of which is hereto attached, was published in THE HOLLAND SENTINEL, a newspaper, printed, published, and circulated in the City of Holland, County of Ottawa on the Twenty-Seventh Day of September, Nineteen Hundred Ninety-Eight and the affiant further says that he is the publisher of said newspaper, and knowing to the facts above stated.



Subscribed and sworn to before me
this 30th day
of Sept. A.D., 19 98.

JODI TRETHERWEY
Notary Public, Ottawa County, MI
My commission expires June 13, 2000



Notary Public in and for Ottawa County, Michigan

This is not an invoice.

TOTAL
GROSS
AMOUNT

\$24.75

PUBLIC NOTICE

A draft of the Ottawa County Solid Waste Management Plan update prepared by the Ottawa County Solid Waste Planning Committee is available for inspection during the 90 day comment and review period commencing on Monday, September 28, 1998. Copies of the draft Plan Update are available to any interested person for inspection and copying (at cost) at the Ottawa County Environmental Health Division, 12251 James Street, Suite 200, Holland, MI 49424. Comments on the draft Plan Update will be received until December 28, 1998. Any questions regarding this review process should be directed to Darwin J. Baas, Solid Waste Management Coordinator at 616/393-5638

PRINTED COPY

AFFIDAVIT OF PUBLICATION

State of Michigan
COUNTY OF OTTAWA

LEE CARTER, being first duly sworn, says that he is the publisher of the Grand Haven Tribune, a newspaper published in the English Language for the dissemination of local or transmitted news and intelligence of a general character and legal news, which is a duly qualified newspaper, and that annexed hereto is a copy of a certain order taken from said newspaper, in which the order was published.

SEPTEMBER 26, 1998



Subscribed and sworn to before me the 26TH

SEPTEMBER 1998

Deborah A. Easterly

*Notary Public in and for Ottawa County,
State of Michigan.*

My commission expires December 22, 19 98

ADVERTISING FEE, \$ _____

PUBLIC NOTICE

A draft of the Ottawa County Solid Waste Management Plan update prepared by the Ottawa County Solid Waste Planning Committee is available for inspection during the 90 day comment and review period commencing on Monday, September 28, 1998. Copies of the draft Plan Update are available to any interested person for inspection and copying (at cost) at the Ottawa County Environmental Health Division, 12251 James Street, Suite 200, Holland, MI 49424. Comments on the draft Plan Update will be received until December 28, 1998. Any questions regarding this review process should be directed to Darwin J. Baas, Solid Waste Management Coordinator at 616/393-5638.

September 26, 1998

**AFFIDAVIT
OF
PUBLICATION**

Ottawa County
Environmental Health

ACCOUNT
NUMBER

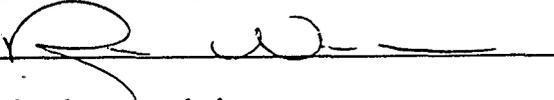
A COPY OF
THE ORIGINAL
INVOICE DATED

10-31-98

DATE	TYPE	PRODUCT DESCRIPTION	GROSS RATE	SIZE	TOTAL LINAGE	GROSS AMOUNT
10-16-98	A	Solid Waste Plan	\$6.89	1x3"	3"	\$20.67

STATE OF MICHIGAN }
County of Ottawa } ss.

Ronald Wallace, of said county, being duly sworn, deposes and says that the notice, a printed copy of which is hereto attached, was published in THE HOLLAND SENTINEL, a newspaper, printed, published, and circulated in the City of Holland, County of Ottawa on the Sixteenth Day of October, Nineteen Hundred Ninety-Eight and the affiant further says that he is the publisher of said newspaper, and knowing to the facts above stated.


Subscribed and sworn to before me
this _____ day
of _____ A.D., 19____.

Notary Public in and for Ottawa County, Michigan

This is not an invoice.

TOTAL
GROSS
AMOUNT

\$20.67

PUBLIC NOTICE

A public hearing to receive comments on the Five-year Update of the Ottawa County Solid Waste Management Plan will be held at 7:30 p.m., Tuesday, November 17, 1998, in Room 209 of the Ottawa County Building located at 414 Washington Street, Grand Haven. Copies of the Plan are available at the Ottawa County Environmental Health Division, 12251 James Street, Suite 200, Holland, MI, 49424. Any questions regarding this public hearing should be directed to Darwin J. Baas, Solid Waste Management Coordinator at 616/393-5638

PRINTED COPY

AFFIDAVIT OF PUBLICATION

PUBLIC NOTICE

A public hearing to receive comments on the Five-year Update of the Ottawa County Solid Waste Management Plan will be held at 7:30 p.m., Tuesday, November 17, 1998, in Room 209 of the Ottawa County Building located at 414 Washington Street, Grand Haven. Copies of the Plan are available at the Ottawa County Environmental Health Division, 12251 James Street, Suite 100, Holland, MI, 49424. Any questions regarding this public hearing should be directed to Darwin J. Baas, Solid Waste Management Coordinator at 616/393-5638.
October 16, 1998

State of Michigan
COUNTY OF OTTAWA

LEE CARTER

, being first duly sworn, says that he is the publisher of the Grand Haven Tribune, a newspaper published in the English Language for the dissemination of local or transmitted news and intelligence of a general character and legal news, which is a duly qualified newspaper, and that annexed hereto is a copy of a certain order taken from said newspaper, in which the order was published.

OCTOBER 16, 1998

Lee Carter

Subscribed and sworn to before me the 16 TH

OCTOBER 1998

Deborah A. Easterly

Deborah A. Easterly

Notary Public in and for Ottawa County,
State of Michigan.

My commission expires December 22, 19 98

ADVERTISING FEE, \$ _____

AFFIDAVIT OF PUBLICATION

ADVERTISER) Ottawa County Health

REGARDS TO) Public Notice

DATE 10-20-98 SIZE 4.00 COL. INCH

PAPERS Grand Valley

I, Joel Hoiland, being duly sworn on his oath, as the Publisher of the Advance Newspapers circulated in Kent and Ottawa Counties, public newspapers published in Jenison, Township of Georgetown, State of Michigan, in which advertisements were published in the above mentioned newspaper(s) on the date(s) and of the size as specified above.



Publisher

Subscribed and sworn before me

this 26 day of Oct., 19 98



Dawn L. Bogema, Notary Public

Kent County, acting in Ottawa, Michigan
commission expires November 1, 1999

PUBLIC NOTICE

A public hearing to receive comments on the Five-year Update of the Ottawa County Solid Waste Management Plan will be held at 7:30 p.m., Tuesday, November 17, 1998, in Room 209 of the Ottawa County Building located at 414 Washington Street, Grand Haven. Copies of the Plan are available at the Ottawa County Environmental Health Division, 12251 James Street, Suite 200, Holland, MI 49424. Any questions regarding this public hearing should be directed to Darwin J. Baas, Solid Waste Management Coordinator at 616-393-5638.

OTTAWA COUNTY PUBLIC NOTICE

A public hearing to receive comments on the Ottawa County Solid Waste Management Plan Update - February 1999 will be held at 2:00 p.m., Tuesday, April 27, 1999 at the Ottawa County Board of Commissioners meeting, located at 12220 Fillmore Street, West Olive, Michigan. Copies of the Plan are available at the Ottawa County Public Health - Environmental Health Division, 12251 James Street, Suite 200, Holland, MI 49424. Any questions regarding the Plan should be directed to Darwin Baas, Solid Waste Management Coordinator at 616-398-5638.

(3-23-99)

Daniel C. Krueger
Ottawa County Clerk

ATTACHMENTS

APPENDIX D

Plan Implementation Strategy

The following discusses how the County intends to implement the plan and provides documentation of acceptance of responsibilities from all entities that will be performing a role in the Plan.

The roles and responsibilities of the Ottawa County Board of Commissioners, Ottawa County Solid Waste Planning Committee, Solid Waste Management Coordinator and Ottawa County Road Commission are outlined in Section III.16.

The County's Ordinance Number 93-1, which was last amended in August 1998, details the County's facility operating standards for licensed landfills. A copy of this ordinance is attached in Attachment D-1.

The County does not have formal import/export agreements with surrounding counties. The County does have contracts with Autumn Hills Recycling and Disposal Facility and Ottawa County Farms that limit their annual disposal to an average of 750,000 tons per year. Documentation that these two facilities have adequate capacity to satisfy the capacity requirements in the plan through 2008 is provided in Attachment D-2.

No new disposal facilities will be sited in the County during the Plan period. Although no expansion of existing facilities were included in the identification of the capacity in this Plan, the County has established procedures for expansions.

Resolutions

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

Listed Capacity

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

Capacity documentation is provided in Attachment D-2.

Maps

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

Figure II.13 shows the locations of solid waste disposal facilities in the County.

Inter-County Agreements

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

Ottawa County does not maintain formal agreements with other counties.

Special Conditions

Special conditions affecting import or export of solid waste.

There is a volume limitation of 1,500,000 tons per year for waste imported to Ottawa County from any of the 25 Counties identified in the Plan. The County may export up to 100 percent per year to out-of-County disposal facilities per the terms of individual importing county's solid waste management plan.

ATTACHMENT D-1
ORDINANCE NO. 93-1

ORDINANCE NO. 93-1, as Amended

An Ordinance to adopt "Facility Operating Standards" for licensed landfills, to provide a method of semi-annual reporting by landfill operators and to provide for the enforcement of this Ordinance through criminal and civil prosecutions.

THE COUNTY OF OTTAWA, STATE OF MICHIGAN ORDAINS:

Section 1. PURPOSE: The Ottawa County Solid Waste Management Plan Update, dated April 1991, provides and requires that Ottawa County will adopt an ordinance incorporating the "Ottawa County Facility Operating Standards" as the operating standards for licensed landfills within the County. The Board of Commissioners of the County of Ottawa ("the Board of Commissioners") upon the advice of their Act 641 committee, has determined that the "Ottawa County Facility Operating Standards" should be adopted as the standards for the operation of licensed landfills within the County, and has further determined that landfill operators should provide semi-annual reports of the quantities, types, and county of origin of solid waste delivered to licensed landfills within the County of Ottawa.

Section 2. FACILITY OPERATING STANDARDS: The Ottawa County "Facility Operating Standards" set forth in the "Ottawa County Solid Waste Management Plan Update, April 1991," and any amendments or updates thereto, shall be the facility operating standards for

licensed landfills within Ottawa County. The Ottawa County "Facility Operating Standards," as set forth therein, and any amendments thereto, are hereby incorporated by reference into this Ordinance as if fully set forth herein.

Section 3. COMPLIANCE WITH FACILITY OPERATING STANDARDS: All licensed landfills within Ottawa County shall be operated, at all times, in compliance with the Ottawa County Facility Operating Standards. The failure to comply with the Ottawa County Facility Operating Standards may result in the imposition of criminal penalties for violation thereof, and/or in injunctive action being initiated by Ottawa County to compel compliance therewith and/or to compel closure of the landfill. As set forth in the plan, exemptions and variances from these operating standards may be granted where it can be demonstrated that circumstances warrant such exemptions and that alternatives will adequately protect the public health, welfare and environment.

Section 4. LANDFILL OPERATORS REPORTING REQUIREMENTS: The operators of licensed landfills shall file a semi-annual report in accordance with the criteria set forth in the "Facility Operating Standards" of the Ottawa County Solid Waste Management Plan.

A copy of the Facility Operating Standards in effect at the date of adoption of the Ordinance is attached hereto as Exhibit "A."

Section 5. CRIMINAL PENALTIES, CIVIL INJUNCTIVE RELIEF: Any person or business entity violating the terms of this Ordinance, including the Operating Standards, and any person or business entity knowingly making false or inaccurate reports under the terms of this Ordinance, and any person or business entity failing to fully remit the fees collected under this Ordinance, shall be guilty of a misdemeanor, and shall be punished by fines not to exceed \$ 100.00, plus court costs, and/or a term of imprisonment not to exceed 90 days in the county jail. Civil injunctive remedies may also be sought by the County to enforce and assure compliance with the terms of this Ordinance.

Section 6. CONFLICT WITH CRIMINAL LAWS: Nothing in this Ordinance shall be construed to conflict, contravene, enlarge or reduce any criminal liability or responsibility, including fines imposed by a judge for any criminal offense under Michigan law.

Section 7. SEVERABILITY: The phrases, sentences, sections and provisions of this Ordinance are severable and the finding that any portion hereof is unconstitutional or otherwise unenforceable shall not detract from or affect the enforceability of the remainder of this Ordinance.

Section 8. REPEAL OF CONFLICTING ORDINANCES: All other Ordinances, parts of Ordinances, or amendments thereto, any of which are in

conflict with the provisions of this Ordinance, are hereby repealed in their entirety to the extent of such conflict, as of the effective date specified in Section 9.

Section 9. ADOPTION: This Ordinance was approved and adopted by the Ottawa County Commission on August 11, _____, 1998, and shall be effective on January 1, 1999.

ATTACHMENT D-2

MEMO

TO: Darwin Baas
FROM: Robert Carr
SUBJECT: Remaining Capacity
DATE: January 11, 1999

Darwin:

The estimated remaining site capacity as of January 1, 1999 is as follows:

Remaining Capacity = 15,068,737 Tons

15,068,737 Tons ÷ 2,795 Average Tons Per Day = 5,391 DAYS

5,391 ^{DAYS} ÷ 306 Operating Days Per Year = 17.61 Years Remaining Life

If you need additional information, please feel free to call.

Autumn Hills Recycling and Disposal Facility
700 - 56th Avenue
Zeeland, Michigan 49464
616/688-5777



A Waste Management Company

DATE: January 6, 1999
TO: Darwin J. Bass, Coordinator
Ottawa County Solid Waste Management
FROM: Randy Dozeman, Site Manager
Autumn Hills RDF
SUBJECT: Capacity at Autumn Hills

You requested an update on estimated airspace/capacity in years left at Autumn Hills RDF. The remaining airspace as of 8/27/97 calculated by Fred Sawyers our Site Engineer is as follows:

Remaining BCY's as of August 27, 1998 is 17,721,000

Current in place density is 1700#/BCY

Estimated Available Tonnage

$17,721,000 \text{ BCY} \times .85 \text{ tons}(1700\#) = 15,062,850 \text{ tons}$

$15,062,850 \text{ tons} \div \text{current annual disposal of } 625,000 \text{ tons} = \text{equals } 24.1 \text{ yrs of airspace as of } 8-27-98.$

In summary the remaining estimated airspace as of 8-27-98 is just over 24 years based on an estimated annual disposal of 625,000 tons. If you need any additional information, please feel free to call.

AGREEMENT

This Agreement is made this 31 day of AUGUST, 1998 between Allied Waste Industries, an Arizona Corporation, ("Allied") and the County of Ottawa, a Michigan municipal corporation ("the County"), with reference to the following facts and circumstances:

- A. Ottawa County, a host county for the Ottawa County Farms Landfill, is interested in preserving sufficient long term disposal capacity for the solid waste generated within the County.
- B. Allied, in 1994, applied for and the County subsequently issued a Letter of Consistency with its Solid Waste Management Plan Update - 1991 to approve a facility redesign for the Ottawa County Farms Landfill, a Type II Landfill located in Polkton Township, that increased the disposal capacity to exceed the facility design as approved by the County in 1989.
- C. The County is interested in locating a Household Hazardous Waste (HHW) Collection Facility at the Ottawa County Farms Landfill.
- D. The County and Allied are interested in extending the provisions set forth in the Agreement dated September 25, 1990 between the County and Allied, attached hereto as Exhibit "A", to provide disposal capacity guarantees for the solid waste generated in Ottawa County.

THEREFORE THE PARTIES AGREE AS FOLLOWS:

1. **Disposal Capacity Reserve Guarantee:**

Allied agrees that the Ottawa County Farms Landfill shall provide disposal capacity for Type II/III solid waste generated in Ottawa County for a period of 17 years after the date of this Agreement (through the year 2015).

2. **Limits on Annual Disposal of Waste:**

Allied agrees to limit the volume of solid waste accepted at the Ottawa County Farms Landfill to average maximum of 750,000 tons annually. This annual limitation amount is not a guarantee by the County of the amount of waste that will actually be available for disposal at the Ottawa County Farms Landfill.

3. **Out of State Waste:** No out of state waste shall be disposed of in the Ottawa County Farms Landfill.

AGREEMENT

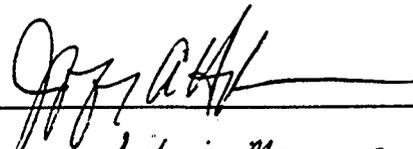
4. **Future Discussions Regarding Facility Operations:** To ensure that the solid waste management goals are implemented and to respond to the continuing change within the solid waste management industry, Ottawa County and Allied Waste Systems agree to meet as needed to discuss the operations of the Ottawa County Farms Landfill and the provisions contained in the 1990 Agreement and subsequent amendments concerning those operations.

5. **Household Hazardous Waste (HHW) Collection Facility:** Allied agrees to host and operate an approved Household Hazardous Waste (HHW) collection facility at the Ottawa County Farms Landfill site for use by the residents of Ottawa County. The County will fund the initial set up costs for the HHW facility at Ottawa County Farms, at a cost of approximately \$55,000. Primary funding for the HHW facility operations, including reasonable disposal costs, will be through existing collected surcharge fees provided for in the September 25, 1990 Agreement and/or user fees, pursuant to a program for household hazardous waste collection to be developed and coordinated by the Ottawa County Department of Public Health. Allied agrees to work with the Ottawa County Department of Public Health to coordinate the standards and hours of operation for the HHW collection facility and to operate the facility in accordance with all applicable standards therefore.

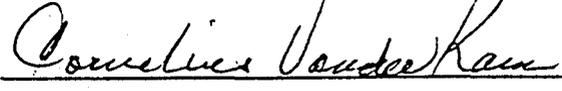
6. **Complete Agreement:** This agreement amends the September 25, 1990 Agreement on these issues between Allied and the County.

7. **Binding Effect:** This agreement shall be binding upon Allied and the County and their successors and assigns.

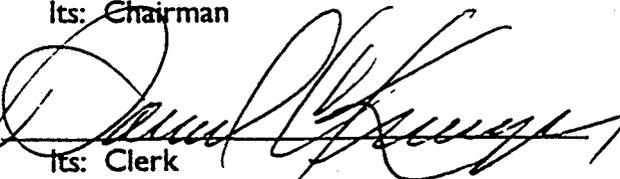
ALLIED WASTE INDUSTRIES, INC.

By: 
Its: District Manager

COUNTY OF OTTAWA

By: 

Its: Chairman

By: 
Its: Clerk

AGREEMENT

This Agreement is made this 31st day of July, 1998 between Waste Management of Michigan, Inc., a Michigan Corporation, ("Waste Management") and the County of Ottawa, a Michigan municipal corporation ("the County"), with reference to the following facts and circumstances:

- A. Ottawa County, a host county for the Autumn Hills Recycling and Disposal Facility, is interested in preserving sufficient long term disposal capacity for the solid waste generated within the County.
- B. Waste Management, in 1996, applied for and the County subsequently issued a Letter of Consistency with its Solid Waste Management Plan Update - 1991 to approve a facility redesign for the Autumn Hills RDF located in Zeeland Township, that increased the disposal capacity to exceed the original facility design as approved by the County in 1991.
- C. The County and Waste Management are interested in extending the provisions set forth in the Agreement dated April 12, 1991 between the County and Waste Management, attached hereto as Exhibit "A", to provide disposal capacity guarantees for the solid waste generated in Ottawa County.

THEREFORE THE PARTIES AGREE AS FOLLOWS:

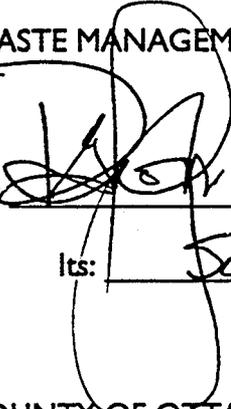
1. **Disposal Capacity Reserve Guarantee:**
Waste Management represents and agrees that the Autumn Hills RDF shall provide disposal capacity for Type II/III solid waste generated in Ottawa County for a period of 17 years after the date of this Agreement (through the year 2015).
2. **Limits on Annual Disposal of Waste:**
Waste Management agrees to limit the volume of solid waste accepted at the Autumn Hills RDF to an average maximum of 750,000 tons annually. This annual limitation amount is not a guarantee by the County of the amount of waste that will actually be available for disposal at the Autumn Hills Recycling and Disposal Facility.
3. **Out of State Waste:** No out of state waste shall be disposed of in the Autumn Hills RDF.
4. **Future Discussions Regarding Facility Operations:** To ensure that the solid waste management goals are implemented and to respond to the

AGREEMENT

continuing change within the solid waste management industry, Ottawa County and Waste Management agree to meet as needed to discuss the operations of the Autumn Hills Recycling and Disposal Facility and the provisions contained in the 1991 Agreement and subsequent amendments concerning those operations.

5. **Complete Agreement:** This agreement amends the April 12, 1991 Agreement on these issues between Waste Management and the County.
6. **Binding Effect:** This agreement shall be binding upon Waste Management and the County and their successors and assigns.

WASTE MANAGEMENT OF MICHIGAN, INC.

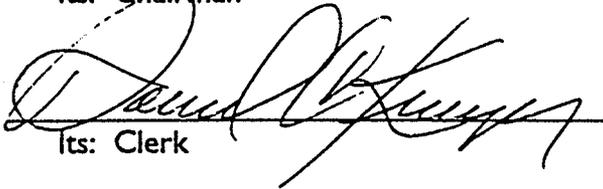
By:  Randy Dozeman

Its: Site Mgr.

COUNTY OF OTTAWA

By: Cornelius Vander Kamen

Its: Chairman

By:  David G. Hunsperger

Its: Clerk