STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

December 2, 2015

Mr. Robert Showers, Chairperson
Clinton County Board of Commissioners
100 East State Street
St. Johns, Michigan 48879-1571

Dear Mr. Showers:

The locally approved amendment to the Clinton County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ), dated October 6, 2015, is hereby approved.

The Plan Amendment makes the following changes:

- Updates the Import Authorization Table by adding the following counties: Clare, Hillsdale, Lenawee, and Mecosta counties.
- Updates the Export Authorization Table by adding the following counties: Clare, Hillsdale, Lenawee, and Mecosta counties.

The DEQ would like to thank Clinton 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 Mr. Rick Jones
Senator Ms. Judy Emmons
Representative Mr. Tom Leonard
Ms. Kate Neese, Clinton County DPA
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Chief Deputy Director, DEQ
Ms. Maggie Pallone, Director of Legislative Affairs, DEQ
Mr. Larry Bean, DEQ
Mr. Duane Roskoskey, DEQ
Ms. Rhonda S. Oyer/Ms. Christina Miller, DEQ/Clinton County File

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

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RUSSELL J. HARDING, Director

October 16, 2000

Mr. Richard Hawks, Chairperson
Clinton County Board of Commissioners
100 East State Street
St. Johns, Michigan 48879-1571

Dear Mr. Hawks:

The Department of Environmental Quality (DEQ) received the locally approved update to the Clinton County Solid Waste Management Plan (Plan) on March 27, 2000. Except for the items indicated below, the Plan is approvable. As outlined in the June 14, 2000 letter to Ms. Ann Mason, Director, Clinton County Department of Waste Management, from Ms. Lynn Dumroese, DEQ, Waste Management Division, and as confirmed in your letter dated August 28, 2000, the DEQ makes the following modifications to the Plan:

On page 73, under the heading, Section II Process, item number 3, states that the applicant must submit payment of an application fee to cover costs associated with the review (stipulated in the Solid Waste Ordinance, Article 7 (7.4)). The Clinton County Solid Waste Ordinance found in Appendix D-3 does not contain section 7.4. The fee information is found in section 7.3 of Article 7. Therefore, the reference to Article 7 (7.4) shall be replaced with Article 7 (7.3).

On page 73, under the heading, Section II Process, item number 7, states that successful host agreements will result in the elimination of certain steps of the siting process. Clinton County (County) intended to eliminate the Local Planning Agency (LPA) review if successful host agreements are executed; however, the application will still need to be reviewed by the Site Review Committee (SRC). The step numbers referenced in this paragraph do not correspond to the correct siting processes that are intended to be bypassed. In the final Plan, the correct siting processes that will be referenced are steps 8, 9, and 10.

On page 74, under the heading, Section II Process, item number 9, reiterates the bypassing of certain siting processes if host agreements are successfully negotiated. Again, the references to the siting processes that are intended to be excluded are incorrect. Subsection a) shall state the applicant will not be required to proceed through Step 8 and Step 9 rather than Step 6 and Step 7. Subsection b) shall

reference Step 10, which explains the process of the application being forwarded to the SRC.

On page 75, under the heading, Section II Process, item number 12, states, "The SRC shall make and send the final determination of consistency for the proposal to the applicant." The County's intent was that the Board of Commissioners (BOC) will have the final determination of consistency, as indicated in Step 13, by signing the letter that is forwarded to the DEQ. Therefore, "SRC" shall be replaced with "BOC" in this sentence.

On page 75, under the heading, Section II Process, item number 13, states that a letter of consistency will be forwarded to the DEQ from the BOC. As previously mentioned, the BOC accepts responsibility for the determination of consistency by signing the letter; however, there is no information in the Siting Process that specifically states this. In addition, the BOC may choose not to sign the letter; therefore, the facility would not be consistent with the Plan. If the BOC should choose not to sign the recommendation of the SRC, they must be responsible for developing a letter of inconsistency that will be forwarded to the DEQ. Further, a time frame and default mechanism have not been established if the BOC should not take action on the determination of consistency. In order to clarify these issues, the following language will be added to item number 13:

> Within 30 days of receiving the SRC determination, the BOC will review the SRC recommendation and determine if the facility is consistent or inconsistent based on the criteria established in the Plan. If the BOC determines the proposed facility is inconsistent with the Plan, they will be responsible for sending the DEQ a letter of inconsistency. By signing the letter of consistency, the BOC accepts the responsibility for the determination of consistency. Failure by the BOC to send a letter of consistency to the DEQ within the 30-day time frame will result in the application being deemed to be consistent with the Plan.

On page 75, under the heading, Section II Process, item number 14, states that the applicant will have the opportunity to provide additional information if the proposal is found to be inconsistent and the SRC may amend its initial finding based on this submitted information. There is no time frame or default action established for the SRC to make their determination if this process should need to occur. In addition, the BOC will still be responsible for reviewing the SRC's determination and making their own determination of consistency. The County indicated a 30-day time frame should be sufficient for the SRC to complete their review of additional information and another 30-day time frame should be sufficient for the BOC to make their determination of consistency. In order to clarify this process, the following language will be added to item number 14:

> The SRC shall have 30 days to review the additional information and submit a determination of consistency to the BOC. If the SRC fails to

complete the review of additional information within 30 days, the application shall be deemed consistent and shall be forwarded to the BOC. Within 30 days of receiving the SRC's recommendation, the BOC shall review the SRC's recommendation and send a letter of consistency to the DEQ. If the BOC fails to send the letter of consistency to the DEQ within 30 days, the application will be considered to be consistent with the Plan.

On page 75, under the heading, Section II Process, item number 15, states that if the applicant does not agree with the decision of the SRC, the developer may appeal to the DEQ. Once again, the County intends on having the BOC be responsible for making the determination of consistency; therefore, the applicant may not agree with the decision of the BOC. In this sentence, "SRC" will be replaced with "BOC."

On page 76, under the heading, Section IV Criteria, item number 1, discusses the opportunity for the LPA and the SRC to refuse siting of a facility as long as 66 months of available capacity has been established. Section 11537a of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, states, "If any county is able to demonstrate to the department that it has at least 66 months capacity, that county may refuse to utilize its siting mechanism until the county is no longer able to demonstrate 66 months of capacity or ..." The decision is to refuse the use of the siting mechanism, which means this decision cannot be part of the siting criteria. Additionally, only one responsible party may have the authority to make this decision on behalf of the County. Usually, the BOC is the responsible party; however, the BOC can delegate this authority to another party. The County indicated if only one party could have this authority, the BOC would choose to be responsible for the decision, as indicated in item number 4 on page 73. Item number 1 shall be deleted from the Siting Criteria, and the Siting Process shall remain the same indicating the BOC will make the determination whether or not to proceed with the Siting Process.

On page 77, under the heading Section IV Criteria, item number 10, states, "A facility shall not be located in a regulated area as defined in Part 323, Shorelands Protection and Management, of Act 451, ..." "Regulated area" is not a term that is defined in Part 323. However, the terms "environmental area" and "land to be zoned or regulated" are defined. The County's intent was to include both of these definitions as part of the criterion. The term "regulated area" shall be replaced with both "environmental area" and "land to be zoned or regulated."

On page 80, under the heading New Disposal Facility Siting Process, the last process in the Responsibility column states "the applicant may appeal to the DEQ if, and only if, less than 66 months of capacity remains for the Plan area." The Plan cannot set limitations on the developer's right to submit an application to the DEQ for a construction permit. Even though this table seems to be included for paraphrasing purposes, the last process in this summary table shall be deleted in order to alleviate any discrepancy regarding the siting process.

On page 94, under the heading, Disposal Facilities – Operational Issues, the last paragraph states, "the negotiated terms of the agreement shall have precedence over the Ordinance and this Plan, so long as it is not in conflict with state and federal laws." A host agreement shall not overrule the authority of the Plan; therefore, the term "Plan" will be deleted from this sentence.

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

By approving the Plan with modifications, the DEQ has determined that it complies with the provisions of Part 115 and the Part 115 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 DEQ approval of the Plan neither restricts nor expands County authority to implement these enforceable mechanisms.

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

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

Sincerely,

Russell J. Harding
Director
517-373-7917

cc: Senator Mike Rogers
Representative Larry Jullian
Representative Valde Garcia
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Mr. Timothy R. Sowton, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Ms. Elizabeth Browne - Shiawassee
Mr. Seth Phillips, DEQ
Ms. Lynn Dumroese, DEQ
Clinton County File

Clinton County

Solid Waste Management Plan

2000 Update

Clinton County Board of Commissioners
Clinton County Department of Waste Management

CLINTON COUNTY SOLID WASTE MANAGEMENT PLAN

1999 PLAN UPDATE COVER PAGE

DATE SUBMITTED TO THE DEQ: _____

MUNICIPALITIES FROM OUTSIDE THIS COUNTY WHO HAVE REQUESTED AND ARE INCLUDED IN THE PLAN: None

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Clinton County Department of Waste Management

CONTACT PERSON: Ann Mason

ADDRESS: Clinton County Department of Waste Management
100 Cass Street
St. Johns, MI 48879

PHONE 517/224-5188 **FAX:** 517/224-5102

E-MAIL: masona@clinton-county.org

CENTRAL REPOSITORY LOCATION(S): Clinton County Department of Waste Management

DATE APPROVED BY THE DEQ: _____

TABLE OF CONTENTS

1 **PART ONE - EXECUTIVE SUMMARY**
- 1.1 Process Used When Developing/Approving Plan 1
- 1.2 Problems Encountered and Overcome 1
- 1.3 Overview of the County 2
- 1.4 Conclusions 2
- 1.5 Selected Alternative System for Integrated Waste Management 4

2 **PART TWO - INTRODUCTION 5**
- 2.1 Goals and Objectives 5
- 2.2 Definitions 7
- 2.3 Severability 10

3 **PART THREE - DATA BASE 11**
- 3.1 Waste Generation and Projections 11
- 3.2 Solid Waste Disposal Areas 11
- 3.3 Current Collection System 13
- 3.4 Deficiencies and Problems 19
- 3.5 Information Sources 21
- 3.6 Demographics 23
- 3.7 Land Development 27

4 **PART FOUR - SOLID WASTE MANAGEMENT SYSTEM ALTERNATIVES 34**
- 4.1 Introduction 34
- 4.2 Evaluation of Solid Waste Management Alternatives 34
- 4.3 Evaluation of Optional Components 36
- 4.4 Solid Waste Management Alternatives Ranking 37

5 **PART FIVE - SELECTED SOLID WASTE MANAGEMENT SYSTEM . 39**
- 5.1 Introduction 39
- 5.2 Basis for Selection 39
- 5.3 Advantages and Disadvantages of Selected System 40
- 5.4 Counties Approved for Plan Inclusion 42
- 5.5 Import Authorizations 43
- 5.6 Export Authorizations 45
- 5.7 Solid Waste Disposal Areas 46
- 5.8 Facility Descriptions 48
- 5.9 Solid Waste Collection Services and Transportation 49
- 5.10 Resource Conservation Efforts 50
- 5.11 Waste Reduction, Recycling & Composting Programs 53
  - Introduction
  - Volume Reduction Techniques

Map - Recycling and Composting Sites, Population, & Transportation Network 54
Types and Amounts of Materials Recycled 55
Current and Proposed Recycling Programs 58
Current and Proposed Composting Programs 59
Current and Proposed Hazardous Materials Programs 60
Resource Recycling Mgmt Entities and Service Providers 61
Diversion 62
Market Availability 63
5.12 Educational and Informational Programs 64
Publications 65
Presentations and Workshops 66
Youth Education Programs 66
Special Events 67
Regional Events 67
Misc. Promotions and Activities 67
5.13 Timetable 69
5.14 Siting New Facilities or Expansions 71
Siting Procedure - New Disposal Areas 71
Siting Process Fee Backup Information 79
Summary of Siting Process 80

6 PART SIX - MANAGEMENT COMPONENT 82
6.1 Identification of Responsible Parties 82
6.2 Gaps and Problem Areas in Existing Management System 83
6.3 Plan Implementation Components 84
Administrative Structure 84
Education Programs 84
Collection Systems 85
Analysis and Policy Making; Evaluation Components 85
Enforcement 86
6.4 Roles and Responsibilities 86
Board of Commissioners 86
Solid Waste Council 87
Department of Waste Management 88
Waste Management Coordinator 88
Legal Capacities of Entities Assigned Plan Responsibilities 90
6.5 Acceptance of Responsibilities Assigned 90
Local Units of Government 90
Regional Solid Waste Management Planning Agency 90
6.6 Coordination with other Plans and Programs within the Plan Area 90
6.7 Training and Professional Development 92
6.8 Enforcement, Local Ordinances and Regulations 92
General 92
Authority 92

Solid Waste Handling 93
Disposal Facilities - Located Within the County 93
Other Counties and Facilities Recognized in the Plan 93
Disposal Facilities - Operational Issues 94
Host Agreements and Memorandums of Understanding 94
Solid Waste Ordinance 95
Licensing 97
Certified Health Department 98
6.9 Funding Program 98
User Fee 98
Through Agreement 98
Through Levy 99
Other Funding Sources 99
Funding Management Requirements 100
6.10 Capacity Certification 100
6.11 Amendment of the Plan 101

APPENDIX A

A-1 Selected System Background Information 1
a. Narrative Evaluation 2
b. Evaluation of system components 6
c. Pros and Cons matrix 9
d. Program Priorities 12
e. Funding Estimates & Revenue and Cost projections 18
f. Program Expenses from previous years 21
g. User Fee Agreement, Addendum, Legislative Findings 23
A-2 Feasibility of Recycling/Composting/HHW
a. Narrative 42
b. County drop off recycling site costs 44
c. Residential Services 46
d. Survey summary 50
e. Data collection 63
A-3 Materials Available for Recycling 64
A-4 Projected Diversion Rates 65
A-5 Impediments and Benefits to Recycling 66

APPENDIX B

Information on Non-Selected Systems 1

APPENDIX C

Public Participation and Approval
C-1 Appointment of Solid Waste Planning Committee 1
C-2 Dates/Meetings/Minutes (Attendance) 14
C-3 Timetable 56
C-4 Comments by Public (Reviews and Public Hearing) and Responses ... 57

C-5 Comments by MDEQ and Responses 120
C-6 Record of Approvals..... 131

APPENDIX D

D-1 Letters of Commitment regarding Capacity Assurance 1
D-2 Acceptance of Roles and Responsibilities 38
D-3 Ordinance 42
D-4 Licensing..... 58
D-5 Position Descriptions 61

PART ONE: EXECUTIVE SUMMARY

1 PART ONE - EXECUTIVE SUMMARY

1.1 PROCESS USED WHEN DEVELOPING/APPROVING PLAN

In the development of this updated Solid Waste Management Plan (Plan) Clinton County followed the process prescribed by law. The only structural alteration was the added use of ad hoc work groups made up of Solid Waste Planning Committee members. These smaller groups were able to more thoroughly discuss specific and somewhat difficult topics. The work groups were advisory only; final decisions on items recommended for Plan inclusion were made by the full Committee. Appendix C contains documentation verifying process.

1.2 PROBLEMS ENCOUNTERED AND OVERCOME

A number of challenges have influenced the planning process that will impact services in the coming years, and the nature of this Plan.

Waste hauling companies are being consolidated into ever larger corporate entities. Consolidation of the solid waste industry leads to concerns regarding monopolistic control in local jurisdictions due to lack of competition, inflated pricing and challenges in communication with managers of disposal facilities. Much of the solid waste market in Michigan is controlled by two or three multi-national corporations. At present, however, both landfills located within Clinton County continue to be owned by Granger Company, one of the few remaining independent hauling and disposal companies in the State.

The legislative climate surrounding the solid waste planning process in Michigan is unsettled. Legislative efforts to streamline the planning process and deal with issues pertaining to flow control have been ongoing for years. However, these efforts have yet to produce any substantive revisions to the existing system.

Strained relationship between the County and local landfill owners have challenged this planning process. In the past, relationships between the County and local disposal facilities have been established through negotiated agreements. However, those agreements have not withstood differing interpretations without dissolution or litigation.

Finally, the county's changing nature in terms of population, land use, retail development, and changing character challenge current approaches to integrated solid waste management.

The challenges identified above have motivated the development of a Plan; which will be viable under change and establishes clear baselines, and which accommodates possible state-level policy modifications. The new Plan will

emphasize increased educational focus on businesses, waste reduction and purchasing efforts. It provides a uniform regulatory environment under which disposal facilities and waste generators are expected to operate. Agreements with disposal facilities to address local operational issues are not precluded. Should they fail, however, certain operational standards are provided for through the Plan.

1.3 OVERVIEW OF THE COUNTY

Clinton County's population increasingly consists of citizens who work in the city and live in the country. Estimates indicate that the population has grown between 9% and 12% from the 1990 census of 57,883. Continued (and perhaps accelerated) growth is expected in the coming years.

Though it maintains its agricultural character and a strong agricultural economic base, the county's land use patterns are moving away from agriculture, toward suburban, low-density housing. The completion of a new north/south expressway fuels this change. New commercial and manufacturing interests are attracted to the convenience offered by the new expressway. Growing suburban population centers will likely result in an increase in retail establishments.

An increase in population, and the changing nature of the Clinton County resident, yields evolving waste generation patterns and service needs. This Plan recognizes some of these changes and offers flexibility to meet the needs of a rapidly growing county.

1.4 CONCLUSIONS

The following decisions were reached by Clinton County after going through the planning process and considering selected alternatives to the current integrated waste management system.

Build on 1990 Plan

One of the most important decisions made during the planning process in Clinton County was to maintain focus on the relevant goals included in the 1990 Plan. This Plan update continues a commitment to those priorities, outlines improvements to existing programs, and provides strategies for implementing new initiatives.

Continue Education but Modify Focus

Education will remain the cornerstone of Clinton County's Solid Waste Management Plan (Plan). The Plan continues to focus on household recycling, but introduces new emphasis on education programs that will encourage the purchase of products made from post-consumer materials as well as increase residential and business waste reduction and recycling efforts.

Assure Capacity

The Plan preserves disposal capacity by regulating the rate at which capacity may be used at disposal facilities located within the County. The Plan caps waste volumes at a level to prolong availability of space for Clinton County residents while providing flexibility to the landfill owner/operators. The Plan assures capacity for the next ten years through written commitments by disposal facility owner/operators in Clinton and other counties.

Provide Technical Support

The County will provide both financial and technical support to local municipalities, allowing communities to meet their specific waste management needs. In addition, the County will assist municipal leaders in evaluating and/or implementing new or improved solid waste services for their residents.

Continue to be Service Provider of Last Resort

This Plan continues to favor a diversified solid waste management handling structure in which citizens and/or municipal governments contract with their choice of private sector vendors for services. Clinton County continues to be the service provider of last resort, offering services when and where private sector service is lacking.

Develop Regional Approaches

The County will consider developing regional approaches to the collection of items which pose disposal or recycling problems. The county will also initiate and participate in cooperative purchasing of recycled products. Attention will be devoted to the relationship between Clinton County's strategy for addressing solid waste issues and other counties' strategies, especially in areas such as handling household hazardous, farm or universal wastes.

Enforce Standards of Conduct

The County believes it has a responsibility to protect the public and environment through enforcement of laws and other implementing mechanisms that establish safe waste handling practices for generators. Additionally, the county finds that large footprint developments such as disposal facilities should meet operational standards that consider and protect the public health, safety and welfare. Such standards should consider the welfare of citizens who live in the facility's vicinity as well as the facility owner/operator's need to succeed as a business.

Disposal facilities shall, at minimum, adhere to all operational standards for large disposal facility developments allowed by law, as defined by the Plan or locally applicable laws. Enforcement of prescribed solid waste management handling practices will be implemented through the Plan and a Solid Waste Ordinance.

Maintain Current Administrative Structure

The Plan prescribes an implementation structure that includes a Department of Waste Management to execute policy and provide services; a Solid Waste Council acting in an advisory capacity to the Department; and the County Board of Commissioners as the final decision maker on matters of staffing, budgets, and programs.

1.5 SELECTED ALTERNATIVE SYSTEM FOR INTEGRATED WASTE MANAGEMENT

Clinton County's approach to an integrated solid waste management system takes into consideration the county's various constituents: citizens, municipalities, private solid waste or recycling service providers, and businesses. The updated Plan demonstrates a three-pronged approach to solid waste management. It focuses heavily on *education* to deal with solid waste management behaviors among individuals, business and municipalities. It focuses on *regulation* to establish baselines for solid waste handling activities. And, the County will *fill service gaps* where the private sector fails to meet the needs of citizens.

A variety of the County's solid waste service delivery systems will continue unchanged. Local municipalities, residents and businesses will continue to contract for recycling and waste collection services by their preferred hauler. Population density, local government infrastructure, and citizen preferences will dictate the role municipalities will play in the provision of waste handling services to residents. To some degree, these same factors will also influence the variety of services offered by the haulers. The Plan does not mandate recycling or particular forms of collection.

The county will continue in its role as provider of last resort by supplementing services of the private sector in the areas of recycling and special collections. Drop-off recycling sites made possible by a Solid Waste Alternatives Project Grant from the State of Michigan will continue until at least 2004. Local grants offered by the County will continue to provide local communities opportunities to identify and address service gaps specific to their areas. The County will perform these functions while assuring adequate solid waste disposal capacity for citizens in a manner that protects public health, safety and welfare, economic vitality and the environment.

This updated Plan differs from the previous Plan in two primary ways; in education the focus shifts from pure recycling to waste reduction and purchasing issues, and it establishes a regulatory baseline of waste handling behavior. Expectations for individuals, businesses and disposal facilities located within the county are specifically identified. Providing such a baseline not only protects the health, safety and welfare of citizens, but also provides a clear point from which solid waste handling in this County can improve.

PART TWO INTRODUCTION

2 PART TWO - INTRODUCTION

2.1 GOALS AND OBJECTIVES

The primary purpose of the Clinton County Solid Waste Plan is to demonstrate capacity, meet the requirements of Part 115 and identify a comprehensive, integrated approach to management of waste generated by citizens and businesses of this County. This section defines the County's strategy through goals and objectives which emphasize: purchasing and use of products containing recycled content; maximizing recovery, waste reduction, and diversion from disposal facilities; and minimizing risk in waste handling practices.

Goal One

Achieve maximum purchasing and use of products that have been manufactured from recycled materials, in both the commercial and municipal sectors throughout the County.

Objective 1: Assemble and review status of current purchasing practices in governmental units, schools and businesses throughout the county

Objective 2: Assemble samples of purchasing policies, examine cooperative purchasing programs, track prices of commonly used commodities in government and business environments, and make such information available through educational and promotional programs.

Objective 3: Work regionally to target commonly used commodities which may benefit from cooperative purchasing.

Objective 4: Track and work on State and Federal initiatives which favor purchase and use of products made of recycled content.

Goal Two

Achieve maximum efficiencies in existing county programs.

Objective 1: Assemble and promote best management practices for solid waste management as derived from existing programs in this county and other municipalities.

Objective 2: Maintain the Department of Waste Management as the implementing arm of the Solid Waste Plan and provide for adequate funding and staffing.

Objective 3: Track actual costs of existing programs and assess impact.

Objective 4: Utilize various external and internal methods of evaluation to assess current delivery mechanisms and alternatives.

Objective 5: Identify and implement options, including: no change, alternatives, new programming or program elimination.

Goal Three

Achieve maximum participation in waste reduction, reuse and recycling programs.

Objective 1: Assess current recycling program participation levels and effectiveness of existing programs for promoting recycling.

Objective 2: Work to identify best management practices, including local case studies, which demonstrate the economic benefits of recycling and reuse, and make such information available to governments and businesses.

Objective 3: Continue education and promotional programs through schools and community organizations.

Objective 4: Work with developers, home owner associations, and municipalities to promote the establishment of minimum levels of solid waste services in high density areas, including but not limited to, waste pickup, recycling, and yard waste services.

Goal Four

Decrease dependency on disposal facilities through increased recycling, composting, waste reduction and reuse of resources in the solid waste stream

Objective 1: Provide education to the general public about the various waste reduction or handling options, including but not limited to consumer purchasing practices and volume based waste collection systems.

Objective 2: Work regionally to assess which commodities continue to be disposed of that have value and should be targeted for recovery. Work regionally to develop a promotion and education strategy to target such commodities.

Objective 3: Implement an active education and promotional strategy that favors purchase of commodities in recyclable containers.

Objective 4: Continue educational programming to promote recycling, composting and waste reduction.

Goal Five

Promote waste handling strategies and policies in Clinton County which protect public health and the environment.

Objective 1: Define the County's appropriate role in protecting the public health and environment as it relates to solid waste management.

Objective 2: Develop and maintain information about successful programming strategies in other parts of the state and country which address

issues of local concern. Make such information available regionally and through local networks.

Objective 3: Continue enforcement work against illegally handled waste.

Objective 4: Track and assess impact of various legislative initiatives which maintain, modify or introduce public policies impacting solid waste handling issues - including but not limited to, pollution prevention, solid waste disposal, waste reduction, recovery and composting.

Goal Six

Promote proper disposal and/or recycling of waste streams other than municipal solid waste which include, but are not limited to, household hazardous waste, used automotive fluids, universal wastes, appliances, tires, and other large, hard-to-dispose of items, etc.

Objective 1: Work regionally to identify alternative disposal methods.

Objective 2: Work regionally to assess the feasibility of a tri-county used auto fluids recycling program.

Objective 3: Work regionally to assess the feasibility and impact of establishing a universal wastes recycling program.

Objective 4: Continue implementation and support for programs which recycle or properly dispose of 'hard to dispose of' items, such as local and county-wide 'Dump Your Junk' or 'Clean Sweep' days.

2.2 DEFINITIONS

Annual Cap - Annual limitation on the quantity of solid waste permitted for disposal in Clinton County.

Authorized Local Official - a police officer or other personnel of a county, city, village, township, or regional parks and recreation commission created under section 2 of Act No. 265 of the Public Acts of 1961, being section 46.352 of the Michigan Compiled Laws, legally authorized to issue municipal civil infraction citations. [MCLA 600.8701(a)] For the purposes of this Plan, the WMC is designated by the Board of Commissioners as an Authorized Local Official.

Board of Commissioners (Board) - Clinton County Board of Commissioners

Construction and Demolition Waste (C&D Waste) - Refers to waste building materials, packaging, and rubble that results from construction, remodeling, repair, and demolition operations on houses, commercial or industrial buildings, and other structures. Construction and demolition waste also includes trees and stumps which are more than 4 feet in length

and 2 inches in diameter and which are removed from property during construction, maintenance, or repair. [Rule 299.4102]

Contingency Disposal Capacity - For the purposes of this Plan, contingent disposal capacity is defined as capacity identified by an approved solid waste management plan that is available to a particular county under certain extenuating circumstances, or when primary capacity is no longer available.

Department of Waste Management (DWM) - Department of Clinton County responsible for implementation of the Solid Waste Management Plan and any other duties as may be assigned by the Board of Commissioners.

Designated Planning Agency (DPA) - Agency and/or person designated by the Board of Commissioners as responsible for the Solid Waste Management Plan development, amendment and/or update; currently the Clinton County Department of Waste Management.

Disposal Facility - a solid waste transfer facility, incinerator, sanitary landfill, processing plant, or other waste handling or disposal facility utilized in the disposal of solid waste.

Franchised Services - Solid waste, recycling and/or composting services contracted for by a municipality or other organization on behalf of a group of residents and/or businesses.

Hauler - Any person who owns or operates a solid waste transporting unit.

Household Hazardous Wastes (HHW) - Refers to certain waste types excluded under waste management regulations. More specifically, potentially hazardous wastes which, because they are generated from within the home are not regulated under RCRA subtitle C. Such wastes can include: universal wastes, leftover paints, garden pesticides, household cleaners, small quantities of fuels, nail polish, etc.

Legally Executed Agreement - For purposes of this Plan, a Legally Executed Agreement means a Memorandum of Understanding (MOU), Host Community Agreement (HCA), Special Use Permit (SUP) or any other agreement or contract referenced by law, and entered into by and between the County and another organization, including but not limited to another county, solid waste services vendor, municipality, the state, a county department, or disposal facility owner/operator for the purpose of addressing solid waste management issues, recycling and compost services, or operational matters at a disposal facility.

Materials Recycling Facility (MRF) - A facility that receives source separated or un-separated waste materials for the purpose of recovering component materials for reuse or recycling. Only those facilities which receive materials that are not source separated are regulated by this Plan.

Municipal Solid Waste Incinerator Ash - substances remaining after combustion in a municipal solid waste incinerator.

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

Pay As You Throw/Volume-based Waste Collection - Solid waste collection systems which charge the solid waste generator in direct proportion to the quantity of solid waste that is generated and presented for collection and disposal.

Primary Disposal Capacity - For the purposes of this Plan, primary disposal capacity is defined as capacity identified in an approved solid waste management plan that is available at all times to a county for end disposal use, provided there is adherence to any specified conditions.

Solid Waste Council (SWC) - A Council appointed by the Board of Commissioners, consisting of membership and holding terms as designated in the Plan and by the Board, which serves in an advisory capacity on issues of solid waste to the Department of Waste Management and Board of Commissioners.

Solid Waste Generator - Any person(s) or organization(s) producing solid waste.

Solid Waste Management Coordinator (WMC) - Person appointed or employed by the Board of Commissioners to implement the approved Solid Waste Management Plan.

Solid Waste Management Plan (Plan) - Approved Solid Waste Management Plan for Clinton County.

Type II Waste - For the purpose of this Plan, Type II waste is defined as any municipal solid waste, non-hazardous industrial waste, commercial waste and construction and demolition waste legally accepted at a municipal solid waste sanitary landfill.

Type III Waste - For the purposes of this plan, Type III waste is defined specifically as construction and demolition waste and non-hazardous industrial waste (which may be accepted at a Type II or Type III municipal solid waste disposal facility).

Universal Wastes - Refers to batteries, fluorescent lights, unused herbicides and pesticides, and thermostats containing mercury. [Federal Rule R 299.9228(1)]

User Fee - Fee paid by users of disposal facilities within Clinton County for end disposal of solid waste. May be addressed through agreement or levy.

Terms not defined herein are interpreted to have meanings ascribed by Part 115 of PA 451 of 1994 and associated regulations. Definitions are not intended

to conflict with State or Federal law. Where discrepancies exist, State and/or Federal law definitions prevail.

2.3 SEVERABILITY

The Plan and various sections, clauses, implementing agreements or ordinances thereof, are hereby declared to be severable. If any part, sentence, paragraph, section, clause or word is adjudged unconstitutional or invalid for any reason, by any Court of competent jurisdiction, such invalidity shall not affect the remaining portions or applications of this Plan which can be given effect without the invalid portion or application, provided such remaining portions are not determined by the Court to be inoperable.

FNFP THREE: DOES TASE

3 PART THREE - DATA BASE

The following information is based upon information gathered from disposal facilities receiving Clinton County waste: The Michigan Department of Environmental Quality Report of Solid Waste Landfilled; data collected on recycling programs from service providers; and projections based upon EPA guidance.

3.1 WASTE GENERATION AND PROJECTIONS

WASTE GENERATION SUMMARY - 1997 DATA

	1997 Total	5 Year Annual	10 Year Annual
Population	**63,087**	**69,075**	**73,104**
Waste Type			
Residential SW	23,436 Tons	25,558 Tons	27,048 Tons
Commercial & Industrial SW	8,234 Tons	8,980 Tons	9,504 Tons
Recovered	3,756 Tons	5,285 Tons	6,745 Tons
Compostables	2,810 Tons	3,199 Tons	3,516 Tons
C & D Debris	1,905 Tons	2,681 Tons	3,421 Tons
TOTAL	**40,141** Tons	**45,703** Tons	**50,234** Tons
Per Capita Generation			
Residential - per person	.51 Tons	Or 3 lbs./person/day (365 days/yr)	
Commercial/Ind. (1,089 businesses)	7.56 Tons	Ave. of 58 lbs./business/day (260 days/yr)	

No major problems are anticipated in managing the County's solid waste. Current resource recovery programs have potential for growth, and participation in existing waste reduction and recycling programs has made an impact on the amount of waste needing disposal. Population and commercial growth areas may experience increased levels of solid waste generation, most notably construction and demolition materials. Increases are anticipated in more densely populated areas of the county which are also logical geographic targets for more aggressive curbside waste reduction collection systems as well as curbside recycling and recovery. Retail waste is likely to increase significantly with the planned construction of a Meijers store in St. Johns and the commercial development that often follows such new businesses.

TOTAL WASTE GENERATION: 120,423 CY

TOTAL WASTE REQUIRING DISPOSAL: 95,000 CY

3.2 SOLID WASTE DISPOSAL AREAS

The following table summarizes disposal areas authorized in the previous Plan to serve Clinton County solid waste disposal needs. For more specific information please refer to the facility descriptions contained in the following pages.

Granger facilities each have in excess of 30 years of capacity remaining if current fill rates continue. Clinton County waste comprises only about 8% of the total waste received by Granger. Granger accommodates about 75% - 80% of the waste generated from within Clinton County. Remaining amounts go primarily to Venice Park. This trend is expected to continue.

The following information is taken directly from each facility's own facility description form. Clinton County assumes no responsibility for the accuracy or consistency of the information. As the County has ample disposal capacity assured, conversions of the following information to a common denominator has not been performed.

Name	Location	Volume	Current Capacity	Estimated Lifetime
Granger Land Development Co., Gr. River Rd., Watertown Twp.	Clinton	600,000 CY	7,617,000 CY	32 Years
Granger Waste Management Co. Wood Street, DeWitt Twp.	Clinton	600,000 CY	10,981,000 CY	34 Years
Pitsch Sanitary Landfill	Ionia	83,000 T	40,000 T	.5 Years*
Venice Park Recycling & Disposal Facility	Shiawassee	526,000 CY	1,300,000 CY	2.5 Years*
Daggett Sand and Gravel,.	Ingham	7,500 CY	60,000 CY	8.8 Years

**Pitsch Companies has a pending construction permit that will extend landfill life an additional 30 years; Venice Park has an expansion permit pending as well.*

Facility descriptions follow.

Facility Descriptions and Maps for Facilities Used Under Previous Plan

Facilities are contained within the following Counties
Clinton (a)
Ingham (e)
Ionia (f)
Shiawassee (m)

(letters at the bottom of the facility description pages correspond to all facility descriptions contained in 5.8)

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II

Facility Name: Granger Grand River Avenue Landfill

County: Clinton Location: Town: 5N Range: 3W Section(s): 29

Map identifying location included in Attachment Section: _____ Yes If Requested _____ No

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

___ Public _x_ Private Owner: Granger Land Development Company

Operating Status (check)		Waste Types Received (check all that apply)	
_x_	open	_x_	residential
___	closed *1	_x_	commercial
_x_	licensed	_x_	industrial
___	unlicensed	_x_	construction & demolition
_x_	construction permit	_x_	contaminated soils
___	open, but closure	_x_	special wastes *
___	pending	_x_	other: Type III Wastes

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

All As Authorized

Site Size:

Total area of facility property: *1	180.9	acres
Total area sited for use: (Plan)	120.9	acres
Total area permitted: (For Disposal, i.e. SWB)	85.7	acres
Operating: (Licensed & Certified)	54.1	acres
Not excavated: Developed	31.6	acres
Current capacity:	7,617,000	~~tons or~~ yds³ Air Yards
Estimated lifetime:	32	years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	600,000	~~tons or~~ yds³ Gate Yards

(if applicable)
Annual energy production:

Landfill gas recovery projects:	4.0	megawatts
Waste-to-energy incinerators:	_____	megawatts

*1: Includes acres of (separate) closed facility to be consistent with DEQ numbers on permits and licenses.

GRANGER
GRAND RIVER AVE LANDFILL

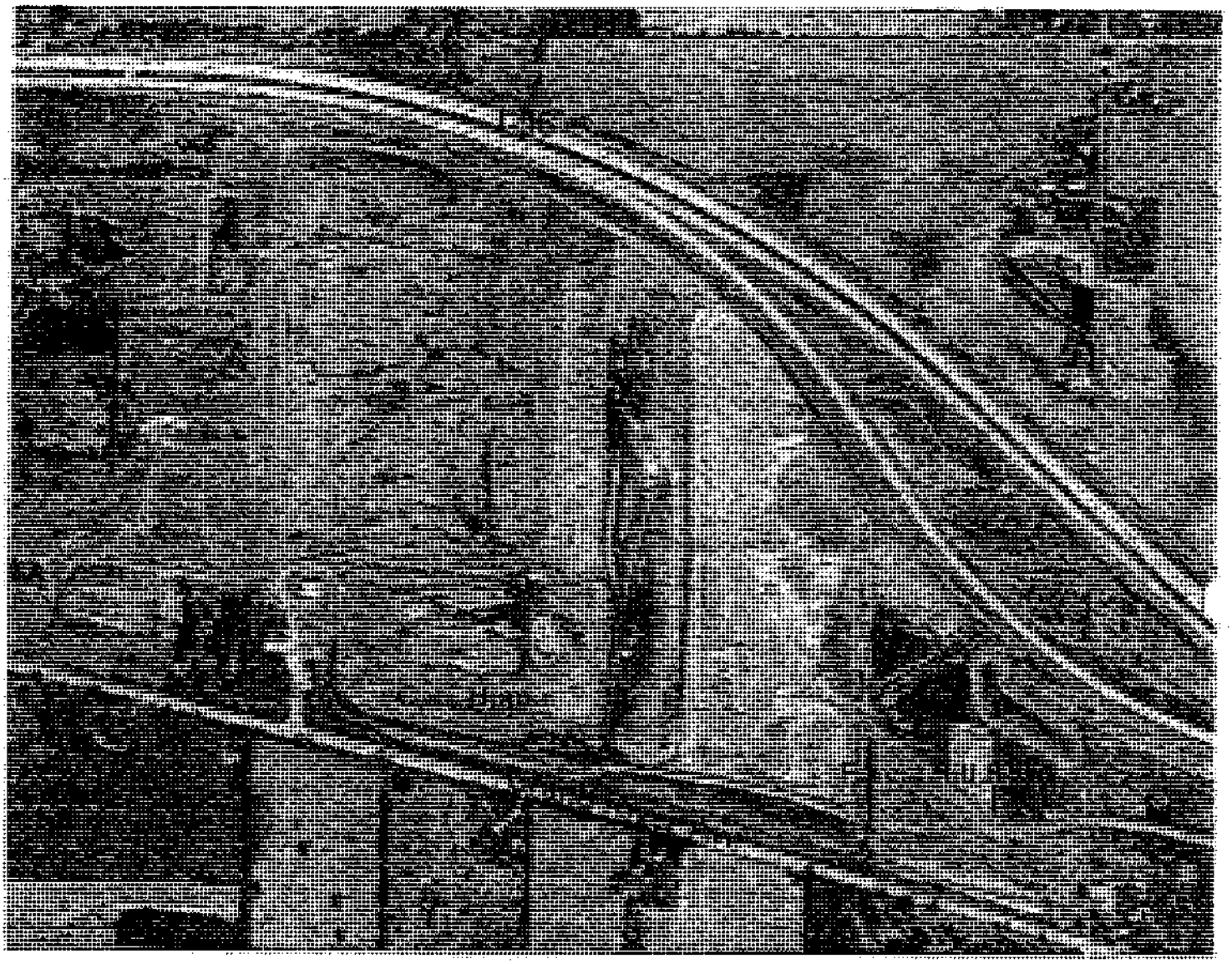
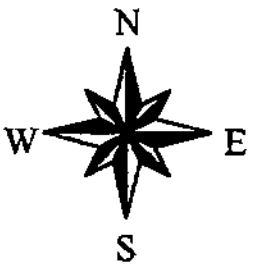


Photo: April 1998

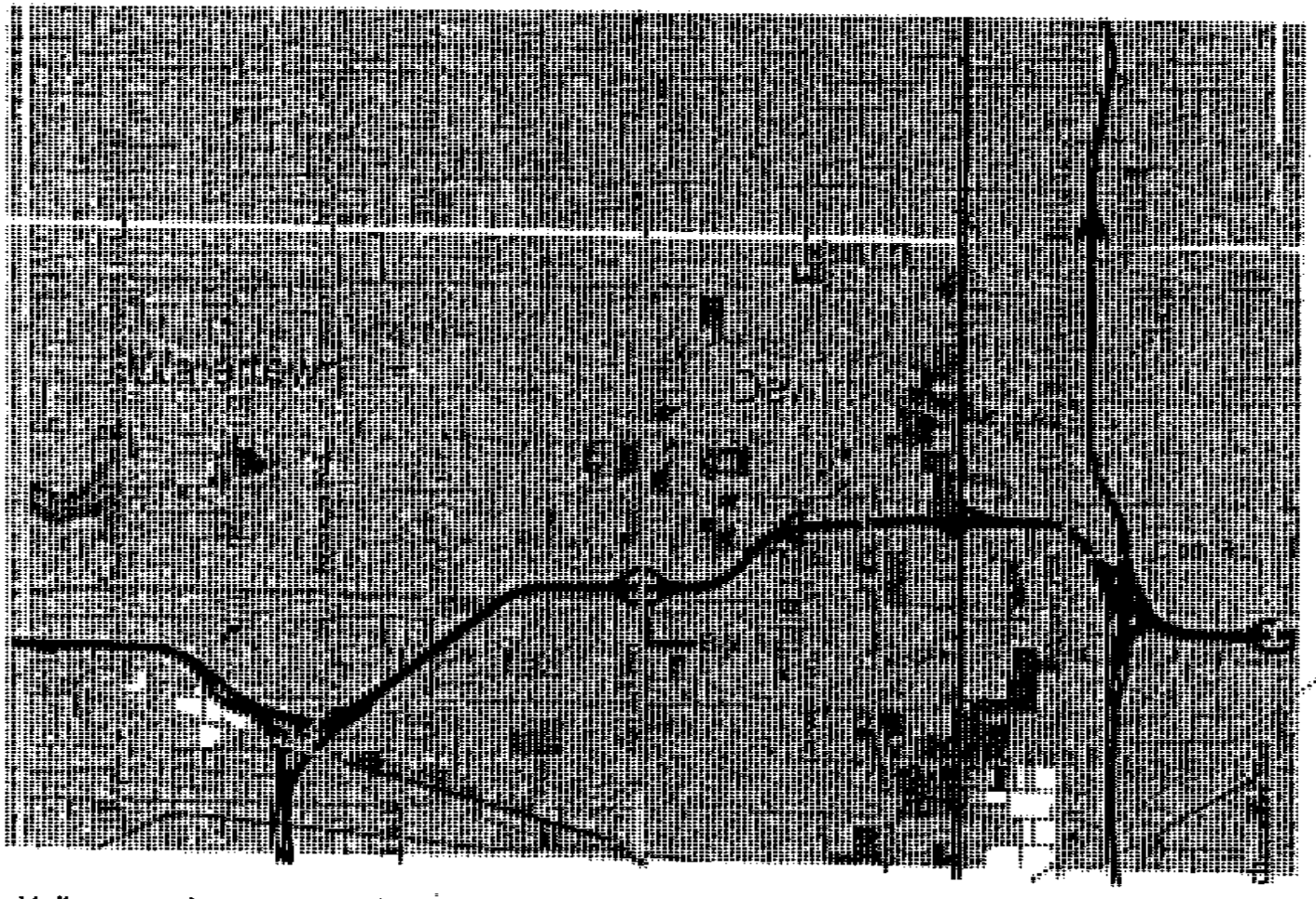


Granger Grand River Landfill - Legal Description

Landfill facility located in Watertown Township within Clinton County. The legal description of this facility is as follows:

Com. At a point on the E-W 1/4 line distant S89°58'41"E 1316.40' from the W 1/4 cor. of Sec. 29, T5N-R3W, Watertown Township, Clinton County Michigan, th. N00° 19'38"E alg. the W 1/8 line 2278.35' to a pt. on the S. r/o/w ln. of I-96, as now located, th. alg. sd. S. limited access r/o/w on the arc of a curve to the right, sd. curve having a delta angle = 14°03'45", radius of 5626.58', long chord bearing and distance = S77°29'16"E 1377.50', a distance of 1380.96'<th. S66°05'38"E 153.95' to the P.C. of a curve to the right, sd. curve being the S. limited access r/o/w ln. of I-69 eastbound turning roadway as now proposed, and having a delta angle of 31°08'16", radius of 2784.79', long chord bearing and distance = S50°25'03"E 1494.86', a distance of 1513.41; th. S34°50'55"E a distance of 545.20' to a point on the S. ln. of the N. 4/5 of NE 1/4 Sec. 29, th. N89°42'41"W alg. sd. S. ln. 85.60', th. S34°50'55"E 73.21', th. S00°21'03W" 1774.96' to a pt. on the c/l of Grand River Avenue formerly U.S.16 sd. c/l being the c/l of the 100 foot, being 50 feet either side of the c/l r/o/w, th. alg. sd. c/l, the following courses: N74°53'07"W 1654.94', N76°45'31"W 1083.81' N76°49'55"W 263.56' to the intersection of sd. c/l and the W 1/8 ln. th. N00°22'07"E alg. sd. W 1/8 ln. 576.69' to the POB.

PARCELS OWNED BY GRANGER

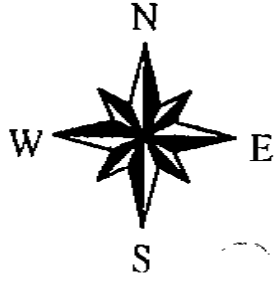


Ccenter.shp
Primary
State Trun
US Trunk
Cctownbound.s
Ccsections.shp
Parcel

Granger crosses County Line

Yellow pacels are owned by Granger and include or are contiguous to existing landfill facilities.

WATERTOWN AND DEWITT CHARTER TOWNSHIPS



SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II

Facility Name: Granger Wood Street Landfill

County: Clinton Ingham Location: Town: 5N 4N Range: 2W Section(s): 34 3

Map identifying location included in Attachment Section: ____ Yes If Requested ____ No

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

___ Public _x_ Private Owner: Granger Waste Management Company

Operating Status (check)		Waste Types Received (check all that apply)	
x	open	x	residential
	closed *1	x	commercial
x	licensed	x	industrial
	unlicensed	x	construction & demolition
x	construction permit	x	contaminated soils
	open, but closure	x	special wastes *
	pending	x	other: Type III Wastes

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

All as authorized

Site Size:

Total area of facility property: *1	302.8	acres	
Total area sited for use: (Plan)	194.8	acres	+ 67 (future permitting in Ingham County)
Total area permitted:(for disposal,i.e.SWB)	104.3	acres	
Operating:(Licensed & Certified)	49.5	acres	
Not ~~excavated:~~ Developed	54.8	acres	
Current capacity:	10,981,000	~~tons or~~ yds³	Air Yards
Estimated lifetime:	34	years	
Estimated days open per year:	260	days	
Estimated yearly disposal volume:	600,000	tons or yds³	Gate Yards

(if applicable)
Annual energy production:

Landfill gas recovery projects:	3.2	megawatts
Waste-to-energy incinerators:		megawatts

*1: Includes acres of (separate) Paulson Street facility to be consistent with DEQ numbers on permits and licenses.

Also includes spoil/borrow areas to be consistent with DEQ numbers on permits and licenses.

GRANGER
WOOD ROAD LANDFILL

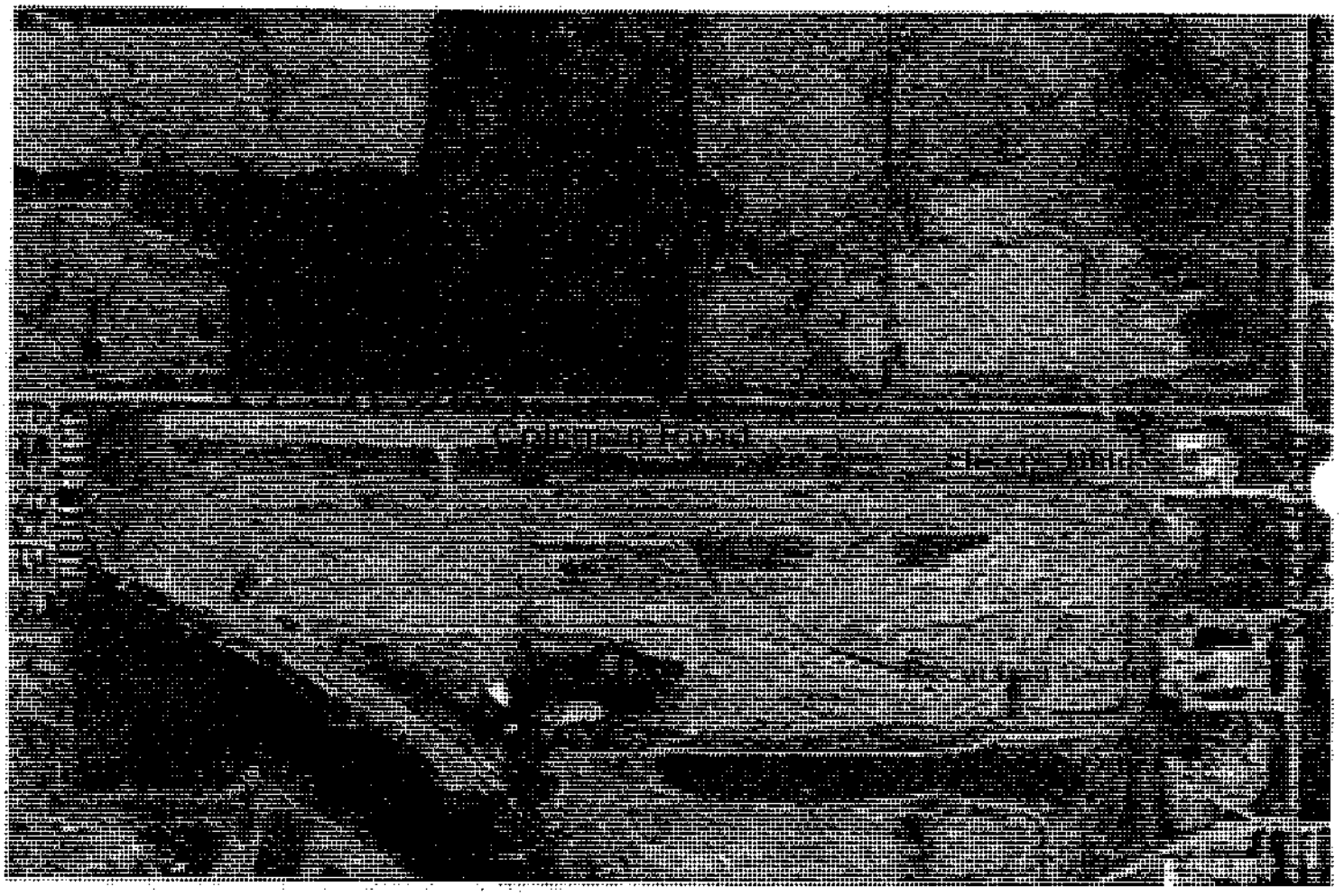
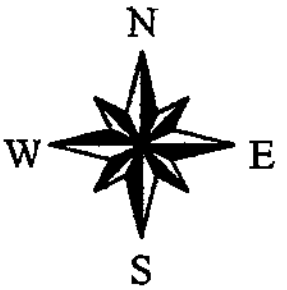


Photo: April 1998



WOOD STREET LANDFILL AND NORTH OF COLEMAN ROAD (CLINTON COUNTY)

A parcel of land on that part of the S ½ of the SE ¼ and the SE ¼ of the SW ¼ of Section 34, T5N, R2W, Dewitt Township, Clinton County, Michigan described as: Commencing at the SE corner of said Section 34; thence N 89°44'06"W along the Clinton-Ingham County line 2,636.80 feet to the S ¼ corner of said Section 34; thence N 89°42'23"W along said county line 1,318.40 feet to the W 1/8 line; thence N 00°02'55"E along said W 1/8 line 709.91 feet; thence S 89°42' 23"E 50.00 feet; thence N 00°01'23"E, 609.94 feet to a point on the S 1/8 line of said Section 34; thence S 89° 42'34"E along said S 1/8 line 3,906.15 feet to a point on the East line of said Section 34; thence S 00°04'39"W along said East line 1,318.79 feet to the point of beginning. Also containing NE ¼ of SE ¼ & E ½ of NW ¼ of SE ¼ of Section 34, T5N, R2W, Dewitt Township, Clinton County, Michigan. The combined parcels containing 179.12 acres more or less.

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Daggett Sand & Gravel

County: Ingham Location: Town: T4N Range: R2W Sections(s) 3

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

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

____ Public x Private Owner: Daggett Sand & Gravel, Inc.

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:	6.4	acres
Total area permitted:	6.4	acres
Operating:	2-3	acres
Not excavated:	____	acres

Current capacity:	60,000	~~tons~~ or	yds^3
Estimated lifetime:	7	years	
Estimated days open per year:	250	days	
Estimated yearly disposal volume:	7,500	~~tons~~ or	yds^3

(if applicable)

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Pitsch Sanitary Landfill

County: Ionia Location: Town: (see attached) Range: Sections(s)

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

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

___ Public x Private Owner: Pitsch Companies

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

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

Site Size:			After Proposed Expansion
Total area of facility property:	148.44	acres	300 acres
Total area sited for use:	28.36	acres	140 acres
Total area permitted:	78.44	acres	140 acres
Operating:	9.87	acres	10 acres
Not excavated:	70	acres	40 acres
Current capacity:	40,000	tons or ~~yds³~~	2,308,225 tons
Estimated lifetime:	.5	6 months	20+ years
Estimated days open per year:	307	days	
Estimated yearly disposal volume:	83,000	tons or ~~yds³~~	

(if applicable)
Annual energy production:

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

Notes:
Have a pending construction permit that will extend landfill life another 30 years.

DEQ

Michigan Department of Environmental Quality
Waste Management Division

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115 Solid Waste Management of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.11501 et seq. (Part 115), to authorize the operation of the solid waste disposal area (Facility) in the State of Michigan. This license does not obviate the necessity of obtaining other clearances and permits as may be required by state law.

FACILITY NAME: Pitsch Sanitary Landfill

GRANTED TO: Pitsch Sanitary Landfill, Inc.

TYPE OF FACILITY: Type II Landfill

FACILITY ID: 34-000016

COUNTY: Ionia

LICENSE NO. 8456

ISSUE DATE: May 22, 1997

EXPIRATION DATE: May 22, 1999

FACILITY DESCRIPTION: The Pitsch Sanitary Landfill consists of 78.44 acres located in the N 1/2 of the NE 1/4 of Section 7, T8N, R7W, Orleans Township, Ionia County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Phases III and IV

RESPONSIBLE PARTY TO CONTACT: Mr. Gary Pitsch, Vice President
Pitsch Sanitary Landfill, Inc.
675 Richmond, N.W.
Grand Rapids, Michigan 49504
616-363-4895

☒ FIRST OPERATING LICENSE: This License No. 8456 is the first license issued for Phase IV.

☒ RENEWAL OPERATING LICENSE: This License No. 8456 supersedes and replaces Solid Waste Disposal Area License No. 8061 issued to Pitsch Wrecking Company on April 12, 1993, as it pertains to Phases I through III

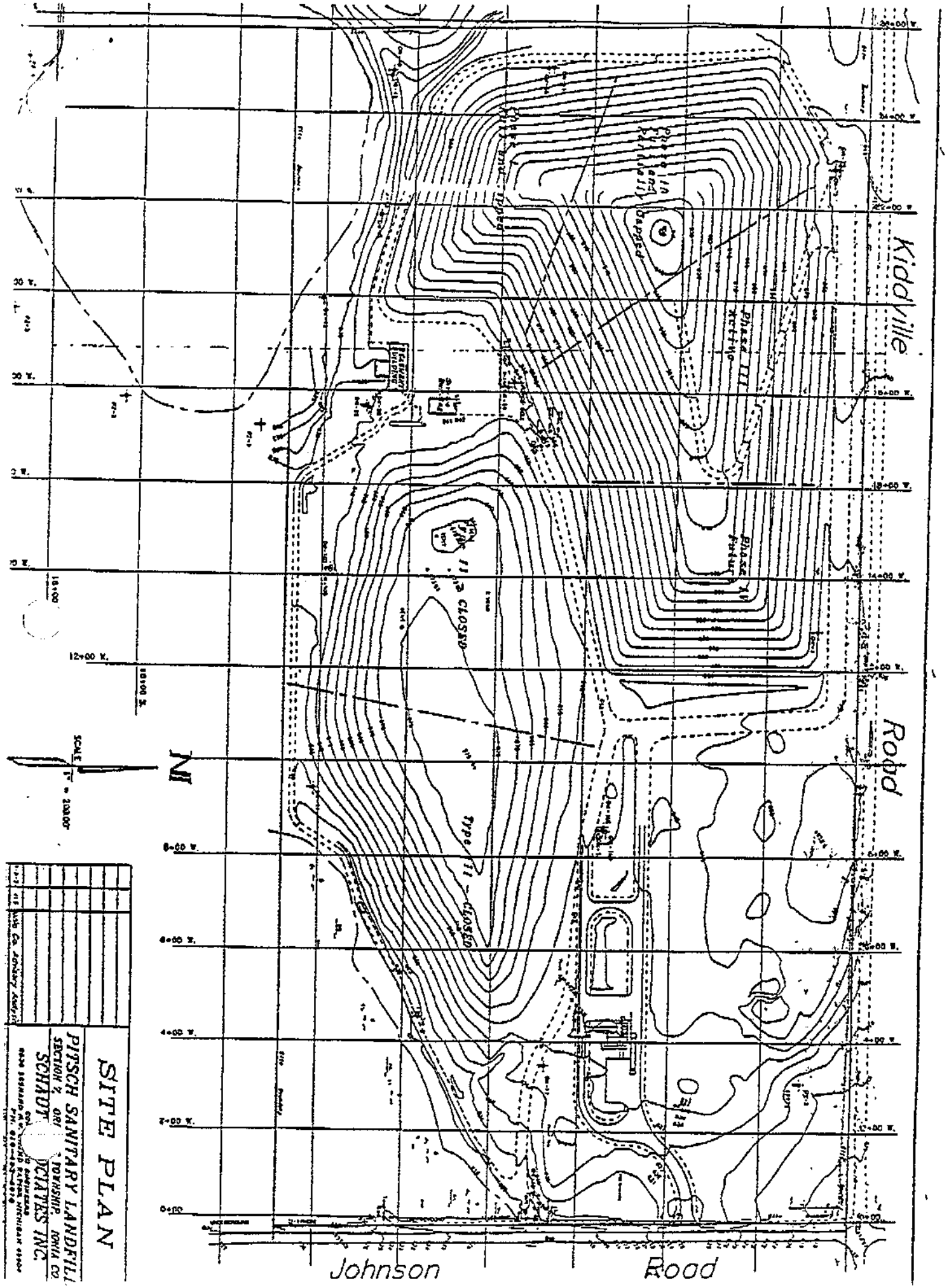
This license is subject to revocation by the Director of the Michigan Department of Environmental Quality (Director) if the Director finds that the disposal area is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, this act, or the rules promulgated under this act. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties as stipulated in Part 115. This license shall be available through the licensee during the entire effective date and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Joan H. Peck

Joan H. Peck, Acting Chief, Solid Waste Program Section
Waste Management Division

Form Revised 11/1995


Kiddville Road
Johnson Road
Phase III
Phase II
Type II - CLOSED
Type III - CLOSED
N
SCALE 1" = 200.00'
SITE PLAN
PITSCH SANITARY LANDFILL
SECTION 2, ORI TOWNSHIP, IOWA CO.
SCHADT ASSOCIATES INC.

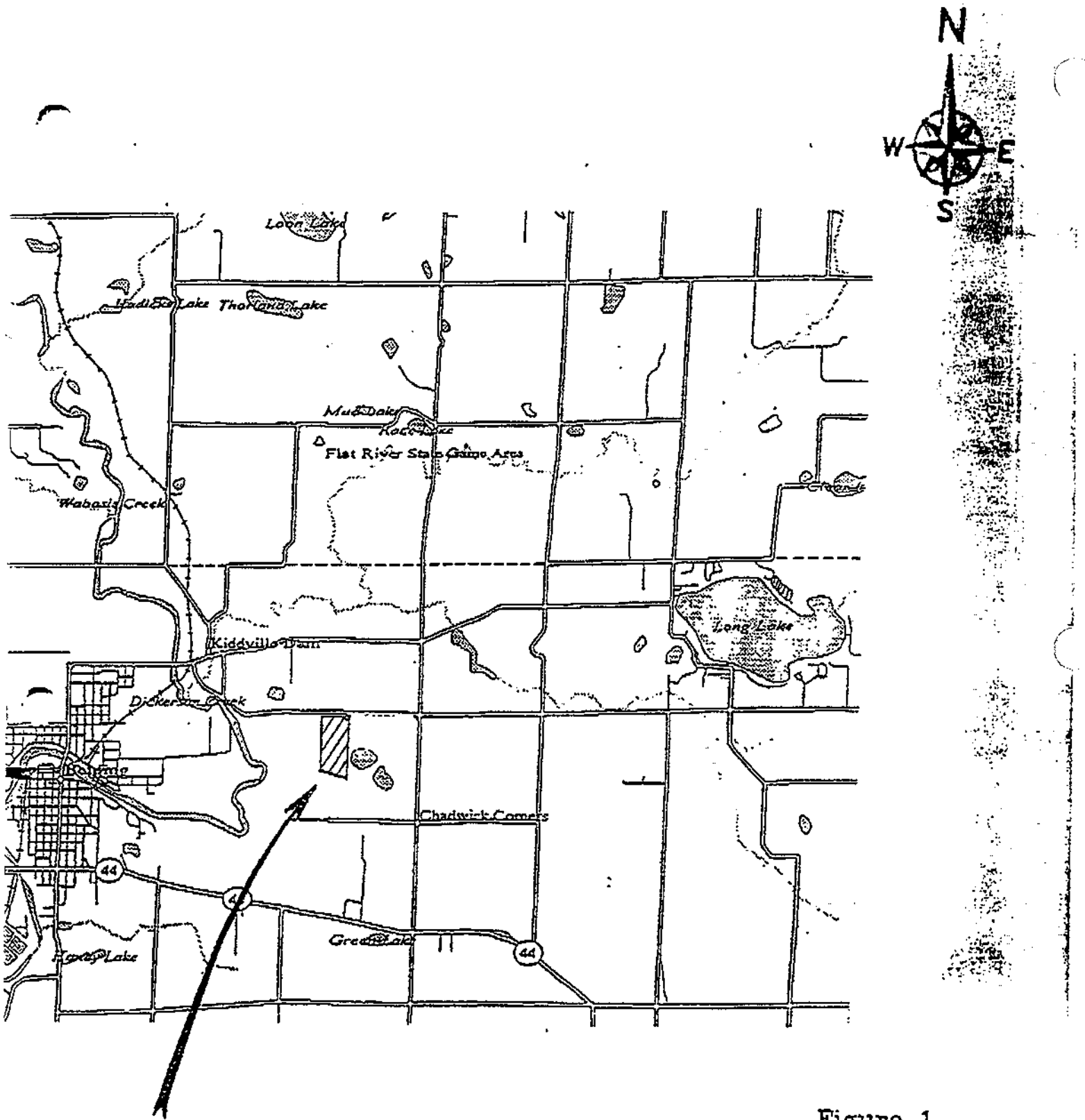
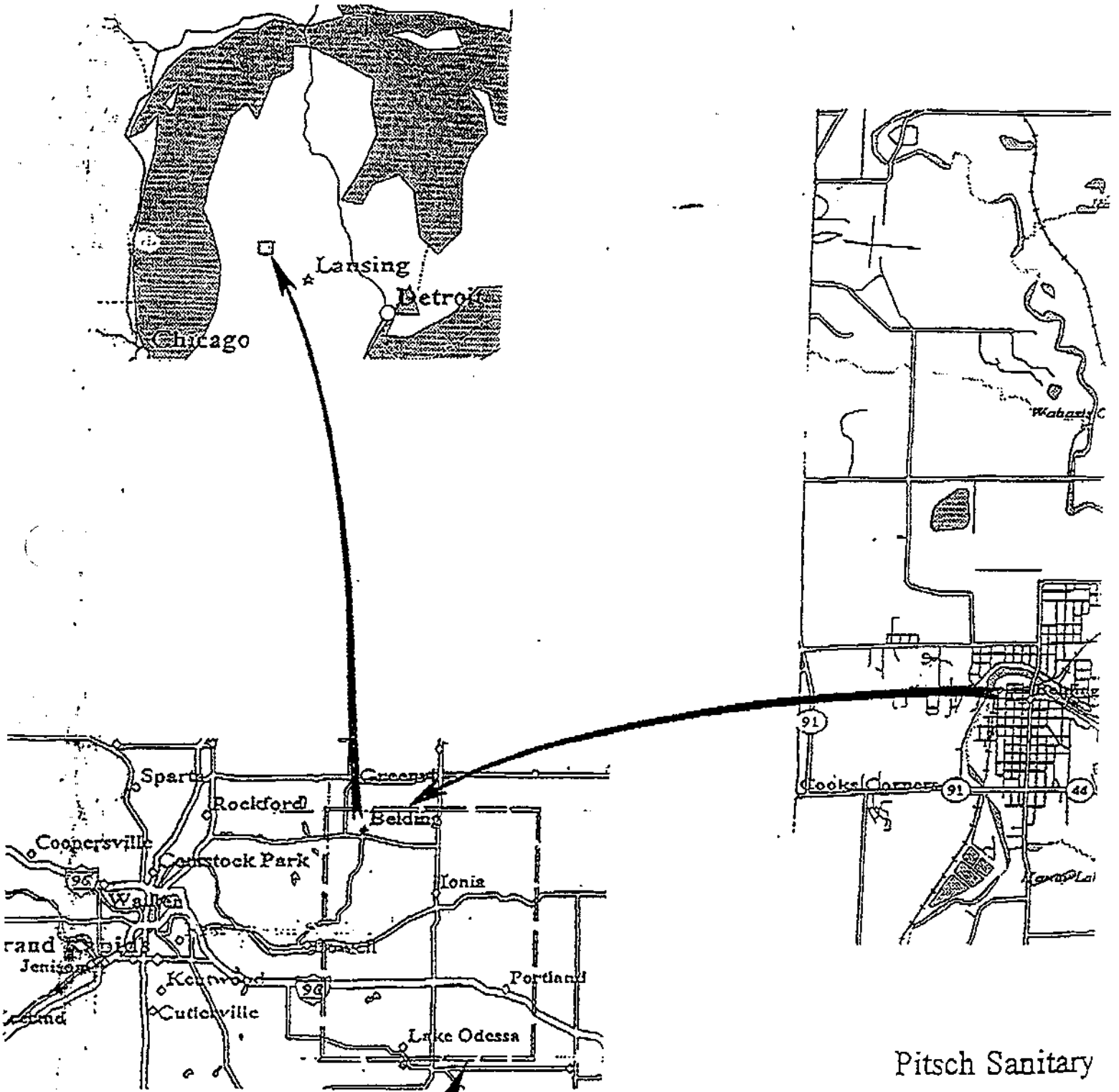


Figure 1

Regional Location Map

Pitsch Sanitary Landfill
Kiddville Road
Ionia County
Belding, Michigan

Aqua-Tech Consultants, Inc.
3336 Scribner NW



Pitsch Sanitary

Ionia County

FACILITY DESCRIPTIONS

Facility Type: Solid Waste Transfer Station

Facility Name: Eco Systems Transfer Station - Waste Management

County: Ionia Location: Town: 7N Range: 6W Section(s): 32

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

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

___ Public x Private Owner: Waste Management of Michigan Midwest

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

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

Recyclables are glass, metal, plastic, newspaper, cardboard

Special Wastes are grinding, sludges. Demolition Processing

Site Size:

Total area of facility property:	12.21	acres
Total area sited for use:	12.21	acres
Total area permitted:	12.21	acres
Operating:	12.21	acres
Not excavated:	N.A.	acres
Current capacity:	N.A.	
Estimated lifetime:	N.A.	
Estimated days open per year:	300	days
Estimated yearly disposal volume:	N.A.	

(if applicable)
Annual energy production:

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

DEQ

Michigan Department of Environmental Quality
Waste Management Division
SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115 Solid Waste Management of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.11501 et seq. (Part 115), to authorize the operation of the solid waste disposal area (Facility) in the State of Michigan. This license does not obviate the necessity of obtaining other clearances and permits as may be required by state law

FACILITY NAME: Eco Systems Transfer Station

GRANTED TO: Waste Management of Michigan - Midwest

TYPE OF FACILITY: Solid Waste Transfer Station

FACILITY ID: 34-000003

COUNTY: Ionia

LICENSE NUMBER: 8621

ISSUE DATE: May 19, 1999

EXPIRATION DATE: May 19, 2001

FACILITY DESCRIPTION: The Eco Systems Transfer Station is located in the NW 1/4 of the NE 1/4 of Section 32, T7N, R6W, Ionia Township, Ionia County, Michigan, as fully described in this license.

AREA AUTHORIZED FOR THE ACCEPTANCE AND/OR PLACEMENT OF SOLID WASTE: Identified in Attachment A of this license.

RESPONSIBLE PARTY TO CONTACT: Mr. Keith Hester, District Manager
Waste Management of Michigan - Midwest
1668 Porter Street, S.W.
Grand Rapids, Michigan 49509
616-538-1921 (Ext. 120)

☐ FIRST OPERATING LICENSE: N/A

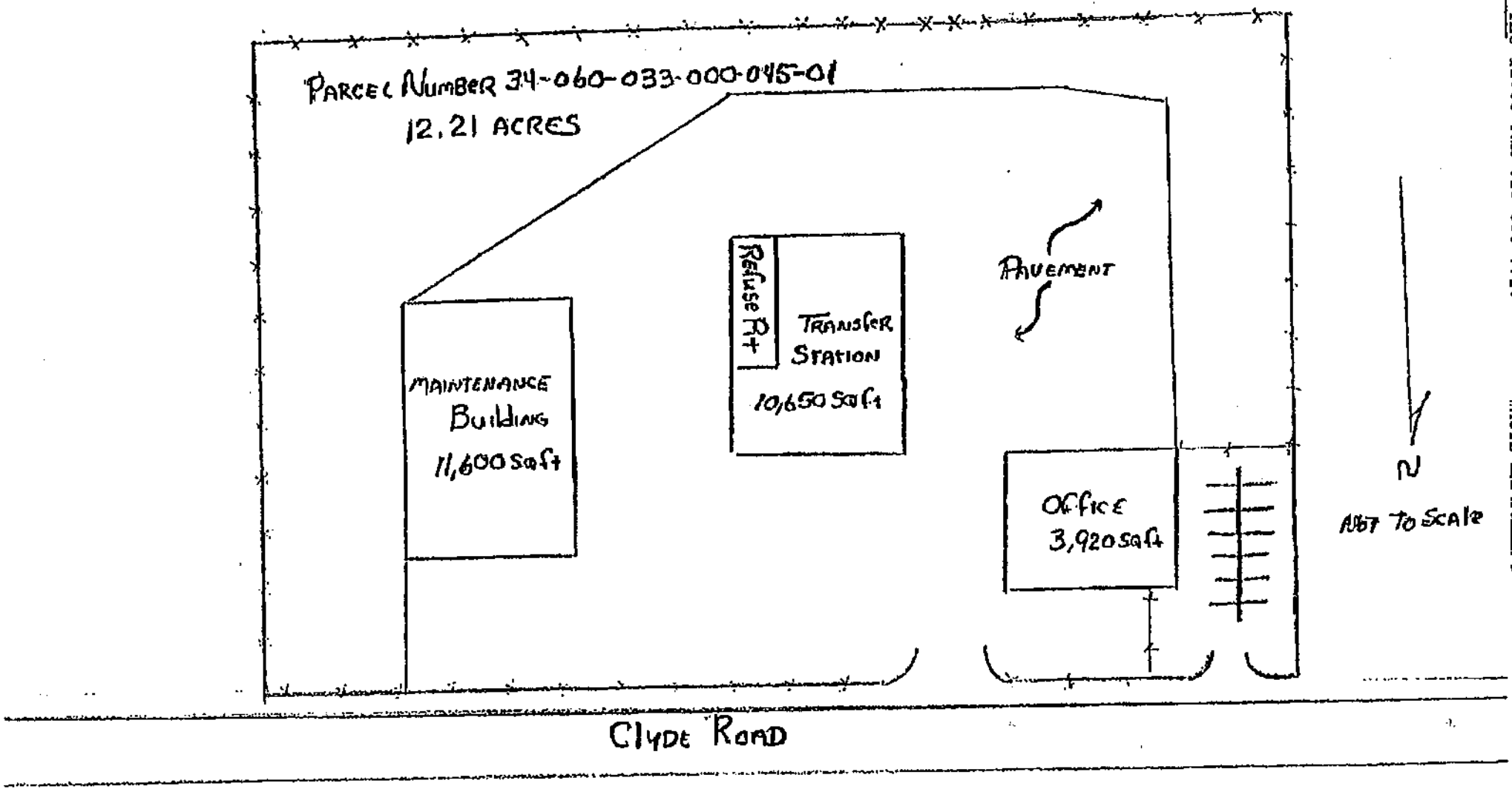
☒ RENEWAL OPERATING LICENSE: This License Number 8621 supersedes and replaces Solid Waste Disposal Area License Number 8441 issued to Waste Management of Michigan - Midwest on February 27, 1997.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality (Director) if the Director finds that the disposal area is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, this act, or the rules promulgated under this act. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties as stipulated in Part 115. This license shall be available through the licensee during the entire effective date and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Joan H. Peck

Joan H. Peck, Chief, Solid Waste Program Section
Waste Management Division



ECO-SYSTEMS TRANSFER STATION
2130 CLYDE ROAD
IONIA MICHIGAN

FACILITY DESCRIPTIONS

Facility Type: **Recycle and Disposal Facility - Non-hazardous**

Facility Name: **Venice Park Recycling and Disposal Facility**

County: **Shiawassee** Location: Town: **7N** Range: **4E** Sections(s) **27**

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

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

____ Public **x** Private Owner: **Waste Management of Michigan, Inc.**

Operating Status (check)		Waste Types Received (check all that apply)	
x	open	x	residential
	closed	x	commercial
	licensed	x	industrial
	unlicensed	x	construction & demolition
	construction permit	x	contaminated soils
	open, but closure	x	specials wastes *
	pending	x	other: **Non-hazardous liquids for solidification**

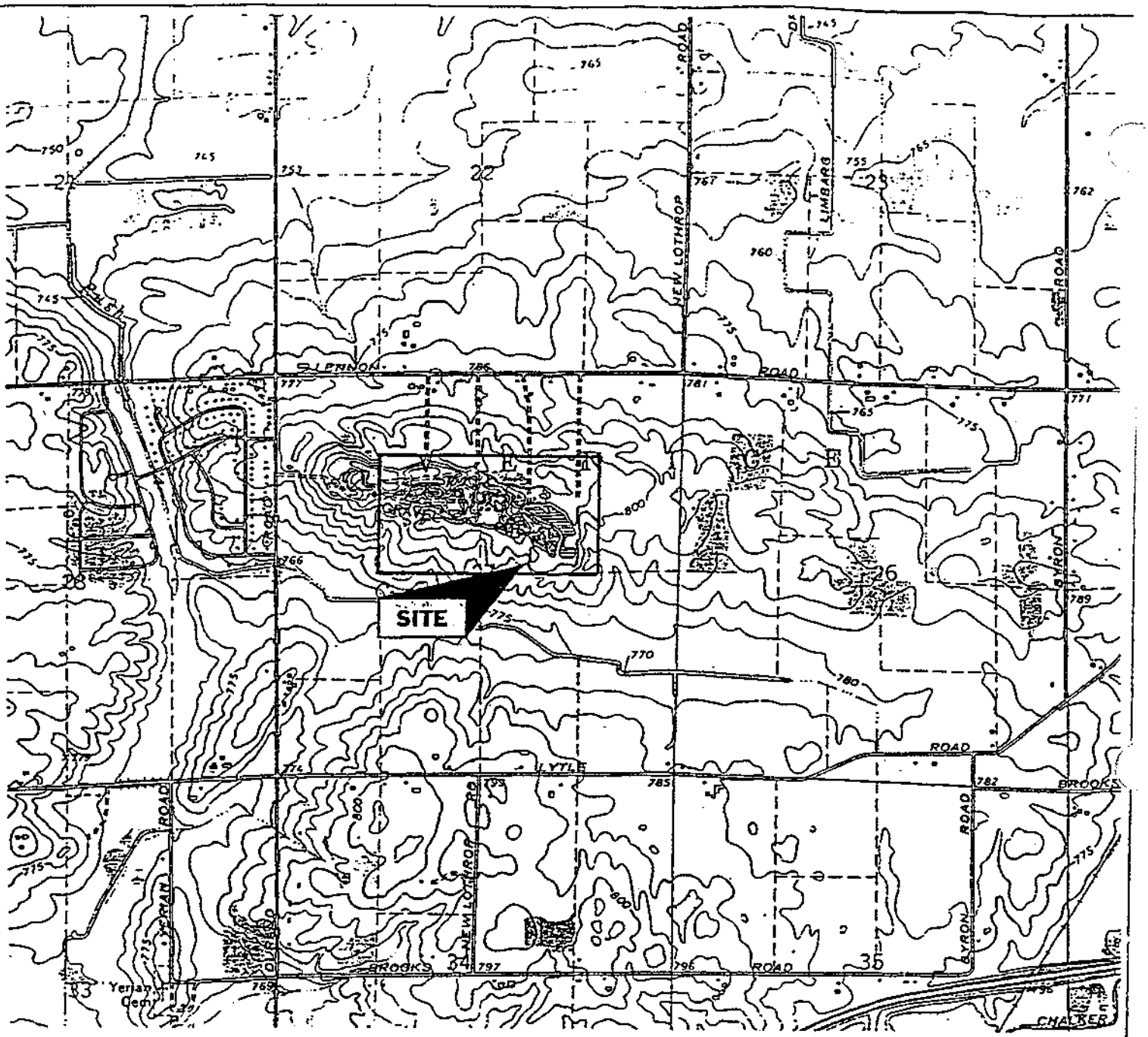
* Explanation of special wastes, including a specific list and/or conditions:
Contaminated soils,sludges, filter cake,process wastes,coal ash,foundry sand,chemical containing equipment,used containers,treated medical waste,contaminated demolition debris,street sweeping,sediment trap materials,asbestos.

Site Size:

Total area of facility property:	331	acres
Total area sited for use:	80	acres
Total area permitted:	69	acres
Operating:	41	acres
Not excavated:	2.5	acres
Current capacity:	1,300,000	~~tons~~ or yds^3 bank remaining
Estimated lifetime:	2.5	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	526,000	~~tons~~ or yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	12,500	megawatts
Waste-to-energy incinerators:		



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETRE

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

DURAND QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)

1969
PHOTOREVISED 1975
AMS 4269 IV NW—SERIES V862

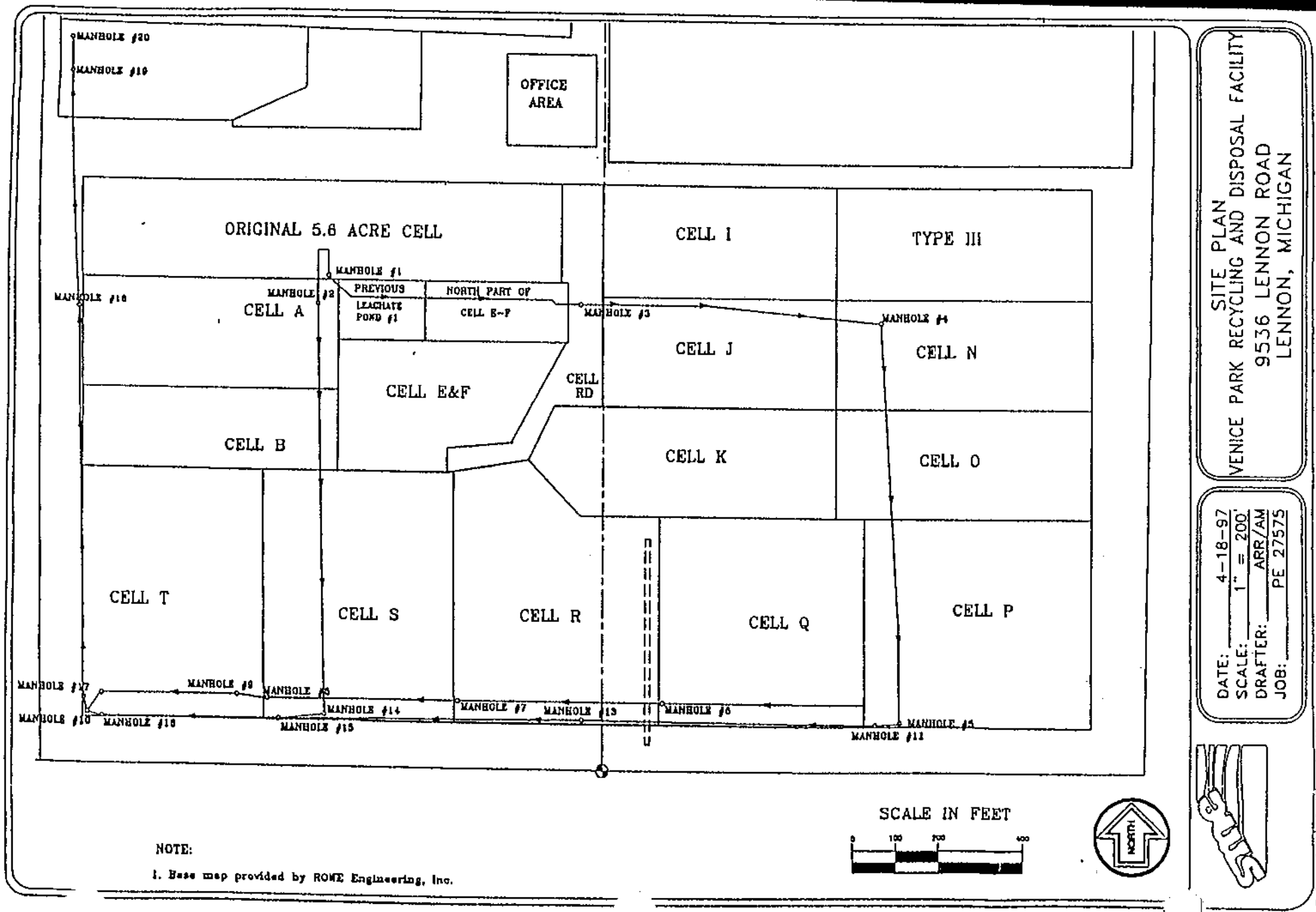
QUADRANGLE LOCATION

NORTH

Date 4-17-97	BAY CITY KALAMAZOO LANSING PLYMOUTH TOLEDO	soil and materials engineers, inc	SITE LOCATION MAP VENICE PARK RECYCLING & DISPOSAL FACILITY 9536 LENNON ROAD LENNON, MICHIGAN
Drawn By ARR			
cale AS SHOWN			
Job PE 27575			

DWG NO 27575-01

Figure No. 1


SITE PLAN
VENICE PARK RECYCLING AND DISPOSAL FACILITY
9536 LENNON ROAD
LENNON, MICHIGAN
DATE: 4-18-97
SCALE: 1" = 200'
DRAFTER: ARR/AM
JOB: PE 27575
OFFICE AREA
ORIGINAL 5.6 ACRE CELL
CELL A
CELL B
CELL E&F
PREVIOUS LEACHATE POND #1
NORTH PART OF CELL E-F
CELL RD
CELL I
CELL J
CELL K
TYPE III
CELL N
CELL O
CELL P
CELL Q
CELL R
CELL S
CELL T
MANHOLE #1
MANHOLE #2
MANHOLE #3
MANHOLE #4
MANHOLE #5
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MANHOLE #14
MANHOLE #15
MANHOLE #16
MANHOLE #17
MANHOLE #18
MANHOLE #19
MANHOLE #20
SCALE IN FEET
0 100 200 400
NORTH
NOTE:
1. Base map provided by ROWE Engineering, Inc.
FILE NAME: M:\VENICE\27575-02

ure No. 2

3.3 CURRENT COLLECTION SYSTEM

This section outlines Clinton County's existing waste management system, addressing programs for the collection of solid waste, recyclables, yard waste, household hazardous waste, pesticides, and other items. The chart in Appendix A-2c identifies which municipalities offer each type of service.

Solid Waste

The county currently generates between 95,000 - 110,000 cubic yards (approximately 30,000 - 38,000 tons) of solid waste per year requiring disposal.

Waste collection services are provided in two forms; through individual subscription with a private hauling company, or a municipally franchised contract for service. In franchise situations the municipality contracts, on behalf of its residents, with a private hauling company for waste (and often other) collection services. The following municipalities currently franchise collection services for the listed items:

- City of DeWitt - trash, curbside recycling
- City of St. Johns - trash, curbside recycling
- Village of Ovid - trash, curbside recycling
- Village of Maple Rapids - trash
- Village of Elsie - trash
- Watertown Charter Township - curbside recycling

Waste collection services throughout the county are provided exclusively by private hauling companies. A limited number of residents take their waste directly to a landfill or bury household waste on their own property. Because markets continue to be somewhat competitive, residents and municipalities have some choice over the types and costs of services they want provided.

Franchised services offer advantages, including cost-effectiveness, environmental efficiencies, and a broader range of services. Some private service providers, however, contend that franchising artificially depresses pricing, preferring to contract directly with homeowners.

The following companies are currently doing business in Clinton County:

- Allied Disposal Company
- Granger Container Service
- Pick-A-Dilley
- Waste Management

- Sunrise Disposal (a subsidiary of Republic Industries)
- Daggett Container Service (Construction/demolition containers only)

Waste hauling companies in Clinton County may dispose of residential, commercial or industrial waste at any of four landfills: the Granger Grand River Landfill in Watertown Township; Granger Wood Street Landfill in DeWitt Township; Pitsch Landfill in Ionia County and Venice Park Landfill (currently owned by Waste Management, Inc.) in Shiawassee County. Individuals may take their own waste to the Granger facility located in Watertown Township, but not the facility in DeWitt Township; they may also take their waste to either of the other two facilities located in Shiawassee and Ionia counties. Construction and demolition debris may be disposed of at Daggett Recycling's Type III landfill in Lansing or any of the Type II facilities.

Recycling

The County recovers more than 3,700 tons of household recyclables per year. Residents receive recycling services in one of three ways: subscription curbside recycling, municipal (franchised) curbside collection, and drop-off sites. Businesses may contract for recycling collection or they may use the drop-off sites. None of the haulers operating in Clinton County provide subscription curbside collection to all parts of the County. This is particularly the case in areas having low population densities. Curbside recycling is offered to residents through franchise services in the cities of St. Johns and DeWitt, the Village of Ovid, and Watertown Township.

Through the Solid Waste Alternatives Grant Program, the County provides drop-off recycling services where private recycling services are lacking. The County runs four sites in the following communities: Village of Maple Rapids, Village of Fowler, Pewamo/Westphalia, and Eagle Township. Over 250 tons of recyclables are processed annually from these sites.

The St. Johns Lion's Club provides a 24-hour drop-off recycling site. The County provides a subsidy to the site, but it continues to be managed by the Lions Club. Though the site is located within a city that offers curbside recycling, it services outlying areas that do not have such services available. It processes over 500 tons of recyclables annually.

Granger also operates a 24-hour, self-serve recycling drop-off site on Wood Rd. in DeWitt Twp. The site draws from Ingham and Eaton Counties, as well as Clinton County. Based upon a survey conducted in 1994, approximately 28.5% of recycled materials accepted at that site come from Clinton County. Data contained in Appendix A-2e provides details. Strategic location of the various sites throughout the county provides good coverage and substantial opportunities for recycling by residents (Selected System, Part 5.4). The City of DeWitt and City of St. Johns offer curbside services as a part of their franchised arrangements.

Information regarding services, locations, materials collected and operation times are kept current and published in quarterly issues of the *Garbage Gazette.* See Appendix A-2c.

Yard Waste

Using state level statistics, Clinton County generates approximately 2,810 tons of yard waste. Under Part 115, yard waste may not be landfilled in Michigan. National and state level statistics estimate that this reduces the quantity of waste going to disposal facilities by 12 to 14%. Clinton County uses 7%-8% as its generation rate because of the large community of farmers who have been disposing of yard waste and other compostables on their own land for years. Some yard waste is collected through municipal services and delivered to compost facilities owned and run by private companies or municipalities. Citizens may take their own yard waste to such facilities, or compost yard waste in backyard compost piles as long as their composting practices do not cause a nuisance. Education programs urge the establishment of backyard compost piles and encourage citizens to leave grass clippings on lawns.

Household Hazardous Wastes

The County periodically provides household hazardous waste (HHW) collection services for citizens. Initially, the county provided dedicated one-day HHW collections for all county residents. One year, the county co-sponsored a HHW collection with the City of St. Johns. Most recently, the county accepted HHW materials as part of a larger collection program called Dump Your Junk Day (see Special Collections on next page). The County contracts for staffing of such days. The City of St. Johns still offers periodic collections of household hazardous wastes for its residents. However, instead of offering a one day collection, the City allows residents to bring materials to the City Waste Water Treatment Facility for a period of days prior to pickup by a hazardous materials hauling and handling company.

A battery collection program consisting of 34 drop-off sites throughout the County was offered from 1992 to 1997. The purpose of the program was to reduce the amount of mercury disposed of in local landfills. Re-evaluation of the program revealed, however, that the program did not achieve desired results; it is estimated that the program captured between 1% and 5% of the batteries generated. This, coupled with altered requirements pertaining to landfill construction, new manufacturing practices that render batteries less toxic, and the fact that much of the waste being disposed of in this county originates from other counties which may or may not have such collections, did not justify the costs (approximately $10,000 per year) associated with the program. It has been discontinued.

Pesticides

Clinton County does not provide ongoing services to collect unwanted pesticides. Ionia County, however, runs a facility whose disposal costs are

funded by the Department of Agriculture where Clinton County residents may take their unwanted pesticides. Prior to development of this facility, Clinton County did cooperatively run a Clean Sweep collection of pesticides with four neighboring counties, also funded by the Michigan Department of Agriculture. Because of the availability of the Ionia facility, it is not anticipated that the County will develop additional programming.

Special Collections

Dump Your Junk Day: Once every other year, the County runs Dump Your Junk Day where residents may bring items that pose disposal problems to a central collection site. Items collected include: scrap steel, appliances, tires, household hazardous waste, junk, useable second hand furniture and household items.

Municipal Junk Collections: Dewitt Charter Township, Bath Charter Township, City of St. Johns, Village of Maple Rapids, Village of Fowler, Essex Township and Watertown Township have run special collections for large hard-to-dispose-of items. Such collections have been funded in part through the County's local grant program. In years when the county does not run Dump Your Junk Day, local grant funds are increased. Local projects like this allow municipalities to tailor collections to local needs.

Text Book Recycling Collection: The County provides an annual text book collection for many of the county's schools. Schools collect books in boxes and County personnel collect and deliver them to a recycling company for processing.

Junk Vehicles: During 1997, the County offered a pilot project to help citizens get rid of junk vehicles. The project was relatively simple in design, using local towing companies to transport them to scrap dealers. The County offered residents a coupon they used as payment for tow companies. The companies received a fixed payment for each coupon submitted to the County. In this manner, citizens were guaranteed free disposal of their vehicle regardless of towing distance to the scrap yard.

Waste Reduction

Waste Generation at the Curb: The City of St. Johns is the only municipality within the County to provide volume based waste collection to residents. When this system was first implemented, even without curbside recycling, the waste generation rate fell by nearly 40%. When St. Johns supplemented the drop off recycling program with curbside recycling, the amount of waste collected in St. Johns fell nearly 50% and has remained at this low level.

Some haulers provide volume-based (pay per bag) collection service if requested by individual customers. Haulers note, however, that most individual subscribers tend to prefer a 'cart' system, based upon the convenience of a rigid, wheeled container. Such services are not priced purely

according to volume or weight, though most haulers do offer larger and smaller sized carts to customers at variable rates.

Purchasing: Some educational efforts have been initiated under the previous Plan, primarily through the *Garbage Gazette* and local press releases, that challenge residents to consider the quality of items they purchase, encourage them to repair rather than throw away and to consider the impacts of packaging on garbage generation.

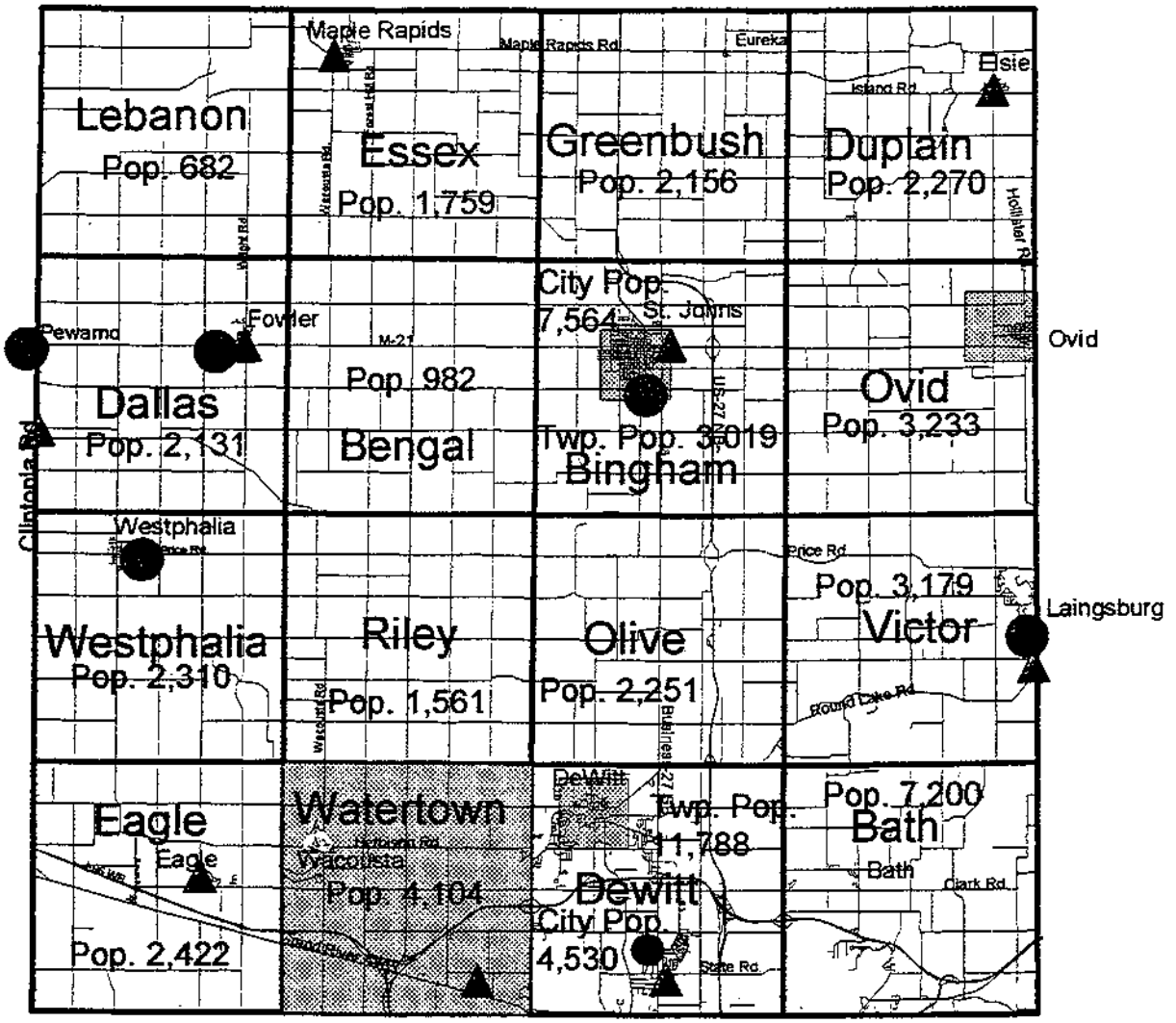
Construction And Demolition

Daggett Sand and Gravel, Inc. houses a materials recovery facility to recover construction and demolition materials. As the southern part of Clinton County continues to develop, such a facility and service will become increasingly important. Currently, Daggett receives about 5,714 cubic yards of material from Clinton County of which they recover approximately 65%. They dispose of the 2,000 remaining yards (1997 data).

The attached map shows the location of various recycling services. Daggett's facility is also indicated on the lower portion of the map.

Other disposal facility owner/operators may also selectively recycle C&D materials brought to their facilities.

Clinton County Recycling Programs



Drop Off Sites ▲

Mrfs ◆

Compost Sites ●

Roads

Curbside Programs

Twp. Curbside

Twp. Boundaries

3.4 DEFICIENCIES AND PROBLEMS

Data Collection

One of the most difficult challenges facing the County is obtaining credible data with which to measure impact and success of programs. For example, the lower tier of the County is experiencing considerable growth, including numerous new housing developments. We suspect, but do not know, that this is creating a marked increase in landfilled C&D debris. The County does not know what portion of landfilled Clinton County waste is residential as opposed to C&D or commercial/industrial waste.

The MDEQ's 1997 data report separates waste into Type II and Type III. For that year, separations in reporting were made by facilities in this County and others outside the County who received Clinton County waste. Such information at least provides grounds for speculating about how much waste may be residential and commercial versus C&D waste or Non-Hazardous Industrial Wastes. However, 1998 data does not provide any differentiation among Type II and III wastes. The ability to aggregate good data with which to provide a comprehensive picture of county waste generation, was a deficiency and challenge for the 1990 Plan, and remains a challenge for this Plan.

Collection System

The population of Clinton County may increase substantially over the next five years, with densities in some rural areas growing considerably. Even now, a number of pockets of dense development exist in the county, such as subdivisions in Victor, Watertown and Bath Townships. Currently, these developments do not franchise waste collection services, resulting in a greater frequency of truck traffic, higher costs, less comprehensive services and higher environmental impact.

Where densities are very low, residents may have a limited choice of service providers.

Landfill System

Residents located in the DeWitt/Bath area of the county have expressed concern over being unable to use the landfill located in DeWitt Township to dispose of their solid waste. Only the landfill located in Watertown Township will accept waste from individuals.

Waste Reduction

Only one community in Clinton County provides a waste collection system that utilizes Pay as You Throw (PAYT) pricing. PAYT pricing systems are one of the most effective strategies for reducing the amount of waste disposed of by residents; residents reduce their waste when they know they have to

pay for its disposal based upon the quantity they generate. This strategy has proven effective regardless of whether or not curbside recycling is also offered. Residents, however, appear to prefer a cart system over the use of bags, making PAYT programs more costly and challenging to implement.

Recycling and Purchasing

Markets for recycled materials continue to be depressed. This negatively affects the delivery of both drop-off and curbside recycling by depressing materials revenue. With the exception of a positive spike in pricing in 1995, the market for materials are so low they do not offset the cost of collection, processing and shipping. As a result, private haulers - unable to collect sufficient fees from households to cover their costs - are considering the elimination of curbside services unless contracted for by municipalities or businesses.

The largest roadblock to successful markets continues to be depressed demand for products made with post consumer materials. Federal subsidies to virgin materials industries, weak corporate and governmental recycled content purchasing practices, and depressed economies in Asian and European countries are issues that dominate this trend.

Household Hazardous Waste

Residents are still in need of methods for disposing of household hazardous waste materials. The County does not have a permanent collection facility, which is an inconvenience, particularly for families moving out of the area.

The County has conducted special one-day collections in the past, however, participation is generally low while costs high. The County has reduced its frequency of collections to once every one or two years. There is a need to provide such a service less expensively and more conveniently.

In 1991, the County applied for, and was awarded, a Solid Waste Alternatives Program (SWAP - administered then under the MI Department of Natural Resources) grant to fund a permanent household hazardous waste facility. However, it became apparent that ongoing overhead costs would be substantial and not proportionate to the needs of the County. Therefore, the County declined the funding.

Financing for Implementation and Enforcement

In 1990, the County authorized the establishment of a user fee on disposal areas located in Clinton County through the Ordinance, implemented through the 1990 Plan. However, this levy was not used. Instead, two agreements were developed between the County and the landfill owner/operator, whereby the landfill owner/operator would collect a user fee from landfill users and pass it through to the County. This funding mechanism was challenged by the landfill owner/operator, however, resulting

in litigation. The new Plan formalizes a funding method that is less vulnerable to such actions.

Education and Outreach

The prior Plan focused extensively on the process of recycling; the challenge of this Plan is to go a step further and aggressively promote environmentally preferable purchasing practices. Messages regarding the purchase of products with less packaging, packaging that is *truly* recyclable and which are made from recycled content is complex. It needs to be delivered to a wide variety of audiences.

New construction will increase within the county over the coming years. New efforts must be initiated which reach general contractors, builders and architects to assure that, as the county builds, it incorporates the purchase and use of recycled content materials to the extent that it is economically feasible. Further, waste materials from new construction is recyclable. With a C&D recycling facility located in the county, it is appropriate to direct more of these waste materials to recycling.

Relationship Between Disposal Facilities and the County

Through the 1990 Plan, the regulatory and operational relationship between the County and disposal facility owner/operators located within the County were addressed through negotiated agreements. Over the course of time, however, these agreements became the victims of differing interpretations, and deteriorated, expired or fell into litigation. As a result, standards of operation, including but not limited to, noise, odor, litter, mud-tracking, annual caps, and hours of operation were left unaddressed. This Plan seeks to remedy such weaknesses by establishing minimum operational standards for any disposal facility located within the County. Agreements are still preferred and not precluded, but should agreements fail, a baseline standard is provided for in the Plan, and may be implemented through the Plan itself or the approved Solid Waste Ordinance.

3.5 INFORMATION SOURCES

The following sections derive data and information from a variety of sources, most of which are specifically footnoted, and are one or a combination of the following:

- Michigan Department of Environmental Quality Report of Solid Waste Landfilled in Michigan
- Michigan Information Center Internet Website: www.state.mi.us/DMB/mic
- Clinton County Equalization Department
- Clinton County Cooperative Extension

- Environmental Protection Agency "Measuring Recycling - A Guide for State and Local Governments"
- Clinton County Department of Waste Management data on Recycling

  Data in Clinton County is submitted voluntarily from recycling service providers

  Data collected pertains primarily to residential recycling activity
- Various Solid Waste Management Facility Owner/Operators
- Clinton County Geographic Information Service (GIS) System

Where inadequate information exists, projections are made with the assistance of base figures and trend experiences of other municipalities.

3.6 DEMOGRAPHICS

Population projections

Township or Municipality	1990 Population*	1990 Households	% Of Total	1997 Proj Pop**	% Of Total	Projected Population 2000	2005	2010
Countywide	57,883	20,959		63,087		65,269	69,075	73,104
Bath Township	6,387	2,396	11.0%	7,200	11.4%	7,449	7,883	8,343
Bengal Township	989	313	1.7%	982	1.6%	1,016	1,075	1,138
Bingham Township	2,546	838	4.4%	3,019	4.8%	3,123	3,306	3,498
Dallas Township	1,234	327	2.1%	1,228	1.9%	1,270	1,345	1,423
DeWitt City	3,964	1,347	6.8%	4,530	7.2%	4,687	4,960	5,249
DeWitt Township	10,448	4,192	18.1%	11,788	18.7%	12,196	12,907	13,660
Duplain Township	1,278	442	2.2%	1,308	2.1%	1,353	1,432	1,516
Eagle Village	120	42	0.2%	125	0.2%	129	137	145
Eagle Township	2,031	704	3.5%	2,297	3.6%	2,376	2,515	2,662
Elsie Village	957	378	1.7%	962	1.5%	995	1,053	1,115
Essex Township	997	322	1.7%	1,047	1.7%	1,083	1,146	1,213
Fowler Village	912	339	1.6%	903	1.4%	934	989	1,046
Greenbush Township	2,028	662	3.5%	2,156	3.4%	2,231	2,361	2,498
Lebanon Township	644	207	1.1%	628	1.0%	650	688	728
Maple Rapids	680	263	1.2%	712	1.1%	737	780	825
Olive Township	2,122	764	3.7%	2,251	3.6%	2,329	2,465	2,608
Ovid Village	1,442	570	2.5%	1,501	2.4%	1,553	1,643	1,739
Ovid Township	1,663	572	2.9%	1,732	2.7%	1,792	1,896	2,007
Riley Township	1,543	509	2.7%	1,561	2.5%	1,615	1,709	1,809
St. Johns City	7,284	2,870	12.6%	7,564	12.0%	7,826	8,282	8,765
Victor Township	2,784	936	4.8%	3,179	5.0%	3,289	3,481	3,684
Watertown Township	3,731	1,286	6.4%	4,104	6.5%	4,246	4,494	4,756
Westphalia Village	780	294	1.3%	777	1.2%	804	851	900
Westphalia Township	1,319	386	2.3%	1,533	2.4%	1,586	1,679	1,776

* 1990 Data - Census

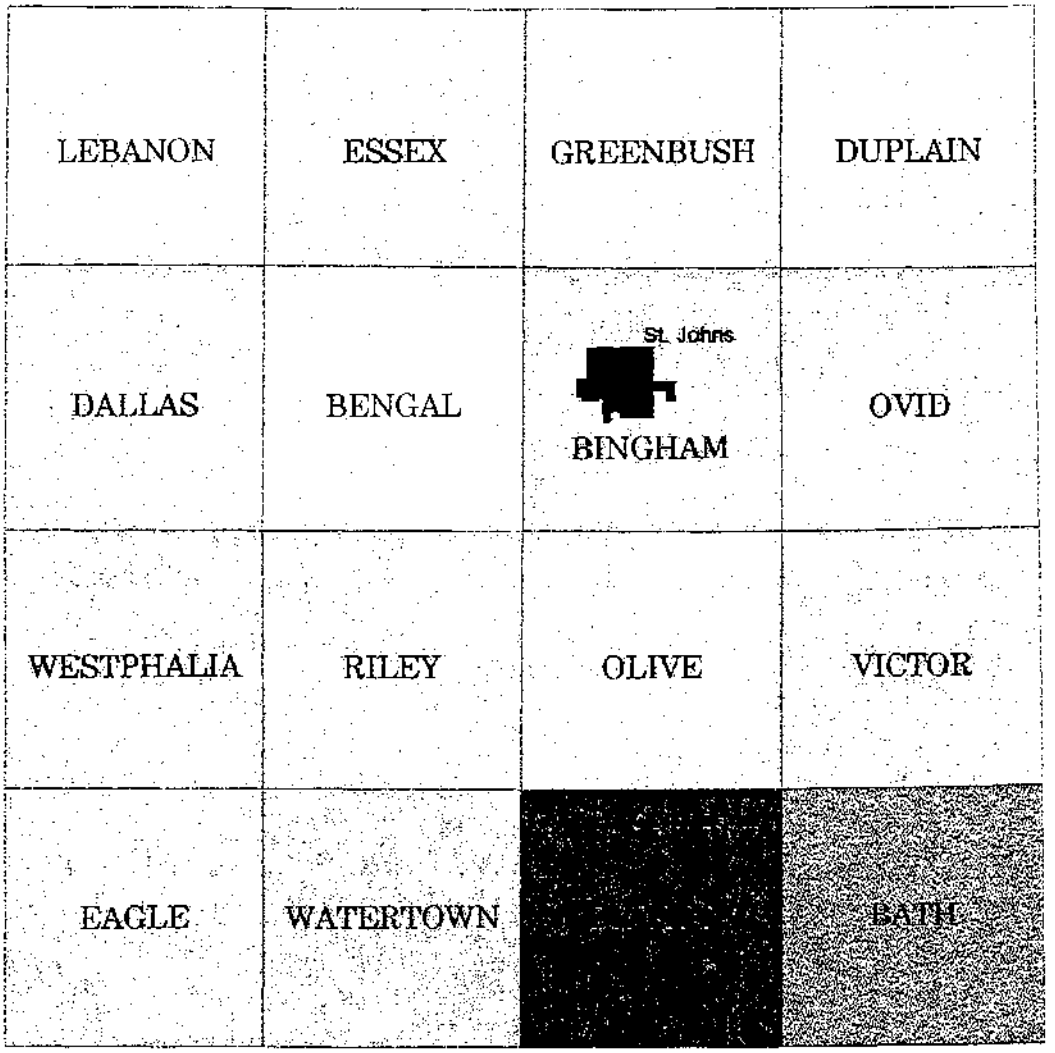
**1997 Total Population derived from Census Data; Municipal proportions of data derived from Tri-County Regional Planning

PROJECTED WASTE GENERATION

			Projections					
Township or Municipality	1997 Proj Pop*	1997 Waste Generation	2000 Proj Pop	2000 Waste Generation	2005 Proj Pop	2005 Waste Generation	2010 Proj. Pop.	2010 Waste Generation
Countywide	63,087	40,141	65,269	41,772	69,075	45,702	73,104	50,235
Bath	7,200	4,608	7,449	4,767	7,883	5,203	8,343	5,757
Bengal	982	628	1,016	650	1,075	710	1,138	785
Bingham	3,019	1,932	3,123	1,999	3,306	2,182	3,498	2,414
Dallas	1,228	786	1,270	813	1,345	887	1,423	982
Dewitt	4,530	2,899	4,687	2,999	4,960	3,274	5,249	3,622
DeWitt Township	11,788	7,544	12,196	7,805	12,907	8,519	13,660	9,425
Duplain Township	1,308	837	1,353	866	1,432	945	1,516	1,046
Eagle	125	80	129	83	137	90	145	100
Eagle Township	2,297	1,470	2,376	1,521	2,515	1,660	2,662	1,837
Elsie	962	616	995	637	1,053	695	1,115	769
Essex Township	1,047	670	1,083	693	1,146	757	1,213	837
Fowler	903	578	934	598	989	653	1,046	722
Greenbush Township	2,156	1,380	2,231	1,428	2,361	1,558	2,498	1,724
Lebanon Township	628	402	650	416	688	454	728	502
Maple Rapids	712	456	737	471	780	515	825	569
Olive Townshp	2,251	1,441	2,329	1,490	2,465	1,627	2,608	1,800
Ovid	1,501	961	1,553	994	1,643	1,085	1,739	1,200
Ovid Township	1,732	1,108	1,792	1,147	1,896	1,252	2,007	1,385
Riley Township	1,561	999	1,615	1,034	1,709	1,128	1,809	1,248
St. Johns	7,564	4,841	7,826	5,008	8,282	5,466	8,765	6,048
Victor Township	3,179	2,035	3,289	2,105	3,481	2,297	3,684	2,542
Watertown Township	4,104	2,627	4,246	2,717	4,494	2,966	4,756	3,281
Westphalia	777	497	804	514	851	561	900	621
Westphalia Township	1,533	981	1,586	1,015	1,679	1,108	1,776	1,226

Annual per capita waste generation rate = 997: .64 Tons/person 2005: .66 Tons/person 2010: .69 Tons/person

Clinton County Household Densities Per Square Mile



700+
500+

6 - 9
10 - 23
24 - 36
37 - 67
68 - 127

3.7 LAND USE AND ECONOMIC BASE

	% LAND USE						% ECONOMIC					
Township or Municipality	**Agricultural**	**Commercial**	**Industrial**	**Residential**	**Timber Cutover**	**Developmental**	**Agricultural**	**Commercial**	**Industrial**	**Residential**	**Timber Cutover**	**Developmental**
Countywide	17%	5%	1%	76%	0%	1%	15%	9%	2%	74%	0%	1%
Bath Township	4%	3%	1%	91%	0%	1%	3%	9%	0%	87%	0%	1%
Bengal Township	58%	0%	0%	40%	0%	0%	54%	1%	0%	46%	0%	0%
Bingham Township	26%	5%	1%	57%	0%	11%	20%	18%	1%	56%	0%	4%
Dallas Township	36%	6%	0%	58%	0%	0%	37%	4%	0%	59%	0%	0%
DeWitt City	0%	4%	0%	95%	0%	1%	0%	5%	0%	93%	0%	2%
DeWitt Township	2%	7%	1%	88%	0%	1%	2%	19%	1%	78%	0%	1%
Duplain Township	28%	6%	1%	65%	0%	0%	37%	2%	2%	59%	0%	0%
Eagle Township	26%	2%	2%	68%	0%	2%	19%	3%	0%	76%	0%	1%
Essex Township	32%	3%	0%	64%	0%	0%	39%	2%	0%	59%	0%	0%
Greenbush Township	28%	2%	2%	64%	0%	3%	27%	5%	1%	65%	0%	1%
Lebanon Township	66%	0%	0%	33%	0%	0%	77%	0%	0%	23%	0%	0%
Olive Township	29%	1%	1%	68%	0%	1%	25%	1%	0%	73%	0%	0%
Ovid Township	21%	6%	1%	71%	0%	0%	26%	6%	4%	65%	0%	0%
Riley Township	40%	0%	0%	60%	0%	0%	36%	0%	0%	63%	0%	0%
St. Johns City	0%	9%	2%	88%	0%	0%	0%	17%	4%	79%	0%	0%
Victor Township	11%	1%	0%	88%	0%	0%	12%	1%	0%	87%	0%	0%
Watertown Township	12%	5%	3%	79%	0%	1%	9%	9%	7%	73%	0%	2%
Westphalia Township	35%	4%	0%	61%	0%	0%	32%	2%	0%	66%	0%	0%

Data Source: 1999 Clinton County Equalization Department Report

Both the allocation of land use and economic base figures indicate the importance of Agriculture to land use planning, service considerations and relative worth (SEV) of preservation of such land. It is clear that such primary land useage and land values focus on residential and agricultural property.

3.8 LAND DEVELOPMENT

The maps on the following page indicates current land use. The County has the responsibility for planning and zoning functions except in the cities of St. Johns and DeWitt, as well as Watertown, DeWitt and Bath Charter Townships. With the exception of St. Johns, the other geographic areas are contiguous to metropolitan Lansing, East Lansing and Okemos. Not surprisingly, suburban development has escalated most dramatically in these areas and will continue to do so.

Completion of US-27 through the center of Clinton County may also bring industrial and manufacturing development as far north as St. Johns. At minimum, it has made the rural townships of the County very appealing for the resident seeking a country living environment while still being able to work in the city. Preservation of farmland in the County is a high priority, but many farmers find it increasingly lucrative to sell land to developers or split properties for large-lot residential building sites.

The impact of this growth is twofold: Larger populations means increased waste generation and increased need for services; and an increase in population density may necessitate modifications in the types of services provided to new residents.

Development is provided for in the Clinton County Comprehensive Land Use Plan by prioritizing four types of land uses: Rural Development, Agricultural Development, Residential Development and Suburban Development.

- Agricultural Development - Protected agricultural land providing unique production critical to the county's economy.
- Rural Development - Least intensive development - the primary focus being on open space preservation.
- Residential Development - Low to moderate density with typical city dwellings, businesses and utilities.
- Suburban Development - Moderate to High development density - with concentrated areas of dwellings.

The Land Use Plan prioritizes development in this order:

- Predominant Focus - Rural and Agricultural Development
- Secondary Focus - Residential Development
- Tertiary Focus - Suburban Development

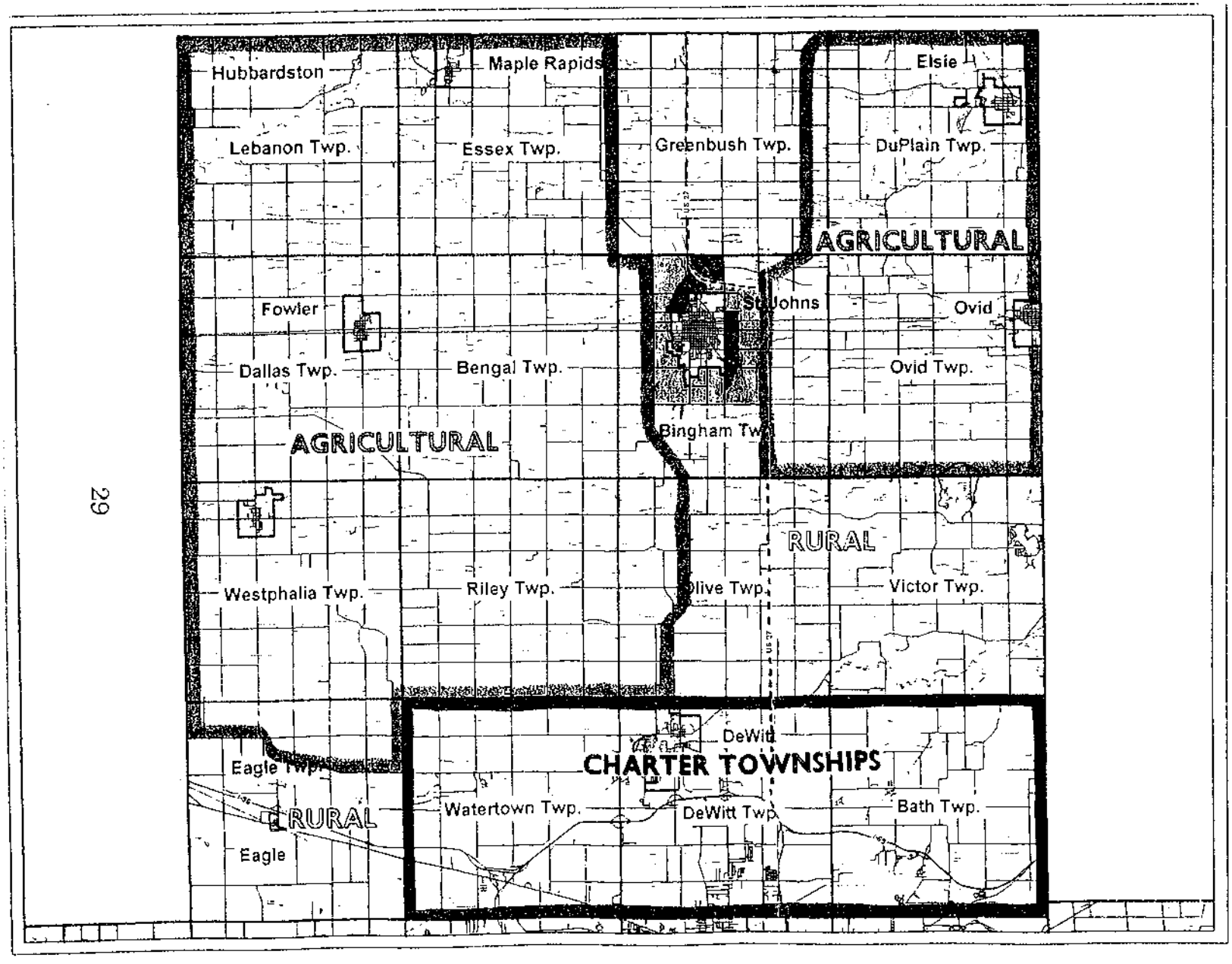
Areas in the county have been classified as containing eight different soil types. Each type is conducive to a certain kind of development. This information, plus the location of currently developed areas have led to identification of areas within the County most appropriately slated to be the

target of increased development in the coming years. They are Bingham, Victor, Olive, Riley and Eagle Townships. Bingham Township surrounds the city of St. Johns, and encompasses Business Route US-27 and the new US-27 expressway; Victor, Olive and Riley townships flank the southern most townships in the County which have already experienced substantial increases in residential development. Eagle Township is the only township along the southern border of the County which is not a Charter Township. Each of these townships are identified as areas of future growth and have individual plans being developed for them.

The County is in the process of implementing a GIS system which will allow overlay of land use activity in maps that highlight such features as drains, rivers, wetlands and farmland. This is a powerful planning tool that will allow the County to view housing densities in specific areas in some detail which will assist with solid waste service planning in the coming years. Aerial photos have been completed and data is in the process of being entered into the County's system. Once all land use data is entered and plans for the growth townships complete, a comprehensive future land use map will be produced. Map detail will, of course, include current disposal area locations and land owned by current facility operators.

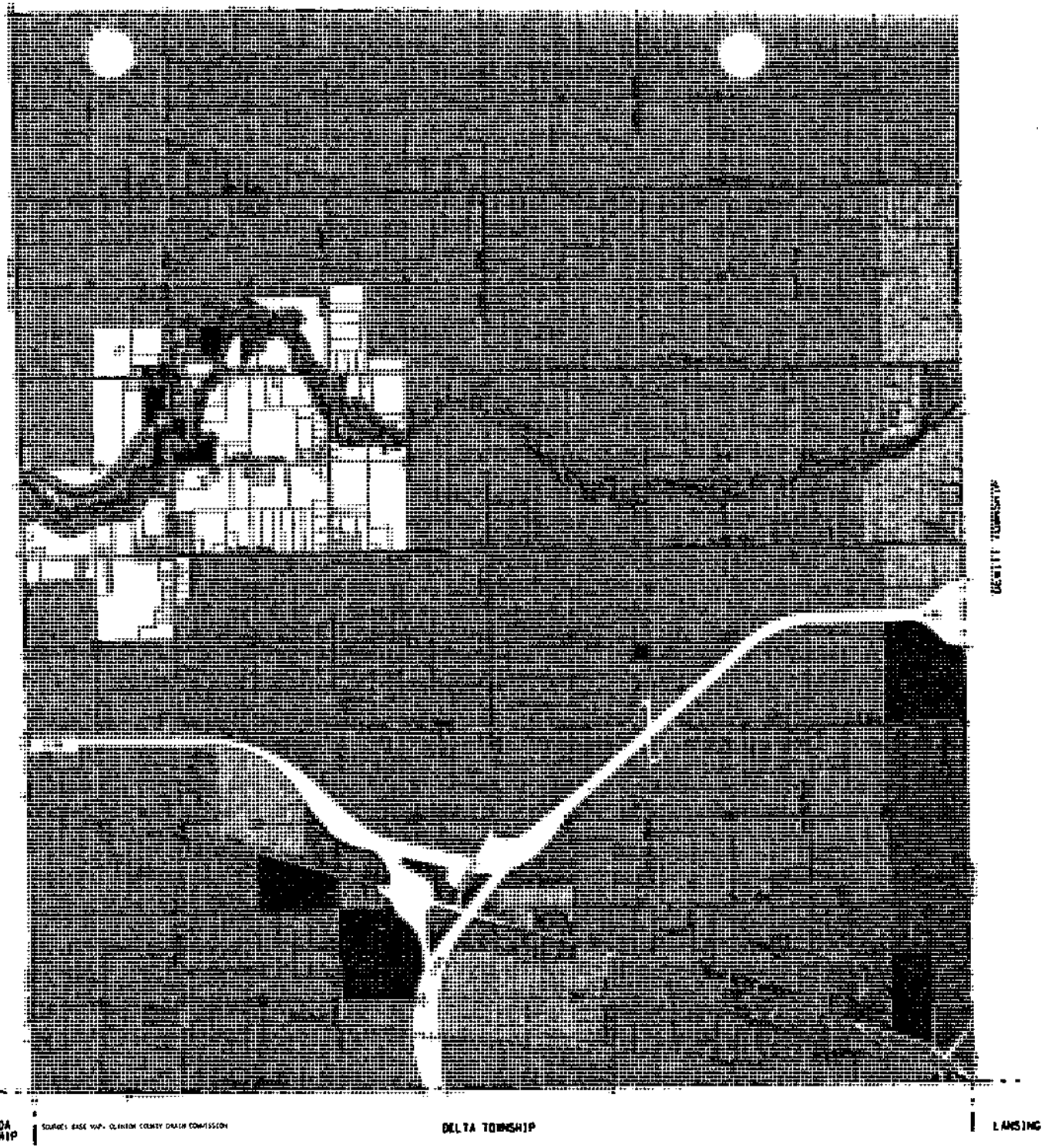
Without question, agriculture continues to be the key focus of the County's economic base, and farmland preservation efforts are expanding. The waste disposal needs of the agricultural community for such items as pesticides and unwanted farm equipment present problems to be addressed in this Plan.

CLINTON COUNTY, MICHIGAN



CLINTON COUNTY
Future Land Use Legend

- Agricultural Development
- Rural Development
- Residential Development
- Suburban Development
- Charter Townships



SOURCE: BASE MAP - CLINTON COUNTY DRAIN COMMISSION

- AGRICULT(
- SINGLE FAMILY LOW DENSITY
- SINGLE FAMILY MEDIUM DENSITY
- MULTIPLE FAMILY
- MOBILE HOME PARK
- COMMERCIAL
- INDUSTRIAL
- RESEARCH /DEVELOPMENT / OFFICE
- AIRPORT
- LANDFILL
- RECREATION /OPEN SPACE CONSERVATION
- PUBLIC /SEMI-PUBLIC

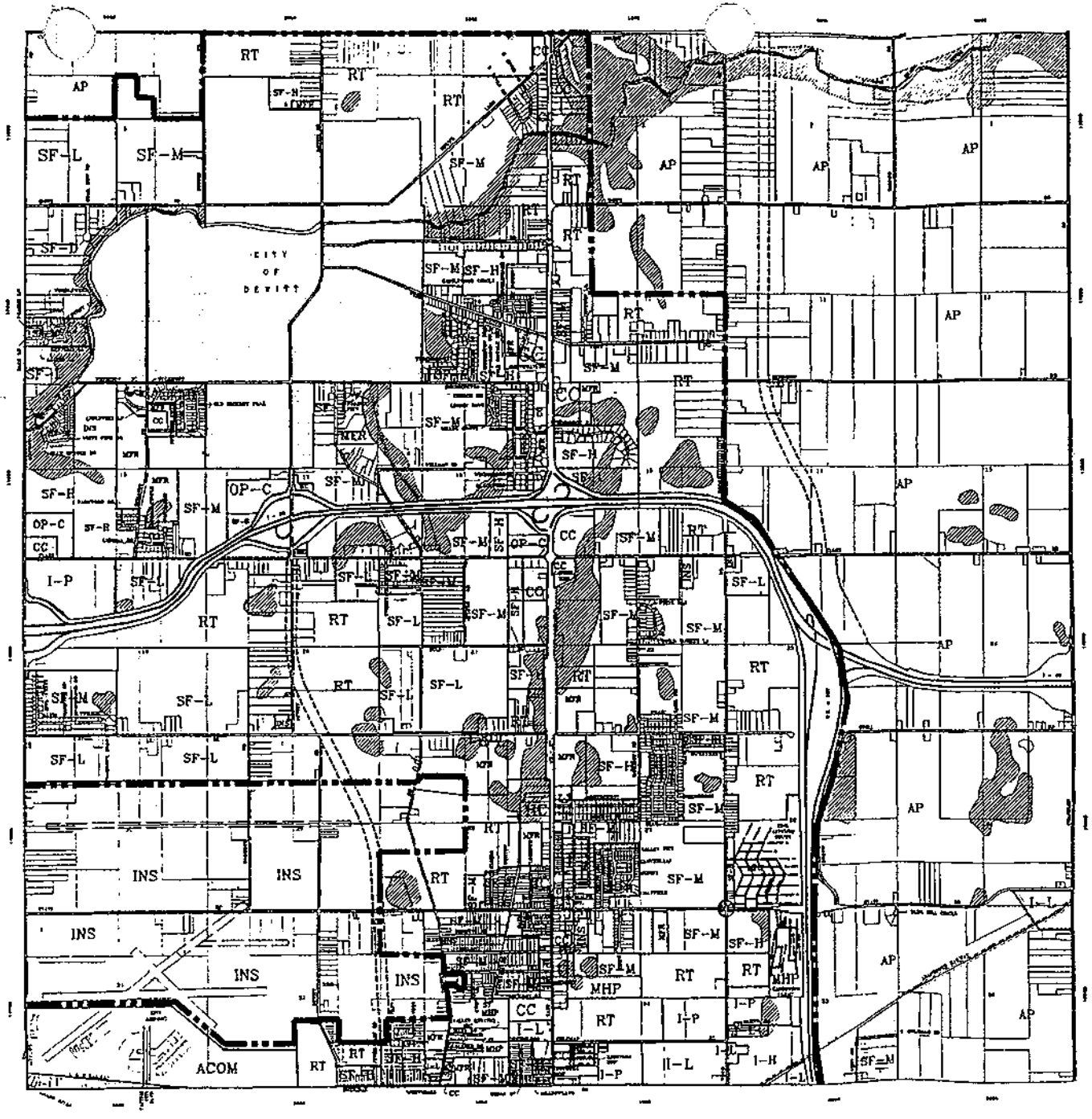
1600 800 0 800 1600 2400 3200

MAP 2 FUTURE LAND USE

WATERTOWN CHARTER TOWNSH

CLINTON COUNTY, MICHIGAN

Wade-Trim



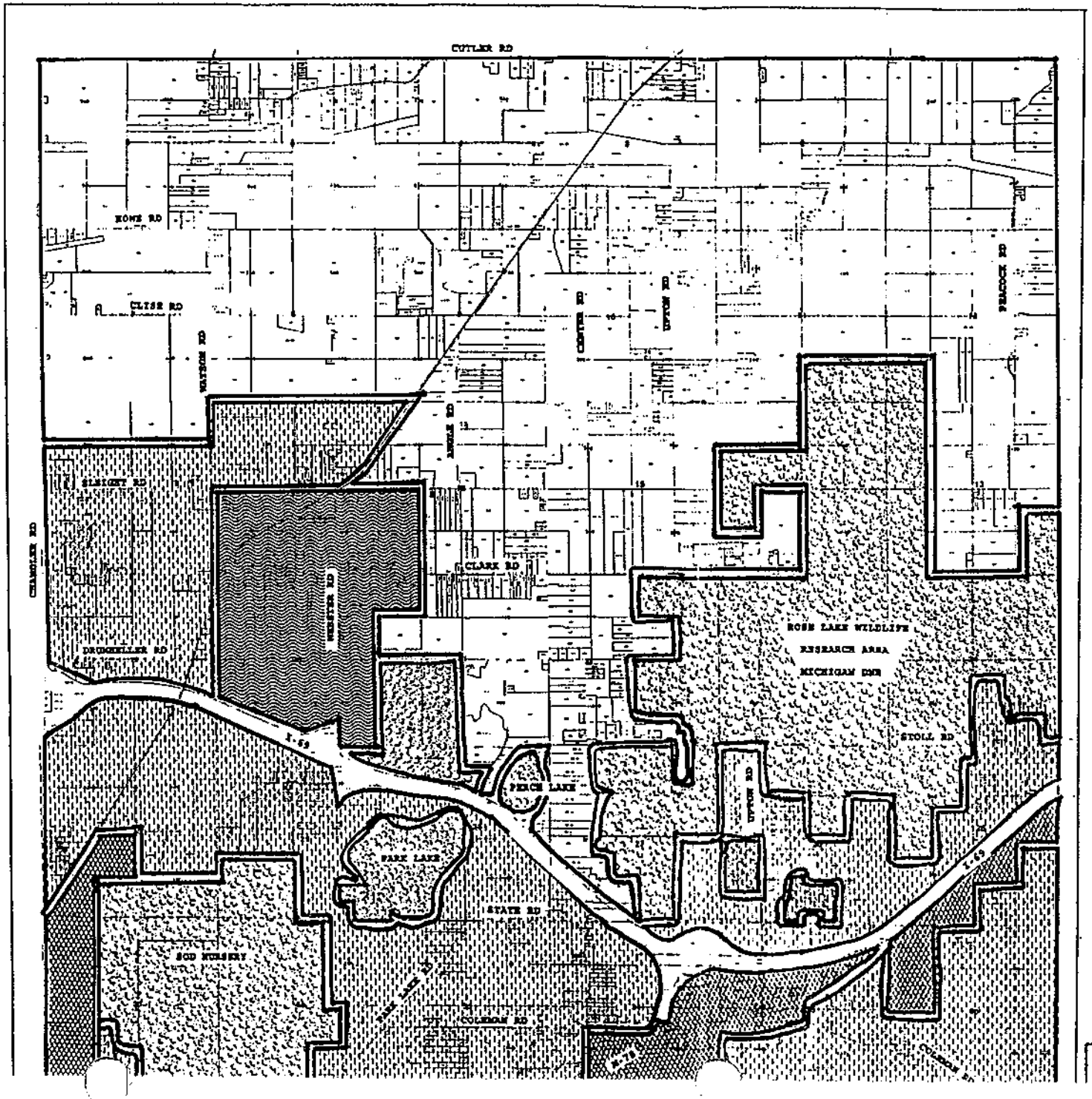
LEGEND

- SINGLE FAMILY RESIDENTIAL
  - SF-L LOW DENSITY SINGLE & TWO FAMILY
  - SF-M MEDIUM DENSITY SINGLE & TWO FAMILY
  - SF-H HIGH DENSITY SINGLE & TWO FAMILY
- MOTR MULTIPLE FAMILY RESIDENTIAL
- MHP MANUFACTURED HOME PARK
- COMMERCIAL
  - NC NEIGHBORHOOD ORIENTED
  - CC COMMUNITY ORIENTED
  - HC HIGHWAY ORIENTED
  - OP-C OFFICE PARK
  - ACOM AIRPORT COMMERCIAL
- INDUSTRIAL
  - I-L LIGHT INDUSTRIAL
  - I-H HEAVY INDUSTRIAL
  - I-P INDUSTRIAL PARK
- AGRICULTURAL
  - RT RURAL TRANSITION
  - AP AGRICULTURAL PRESERVATION
- CONSERVANCY
- INS INSTITUTIONAL
- FUTURE TRANSPORTATION FACILITY
- URBAN GROWTH BOUNDARY

MAP 1

FUTURE LAND USE

DEWITT CHARTER TOWNSHIP, MICHIGAN
MAY 1991



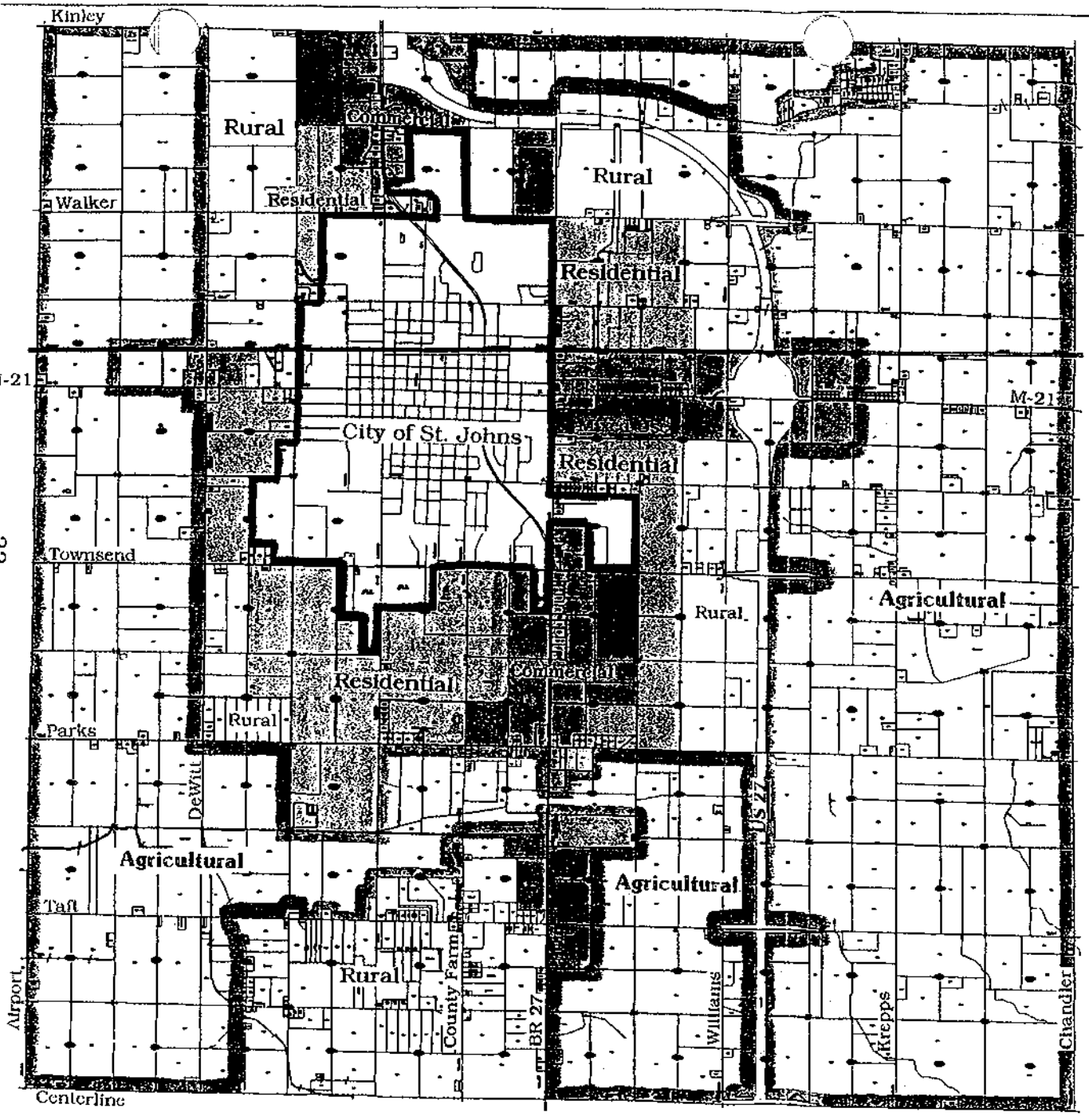
MAP 7

FUTURE LAND USE MAP

KEY

- RURAL
- UNIQUE ENVIRONMENT
- TOWNSHIP ACTIVITY CENTER
- RESIDENTIAL
- MIXED USE

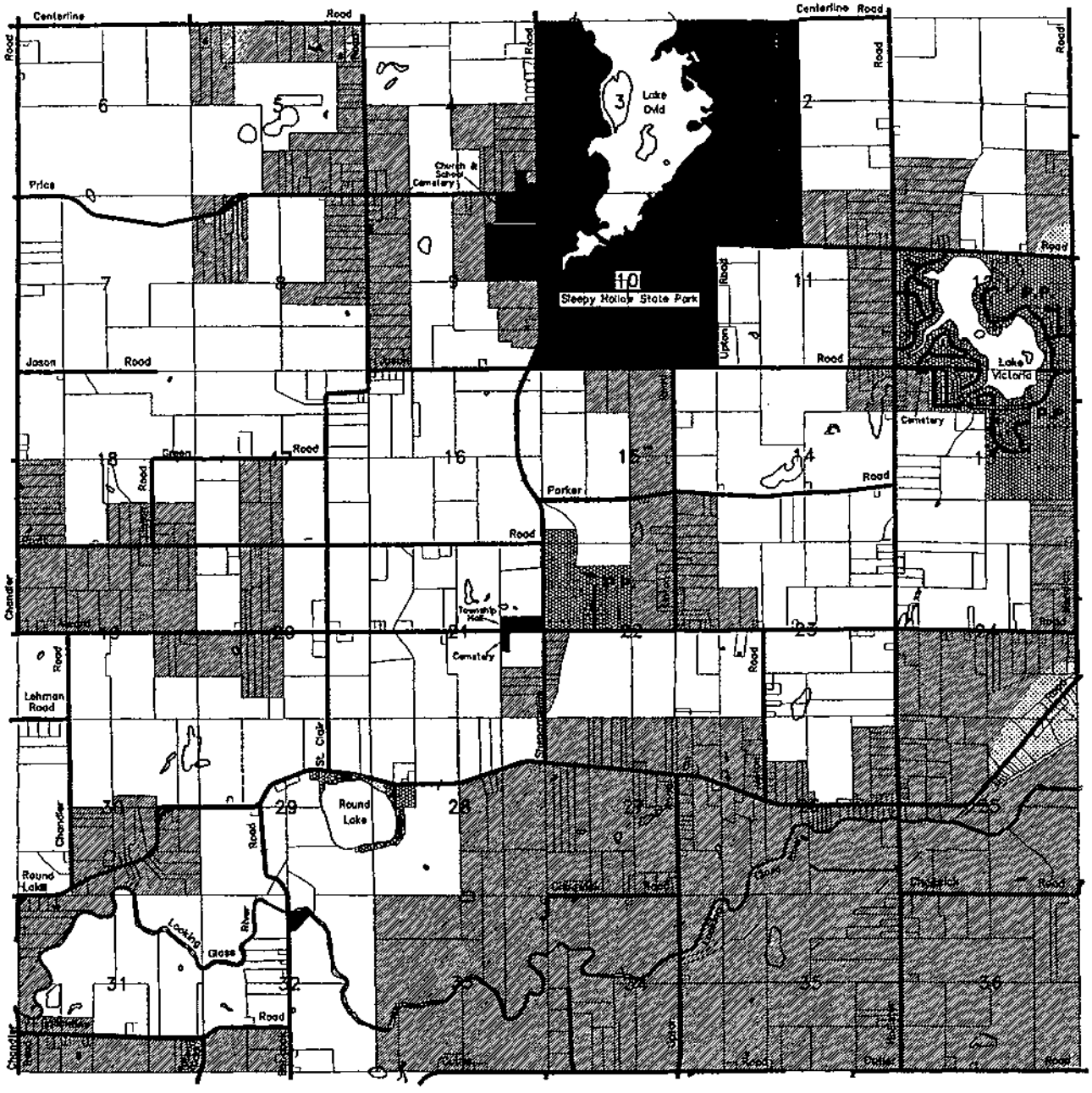
BATH CHARTER T[illegible]SHIP



BINGHAM TOWNSHIP
T7N-R2W
CLINTON COUNTY, MICHIGAN

FUTURE LAND USE

- AGRICULTURAL
- RURAL
- RESIDENTIAL
- MIXED USE
- COMMERCIAL
- MANUFACTURING
- COMMUNITY FACILITIES



VICTOR TOWNSHIP
CLINTON COUNTY, MICHIGAN
FUTURE LAND USE MAP

1/4 mile — 1 mile
0 — 1/2 mile

The following definitions apply to future land use recommendations for specific geographic areas within the Township Comprehensive Land Use Plan. These categories of future land use are... Agricultural Land Use Emphasis, Rural Land Use Emphasis, Residential Land Use Emphasis, Mixed Use Development Land Use Emphasis, and Community Facilities.

Agricultural Land Use Emphasis:

Those unique agricultural production land areas identified within the Comprehensive Land Use Plan which represent a critical component of the total agricultural economy within the region both now and in the foreseeable future. It is anticipated that the residential development would be discouraged and directed toward other geographic areas within the township through the research and application of farmland preservation tools. Agri-business operations would be allowed through the application of the Special Use Permit process.

Rural Land Use Emphasis:

The geographic areas identified within the Comprehensive Land Use Plan which are encouraged to accommodate very low density residential development with an emphasis on open space preservation that supports a rural quality of life environment. Agricultural and agri-business would be encouraged within these geographic areas but with the recognition that additional residential development would be anticipated in the future.

Residential Land Use Emphasis:

Those geographic areas identified within the Comprehensive Land Use Plan which could, and are encouraged to accommodate low to moderate density residential development. These existing or future areas for residential development could consist of small parcels and land divisions, platted subdivisions, site condominiums, or cluster residential options.

Mixed Land Use Development Emphasis:

As recommended in the Comprehensive Land Use Plan, these areas contain multi-use land development patterns of well planned commercial, office, and other non-residential land uses which provide a direct service to the residents of the township.

Community Facilities and Recreational Land Use Emphasis:

This category of land use identifies existing and future locations for Community Facilities (Township Offices, Governmental Facilities, Etc.) and Recreational Land Uses (Parkland, Golf Courses, Etc.)

P.P. indicates private parkland developed and maintained by the subdivision property owner's association.

The railroad right of way in Section 25, 26, 34 and 35 is now under private ownership. It has been removed from this map.

REVISED 5-20-99

PART FOUR: SOLID WASTE MANAGEMENT SYSTEM ALTERNATIVES

4 PART FOUR - SOLID WASTE MANAGEMENT SYSTEM ALTERNATIVES

4.1 INTRODUCTION

The Act requires the evaluation of alternative solid waste management systems. The management system in use since 1990 has, by in large, worked well for this County. Continuation of the existing system would be one viable approach. The existing management system is presented as Management System Alternative 1.

Over the last seven years, evaluation of the existing management system has resulted in recommendations for improving its enforcement and education aspects. A second alternative would be to preserve the existing system, while incorporating the recommended improvements. This enhanced system is presented as Management System Alternative 2.

Finally, to maintain the County's awareness of service delivery options and their advantages and disadvantages, it is useful to consider an approach that is the antithesis of the existing management system. This system is presented as Management System Alternative 3.

The following narrative contains brief summaries of each management system alternative. A chart in Appendix A-1h ranks the three systems in order of appropriateness and cost effectiveness. Additional details describing the non-selected systems are contained in Appendix B.

Any service management system may consist of components that address the way waste and recycling services are provided, and how waste reduction is accomplished. Following the section describing service management system alternatives is a section which includes brief descriptions of various components that may (or may not) be used as part of each system. The components identified in this section are only those that rose to the top during the planning process and warranted special review.

4.2 EVALUATION OF SOLID WASTE MANAGEMENT SYSTEM ALTERNATIVES

Alternative 1: Continuation of the Existing System

Part Three of this Plan provides a comprehensive description of the existing solid waste management system as developed under the previous Plan. Continuation of this basic structure, as well as the programs and services designed to implement the previous Plan, would certainly be feasible, but would fall short of addressing deficiencies described in the Deficiencies and Problems section of this document. The existing system includes a well-developed recycling component, provides for composting, and emphasizes a strong education program. The administrative structure is in place, as is the

funding mechanism. (The funding mechanism, however, has undergone some legal challenge.) County roles and responsibilities have been defined and assumed, and municipalities approve of the distribution of services and sharing of resources that the current system provides.

However, the current system falls short in addressing waste reduction, the business and construction/demolition sectors, hazardous household wastes and unwanted agricultural chemicals. It is weak in addressing purchasing and packaging issues. And, the current system inadequately defines enforcement responsibilities and relationships with disposal facilities.

Alternative 2: Current System with Enhancements

As stated in Alternative 1, the existing system adequately addresses the fundamental requirements of the 1990 Plan. Alternative 2 preserves the integrity of the current system, while addressing inadequacies identified in the Deficiencies and Problems section of this Plan document.

A modified system would incorporate the following changes and additions:

Educational program

- Shift emphasis from the classroom to the business sector, including the building and construction sector.
- Implement a comprehensive education campaign to teach and encourage the purchase and use of products that:

  a) have less packaging;

  b) have packaging that is truly recyclable; and

  c) are products made with recycled content.
- Implement an education program targeting local governments, housing associations and developments (subdivisions, apartment complexes, modular housing communities) and residents describing solid waste collection options and their advantages.

Hazardous waste

- Establish a convenient and cost effective method for addressing disposal and handling of household hazardous materials and unwanted agricultural chemicals.

Responsibilities and relationships

- Revise the solid waste ordinance to clarify waste generator and disposal facility owner/operator responsibilities pertaining to waste hauling and disposal in the county. Establish standards for waste handling practices and solid waste disposal for companies doing business in this County. Work with service providers to acquire more meaningful data such that

program effectiveness is better measured, and programs are better designed to meet evolving needs.

Alternative 3: Uniform Service Contracting

- In this alternative, the County would contract for solid waste services on behalf of all single family residences. The County would develop a means of collecting a tax or fee to pay for the contract(s). The County would develop a transition plan and timetable to facilitate the change from the current system to a county-wide uniform housing service contract system that would be satisfactory to residents and municipalities.

- One advantage of such an approach is the economy of scale the County could achieve through a single contract, providing cost savings. Some residents may also receive a wider variety of services than are currently available to them - such as curbside recycling in rural townships. Volume based waste collection and curbside recycling could result in substantial waste reduction as well as increased recovery of recyclable materials. Other benefits include reducing truck travel on county roads, thereby minimizing emissions, road wear and fuel consumption.

- The disadvantage of such an approach is that the County would require authority from municipalities and residents to contract for services. This political challenge, and the difficulty of meeting such a wide variety of needs, present significant barriers to this option. Additionally, there may be risk in contracting with a single company (or group of companies) to service the needs of an entire area; it could make the County vulnerable to monopolistic control.

4.3 EVALUATION OF OPTIONAL COMPONENTS

Component 1: Waste Disposal

Waste Disposal strategies (such as construction of a waste to energy facility), other than landfilling at the two local facilities located within the County were not considered. The two existing facilities adequately meet Clinton County's needs. As a contingency, neighboring counties also have landfills to which Clinton County may export its waste.

Component 2: Mandated Curbside Recycling Services

Mandating that haulers provide curbside services would increase the tendency of a limited number of non-recycling residents to recycle, particularly those in rural areas. Based upon the findings of the 1998 residential survey, the availability of curbside recycling could potentially induce in as many as 2,000 households (an optimistic estimate) to begin recycling. The additional materials collected could be as much as 720 tons. The problem with such a mandate, however, is that it does not take market conditions into account. In addition, the per-stop costs of providing curbside

recycling in rural areas is high. Mandating collection systems where it is not economical may result in increased costs passed back to the consumer, or increases in the cost of recycled content products. It could be argued that this is not good for the industry as a whole.

Component 3: Mandated Licensing

The County could require hauler licensing as a means to mandate recycling and volume based pricing for waste collection services and data reporting. For the purposes of this plan, licensing is identified as a contingency, which could be implemented if need arises. Review of this tool during the planning process indicated a strong disinclination to employ such tactics as a primary strategy at this point in time.

Component 4: Mandate Volume-Based Pricing

Many pricing methods for collection services reward waste generators for creating more waste; the generator's cost per unit goes down the more waste they place at the curb. This approach to pricing garbage is a disincentive to waste reduction. Volume based collection favors a direct relationship between the cost of trash collection services and the quantity of waste generated: a 30 gallon container costs $\$X$/month and a 60 gallon container costs $\$2X$/month.

The experiences of many municipalities have shown that volume-based pricing for waste collection has an impact on waste reduction. However, mandating volume based pricing at the county level, would pose administrative difficulties for companies operating between Clinton County and counties that do not require volume based pricing.

Solid waste companies argue vigorously against such requirements. Some argue that residents prefer carts to bags to hold their waste. However, volume based pricing can work for carts as well as bags.

Companies have also pointed out that certain costs reflected in $\$X$ are constant whether the container is large or small (the truck, fuel and driver to perform the collection, for example). If such a component were to be used, these constants could and should be factored out as the base charge, so that residents can clearly see the doubling of charges for differing sized containers. For example: a 30 gallon container would cost A(fixed costs)+X (disposal costs). A 60 gallon container would cost $A+2X$.

An alternative to mandating such services is to educate consumers. This strategy is more acceptable to haulers and maintains choice for municipalities and individual consumers.

4.4 SOLID WASTE MANAGEMENT ALTERNATIVES RANKINGS

An informal ranking of alternatives (on following page), combined with the findings of the Solid Waste Planning Committee, indicate that ***Alternative 2***

is best suited for use in this planning cycle. The survey conducted in 1997 (Appendix A-2d) confirms that Alternative 2 most closely meets the needs of the County's residents.

SOLID WASTE MANAGEMENT ALTERNATIVES RANKINGS

Criterion & Potential Value	Alternative 1 Current System	Alternative 2 Current System w/Modification	Alternative 3 County Uniform Contracting
Technical Feasibility	++	++	+
Economic Feasibility	+	+	-
Energy Consumption	+	++	++
Environmental Impacts	-	+	++
Public Health Effects	+	+	++
Public Acceptability	++	++	-
Industry Acceptability	+	++	-
Total "+"'s	+ = 8	+ = 11	+ = 7
Total "-"'s	- = 1		- = 3
Ranking	2	1	3

Values:

++ = High Impact

+ = Average Impact

- = Negligible Impact

Rankings provide an approximation of the degree to which one alternative or another has a positive impact on the criterion listed. Value assignments are based on independent survey results, staff assessments and research on programs conducted in other areas. Narrative in the Plan and in Appendix B present further discussion on these criterion.

LONG TIME - SELECTED SOLID WASTE MANAGEMENT SYSTEM

5 PART FIVE - SELECTED SOLID WASTE MANAGEMENT SYSTEM

5.1 INTRODUCTION

This Plan continues a decentralized and privatized system of services. The Plan maintains a strategy in which local municipalities and individuals control the type of services they receive, and their own levels of participation in various aspects of an integrated solid waste management system. As a service provider, the County continues its role as 'provider of last resort.' Primarily this means assisting with management of 'hard to dispose of or recycle' items, and/or assisting in geographic areas of the county that do not presently receive adequate services from the private sector.

Education efforts will continue as the cornerstone of modifying behaviors which impact waste reduction, recycling and recycled product use. The administrative structure developed under the previous Plan is maintained in this planning cycle. The County will however, maintain stronger roles in areas of policy making, enforcement, and partnering with businesses and local municipalities to enhance services to citizens. The Education component of this Plan is enhanced to address issues of waste reduction, purchasing and business recycling.

The Plan maintains an integrated approach to solid waste management which includes waste reduction, resource conservation and recovery with waste disposal being the choice of last resort for managing remaining waste materials. Incineration is not included as an optional component.

5.2 BASIS FOR SELECTION

The primary reason for maintaining a decentralized system is public preference for such a system. However, there are other reasons which make this approach appropriate. Population densities in this County vary significantly. GIS research indicates that densities go from six households per acre in the county to over 700 per acre in the city. The southern end of the County is filling with suburbanites accustomed to and wanting extensive services - while much of the northern part of the County maintains its rural agricultural character. This accounts for wide diversity in service expectation. For this reason, the selected management system monitors development, suggests service alternatives as population densities change, and coordinates service provision where there are gaps. The County will continue to serve as a coordinating umbrella, through which emerging needs are identified or met.

An Ordinance is the central mechanism for establishing and enforcing minimum standards for the handling of solid waste and operation of disposal facilities located in the County.

5.3 ADVANTAGES AND DISADVANTAGES OF SELECTED SYSTEM

Public Health

While the selected system is decentralized in nature, in this Plan Update, the County will play a stronger role in the establishment of baseline waste management standards and enhance educational programs to address waste reduction, hazardous materials disposition and needs evolving from increased development occurring in the County. Establishment of such standards, and better enforcement of illegal waste handling, reduces the public's risk in handling solid waste and its ultimate disposal. Stronger efforts will be made to address household hazardous waste and auto fluids. Provision of such services to address these waste streams decrease the risk that such materials end up in drains or on the ground.

Environmental Affects

In the County's role as an overall coordinator and educator or technology transfer agent, the environmental impacts of the decentralized system in the County will continue to improve. The strong educational component, together with a strategy of local grant giving, provide incentive to local municipalities to implement clean-ups or upgrade waste handling strategies (recycling, composting, etc.). Additionally, stronger, more consistent solid waste handling standards will protect individuals as well as the environment.

Energy Use

This system fails somewhat to address energy use. Individual contracting for subscription services results in multiple companies traveling a single road to collect trash and/or recyclables. The focus of this Plan, to educate municipalities and residential developments about the advantage of contracting as units with a single hauler, may impact this situation somewhat.

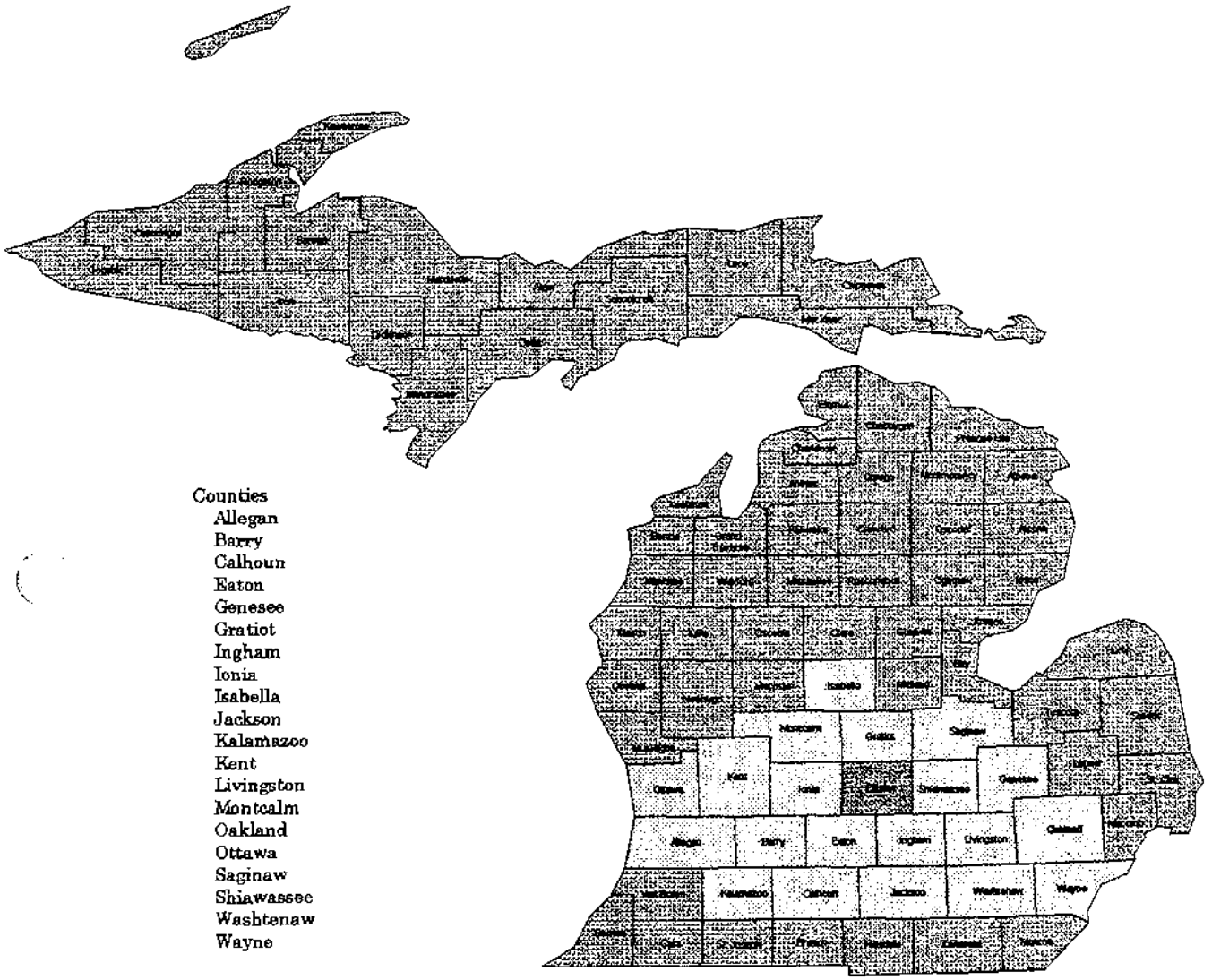
Siting

Siting of new disposal capacity appears not to be necessary during this Plan period. Sufficient capacity has been promised to the County by Granger. Both Granger landfills have substantial capacity available; 30+ years each. However, the County has determined that inclusion of a siting process is important to a system based on the private sector and local determination. Such a process standardizes review criteria should the need arise. Establishment of standards provides the county with a tool to use in the event that anticipated needs and/or services are dramatically changed.

Economic Costs

Because services in the County are, by in large, provided through the private sector, costs of programs will tend to be based upon the economic viability of such services. Contracts enacted by municipalities or local developments tend to have lower per unit costs due to the economies of scale in servicing a large number of household units per geographic area. Costs for implementing the Plan where the County is not active in direct collection services are far more reasonable than they would be if a stronger provider role was assumed by the County.

5.4 Counties Approved for Plan Inclusion



Counties
- Allegan
- Barry
- Calhoun
- Eaton
- Genesee
- Gratiot
- Ingham
- Ionia
- Isabella
- Jackson
- Kalamazoo
- Kent
- Livingston
- Montcalm
- Oakland
- Ottawa
- Saginaw
- Shiawassee
- Washtenaw
- Wayne

Michigan Counties
- **Counties Not Included**
- **Counties Included**
- **Clinton County**

N
W E
S

5.5 IMPORT AUTHORIZATION

Listed in 5.7 are licensed solid waste disposal areas currently operating in Clinton County. Disposal of solid waste generated from within Counties named below is authorized by Clinton County in unlimited amounts, except as specified by the Annual Cap and Conditions.

IMPORT VOLUME AUTHORIZATIONS OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Clinton	Ingham	All	unlimited*	unlimited*	P*
Clinton	Eaton	All	unlimited*	unlimited*	P*
Clinton	Shiawassee	All	unlimited*	unlimited*	P*
Clinton	Gratiot	All	unlimited*	unlimited*	P*
Clinton	Ionia	All	unlimited*	unlimited*	P*
Clinton	Allegan	All	unlimited*	unlimited*	P*
Clinton	Barry	All	unlimited*	unlimited*	P*
Clinton	Calhoun	All	unlimited*	unlimited*	P*
Clinton	Genesee	All	unlimited*	unlimited*	P*
Clinton	Isabella	All	unlimited*	unlimited*	P*
Clinton	Jackson	All	unlimited*	unlimited*	P*
Clinton	Kalamazoo	All	unlimited*	unlimited*	P*
Clinton	Kent	All	unlimited*	unlimited*	P*
Clinton	Livingston	All	unlimited*	unlimited*	P*
Clinton	Montcalm	All	unlimited*	unlimited*	P*
Clinton	Oakland	All	unlimited*	unlimited*	P*
Clinton	Ottawa	All	unlimited*	unlimited*	P*
Clinton	Saginaw	All	<84 Tons/day	Approx 75,000 cy	P*
Clinton	Washtenaw	All	unlimited*	sum of all 83 counties cannot exceed 500,000 cy	P*
Clinton	Wayne	All	unlimited*	unlimited*	

Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist.

* ANNUAL CAP: The sum of all waste disposed of in facilities within Clinton County, which were owned by Granger at the time of the writing of this Plan, may not exceed 2,500,000 cubic yards per year. See Section 6.8 of this Plan document.

* CONDITIONS: Each County must name Clinton County in their Plan as a County to which they will export waste. Each County which has a disposal facility must also name Clinton County in their Plan as a county from whom they will accept waste for disposal. Those Counties currently without disposal facilities must warrant that if they should construct a facility during this Plan period, they will agree to accept Clinton County waste for import. These warranties may be secured through a letter submitted to the Clinton County DPA which is signed by the DPA of the Exporting County. Municipal solid waste incinerator ash is not accepted for disposal in Clinton County.

5.6 EXPORT AUTHORIZATION

If a licensed solid waste disposal area is currently operating within the counties named below, disposal of solid waste generated from within Clinton County is authorized for disposal in facilities within those counties in unlimited quantities, except as may be specified by the receiving county's authorized Solid Waste Management Plan.

EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Clinton	Shiawassee	All	unlimited	unlimited	P*
Clinton	Eaton**	All	unlimited	unlimited	P*
Clinton	Ionia	All	unlimited	unlimited	P*
Clinton	Gratiot**	All	unlimited	unlimited	P*
Clinton	Ingham	All	unlimited	unlimited	P*
Clinton	Allegan**	All	unlimited	unlimited	P*
Clinton	Barry	All	unlimited	unlimited	P*
Clinton	Calhoun	All	unlimited	unlimited	P*
Clinton	Genesee	All	unlimited unlimited	unlimited unlimited	P* P*
Clinton	Isabella**	All	unlimited	unlimited	P*
Clinton	Jackson	All	unlimited	unlimited	P*
Clinton	Kalamazoo**	All	unlimited	unlimited	P*
Clinton	Kent	All	unlimited	unlimited	P*
Clinton	Livingston**	All	unlimited	unlimited	P*
Clinton	Montcalm	All	unlimited	unlimited	P*
Clinton	Oakland	All	unlimited unlimited unlimited	unlimited unlimited unlimited	P* P* P*
Clinton	Ottawa	All	unlimited unlimited	unlimited unlimited	P* P*
Clinton	Saginaw	All	unlimited unlimited unlimited	unlimited unlimited unlimited	P* P* P*
Clinton	Washtenaw	All	unlimited	unlimited	P*
Clinton	Wayne	All	unlimited unlimited unlimited unlimited	unlimited unlimited unlimited unlimited	P* P* P* P*

Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist

* Each County which has a disposal facility must name Clinton County in their Plan as a county from whom they will accept waste for disposal. Each County must name Clinton County in their Plan as a County to which they will export waste. Those Counties presently without disposal facilities must warrant that if they should construct a facility during this Plan period, they will agree to accept Clinton County waste for import. These warranties may be secured through a letter submitted to the Clinton County DPA, signed by the DPA of the Importing County. Counties may not export municipal solid waste incinerator ash to Clinton County for disposal.

5.7 SOLID WASTE DISPOSAL AREAS

This list identifies facilities operating within each county authorized in this Plan at the time this Plan was completed. It does not intend to exclude facilities that may come into existence during this plan period. Additionally, while transfer facilities are disposal facilities, they are not end disposal sites. Any transfer facility located within the authorized counties is authorized for use so long as waste leaving that transfer facility which originated in Clinton County is disposed of at the end disposal facility located within the counties authorized in 5.6 of the Plan. Additionally, waste coming into Clinton County for disposal may come from any of those transfer facilities so long as the waste orginates from within the counties named and authorized in 5.5 of this Plan.

Information listed below was provided by each facility and Clinton County accepts no responsibility for its accuracy. For the purpose of this plan, 1 gate yard equals approximately .5 air yards. Capacities labeled "CY" are unspecified as gate or air yards. Capacity and life data are not provided for MRFs and transfer stations, as these are not end disposal sites.

Type II Landfills	Size & County	Capacity	Life
Granger Grand River Avenue Landfill located on Grand River in Watertown Charter Township	120.9 acres sited in Clinton County	7,617,000 Air Yards	32 years life
Granger Wood Street Landfill located on Wood Road in DeWitt Charter Township and Lansing Township in Ingham County	194.8 acres sited in Clinton County	10,981,000 Air Yards (1998)	34 years life
Venice Park Recycling and Disposal Facility in Lennon, Shiawassee County	80 acres sited for use	1,300,000 air yards	2.5 years life - expansion pending
Pitch Sanitary Landfill in Kiddeville, Ionia County	28.36 acres sited in Ionia	40,000 tons	.5 years remaining - pending expansion.
City Environmental	Barry	3 million CY	10+ years, 18 add'l. acres pending
C & C	Calhoun	3,360,000 CY (air yards)	7 Years
Citizens Disposal	Genesee	5,300,000 CY	25 years

Brent Run	Genesee	10,247,000 CY	18 Years
McGill Rd.	Jackson	740,000 CY	5 Years
South Kent	Kent	7,600,000 Tons	38 Years
Central Sanitary	Montcalm	373,428 CY	2 Years
Collier Road	Oakland	NA	NA
Eagle Valley	Oakland	NA	NA
Oakland Heights	Oakland	3,500,000	4 Years
Autumn Hills	Ottawa	20,750,000 Tons	30.2 Years
Ottawa County Farms	Ottawa	16,500,000 CY	25-30 Years
People's	Saginaw	5,301,641 Tons	20 Years
Saginaw Valley	Saginaw	NA	1 Year
Taymouth	Saginaw	1,300,000 CY	7-8 Years
Arbor Hills	Washtenaw	6,177,000 Gate Yards	17.6 Years
Carleton Farms	Wayne	23,674,000 CY	35 Years
Riverview Land Preserve	Wayne	17,800,000 CY	28 Years
Sauk Trail Hills	Wayne	19,486,236 CY	17 Years
Woodland Meadows	Wayne	27,861,000 CY	16 Years
See attached facility descriptions for more detail.			

Type III Landfill (C & D)	**Size**	**Capacity**	**Life**
Daggett Sand and Gravel on Sheridan Road in Lansing, Ingham County	6.4 acres sited for use	60,000 air yards	7 years life
Incinerator			
None			
Transfer Facilities			
None			
Waste to Energy Incinerator			
None			
Processing Plants			
Type II (Granger processes source separate materials only)	N/A		
Type III (Daggett Sand and Gravel - separates construction/demolition materials prior to landfilling)	N/A	Approx. 400 cy/day 100,000 cy/year	N/A
Waste Piles and Other			
None			

5.8 FACILITY DESCRIPTIONS

Facility Descriptions are lettered to correspond with the following:

a) Clinton County

b) Barry County

c) Calhoun County

d) Genesee County

e) Ingham County

f) Ionia County

g) Jackson County

h) Kent County

i) Montcalm County

j) Oakland County

k) Ottawa County

l) Saginaw County

m) Shiawassee County

n) Washtenaw County

o) Wayne County

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II

Facility Name: Granger Grand River Avenue Landfill

County: Clinton Location: Town: 5N Range: 3W Section(s): 29

Map identifying location included in Attachment Section: _____ Yes If Requested _____ No

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

___ Public _x_ Private Owner: Granger Land Development Company

Operating Status (check)		Waste Types Received (check all that apply)	
_x_	open	_x_	residential
___	closed *1	_x_	commercial
_x_	licensed	_x_	industrial
___	unlicensed	_x_	construction & demolition
_x_	construction permit	_x_	contaminated soils
___	open, but closure	_x_	special wastes *
___	pending	_x_	other: Type III Wastes

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

All As Authorized

Site Size:

Total area of facility property: *I	180.9	acres
Total area sited for use: (Plan)	120.9	acres
Total area permitted: (For Disposal, i.e. SWB)	85.7	acres
Operating: (Licensed & Certified)	54.1	acres
Not ~~excavated~~: Developed	31.6	acres
Current capacity:	7,617,000	~~tons or~~ yds³ Air Yards
Estimated lifetime:	32	years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	600,000	~~tons or~~ yds³ Gate Yards

(if applicable)
Annual energy production:

Landfill gas recovery projects:	4.0	megawatts
Waste-to-energy incinerators:		megawatts

*1: Includes acres of (separate) closed facility to be consistent with DEQ numbers on permits and licenses.

GRANGER
GRAND RIVER AVE LANDFILL

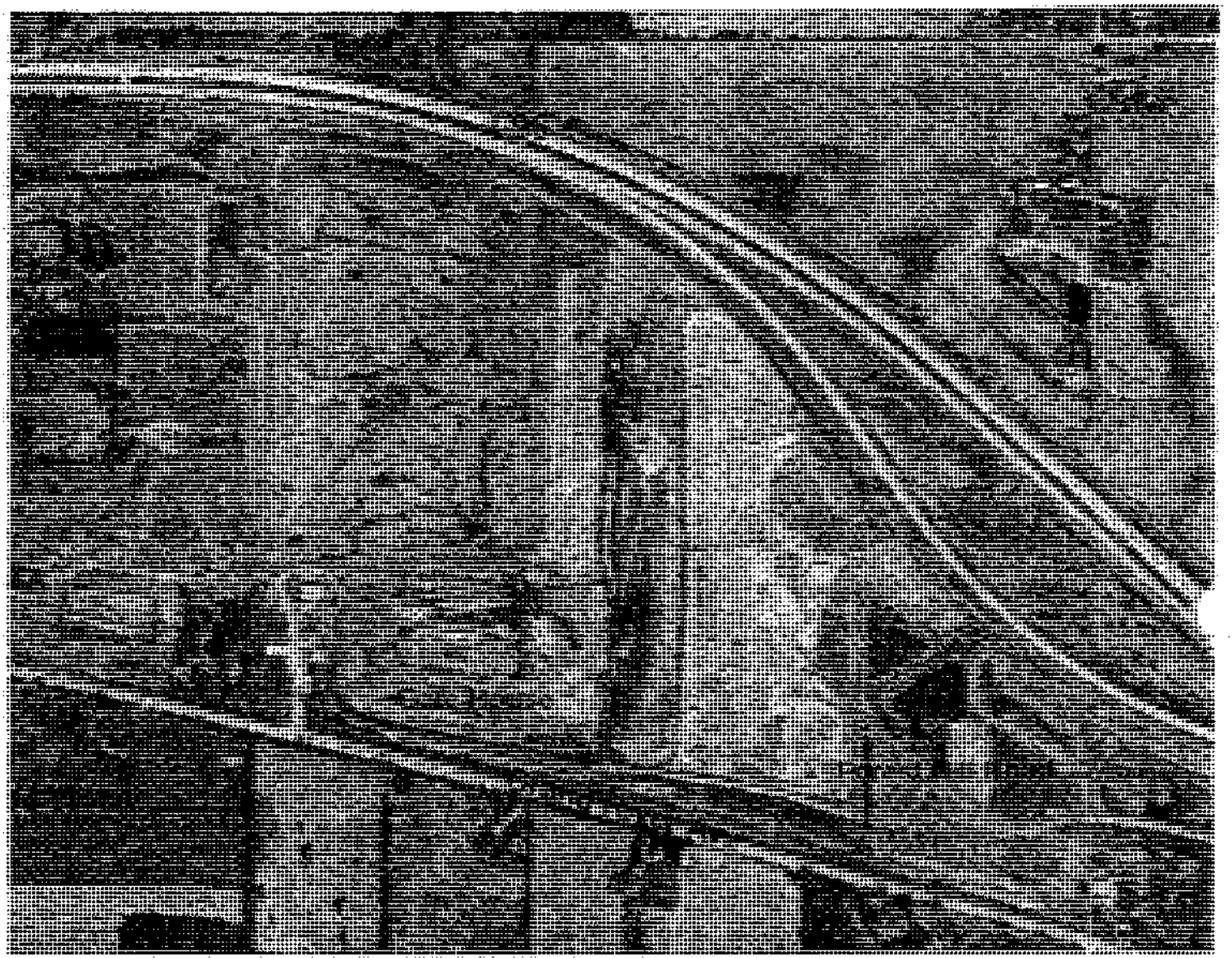
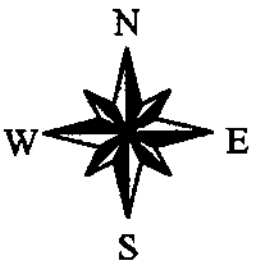


Photo: April 1998

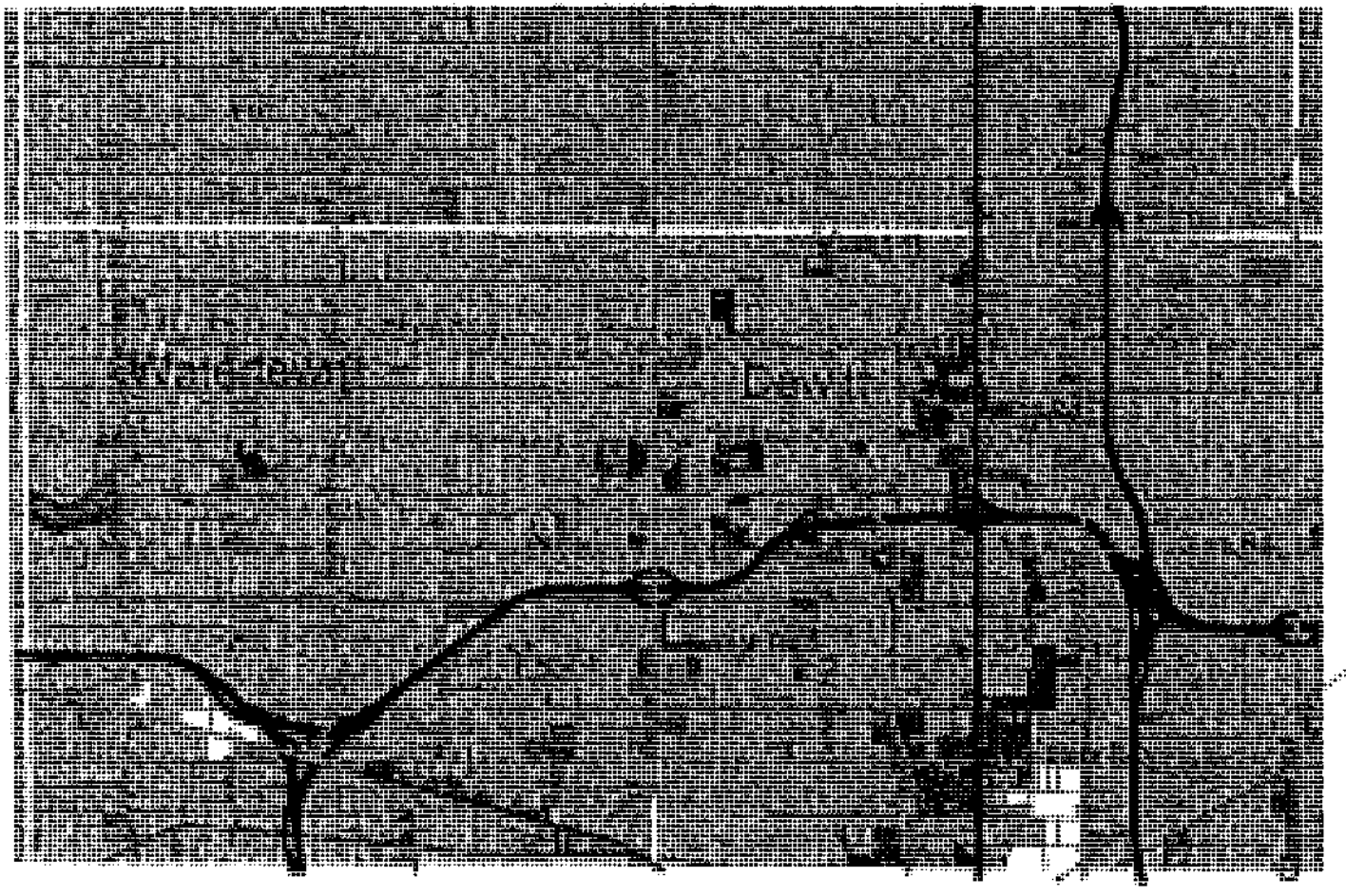


Granger Grand River Landfill - Legal Description

Landfill facility located in Watertown Township within Clinton County. The legal description of this facility is as follows:

Com. At a point on the E-W 1/4 line distant S89°58'41"E 1316.40' from the W 1/4 cor. of Sec. 29, T5N-R3W, Watertown Township, Clinton County Michigan, th. N00° 19'38"E alg. the W 1/8 line 2278.35' to a pt. on the S. r/o/w ln. of I-96, as now located, th. alg. sd. S. limited access r/o/w on the arc of a curve to the right, sd. curve having a delta angle = 14°03'45", radius of 5626.58', long chord bearing and distance = S77°29'16"E 1377.50', a distance of 1380.96'<th. S66°05'38"E 153.95' to the P.C. of a curve to the right, sd. curve being the S. limited access r/o/w ln. of I-69 eastbound turning roadway as now proposed, and having a delta angle of 31°08'16", radius of 2784.79', long chord bearing and distance = S50°25'03"E 1494.86', a distance of 1513.41; th. S34°50'55"E a distance of 545.20' to a point on the S. ln. of the N. 4/5 of NE 1/4 Sec. 29, th. N89°42'41"W alg. sd. S. ln. 85.60', th. S34°50'55"E 73.21', th. S00°21'03W" 1774.96' to a pt. on the c/l of Grand River Avenue formerly U.S.16 sd. c/l being the c/l of the 100 foot, being 50 feet either side of the c/l r/o/w, th. alg. sd. c/l, the following courses: N74°53'07"W 1654.94', N76°45'31"W 1083.81' N76°49'55"W 263.56' to the intersection of sd. c/l and the W 1/8 ln. th. N00°22'07"E alg. sd. W 1/8 ln. 576.69' to the POB.

PARCELS OWNED BY GRANGER

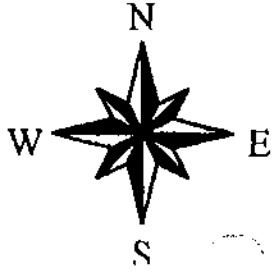


Cccenter.shp
Primary
State Trun
US Trunk
Cctownbound.s
Ccsections.shp
Parcel

Granger crosses County Line

Yellow pacels are owned by Granger and include or are contiguous to existing landfill facilities.

WATERTOWN AND DEWITT CHARTER TOWNSHIPS



SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II

Facility Name: Granger Wood Street Landfill

County: Clinton Ingham Location: Town: 5N 4N Range: 2W Section(s): 34 3

Map identifying location included in Attachment Section: _____ Yes If Requested _____ No

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

___ Public _x_ Private Owner: Granger Waste Management Company

Operating Status (check)		Waste Types Received (check all that apply)	
_x_	open	_x_	residential
___	closed *[1]	_x_	commercial
_x_	licensed	_x_	industrial
___	unlicensed	_x_	construction & demolition
_x_	construction permit	_x_	contaminated soils
___	open, but closure	_x_	special wastes *
___	pending	_x_	other: Type III Wastes

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

All as authorized

Site Size:

Total area of facility property: *[1]	302.8	acres
Total area sited for use: (Plan)	194.8	acres + 67 (future permitting in Ingham County)
Total area permitted:(for disposal,i.e.SWB)	104.3	acres
Operating:(Licensed & Certified)	49.5	acres
Not ~~excavated~~ Developed	54.8	acres
Current capacity:	10,981,000	~~tons or~~ yds^3 Air Yards
Estimated lifetime:	34	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	600,000	tons or yds^3 Gate Yards

(if applicable)
Annual energy production:

Landfill gas recovery projects:	3.2	megawatts
Waste-to-energy incinerators:		megawatts

*[1]: Includes acres of (separate) Paulson Street facility to be consistent with DEQ numbers on permits and licenses.

Also includes spoil/borrow areas to be consistent with DEQ numbers on permits and licenses.

GRANGER
WOOD ROAD LANDFILL

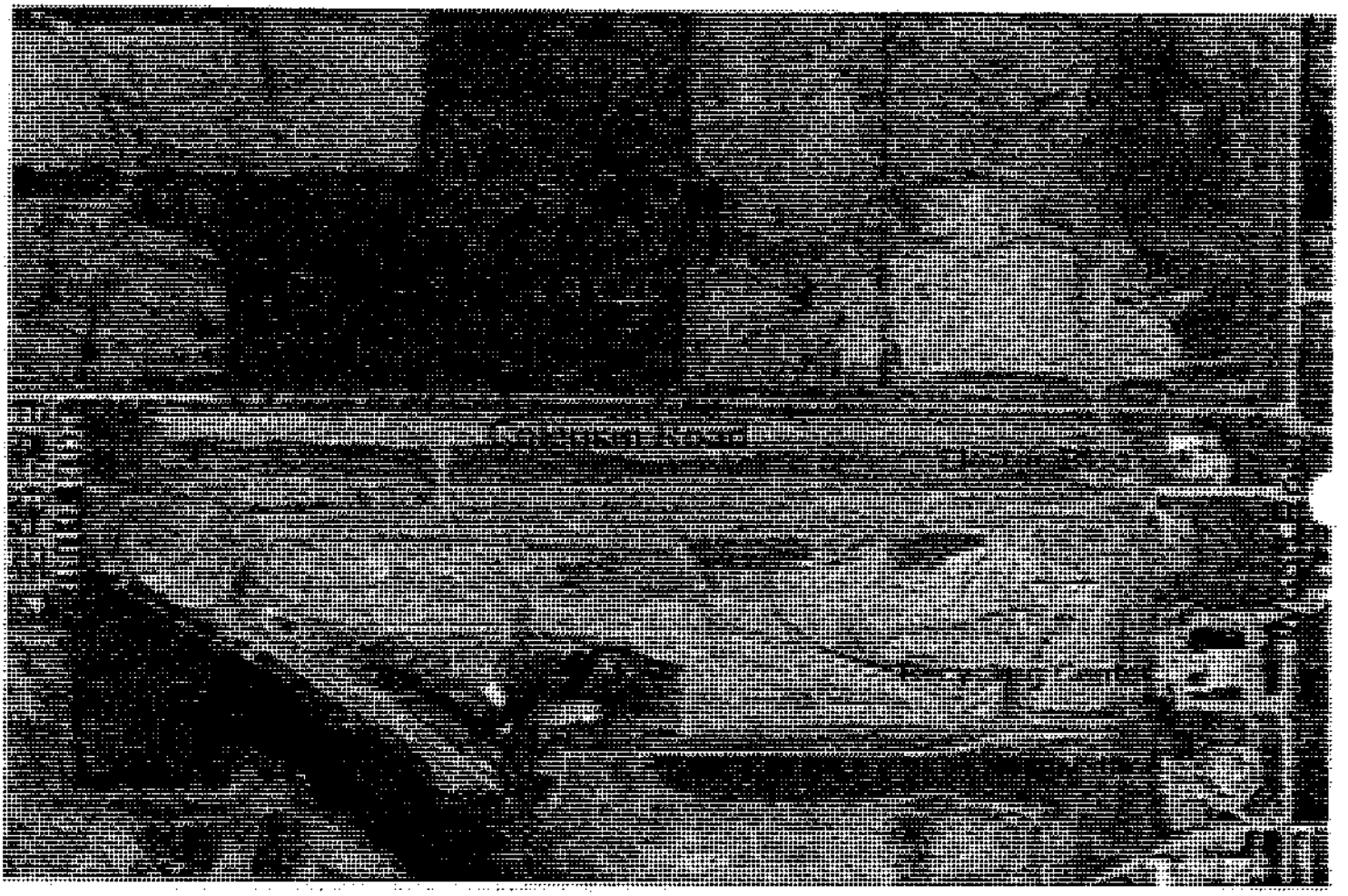
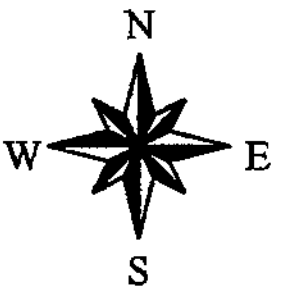


Photo: April 1998



WOOD STREET LANDFILL AND NORTH OF COLEMAN ROAD (CLINTON COUNTY)

A parcel of land on that part of the S ½ of the SE ¼ and the SE ¼ of the SW ¼ of Section 34, T5N, R2W, Dewitt Township, Clinton County, Michigan described as: Commencing at the SE corner of said Section 34; thence N 89°44'06"W along the Clinton-Ingham County line 2,636.80 feet to the S ¼ corner of said Section 34; thence N 89°42'23"W along said county line 1,318.40 feet to the W 1/8 line; thence N 00°02'55"E along said W 1/8 line 709.91 feet; thence S 89°42' 23"E 50.00 feet; thence N 00°01'23"E, 609.94 feet to a point on the S 1/8 line of said Section 34; thence S 89° 42'34"E along said S 1/8 line 3,906.15 feet to a point on the East line of said Section 34; thence S 00°04'39"W along said East line 1,318.79 feet to the point of beginning. Also containing NE ¼ of SE ¼ & E ½ of NW ¼ of SE ¼ of Section 34, T5N, R2W, Dewitt Township, Clinton County, Michigan. The combined parcels containing 179.12 acres more or less.

FACILITY DESCRIPTIONS

lity Type: **Processing & Recycling Transfer Facility**

Facility Name: **Daggett Recycling Inc. -- ID#33-000021**

County: **Clinton** Location: Town: **T5N** Range: **R2W** Sections(s) **SW1/4 34**

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

For MSW (Type II) residuals not disposed of in owners (Type III) Landfill Facility --
list the final disposal site and location for incinerator ash or transfer station
wastes: **Granger Land Development Class II Landfill**

x Public ____ Private Owner: **Granger Land Development Co.**

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

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

Garbage Bags, Oil Based Paints, Roofing, P.C.B. Transformers, Etc.

Site Size:

Total area of facility property:	8.74	acres
Total area sited for use:	8.74	acres
Total area permitted:	8.74	acres
Operating:	2+	acres
Not excavated:		acres
Current capacity:	N/A	tons or yds^3
Estimated lifetime:	N/A	years
Estimated days open per year:	300	days
Estimated yearly yards into processing facility.	50,000	~~tons~~ or yds^3 **(about 25% risidual)**

(if applicable)
Annual energy production:

Landfill gas recovery projects:		megawatts
ste-to-energy incinerators:		megawatts

BRIEFING MEMO FOR

Daggett Sand and Gravel, Inc.
Processing Plant and Recycling Facility

OPERATING LICENSE
October 1996 and modified by SWPS on December 4, 1996

I FACILITY INFORMATION

1 Name: Daggett Sand and Gravel, Inc , Processing and Recycling Facility

2 Owner: Daggett Sand and Gravel, Inc.

3 Location: 1010 East Sheridan Road
Lansing, Michigan 48906

4. Contact: Mr. Curt Daggett
517-487-2224

5. Area to be permitted: 8 74 acres located in the SW 1/4, Section 34, T5N, R2W, Dewitt Township, Clinton County

II EXISTING COMPLIANCE STATUS

There are no compliance issues as this time

III AREA TO BE LICENSED/PERMITTED ADEQUACY

1 Facility Description

The facility is a 100 foot by 150 foot building where Daggett conducts Type III waste sorting activities There is also an active Type III landfill consisting of approximately 10 acres at the same site which has a separate operating license issued under Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Four of the acres have been capped with clay and are certified closed. The processing facility is located in Clinton County. The existing landfill operation is located in Ingham County

2. Leachate Collection System

All processing activities are done in the building on a concrete floor. The floor is sloped to a sump that collects leachate The leachate will flow by gravity from the sump to the sanitary sewer The entire floor, including the leachate collection sump, was sealed with Decksaver C sealant by Metalcrete, and Flexfill joint filler by Metalcrete

3. Liner Design

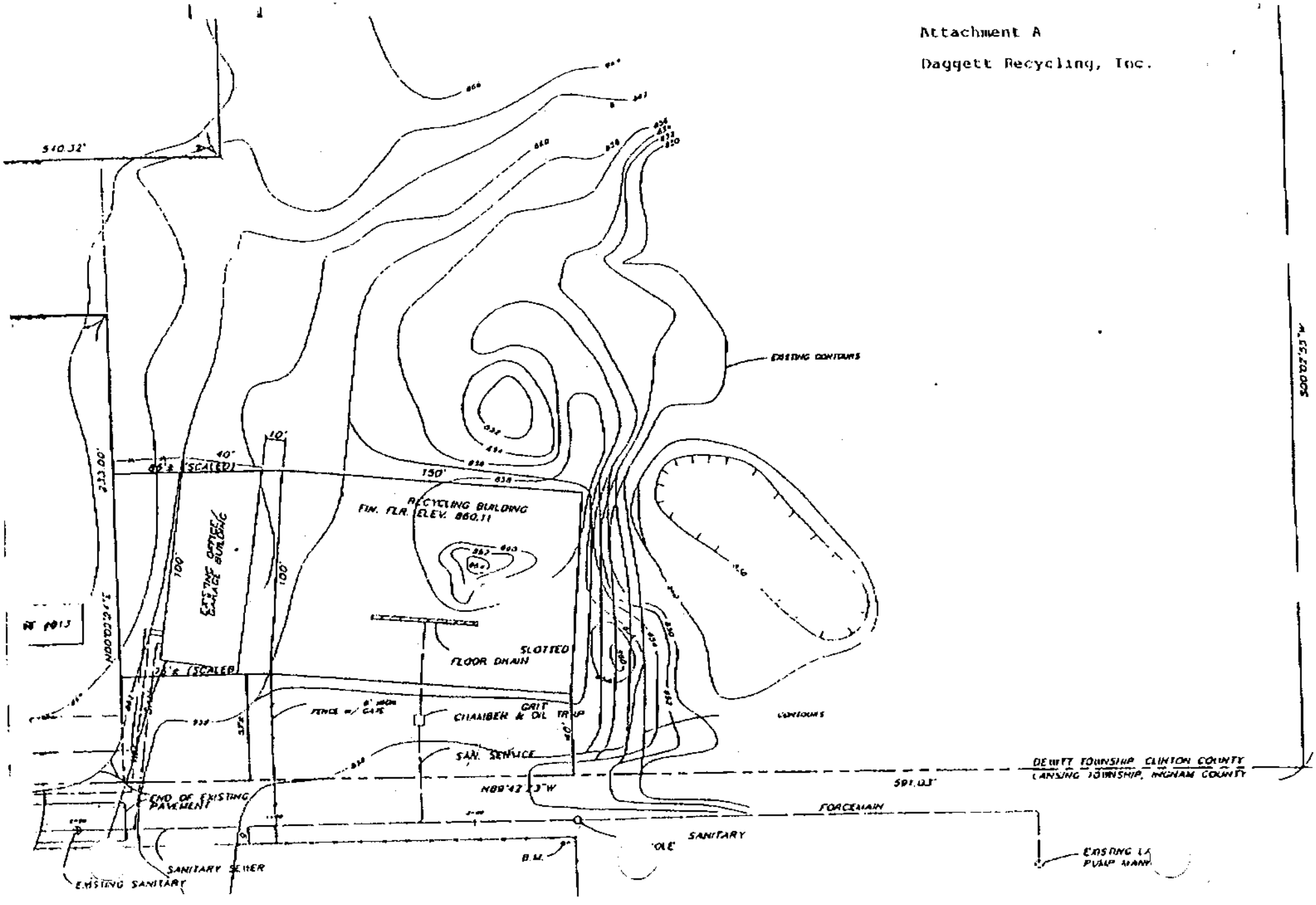
Not applicable

4. Variances

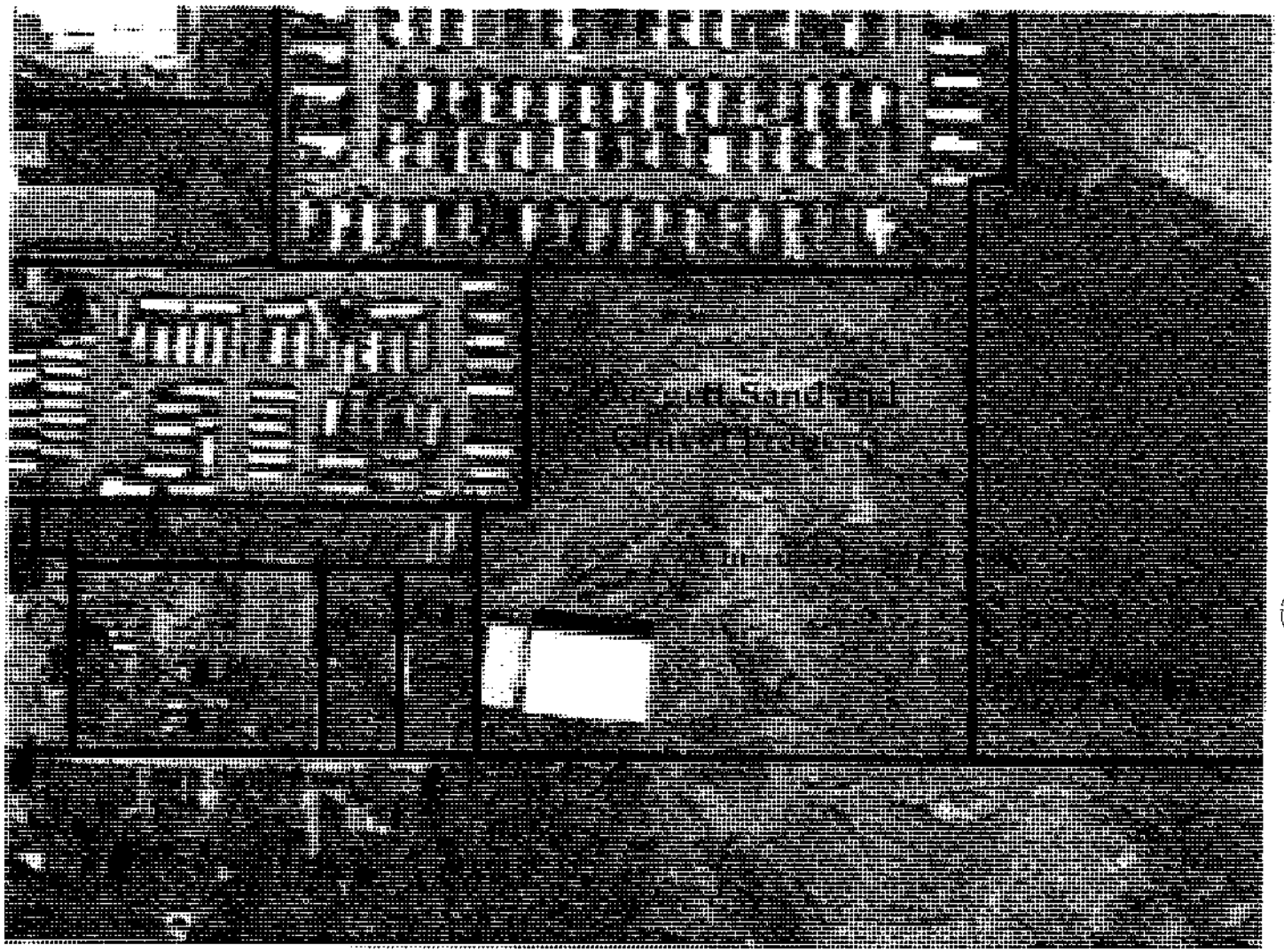
None

Attachment A

Daggett Recycling, Inc.



Daggett Sand And Gravel Processing Facility
Type III Materials



Current permitted area - 8.74 acres located in the SW 1/4 Section 34, T5N, R2W

FACILITY DESCRIPTIONS

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 :
☐ Public ☒ Private Owner: Waste Management, Inc

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☒	construction permit	☒	contaminated soils
☐	open, but closure pending	☒	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:	335	acres
Total area sited for use:	108	acres
Total area permitted:	30	acres
Operating:	19.5	acres
Not excavated:	10.5	acres
Current capacity:	*	☐ tons or ☐ yds^3
Estimated lifetime:	10+	years
Estimated days open per year:	308	days
Estimated yearly disposal volume:	175,000	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

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

*Current construction permit capacity is 3 million cubic yards. The Barry County Solid Waste Plan and the Barry County, City Management Host Community Agreement authorizes 18 additional acres of cell development. This 18 acre expansion will increase total capacity to 5 million cubic yards. 18 acre expansion was submitted to the MDEQ on 12/30/97.

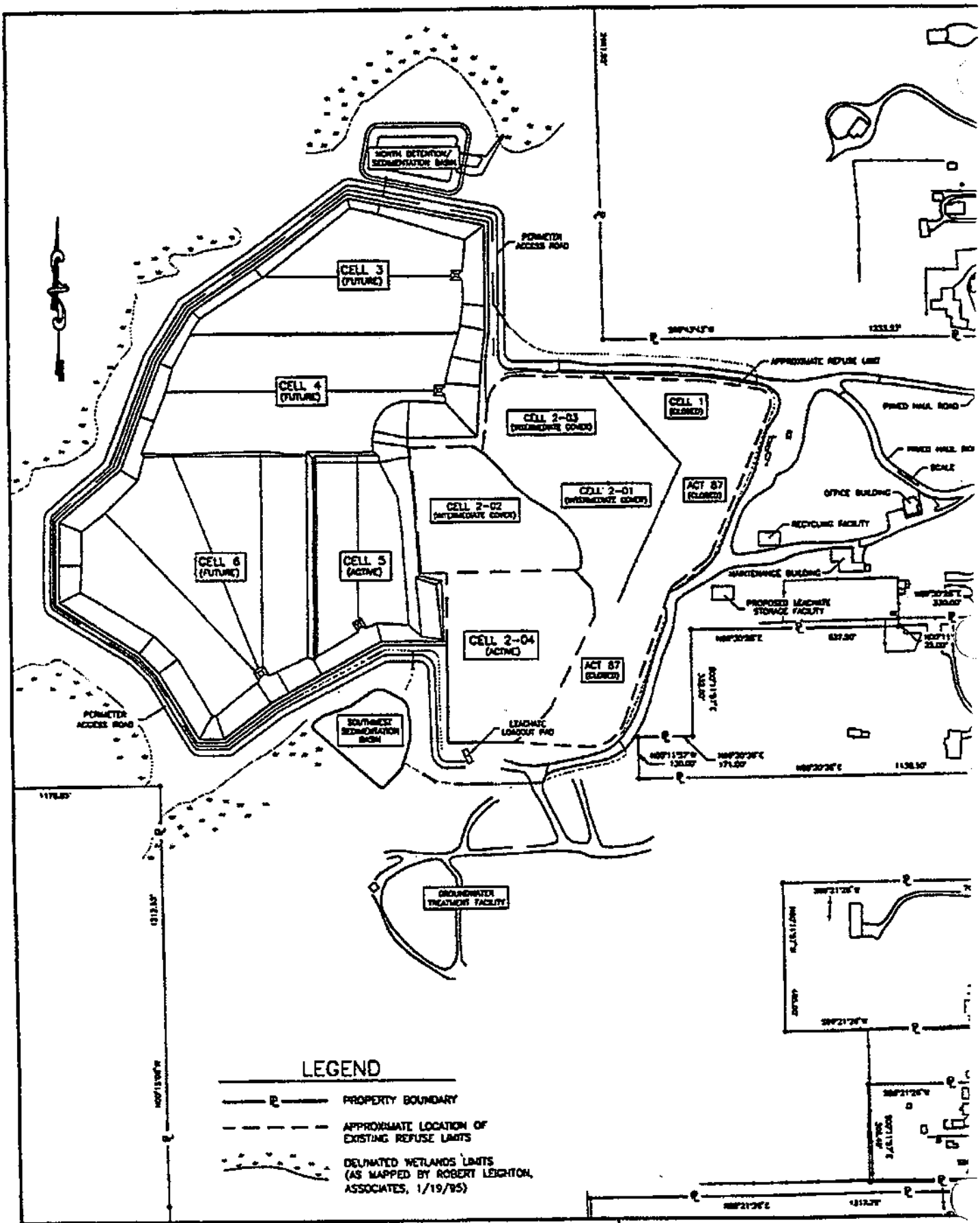


FIGURE D-1

CITY ENVIRONMENTAL SERVICES LANDFILL, INC. OF HASTINGS

GENERAL SITE PLAN

DATE: 10/3/97

HSS-GSP.

Facility Type: Type II Landfill

Facility Name: C&C Landfill

County: Calhoun *Location: Town: 1S* *Range: 6W* *Section(s): 28*

Map identifying location included in Appendix D: X Yes ___ No

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

___ Public X Private Owner: Browning-Ferris Industries of SE Michigan

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

**Explanation of special wastes, including a specific list and/or conditions: Non-hazardous solid and semi-solid wastes; no hazardous or liquid wastes*

Site Size:		
Total area of facility property:	224	Acres
Total area sited for use:	154	Acres
Total area permitted:	129	Acres
Operating:	33	Acres
Not excavated:	21	Acres
Current capacity:	7,570,000	Cubic Yards
Estimated lifetime:	7	Years
Estimated days open per year:	286	Days
Estimated yearly disposal volumes:	1,000,000	Cubic Yards
Annual energy production:		
Landfill gas recovery projects:	3	Megawatts
Waste-to-energy incinerators:	NA	Megawatts

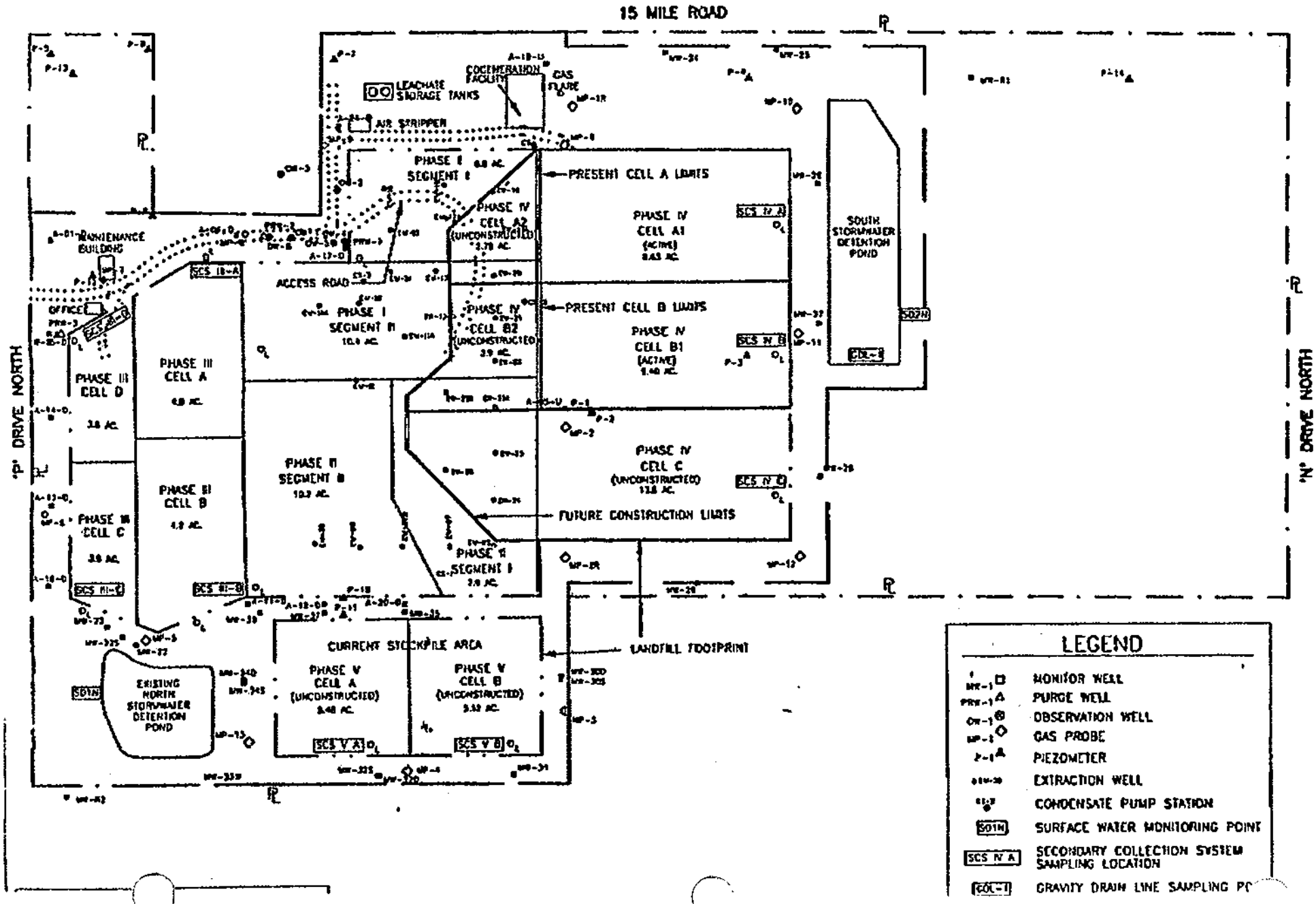
In accordance with this Plan and an agreement between BFI and Calhoun County, the C&C Landfill is authorized to expand by 16 acres of refuse fill area in addition to the existing facility. When combined with the existing available landfill space, this additional area will result in total capacity of 14,000,000 cubic yards and an estimated lifetime of fourteen (14) years.

T[illegible]ndfill and final elevation after closure shall be no higher than 1090 feet above sea level. Such final elevation shall be certified by a Michigan registered land surveyor or Michigan licensed engineer

C & C EXPANDED SANITARY LANDFILL
PHASE IV CELL B - ATTACHMENT A

MONITORING LOCATIONS
PAGE 1 OF 2

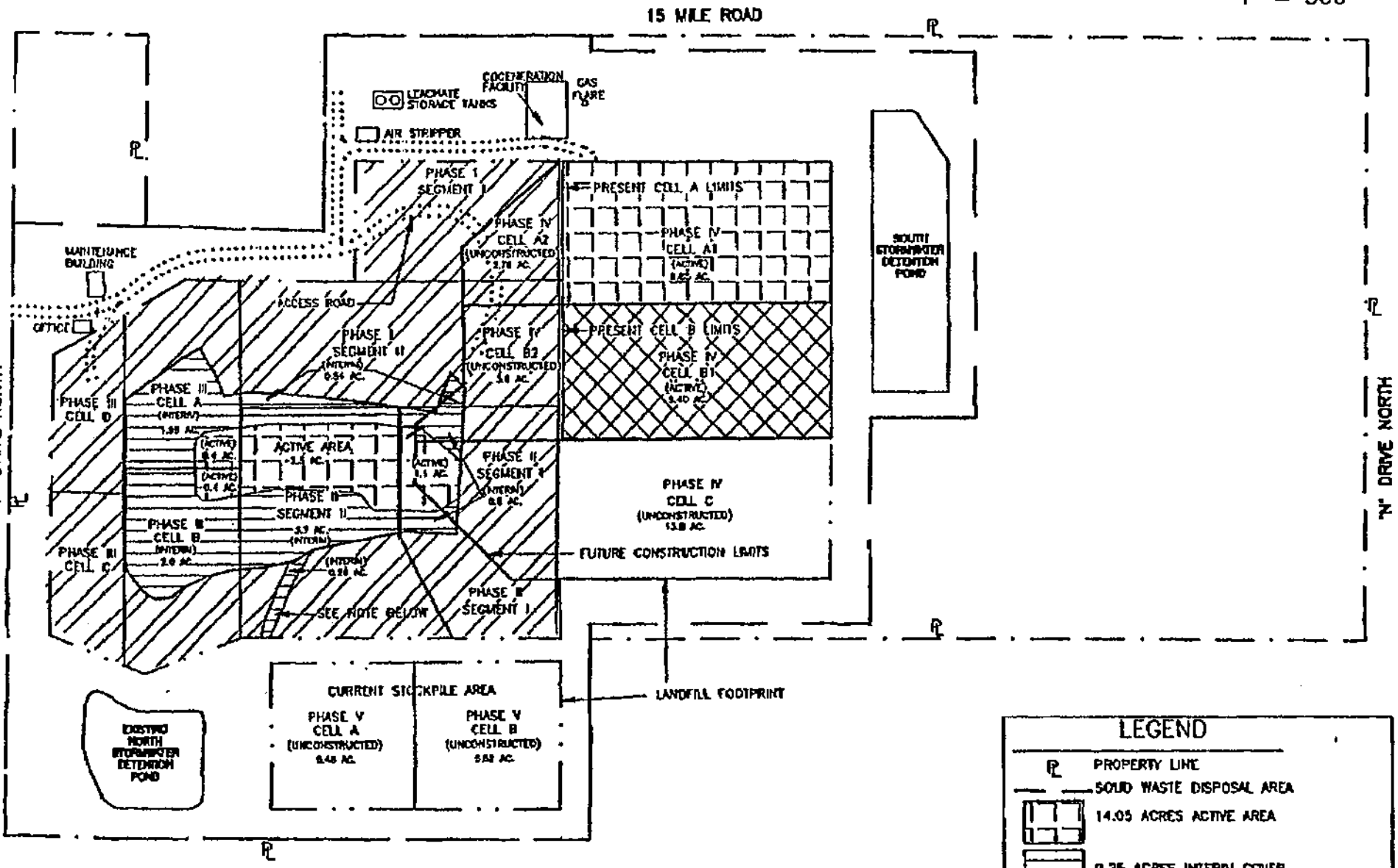
1" = 500'



PHASE IV CELL B - ATTACHMENT

CONSTRUCTION SCHEMATIC
PAGE 2 OF 2

1" = 500'



NOTE: MAINTENANCE ROAD ON WEST SLOPE IS NOT FINAL COVERED.

LEGEND

- PROPERTY LINE
- SOLID WASTE DISPOSAL AREA
- 14.05 ACRES ACTIVE AREA
- 9.25 ACRES INTERIM COVER
- 9.40 ACRES PHASE IV, CELL B
- 38.15 ACRES CERTIFIED FINAL COVER

MIDWESTERN CONSULTING

REVISED 9/23/96
94009ATT.DWG

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Citizen's Disposal

County: Genesee Location: Town: 6 N Range: 6 E Section(s): 23

Map identifying location included in Attachment Section: _ Yes X No

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

_ Public X Private Owner: Allied Waste Industries, Inc.

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

* Explanation of special wastes, including a specific list and/or conditions:
All special waste requires prior review and approval including analytical data and waste profile - non-hazardous only.

Site Size:

Total area of facility property:	300 +/-	acres
Total area sited for use:	300 +/-	acres
Total area permitted:	52	acres
Operating:	52	acres
Not excavated:	80	acres
Current capacity:	5.3 million	_ tons or X yds^3
Estimated lifetime:	25	years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	.5 million	_ tons or X yds^3

(if applicable) Annual energy production:

Landfill gas recovery projects:	2.4	megawatts
Waste-to-energy incinerators:	N/A	megawatts

Note: Numbers are listed as they were reported from facility.

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Brent Run Landfill

County: Genesee Location: Town: 9 N Range: 5 E Section(s): 23

Map identifying location included in Attachment Section: _ Yes X No

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

_ Public X Private Owner: USA Waste/Waste Management

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

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

Site Size:

Total area of facility property:	160	acres
Total area sited for use:	90	acres
Total area permitted:	30	acres
Operating:	15	acres
Not excavated:	45	acres
Current capacity:	10,247,000	_ tons or X yds³
Estimated lifetime:	18	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	720,000	_ tons or X yds³

(if applicable)
Annual energy production:

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

Note: Numbers are listed as they were reported from facility.

FACILITY DESCRIPTIONS

Facility Type: **Type III Landfill**

Facility Name: **Daggett Sand & Gravel**

County: **Ingham** Location: Town: **T4N** Range: **R2W** Sections(s) **3**

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

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

____ Public **x** Private Owner: **Daggett Sand & Gravel, Inc.**

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:	6.4	acres
Total area permitted:	6.4	acres
Operating:	2-3	acres
Not excavated:		acres

Current capacity:	60,000	~~tons~~ or yds^3
Estimated lifetime:	7	years
Estimated days open per year:	250	days
Estimated yearly disposal volume:	7,500	~~tons~~ or yds^3

(if applicable)

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Pitsch Sanitary Landfill

County: Ionia Location: Town: _____ Range: (see attached) Sections(s) _____

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

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

_____ Public x Private Owner: Pitsch Companies

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

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

Site Size:			After Proposed Expansion
Total area of facility property:	148.44	acres	300 acres
Total area sited for use:	28.36	acres	140 acres
Total area permitted:	78.44	acres	140 acres
Operating:	9.87	acres	10 acres
Not excavated:	70	acres	40 acres
Current capacity:	40,000	tons or ~~yds~~^{3}	2,308,225 tons
Estimated lifetime:	.5	6 months	20+ years
Estimated days open per year:	307	days	
Estimated yearly disposal volume:	83,000	tons or ~~yds~~^{3}	

(if applicable)
Annual energy production:

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

Notes:
Have a pending construction permit that will extend landfill life another 30 years.

DEQ

Michigan Department of Environmental Quality
Waste Management Division

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115 Solid Waste Management of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.11501 et seq. (Part 115), to authorize the operation of the solid waste disposal area (Facility) in the State of Michigan. This license does not obviate the necessity of obtaining other clearances and permits as may be required by state law.

FACILITY NAME: Pitsch Sanitary Landfill

GRANTED TO: Pitsch Sanitary Landfill, Inc.

TYPE OF FACILITY: Type II Landfill

FACILITY ID: 34-000016

COUNTY: Ionia

LICENSE NO. 8456

ISSUE DATE: May 22, 1997

EXPIRATION DATE: May 22, 1999

FACILITY DESCRIPTION: The Pitsch Sanitary Landfill consists of 78 44 acres located in the N 1/2 of the NE 1/4 of Section 7, T8N, R7W, Orleans Township, Ionia County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Phases III and IV

RESPONSIBLE PARTY TO CONTACT: Mr. Gary Pitsch, Vice President
Pitsch Sanitary Landfill, Inc.
675 Richmond, N.W.
Grand Rapids, Michigan 49504
616-363-4895

☒ FIRST OPERATING LICENSE: This License No. 8456 is the first license issued for Phase IV.

☒ RENEWAL OPERATING LICENSE: This License No. 8456 supersedes and replaces Solid Waste Disposal Area License No. 8061 issued to Pitsch Wrecking Company on April 12, 1993, as it pertains to Phases I through III

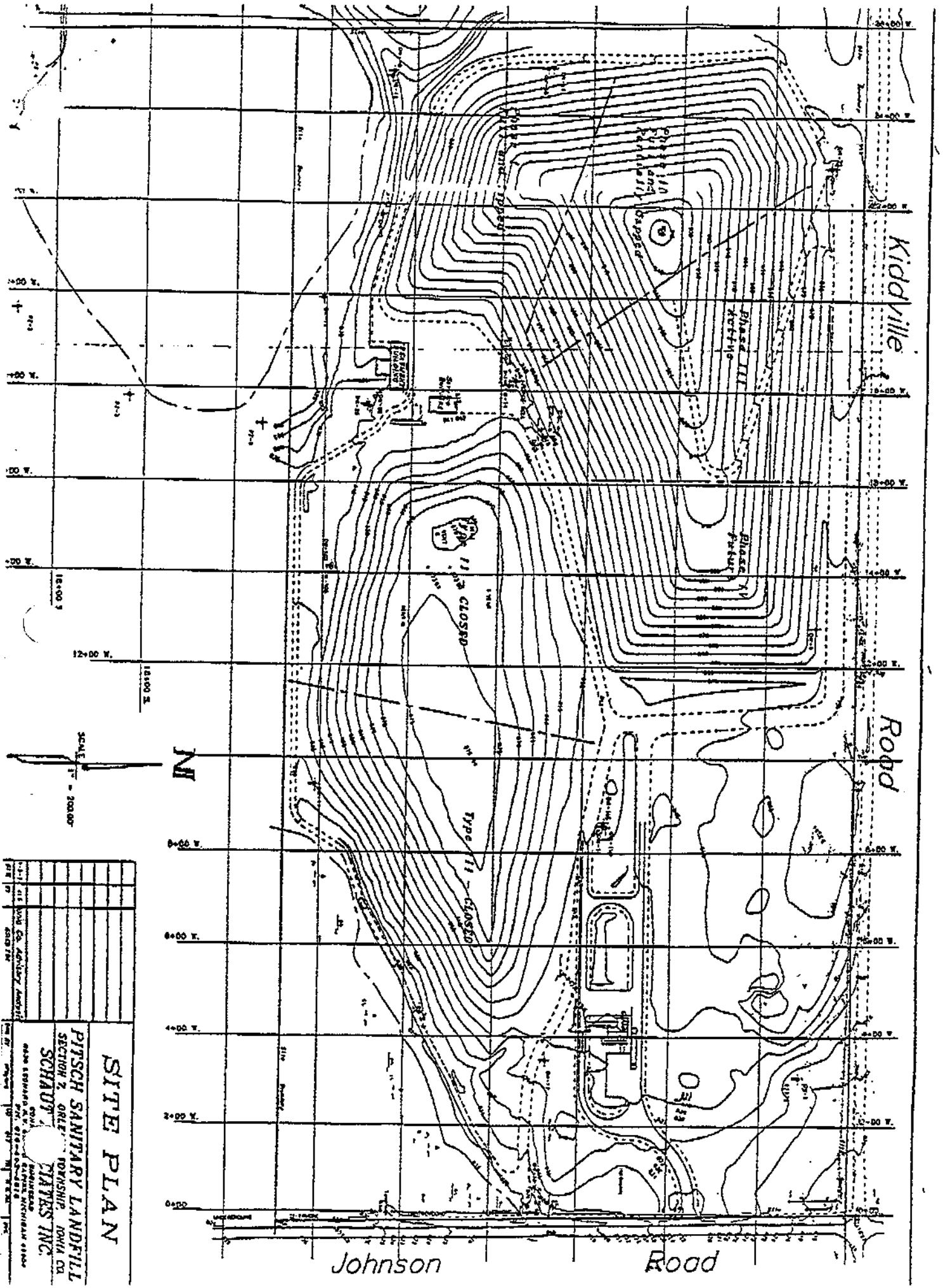
This license is subject to revocation by the Director of the Michigan Department of Environmental Quality (Director) if the Director finds that the disposal area is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, this act, or the rules promulgated under this act. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties as stipulated in Part 115. This license shall be available through the licensee during the entire effective date and remains the property of the Director.

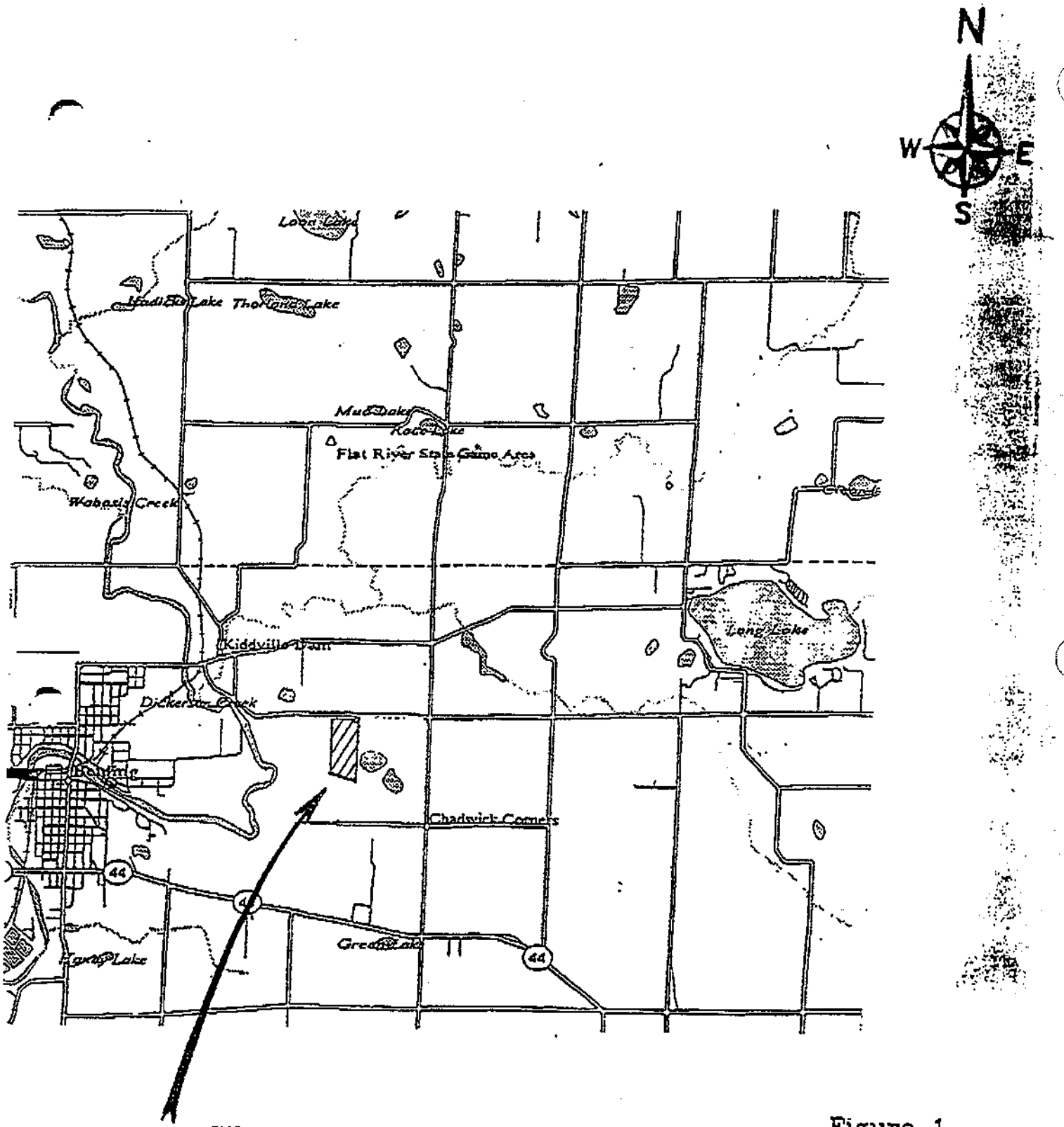
THIS LICENSE IS NOT TRANSFERABLE.

Joan H. Peck

Joan H. Peck, Acting Chief, Solid Waste Program Section
Waste Management Division

Form Revised 11/29/95


Kidd Ville Road
Johnson Road
Phase III
Phase IV
Phase V
Type II - CLOSED
Type III - CLOSED
N
SCALE 1" = 200.00'
SITE PLAN
PITSCH SANITARY LANDFILL
SECTION 2, ORLEANS TOWNSHIP, IONIA CO.
SCHAUT, MAYES INC.



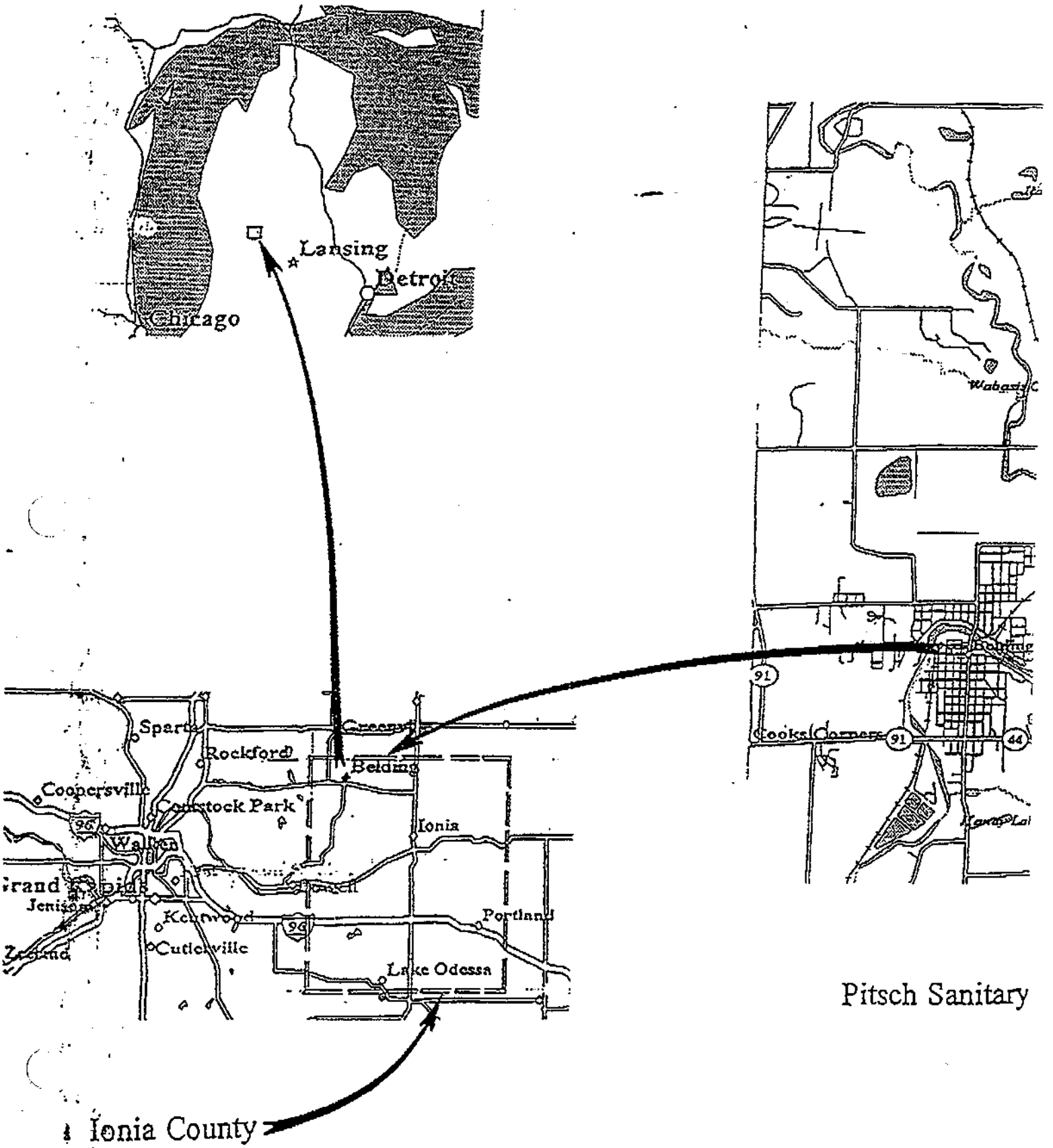
h Sanitary Landfill

Figure 1

Regional Location Map

Pitsch Sanitary Landfill
Kiddville Road
Ionia County
Belding, Michigan

Aqua-Tech Consultants, Inc.
1336 Scribner NW
Grand Rapids, MI 49504


Lansing
Detroit
Chicago
Sparta
Rockford
Belding
Coopersville
Comstock Park
Ionia
Walker
Jenison
Kentwood
Cutlerville
Portland
Lake Odessa
Cooks Corners
91
44
96
Pitsch Sanitary
Ionia County

FACILITY DESCRIPTIONS

Facility Type: Solid Waste Transfer Station

Facility Name: Eco Systems Transfer Station - Waste Management

County: Ionia Location: Town: 7N Range: 6W Section(s): 32

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

If facility is an incinerator or a transfer station, list the final disposal site and location for incinerator ash or transfer station wastes ; *See Below

___ Public x Private Owner: Waste Management of Michigan Midwest

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

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

Recyclables are glass, metal, plastic, newspaper, cardboard

Special Wastes are grinding, sludges. Demolition Processing

Site Size:

Total area of facility property:	12.21	acres
Total area sited for use:	12.21	acres
Total area permitted:	12.21	acres
Operating:	12.21	acres
Not excavated:	N.A.	acres
Current capacity:	N.A.	
Estimated lifetime:	N.A.	
Estimated days open per year:	300	days
Estimated yearly disposal volume:	N.A.	

(if applicable)
Annual energy production:

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

DEQ

Michigan Department of Environmental Quality
Waste Management Division
SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115 Solid Waste Management of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.11501 et seq. (Part 115), to authorize the operation of the solid waste disposal area (Facility) in the State of Michigan. This license does not obviate the necessity of obtaining other clearances and permits as may be required by state law.

FACILITY NAME: Eco Systems Transfer Station

GRANTED TO: Waste Management of Michigan - Midwest

TYPE OF FACILITY: Solid Waste Transfer Station

FACILITY ID: 34-000003

COUNTY: Ionia

LICENSE NUMBER: 8621

ISSUE DATE: May 19, 1999

EXPIRATION DATE: May 19, 2001

FACILITY DESCRIPTION: The Eco Systems Transfer Station is located in the NW 1/4 of the NE 1/4 of Section 32, T7N, R6W, Ionia Township, Ionia County, Michigan, as fully described in this license.

AREA AUTHORIZED FOR THE ACCEPTANCE AND/OR PLACEMENT OF SOLID WASTE: Identified in Attachment A of this license.

RESPONSIBLE PARTY TO CONTACT: Mr. Keith Hester, District Manager
Waste Management of Michigan - Midwest
1668 Porter Street, S.W.
Grand Rapids, Michigan 49509
616-538-1921 (Ext. 120)

☐ FIRST OPERATING LICENSE: N/A

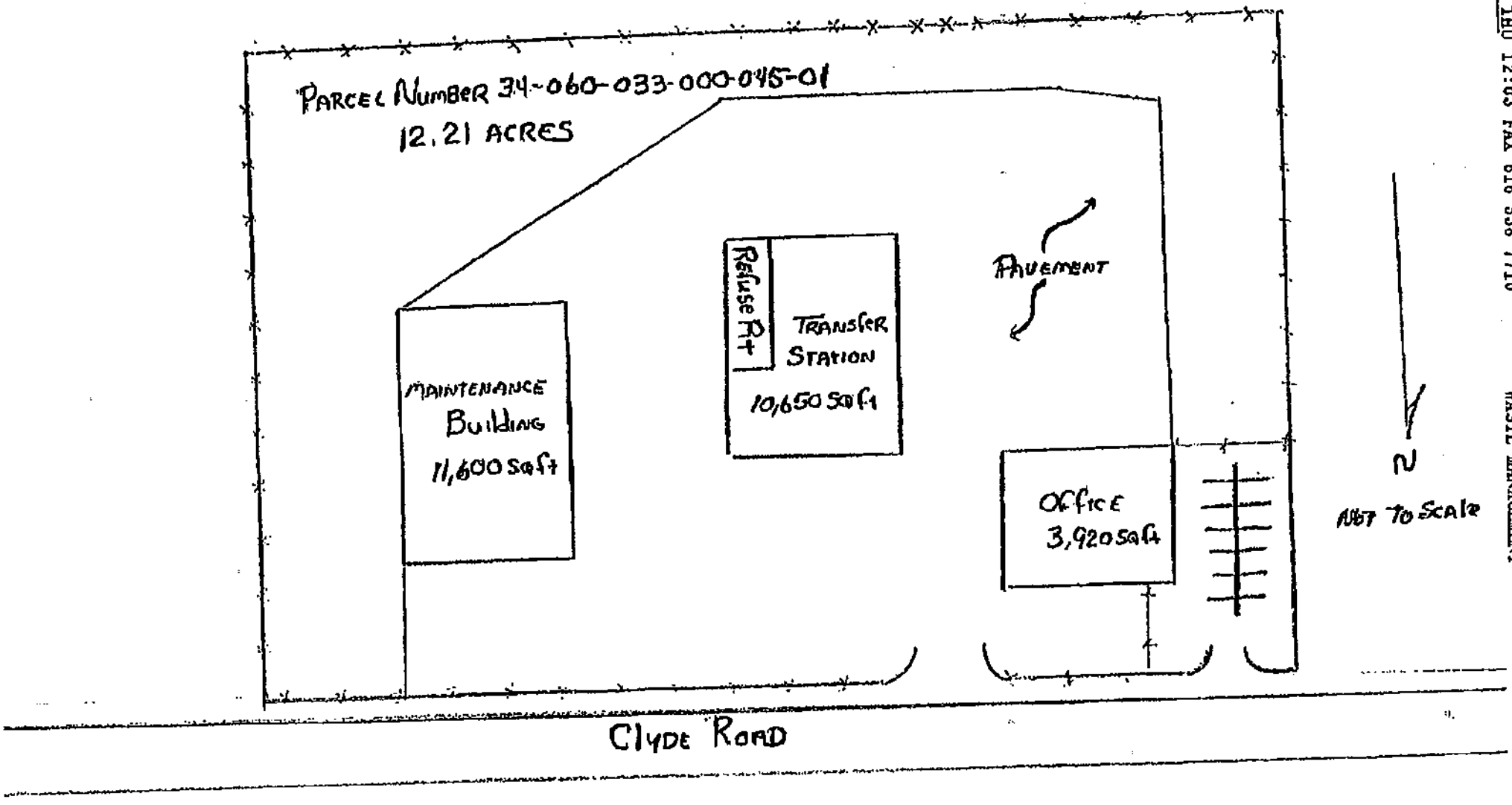
☒ RENEWAL OPERATING LICENSE: This License Number 8621 supersedes and replaces Solid Waste Disposal Area License Number 8441 issued to Waste Management of Michigan - Midwest on February 27, 1997.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality (Director) if the Director finds that the disposal area is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, this act, or the rules promulgated under this act. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties as stipulated in Part 115. This license shall be available through the licensee during the entire effective date and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Joan M. Peck

Joan M. Peck, Chief, Solid Waste Program Section
Waste Management Division



ECO-SYSTEMS TRANSFER STATION
2130 CLYDE ROAD
IONIA MICHIGAN

FACILITY DESCRIPTIONS

Facility Type: Type II landfill

Facility Name: McGill Rd. Landfill

County: Jackson Location: Town: 2S Range: 1W Section(s): 24

Map identifying location included in Attachment Section: __X__ Yes _____ No

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

_____ Public __X__ Private Owner: Waste Management, Inc

Operating Status	Waste Types Received
__X__ open	__X__ residential
_____ closed	__X__ commercial
__X__ licensed	__X__ industrial
_____ construction permit	__X__ construction and demolition
_____ open, but closure	_____ contaminated soils
_____ pending	__X__ special wastes*
	_____ other:

- Explanation of special wastes, including a specific list and/or conditions: Incinerator ash

Site Size:

Total area of facility property:	50.5 acres
Total area site for use:	50.5 acres
Total area permitted:	18.7 acres
Operating:	7.8 acres
Not excavated:	___ acres

Current capacity:	740,000 cubic yards
Estimated lifetime:	5 years
Estimated days open per year:	310 days
Estimated yearly disposal volume:	148,000 cubic yards

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: **Type II Landfill**

Facility Name: **South Kent Landfill**

County: **Kent** Location: Town: **5N** Range: **12W** Sections(s) **36**

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

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

x Public ____ Private Owner: **Kent County**

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

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

Site Size:

Total area of facility property:	**250**	acres
Total area sited for use:	**112**	acres
Total area permitted:	**112**	acres
Operating:	**31**	acres
Not excavated:	**81**	acres
Current capacity:	**7,600,000**	tons or ~~yds³~~ **(1,500,000 tons ash)**
Estimated lifetime:	**38**	years
Estimated days open per year:	**310**	days
Estimated yearly disposal volume:	**155,000**	tons or ~~yds³~~

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

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: X Yes ☐ No

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

☐ Public X Private Owner: **Allied Waste**

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

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

Site Size:

Total area of facility property:	315	acres
Total area sited for use:	35.92	acres
Total area permitted:	20.37	acres
Operating:	20.37	acres
Not excavated:	2.83	acres
Current capacity:	373,428	☐ tons or X yds^3
Estimated lifetime:	2	years
Estimated days open per year:	306	days
Estimated yearly disposal volume:	100,000	☐ tons or X yds^3

(if applicable)
Annual energy production:

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

SELECTED SYSTEM
FACILITY DESCRIPTIONS

Facility Type: Landfill

Facility Name: Eagle Valley RDF

County: Oakland Location: Town: 4N Range: 10E 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: N/A

Public ☒ Private Owner: Waste Management

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

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

Contaminated soils, chemical containing equipment, coal ash, filter cake, contaminated residuals, incinerator ash, industrial process waste, non-friable asbestos, treated medical wastes, treatment plant sludge, paint filters.

Site Size:

Total area of facility property:	330	acres
Total area sited for use:	330	acres
Total area permitted:	89	acres
Operating:	76	acres
Not excavated:	13	acres
Current capacity:	4,700,000	☐ tons or ☒ yds^3
Estimated lifetime:	5.9	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	1,650,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

SELECTED SYSTEM
FACILITY DESCRIPTIONS

Facility Type: Landfill

Facility Name: Oakland Heights Development

County: Oakland Location: Auburn Town: 3N Range: 10E Section(s): 2

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: N/A

☐ Public ☒ Private Owner: Allied

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

* Explanation of special wastes, including a specific list and/or conditions:
Any non-hazardous material

Site Size:

Total area of facility property:	179.74	acres
Total area sited for use:	_____	acres
Total area permitted:	63.87	acres
Operating:	63.87	acres
Not excavated:	22.1	acres
Current capacity:	3,500,000	☐ tons or ☒ yds^3
Estimated lifetime:	4	years
Estimated days open per year:	309	days
Estimated yearly disposal volume:	500,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Ottawa County Farms Landfill

County: Ottawa Location: Town:8N Range: 14WSection(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:

☐ Public ☒ Private Owner: Allied Waste

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

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

Site Size:

Total area of facility property:	240	acres
Total area sited for use:	197	acres
Total area permitted:	240	acres
Operating:	37	acres
Not excavated:	125	acres
Current capacity:	16,500,000	☒ tons or ☐ yds^3
Estimated lifetime:	25-30	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	500,000	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	4,565	megawatts 3,500 volts
Waste-to-energy incinerators:	NA	megawatts

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 x __Private Owner: Autumn Hills RFD - A Division or Waste Management of Michigan, Inc.

Operating Status		**Waste Types Received**	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☒	construction permit	☒	contaminated soils
☐	open, but closure Pending	☒	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:	314	acres
Total area sited for use:	197	acres
Total area permitted:	99.3	acres
Operating:	35.1	acres
Not excavated:	64.2	acres

Current capacity:	20.75 mil	☒ tons or ☐ yds^3
Estimated lifetime:	30.2	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	500,000	☒ tons or ☐ yds^3

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill
Facility Name: People's Landfill

County: Saginaw Location: Town: 10N Range: 5E Section(s): 15
Map identifying location included in Attachment Section: X Yes – No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: N/A
_Public X Private Owner: USA Waste/Waste Management

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

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

Site Size:

Total area of facility property:	163	acres
Total area sited for use:	110	acres
Total area permitted:	29.1	acres
Operating:	2	acres
Not excavated:	100	acres
Current capacity:	5,301,641	_tons or X yds³
Estimated lifetime:	20	years
Estimated days open per year:	254	days
Estimated yearly disposal volume:	1000	X tons or _yds³

(if applicable)
Annual energy production:

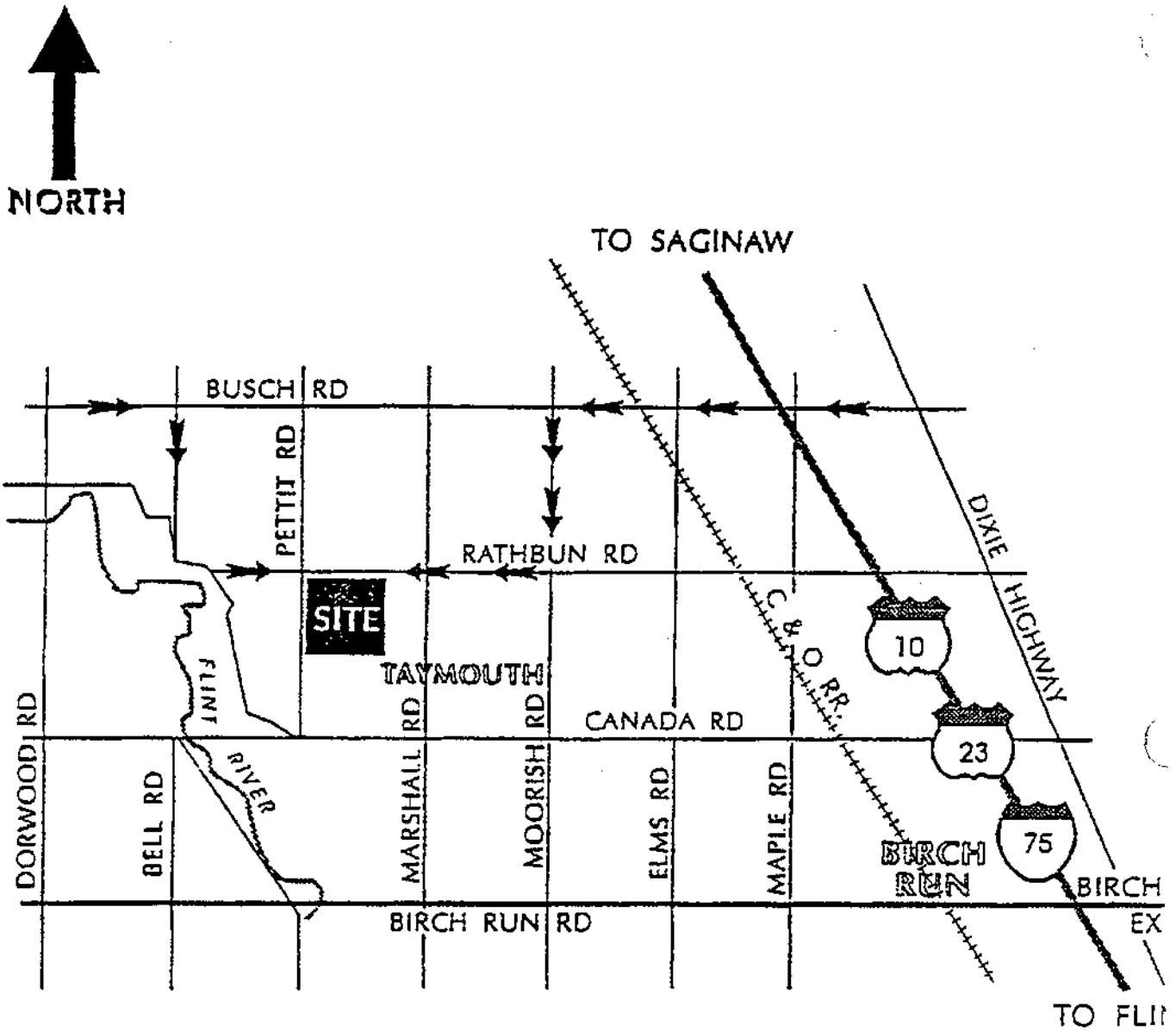
Landfill gas recovery projects:	3.2 **	megawatts
Waste-to-energy incinerators:	N/A	megawatts

Note: People's Landfill has been approved by the Site Review Committee in 1993 for a 53 acre expansion. The permit was issued in 1993, but it has lapsed. People's has plans to renew the permit and begin excavation within a year.
Note: Numbers are listed as they were reported from facility.

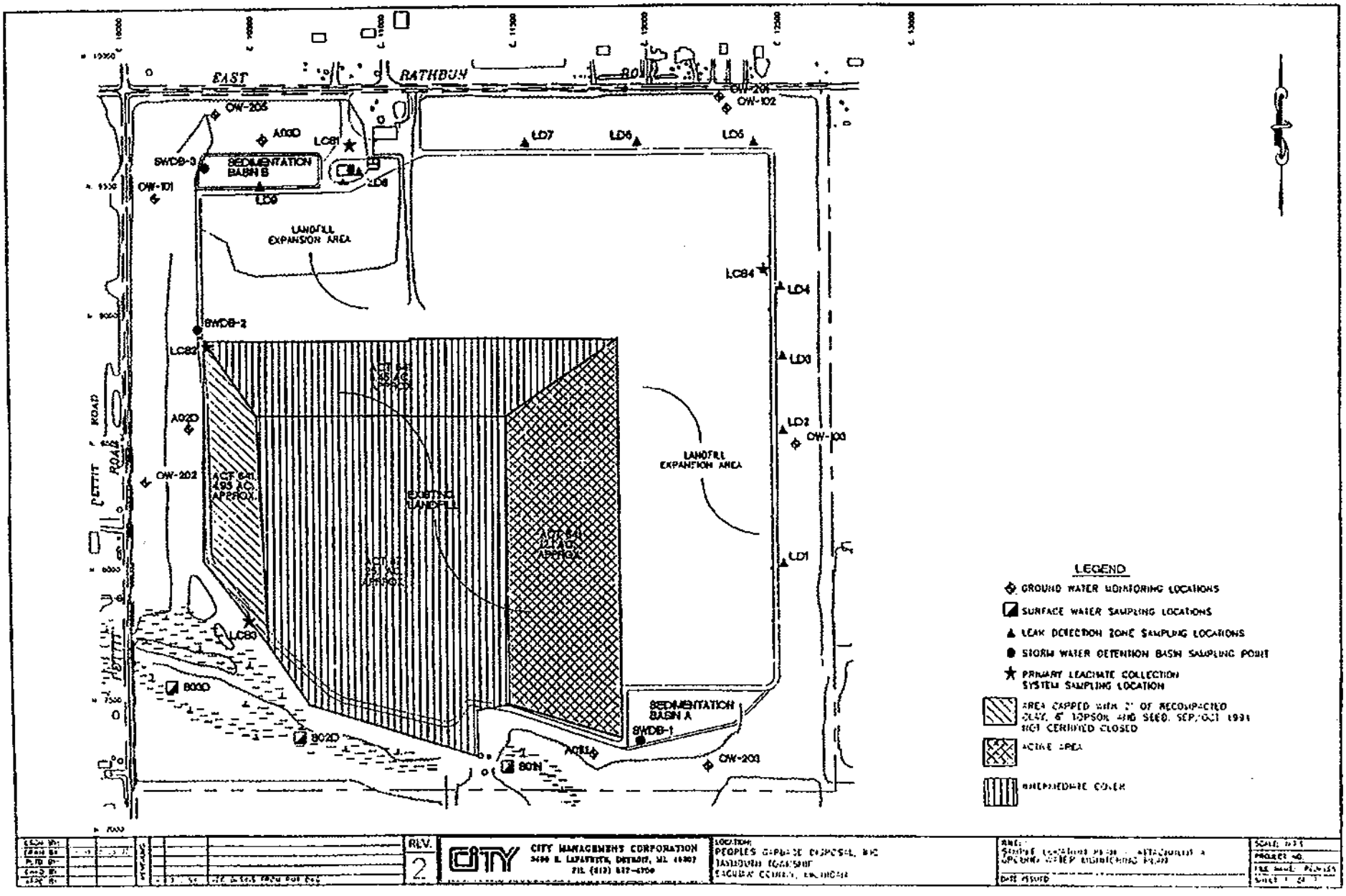
** This is a combined total for People's Landfill and Taymouth Landfill.

PEOPLES GARBAGE DISPOSAL, INC.

DESIGNATED HAUL ROUTE



PEOPLE'S GARBAGE DISPOSAL, INC.
4143 EAST RATHBUN ROAD
BIRCH RUN, MICHIGAN 48415
MID 005 659 072
PHONE: (517) 777-1120



ATTACHMENT A

FACILITY DESCRIPTIONS

ity Type: **Type II**

Facility Name **Saginaw Valley Landfill**

County: **Saginaw** Location: Town: **T11N** Range: **R3E** Sections(s) **NW1/4 Sec.1**

Map identifying location included in Attachment Section: _____ Yes _____ No

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

_____ Public **x** Private Owner: **USA Waste** / WASTE MANAGEMENT

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

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

Site Size:

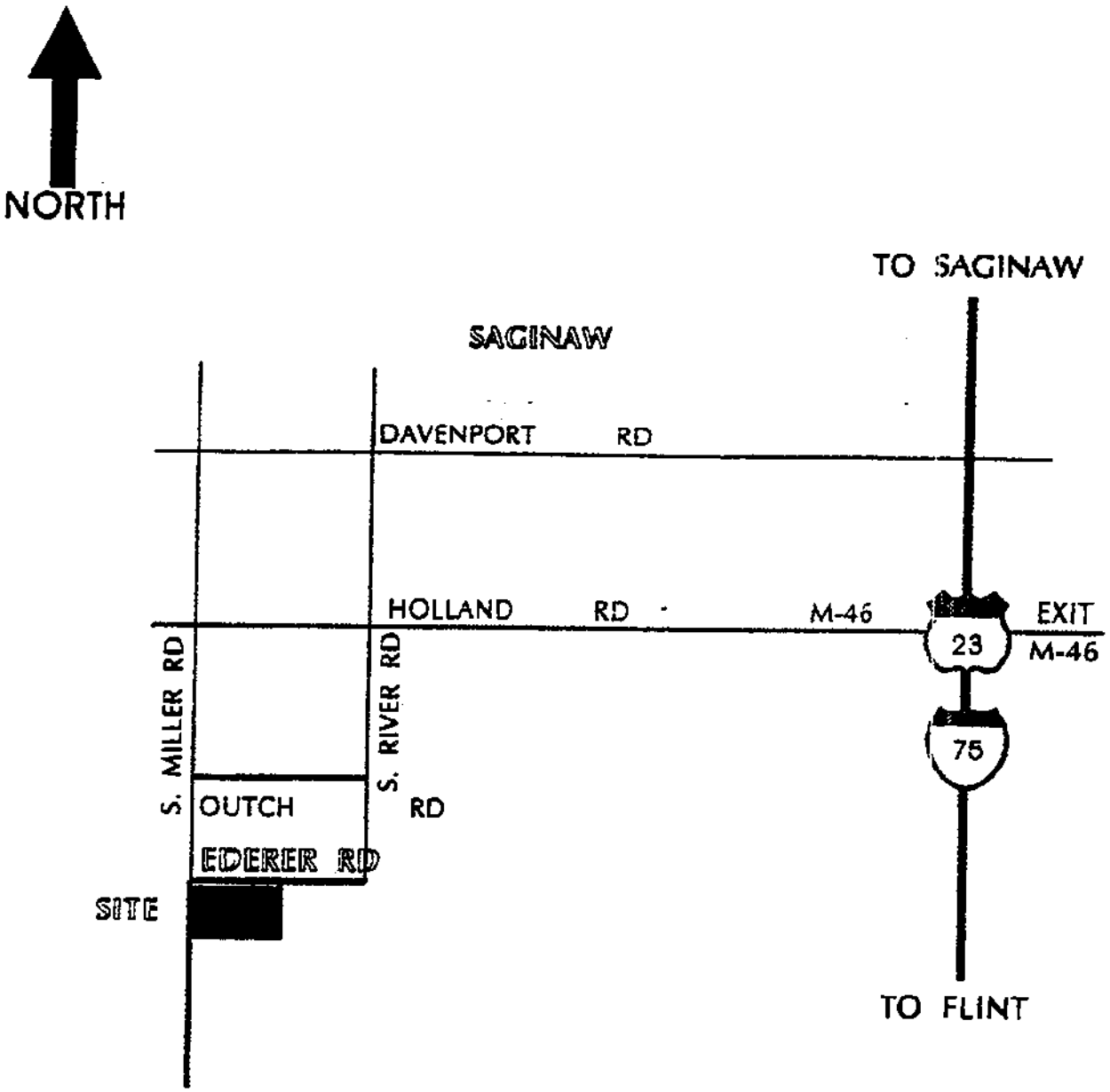
Total area of facility property:	**84.25**	acres
Total area sited for use:	**90**	acres
Total area permitted:	**51**	acres
Operating:		acres
Not excavated:		acres

Current capacity:		tons or yds^3
Estimated lifetime:	**one**	year
Estimated days open per year:	**260**	days
Estimated yearly disposal volume:	**240,000**	tons or ~~yds^3~~

(if applicable)
Annual energy production:

Landfill gas recovery projects: **None**		megawatts
Waste-to-energy incinerators:		megawatts

SAGINAW VALLEY LANDFILL



SAGINAW VALLEY LANDFILL
2145 S. MILLER ROAD
SAGINAW, MI

PHONE: (517) 781-1557

SAGINAWCOUNTY, MI

FACILITY DESCRIPTIONS

Facility Type: **Type II**

Facility Name **Taymouth Landfill**

County: **Saginaw** Location: Town: **10N** Range: **5E** Sections(s) **15**

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

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

___ Public x Private Owner: REPUBLIC

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

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

Site Size:

Total area of facility property:	138.89	acres
Total area sited for use:	43	acres
Total area permitted:	25	acres
Operating:	15	acres
Not excavated:	10	acres

Current capacity:	1.3M.CY	~~tons~~ or yds^3
Estimated lifetime:	7-8	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	216,000	~~tons~~ or yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:		**Granger Elect.**
Waste-to-energy incinerators:		**Methane Plant**

Notes:
Final height is 730 feet above sea level.
120 feet above ground level.
Grazing livestock after closure

FACILITY DESCRIPTIONS

Facility Type: **Recycle and Disposal Facility - Non-hazardous**

Facility Name: **Venice Park Recycling and Disposal Facility**

County: **Shiawassee** Location: Town: **7N** Range: **4E** Sections(s) **27**

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

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

____ Public x Private Owner: **Waste Management of Michigan, Inc.**

Operating Status (check)		Waste Types Received (check all that apply)	
x	open	x	residential
	closed	x	commercial
	licensed	x	industrial
	unlicensed	x	construction & demolition
	construction permit	x	contaminated soils
	open, but closure	x	specials wastes *
	pending	x	other: **Non-hazardous liquids for solidification**

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

Contaminated soils,sludges, filter cake,process wastes,coal ash,foundry sand,chemical containing equipment,used containers,treated medical waste,contaminated demolition debris,street sweeping,sediment trap materials,asbestos.

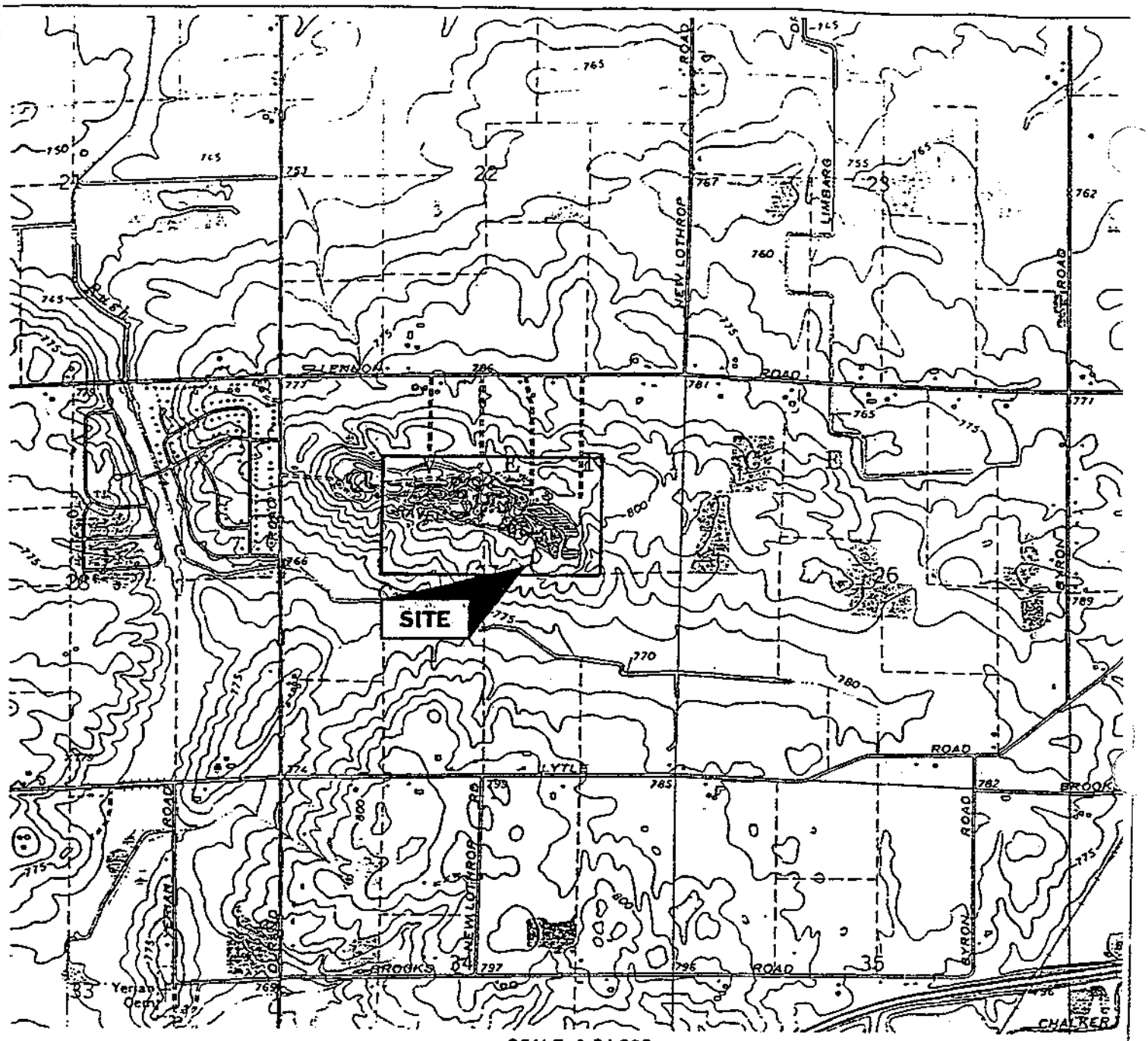
Site Size:

Total area of facility property:	331	acres
Total area sited for use:	80	acres
Total area permitted:	69	acres
Operating:	41	acres
Not excavated:	2.5	acres
Current capacity:	1,300,000	~~tons~~ or yds^3 bank remaining
Estimated lifetime:	2.5	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	526,000	~~tons~~ or yds^3

(if applicable)

Annual energy production:

Landfill gas recovery projects:	12,500	megawatts
Waste-to-energy incinerators:		



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETRE

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

DURAND QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)

1969
PHOTOREVISED 1975
AMS 4269 IV NW—SERIES V862

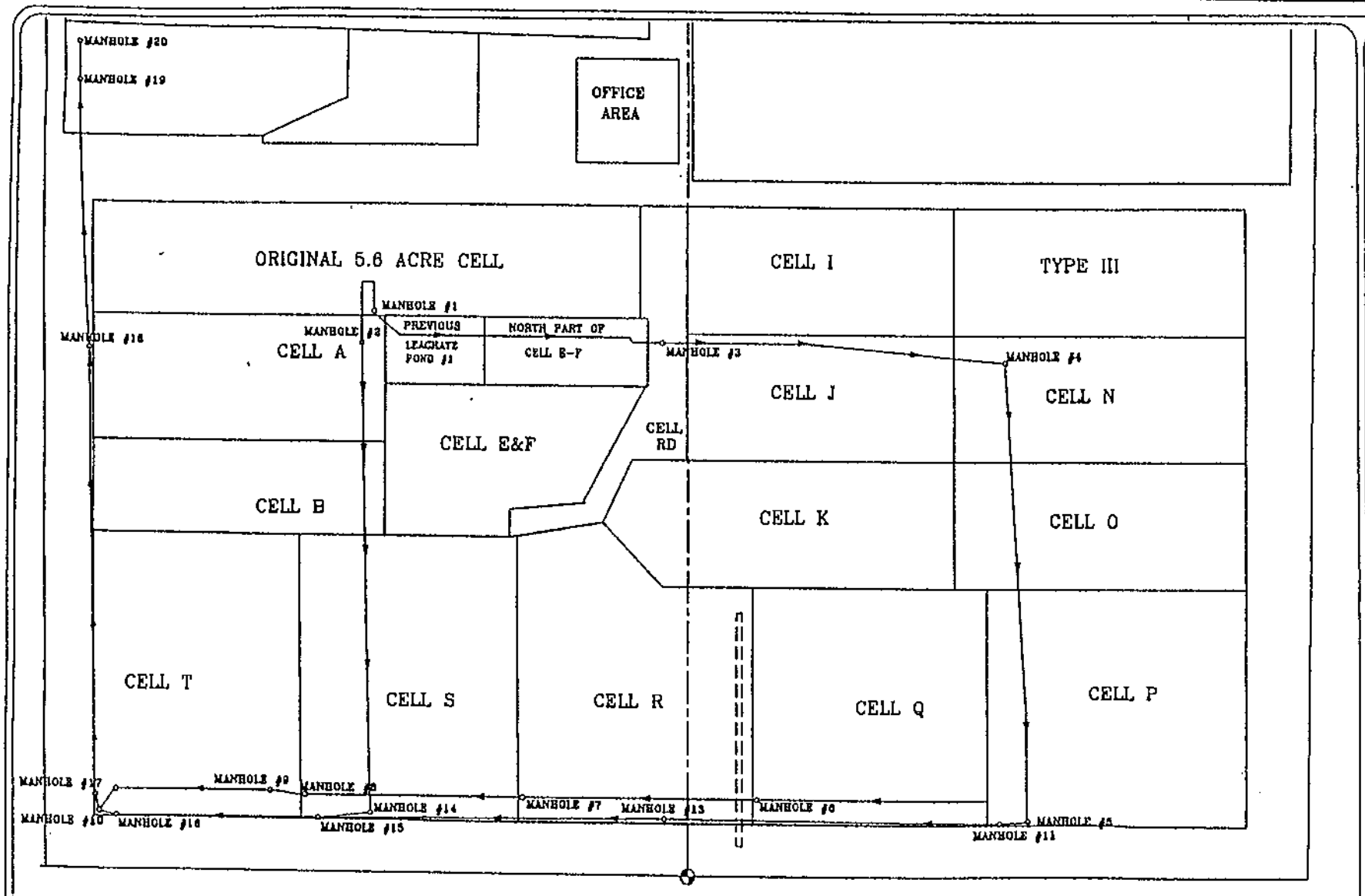
QUADRANGLE LOCATION

NORTH

Date 4-17-97	BAY CITY	soil and materials engineers, inc	SITE LOCATION MAP
Drawn By ARR	KALAMAZOO		VENICE PARK RECYCLING & DISPOSAL FACILITY
cale AS SHOWN	LANSING		9536 LENNON ROAD
Job PE 27575	PLYMOUTH		LENNON, MICHIGAN
	TOLEDO		

DWG NO 27575-01

Figure No. 1



NOTE:

1. Base map provided by ROWE Engineering, Inc.

SITE PLAN
VENICE PARK RECYCLING AND DISPOSAL FACILITY
9536 LENNON ROAD
LENNON, MICHIGAN

DATE: 4-18-97
SCALE: 1" = 200'
DRAFTER: ARR/AM
JOB: PE 27575

FILE NAME H:\VENICE\27575-02

re No. 2

FACILITY DESCRIPTIONS

Facility Type: **Type II Landfill**

Facility Name: **Arbor Hills Landfill**

County: **Washtenaw** Location: Town: **1S** Range: **7E** Section(s): **13**

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: n/a

Public ✓ Private
Owner: Browning Ferris Industries, Inc.

Operating Status (check)		Waste Types Received (check all that apply)	
✓	open	✓	residential
	closed	✓	commercial
✓	licensed	✓	industrial
	unlicensed	✓	construction & demolition
✓	construction permit	✓	contaminated soils
	open, but closure	✓	special wastes *
	pending	✓	other: Incinerator ash, asbestos, foundry sand, wastewater sludges, trees and stumps.

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

Site Size:

Total area of facility property:	337 acres
Total area sited for use:	____ acres
Total area permitted:	217 acres
Operating:	113 acres
Not excavated:	104 acres
Current capacity:	6,177 ☒mgy[1]
Estimated lifetime:	17.6 years
Estimated days open per year:	264 days
Estimated yearly disposal volume:	3,500,000 cubic yards
Annual energy production:	
Landfill gas recovery projects:	18 megawatts
Waste-to-energy incinerators:	n/a megawatts
Proposed uses of facility site after closure:	not available

The Arbor Hills Landfill is located at the Southwest corner of Napier and Six Mile Roads in Salem Township, easily accessible by I-275 and M-14. The landfill is owned and operated by Browning Ferris Industries of Southeast Michigan ("BFI").

The Arbor Hills Facility consists of Arbor Hills East; a 161 acre closed landfill, and Arbor Hills West, a 337 acre active landfill. The Arbor Hills Landfill was started in 1970 by Holloway Sand and Gravel. The first development, now referred to as Arbor Hills East, was started as a gravel extraction operation. The site was then lined with clay and permitted as a sanitary landfill. Holloway also designed and permitted Arbor Hills West as a clay lined sanitary landfill under Michigan Act 641.

Prior to any construction beginning on Arbor Hills West and when Arbor Hills East was approximately half filled, Holloway Sand and Gravel sold the entire site to BFI. BFI continued to operate Arbor Hills East and began construction of Arbor Hills West Cell 1. BFI also improved the design of Arbor Hills West by upgrading the liner system to a double composite liner, each consisting of three feet recompacted clay and a 60 mil high density polyethylene (HDPE) liner.

In 1990, BFI closed the Arbor Hills East facility per MDNR regulations. They installed active gas extraction and leachate collection systems in Arbor Hills East, remediated the area to the east of the landfill, and made numerous improvement to the design and operation of the landfill.

The Arbor Hills West Expanded facility was permitted after the 1989 County Solid Waste Plan Update, and has become the long-term disposal site for Washtenaw County waste. It is constructed with a double composite liner, and is equipped with environmental controls that include leachate collection and leak detection systems, groundwater monitoring, and a methane gas management system.

The landfills are just one part of a larger complex in what is now called "The Arbor Hills Center for Resource Management." Other facilities on site include a material recovery facility, compost site, wood chipping operation, methane gas recovery plant, and an education center. Additional information on the recycling and composting facilities can be found in Section III.

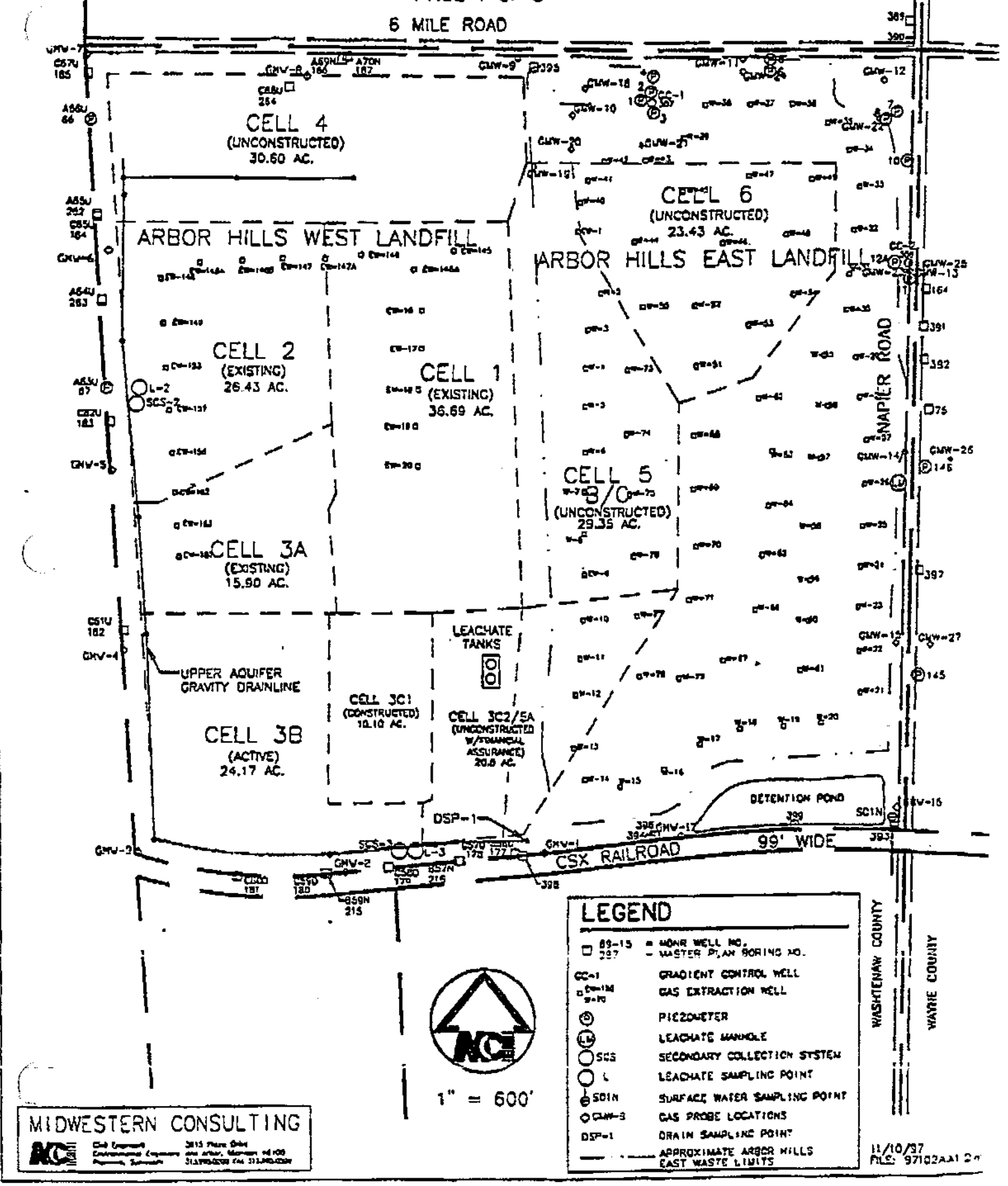
Washtenaw County has entered into a long term agreement with BFI that guarantees disposal capacity for all waste generated within Washtenaw County through June of 2015. In addition, the agreement calls for a capacity fee to be paid to the County that helps finance local waste reduction and recycling programs. A copy of the agreement is included in Appendix D.

ARBOR HILLS WEST EXPANDED SANITARY LANDFILL

MONITORING LOCATIONS

ATTACHMENT A

PAGE 1 OF 3

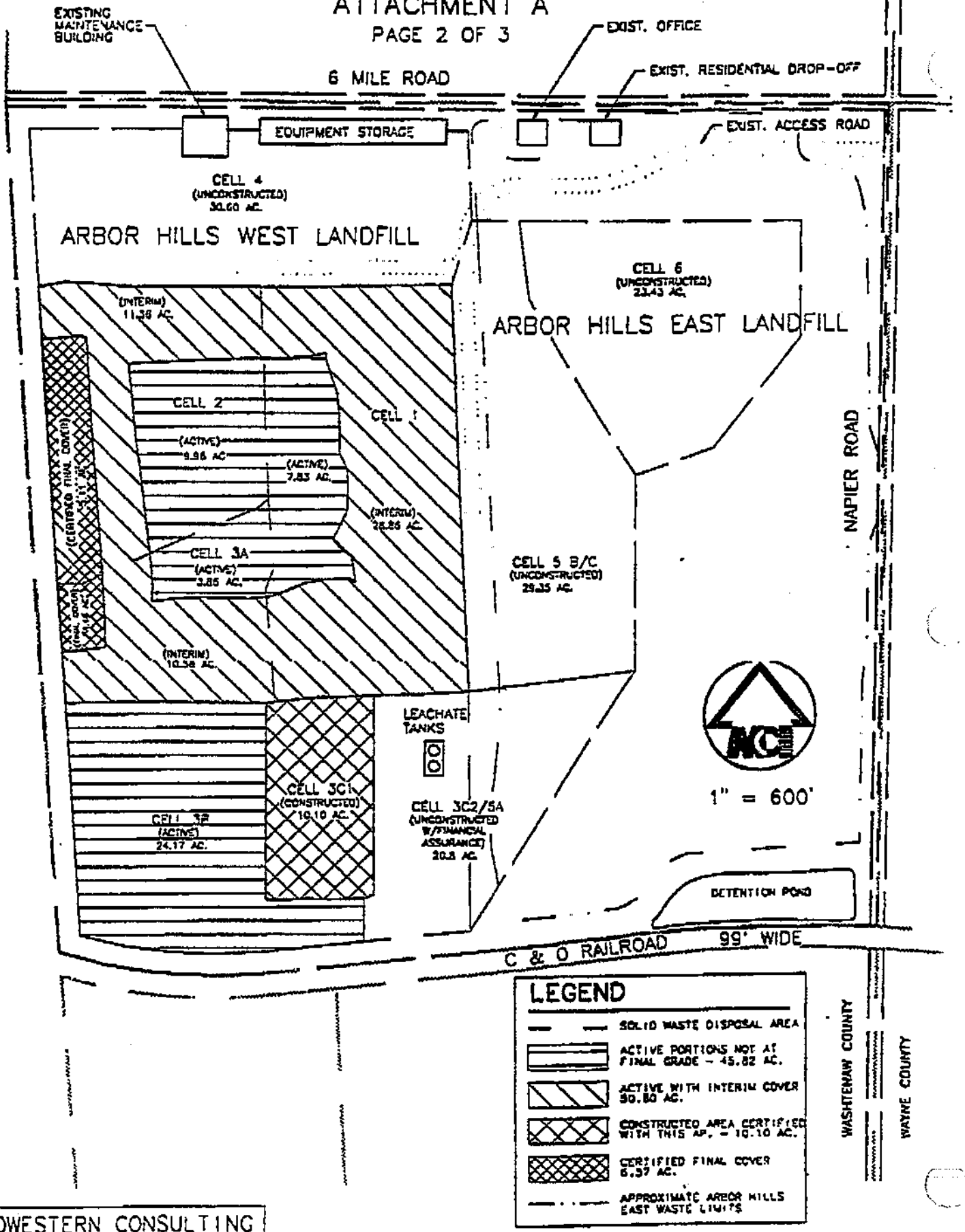


ARBOR HILLS WEST EXPANDED SANITARY LANDFILL

CONSTRUCTION SCHEMATIC

ATTACHMENT A

PAGE 2 OF 3



MIDWESTERN CONSULTING

11/10/97
FILE: 97102A

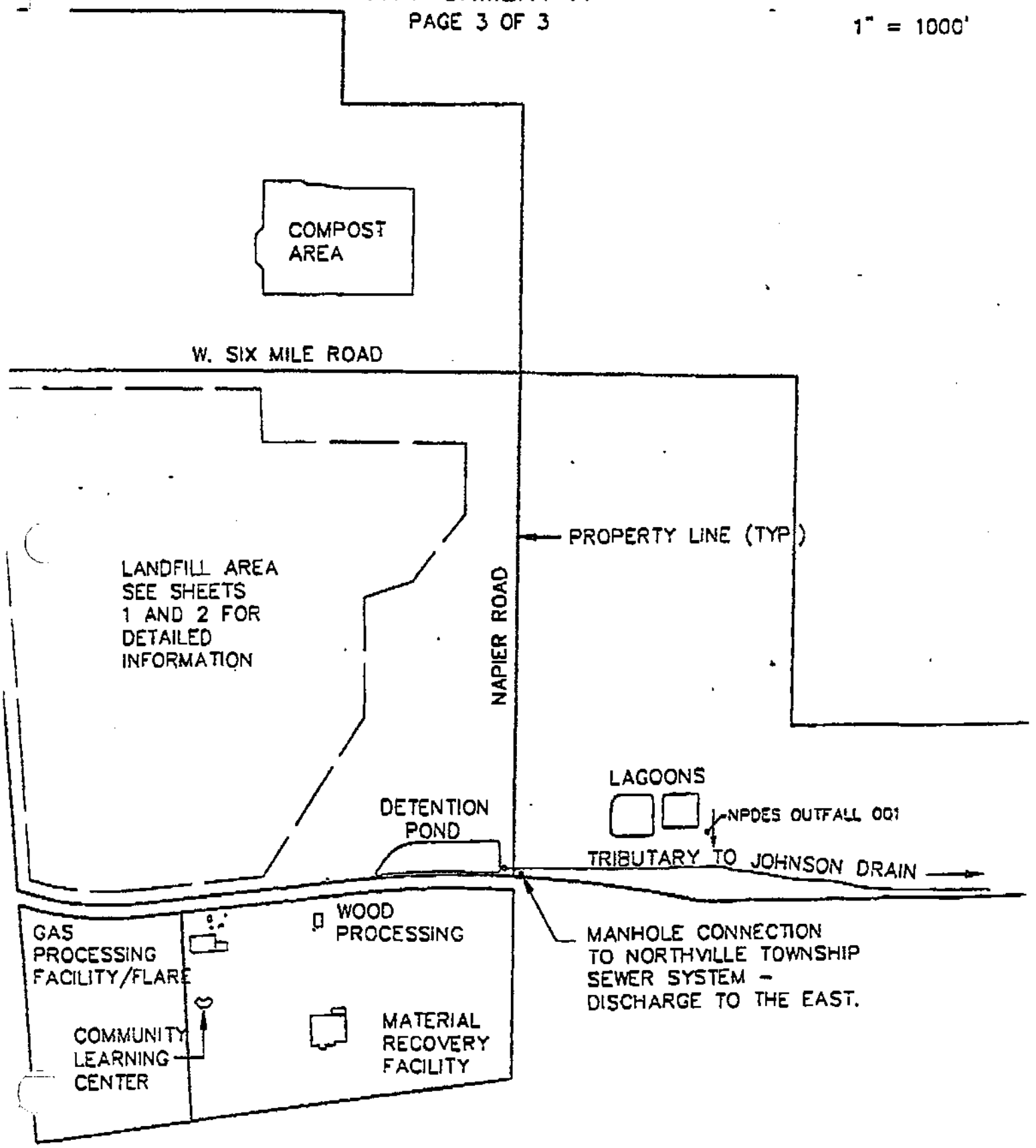
OVERALL SITE FACILITIES

(FOR INFORMATION ONLY – NOT PART OF ARBOR HILLS WEST EXPANDED SANITARY LANDFILL LICENSE APPLICATION)

ATTACHMENT A

PAGE 3 OF 3

1" = 1000'



11/10/97
FILE: 971

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: City of Ann Arbor Transfer Station

County: Washtenaw Location: Town: 3S Range: 6 E Section(s): 15

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: Arbor Hills Landfill; Salem Township, Michigan

✓ Public ✓ Private

Owner: Partnership; owned by City of Ann Arbor; operated by Resource Recovery Systems

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

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

Site Size:

Total area of facility property:	12 acres
Total area sited for use:	12 acres
Total area permitted:	12 acres
Operating:	n/a acres
Not excavated:	n/a acres
Current capacity:	n/a ☐ tons or ☐ yds³
Estimated lifetime:	20 years
Estimated days open per year:	260 days
Estimated yearly disposal volume:	50,000 TONS
Annual energy production:	
Landfill gas recovery projects:	n/a megawatts
Waste-to-energy incinerators:	n/a megawatts
Proposed uses of facility site after closure:	not available

The City of Ann Arbor Transfer Station is located on the site of the closed Ann Arbor Landfill. The facility is owned by the City of Ann Arbor and operated by Resource Recovery Systems through a public-private partnership. Officially opened in September 1995, the building also encompasses a Material Recovery Facility. Over 250 tons of solid waste and 75 tons of recyclables are processed at the facility each day. Additional information on the Material Recovery Facility can be found in Section III.

The transfer station accepts both residential and commercial solid waste generated within the City of Ann Arbor. In addition, the University of Michigan has signed a ten-year agreement to deliver materials to the facility. The facility has the capacity to accommodate additional customers, and the operator is actively marketing the service.

FACILITY DESCRIPTIONS

Facility Type: **Transfer Station**

Facility Name: **Village of Chelsea Transfer Station**

County: **Washtenaw** Location: Town: **1S** Range: **3E** 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: **Arbor Hills Landfill, Salem Township Michigan**

✓ Public ____ Private
Owner: Village of Chelsea

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

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

Site Size:

Total area of facility property:	80 acres
Total area sited for use:	10 acres
Total area permitted:	10 acres
Operating:	10 acres
Not excavated:	n/a acres
Current capacity:	n/a ☐ tons or ☐ yds³
Estimated lifetime:	30 years
Estimated days open per year:	208 days
Estimated yearly disposal volume:	25,000 TONS
Annual energy production:	
Landfill gas recovery projects:	n/a megawatts
Waste-to-energy incinerators:	n/a megawatts
Proposed uses of facility site after closure:	not available

The Village of Chelsea Transfer Station is located at 8027 Werkner Road in Lyndon Township, adjacent to the closed Chelsea Landfill. After their landfill closed in 1991, the Village of Chelsea was required to find alternative disposal sites for waste generated by citizens and businesses. The Arbor Hills landfill in Salem Township was selected. Located over 45 miles away, an economical means of transportation was needed. In 1994 the Chelsea Transfer Station was opened on the site of the closed landfill, to meet the needs of the Village and the citizens of adjacent Townships.

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Carleton Farms

County: Wayne Location: Town: 4 S Range: 8 E 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 :

☐Public ☒Private Owner: ~~City Management Corp.~~ Republic - Carlton Farms Landfill, Inc

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☒	construction permit	☒	contaminated soils
☐	open, but closure	☒	special wastes *
☐	pending	☒	other: Incinerator ash

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

Site Size:

Total area of facility property:	565	acres
Total area sited for use	388	acres
Total area permitted:	32	acres
Operating:	32	acres
Not excavated:	356	acres
Current capacity:	23,674,000	☐ tons or ☒ yds³
Estimated lifetime:	35	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	3,144,620	☐ tons or ☒ yds³

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Riverview Land Preserve

County: Wayne Location: Town: 4 S Range: 10 E Section(s): 11 & 12

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 : N / A

☒Public ☐Private Owner: City of Riverview

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☐	construction permit	☒	contaminated soils
☐	open, but closure	☒	special wastes *
☐	pending	☒	other: Type II wastes

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

Site Size:

Total area of facility property:	404.95	acres
Total area sited for use	239.55	acres
Total area permitted:	212.5	acres
Operating:	109.69	acres
Not excavated:	53.46	acres
Current capacity:	17.8 m	☐ tons or ☒ yds³
Estimated lifetime:	28	years
Estimated days open per year:	306	days
Estimated yearly disposal volume:	~ 880,000	☐ tons or ☒ yds³

(if applicable)
Annual energy production:

Landfill gas recovery projects:	max 2,400	megawatts
Waste-to-energy incinerators:	N / A	megawatts

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Sauk Trail Hills Landfill

County: Wayne Location: Town: 2 S Range: 8 E Section(s): _

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

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

☐Public ☒Private Owner: Wayne Disposal - Canton, Inc. Allied - Sauk Trail Hills Dev. Inc

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

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

Site Size:

Total area of facility property:	200.7	acres
Total area sited for use	160.2	acres
Total area permitted:	74.3	acres
Operating	74.3	acres
Not excavated:	85.9	acres
Current capacity:	19,486,236	☐ tons or ☒ yds^3
Estimated lifetime:	17	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	1,838,848	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Woodland Meadows Recycling & Disposal Facility

County: Wayne Location: Town: 3 S Range: 8 E Section(s): 1

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

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

☐ Public ☒ Private Owner: Waste Management of Michigan, Inc.

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

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

Site Size:

Total area of facility property:	213.96	acres
Total area sited for use:	148	acres
Total area permitted:	73.37	acres
Operating:	73.37	acres
Not excavated:	74.43	acres
Current capacity:	27,861,000	☐ tons or ☒ yds^3
Estimated lifetime:	16	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	1,522,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

5.9 SOLID WASTE COLLECTION SERVICES & TRANSPORTATION

Clinton County waste collection services are, and will continue to be, provided in two forms; through individual subscription with a private hauling company, or a municipally-franchised contract for service - again using a private hauling company. The following municipalities now franchise collection services for the listed items:

City of DeWitt - trash, curbside recycling

City of St. Johns - trash, curbside recycling, large item, tires, household hazardous waste

Village of Ovid - trash, curbside recycling

Village of Maple Rapids - trash, large items

Village of Elsie - trash

Watertown Charter Township - curbside recycling

As population densities increase in various areas of the county, the number of franchised contracts may grow. Waste collection services throughout the county are provided exclusively by private hauling companies. It is likely that this trend will continue. A limited number of residents will continue to take their waste directly to a landfill or bury waste on their own property. Educational efforts will encourage people to discontinue the practice of burying waste - particularly considering the quantities of hazardous substances that can be contained in household waste. Because solid waste markets continue to be somewhat competitive, residents and municipalities have some level of control over the types and costs of services they want to receive.

The City of St. Johns is the only municipality within the County to provide volume-based waste collection to residents. No change is anticipated regarding this service. With the exception of initial frustrations and some public outcry as the program was introduced, this system of waste collection has been comfortably received by residents. Their success should inspire other communities to institute similar systems.

Some haulers do provide a 'pay per bag' collection service if requested by customers. Increased education should increase demand for such service.

The following list identifies the companies currently providing waste collection services in Clinton County:

Allied Disposal Company

Granger Container Service

Pick-A-Dilley

Waste Management, Inc.

Sunrise Disposal (a subsidiary of Republic Industries)

Daggett Container Service (Construction/demolition containers only)

Not included in the above list are small independent haulers who service one-time cleanup requests from residents. Among larger hauling firms, consolidation of companies is a trend expected to continue. When the 1990 Plan was finalized, 17 companies were listed as solid waste haulers; now there are 6, one of which deals only with construction and demolition materials. Because this County borders a metropolitan area, it is likely that some level of diversity in services will remain - thus competition and choice for the consumer. However, further consolidations could result in a monopolistic environment such that competition in some areas of the county become non-existent. At this point, consumers may be faced with limited choices and higher prices.

5.10 RESOURCE CONSERVATION EFFORTS

(The Resource Conservation Form is not used as Clinton County's data is insufficient to project diversion.)

Education

The Plan provides for education of residents about conservation through newsletters and presentations.

A quarterly ***Garbage Gazette*** newsletter, circulated to individual residents, schools, businesses and local governments, regularly addresses resource conservation issues. Department staff also writes and submits articles, many of which address source reduction and resource conservation, for publication in local newspapers.

All education programs emphasize that source reduction and resource conservation should be practiced *before* reuse and recycling, and that waste prevention is always preferable to recovering waste.

A special issue of County's ***Garbage Gazette*** newsletter, the Garbage Guide, provides a comprehensive listing of organizations that accept good, usable household items for reuse and resale.

Purchasing

Purchasing practices resulting in acquisition of high quality, repairable consumer goods rather than disposable items are, and will continue, to be encouraged through education. Raising awareness of unnecessary packaging will also be included.

The County will increase efforts to establish cooperative purchasing programs, provide resources in the form of supplier lists or directories, and educate large, institutional buyers on the benefits of buying recycled products.

Internal Practices

In the interest of setting an example and appropriate public policy practices, the County has a waste reduction policy in place for its own staff which, for example, encourages double sided copying, and other forms of waste minimization.

Business

The Plan puts emphasis on working with businesses. Business waste, recovery, and waste reduction will be integral elements of education and outreach programs. Strategies may include individualized waste audits, assistance in purchasing of recycled content products, and increased recycling. This should result in better conservation efforts and save businesses money. Successful waste reduction efforts will improve energy and resource conservation.

RESOURCE CONSERVATION EFFORTS

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

Effort Description	Est. Diversion Tons/Yr		
	Current	5th Year	10th Year

5.11 WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS

Introduction

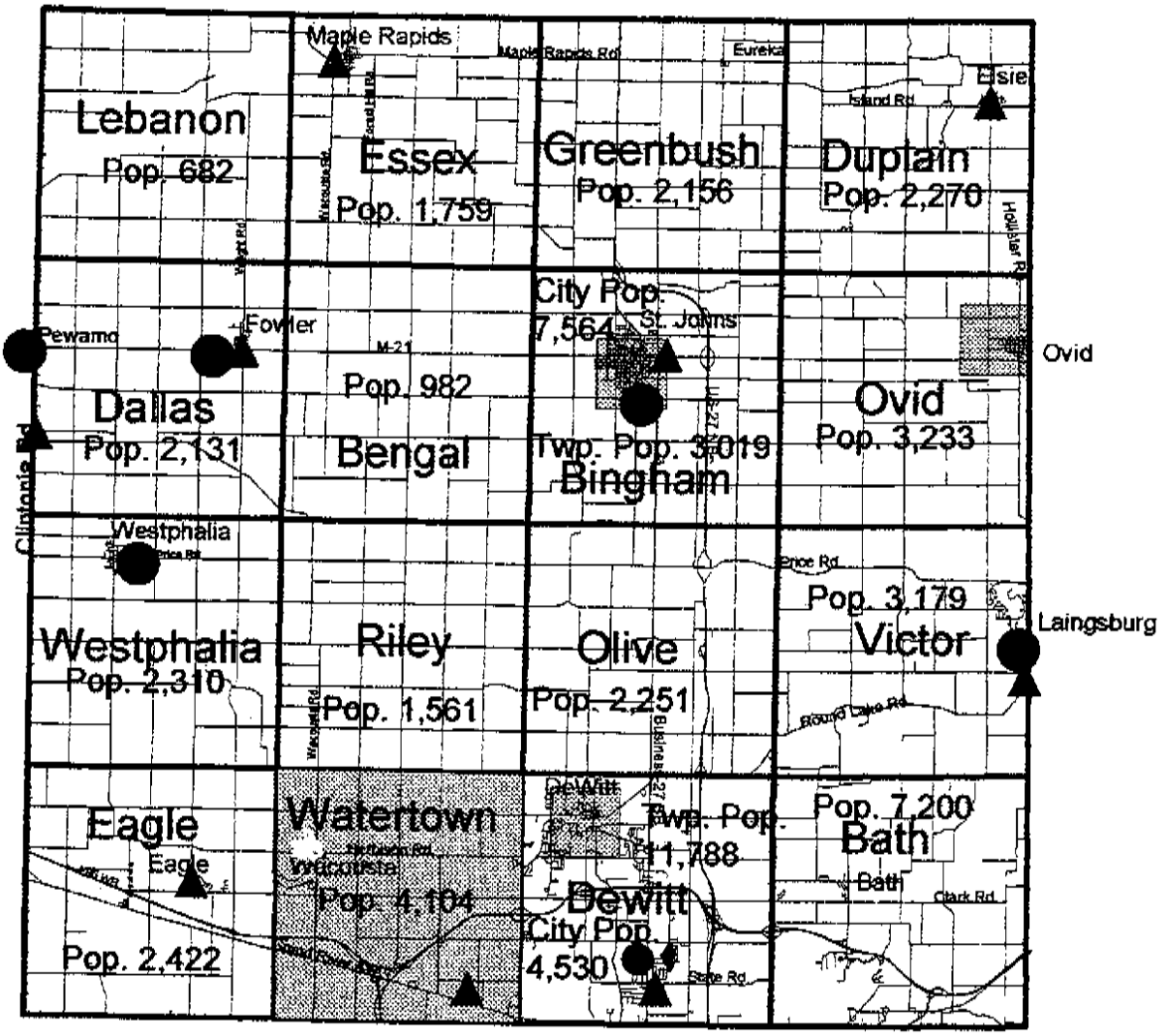
Recycling and composting programs within Clinton County are feasible and expected to continue. Lists of existing and planned programs are contained in the following pages. Details of these programs are provided in the Program Priorities Matrix contained in Appendix A-1d. Programs which separate potentially hazardous materials are feasible on a limited basis, and details are contained in appendix A-2.

Under Part 115, yard waste may not be accepted by disposal facilities in Michigan. National and state level statistics estimate that this policy reduces the quantity of landfill-bound waste by 12% to 14%. Because this county has many farms who have always composted yard waste and other compostable materials, a figure of 8% is considered more reflective of the county.

Volume Reduction Techniques

	Est. Air Space Conserved (Yds^3/Yr)		
Technique Description	**Current**	**5th Year**	**10th Year**
NONE			

Clinton County Recycling Programs



Drop Off Sites ▲

Mrfs ♦

Compost Sites ●

Roads

Curbside Programs

Twp. Curbside

Twp. Boundaries

Type. .d Amounts of Materials Recycled

Residential Recycling	Pounds 1997	Projected Pounds 1999	Pounds 2000	Pounds 2005	Pounds 2010
Tires	166,221	182,843	201,127	233,890	298,509
Useable Furniture	95,880	105,468	116,015	134,913	172,187
White Goods/Large Scrap Metal Items	51,100	56,210	61,831	71,903	91,768
Plastic	588,534	647,387	712,126	828,126	1,056,923
Tin	700,526	770,579	847,636	985,710	1,258,044
Aluminum	3,707	4,078	4,485	5,216	6,657
Glass	1,445,493	1,590,042	1,749,047	2,033,954	2,595,898
Cardboard	721,745	793,920	873,311	1,015,568	1,296,150
Magazines	577,258	634,984	698,482	812,260	1,036,672
Newspaper	1,849,779	2,034,757	2,238,233	2,602,825	3,321,937
Other Paper, Phone Books, Text Books	1,265,754	1,392,329	1,531,562	1,781,043	2,273,112
Boxboard	44,006	48,407	53,247	61,921	79,028
Polystyrene	1,784	1,962	2,159	2,510	3,204
Construction Demolition	3,809,540	4,190,494	4,609,543	5,360,405	6,842,000
TOTAL	11,321,327	12,453,460	13,698,806	15,930,244	20,332,090
In Tons	5,661	6,227	6,849	7,965	10,166

Base Data - from 1997 Data Collection Process

It is anticipated that improvements made at rural recycling sites during 1998 and 1999 will result in substantial increases in amounts collected at those sites. Indeed, at the four drop off sites, with only 1/2 of the improvements in place, recyclables collection increased by nearly 50,000 lbs. This compares with normal annual increases of about 10,000 lbs per year. County wide data collection has been challenging and often lacking. Thus, projections for recycling are based upon the only consistent and reliable data available - data derived from the County drop off sites. Between 1992 and 1997, recycling rates increased consistently by 1% at the drop off sites. This changed dramatically between 1997 and 1998 where rates increased by 10% in a single year. Based upon the increase seen in county drop-off sites for 1998, we anticipate a continued average increase of 5% per year. This forms the basis for the above mentioned projections.

Current and Proposed Recycling Programs

Residents and businesses will continue to receive recycling services in one of three ways: subscription curbside recycling, municipal or franchised curbside collection, and drop off sites. Not all haulers provide subscription curbside collection in all parts of the County. In rural areas, some companies have eliminated services due to the lack of cost effectiveness resulting from low density development. Curbside recycling is expected to continue for residents through franchise services in the cities of St. Johns and DeWitt, the Village of Ovid, and Watertown Township.

Through the Solid Waste Alternatives Grant Program, the County will continue to provide drop off recycling services where private services are lacking. The County runs four sites in the following communities: Village of Maple Rapids, Village of Fowler, Pewamo/Westphalia, and Eagle Township. Over 500,000 pounds of recyclables are processed annually from these sites. Site improvements and added hours of operation will increase access for residents and businesses.

The St. Johns Lion's Club provides a 24-hour drop off recycling site. The County provides a subsidy to the site, but it continues to be managed by the Lions Club. Though the site is located within a city that offers curbside recycling, it services outlying areas that do not have such services available. It processes over one million pounds of recyclables annually.

Granger also operates a 24-hour, self-serve recycling site on Wood Rd. in DeWitt Twp. The site draws from Ingham and Eaton Counties, as well as Clinton County. Based upon a survey conducted in 1994, approximately 28.5% of residents using the site come from Clinton County.

Current and Proposed Composting Programs

This Plan foresees continuation of individual household and community-based composting. Increased sophistication and technology may ultimately allow for the addition of non-traditional, organic materials to existing composting programs. The County's role will be to educate residents seeking assistance in backyard composting and to provide information regarding where they can take yard waste materials. Presently, yard waste, including grass clippings, leaves and some branches, are the most common materials to be included in composting. Backyard compost piles will likely include kitchen scraps and some paper. Programs in other states are experimenting with a variety of other organic household waste products. The County will continue to collect such information and make it available to individuals and municipalities for their consideration and possible future applications.

Sludges and manure are compostable items which will likely see continued and increased application.

Current and Proposed Hazardous Materials Programs

Hazardous Household Waste

The County will continue to provide household hazardous waste collection services for citizens periodically through one day collections (see "Special Collections"). The County contracts for staffing of such days. The City of St. Johns offers periodic collections of household hazardous wastes for its residents. Instead of offering a one day collection, the City allows residents to bring materials to the City Waste Water Treatment Facility for a period of days prior to pickup by a hazardous materials hauling and handling company.

Additionally, residents of this County may take hazardous household material to Ionia County for a minimal charge per pound. A letter of Agreement will formalize this arrangement. Proximity to Ionia County makes this arrangement valuable. The County will explore the possibility of a similar arrangement with Ingham County.

Finally, one day collections and/or arrangements with neighboring counties will be constructed so that there is better access on a more frequent basis for residents.

Pesticides

This County does not provide ongoing services to collect unwanted pesticides. Ionia County, however, runs a permanent facility whose disposal costs are funded by the Department of Agriculture and thus currently free to users of the site. Clinton County residents may take their unwanted pesticides to this facility. Because of the availability of the Ionia facility, the County does not anticipate developing additional programming.

Current and Proposed Recycling Programs

Program Name	Service Area[1]	Franchised Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected [5]	Program Management Responsibilites[2] Development	Operation	Evaluation
Daggett Recycling	Ingham, Eaton & Clinton Counties	Private	o	d	J, P, C	5	5	
DeWitt	City of DeWitt	Franchised	c	w	A, B, E, F	6	5	
Eagle	Eagle Township	Public	d	m	A,B,C,E,F,F1	1	1	
Elsie	Duplain Township	Franchised	d	m	A,B,C,E,F,F1	5	5	
Fowler	Dallas Township	Public	d	m*	A,B,C,D,E,F,F1	1	1	
Granger Waste Mgm't	Ingham, Eaton & Clinton Counties	Private	d	d	B,E,F,J	5	5	
Granger Recycling Center	Ingham, Eaton & Clinton Counties	Private	o	d	A,B,C,D,E,,F1,F2	5	5	
Laingsburg	Victor & Bath Twps. (partial Shiawassee County)	Environmental Group	d	m	A,B,C,D,E,F,F1,F4	4	4	
Maple Rapids	Essex Township	Public	d	m*	A,B,C,E,F,F1	1	1	
Ovid	Village of Ovid	Franchised	c	b	A,B,E,F,F1	6	5	
Pewamo-Westphalia	Westphalia Twp & (partial Ionia County)	Public	d	m	A,B,C,D,E,F,F1	1	1	
St. Johns	City of St. Johns	Franchised	c	w	A,B,C,E,F,F1	6	5	
St. Johns Lions Club	Clinton County	Private(non-profit)	d	d	A;B,C,D,E,F,F1,F4,F3	6	6	
Watertown	Watertown Township	Franchised	c	b	A,B,C,D,E,F,F1	6	5	

[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 (Clinton County Department of Waste Management); 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other (Lions Club).

[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 *includes ten day time period; and if season service also indicated by SP = Spring; Su = Summer Fa = Fall; Wi = 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; F1 = Magazines, F2 = Auto Batteries, F3 = Phone Books, F4 = Polystyrene.

Current and Proposed Composting Programs

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2]		
						Development	Operation	Evaluation
City of St. Johns	City	Public	c	w	G,L,W	6	3	
City of DeWitt	City	Public	c,d	w	G,L,W	6	3	
Granger's Landscape Supply	Plan Area	Private	d	d	G,L,W	5	5	
Village of Maple Rapids	Village	Public	c	Sp,Su,Fa	G,L,W	6	3	
Village of Elsie	Village	Public	c	Sp,Su,Fa	G,L,W	6	3	

Composting education for back yard composting is provided by the Department of Waste Management.
The Department of Waste Management also provides technical assistance to municipalities establishing programs intended to service their communities
No new sites or facilities are proposed by the County.

[1]Identified by where the program will be offered.

[2]Idendified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other (Municipality)

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

[4]Idenfied by d = daily, w = weekly; b = biweekly; m = monthly; and if seasonal service also indicate 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

Current and Proposed Hazardous Materials Programs

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
City of St. Johns	City	Public	d	2/yr	A,AN,B2,C,H,P,PS,PH,	6	3	
Granger Recycling	Plan Area +	Private	d	all times	B1	5	5	
Dump Your Junk	County	Public	d	1/yr	A,B2,C,H,P,PS,PH,	1	1	
Ionia County Resource Recovery	Plan Area +	Public	d	all times	A,B2,C,H,P,PS,PH,*	1	1	
Ingham County* (proposed)	Ingham County*	Public	d	all times	A,B2,C,H,P,PS,PH,**	1	1	

A number of used oil and used antifreeze sites are located throughout the County though these sites change often. Protection for the providers of such services and incentives to increase such services are lacking. Legislation is anticipated during the coming legislative sessions to address this issue on a state-wide basis.

[1]Identified by where the program will be offered.

[2]Idendified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other (Lions Club)

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

[4]Idenfied by d = daily, w = weekly; b = biweekly; m = monthly; and if seasonal service also indicate by Sp = Spring;

Su = Summer' Fa = Fall' Wi = Winter

[5]Identify materials collected by listing letter located by material type. AR = Aerosol Cans; AN=Antifreeze; A = Automotive products except Used Oil, Oil Filters & 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 Identified

* Focus of Ionia County Program is on collection of Pesticides and Herbicides

** Ingham County is not a part of Clinton County's present strategy; it is hoped that a future arrangement similar to the Ionia County arrangement can be reached.

Resource Recovery Management Entities and Service Providers

Primarily, the service providers of recycling services are private sector companies. The following list presents a current snapshot of various entities involved in service provision and management, but is not intended to be exclusive.

Resource Recovery Programs

Composting - Drop-off

- Granger Landscape Services
- Village of Fowler
- Village of Maple Rapids DPW

Composting - Curbside:

- City of St. Johns DPW
- Village of Ovid DPW
- City of DeWitt DPW
- Village of Elsie
- City of DeWitt

Recycling - Subscription Curbside

- Allied Disposal Services
- Granger Recycling
- Sunrise Disposal (a subsidiary of Republic Industries)

Recycling Drop-off Sites - 24 Hour

- St. Johns Lions Club Recycling Site
- Granger Recycling, Wood Rd.
- Elsie - Village contracts with Waste Mgt

Recycling Drop-off - Monthly

- Eagle; Pewamo/Westphalia; Fowler; Maple Rapids - County contracts with Granger
- Wacousta - Watertown Twp. contracts with Waste Mgt.
- Laingsburg - Greater Laingsburg Recyclers contract with Allied Disposal

Recycling - Municipal Curbside

- City of St. Johns - contracts with Waste Mgt
- City of DeWitt - contracts with Allied Disposal
- Village of Ovid - contracts with Waste Mgt.
- Watertown Twp. - contracts with Waste Mgt.

Recycling - Business Subscription

- Allied Disposal
- Granger Recycling
- Sunrise Disposal (a subsidiary of Republic Industries)
- Waste Management, Inc.
- Browning Ferris Industries (Allied Waste)

Citizens are kept current on services and service providers through the *Garbage Gazette*. See Appendix A-2c.

Diversion

Establishing diversion goals, and accurately measuring progress toward those goals, is fraught with roadblocks. Private sector companies are reluctant to share information and/or have not themselves collected data in a format that makes it useful to the County. This problem has improved over the years, but is not solved.

Nevertheless, since 1996 the County has been compiling recovery data to the extent possible, which has increased its ability to evaluate the success of county programs. The data sheets for 1996 and 1997 are contained in Appendix A-2e.

The following form projects recovery rates for recyclables through 2010. Due to a lack of data collection and reporting abilities, some materials are not included: Recoverable construction and demolition debris; deposit bottles and cans; scrap metal recycling conducted outside of municipal efforts; and, government and business recycling.

The influence of unpredictable factors such as market prices, world economics, degree of manufacturing and purchasing of recycled products, are outside of this county's control. These factors, however, can significantly impact achievement of recycling goals.

Lack of reliable data frustrates the ability to project the full costs of recycling. Such costs consist of the obvious collection, processing, marketing, and educational expenses. These costs are offset however, by avoided landfilling costs (tipping fee) and other important, but less quantifiable costs. Such costs include avoided land usage for disposal; reduced energy usage in production of products that use post consumer feedstock; the value associated with reduced negative impacts on non-renewable, as well as renewable, natural resources. This Plan will focus on efforts to improve data collection and the ability to quantify obvious, as well as less obvious, costs so that program assessment improves.

Projected Diversion Rates

Collected Material	Projected Annual Tons Diverted		
	Current ('97)	5th Yr	10th Yr
Total Plastics	294	414	555
Newspaper	924	1301	1744
Corrugated Containers	361	508	680
Other Paper	633	891	1193
Glass**	723	1017	1363
Magazines	289	406	544
Auto Batteries	unknown	unknown	unknown
Grass and Leaves*	2754	3196	4082
Total Wood Waste	unknown	unknown	unknown
Construction Demolition	1905	2680	3592
Food and Food Processing	unknown	unknown	unknown
Tires (county and municipal only)	83	117	157
Total Metals**	377	531	712
Polystyrene Foam	1	1	1.5

* Use EPA estimated percentage of total waste stream
** Deposit Containers not included

- County brokers through private sector. Other data not available - considered proprietary.
- No indication that materials have not been fully marketed.

Market Availability

Currently, materials collected through county recovery programs are marketed through a broker. Therefore, end-destinations change and are often unknown. Regardless, during the previous Plan period, informal meetings began with area recycling groups to discuss the value of cooperative marketing, particularly in times when prices are depressed. During the next plan cycle, this will become a more serious discussion. The general philosophy behind this approach is that by combining and guaranteeing larger quantities of materials, better prices may be secured from end markets. Discussions are expected to continue.

There is no question that strong markets increase the enthusiasm for and cost effectiveness of recycling. This, in turn, impacts the availability of services (curbside in rural areas) and thus increase diversion rates.

5.12 EDUCATIONAL AND INFORMATION PROGRAMS

The following form provides the information requested as part of the Selected System: Educational System component of the Plan Format. Narrative description of the Department's educational efforts follow on subsequent pages.

Outreach Activity	Program Topic[1]	Delivery Medium[2]	Targeted Audience[3]	Program Provider[4]
Garbage Gazette	1, 2, 3, 4	o	p, b, i, s (teachers)	DPA***
Garbage Guide	1, 2, 3, 4	o	p, b, i, s (teachers)	DPA
HHW Brochure	3	f	p, b, i	DPA
Compost Brochure	3	f	p, s (teachers)	DPA
Recycling at Work	3	f	b, i	DPA
Press Releases	1, 2, 3, 4, 6*	n	p	DPA
Classroom Prgs.	1, 2, 4, 6*	w	p, b, s - K-12	DPA
Workshops	1, 2, 3, 4, 5, 6* w		p, b, s (teachers)	DPA
Stewardship Awards	6 - env. stewardship	ot - (award prg.)	s (K-12)	DPA
Resource Library	1, 2, 3, 4, 6*	ot (Resource Cart)	s (teachers K-12)	DPA
Special Events	1, 2, 3, 4, 5, 6* e**		p, s (K-12)	DPA

*In many of its educational programs, the Clinton County Department of Waste Management addresses a broad range of environmental topics, beyond recycling and solid waste. Topics that have been addressed through presentations, classroom programs, newsletter and newspaper articles include (but are not limited to): the water cycle, groundwater quality, habitat protection, indoor air quality, population growth, wildlife, etc.

** Special events and exhibits have been provided in St. Johns, DeWitt, Lansing Mall, Lansing. Some of these are provided on a regional basis, in cooperation with recycling coordinators in Ingham and Eaton Counties and the cities of Lansing and E. Lansing.

***While education programs are almost always delivered or produced by Department of Waste Mgt. staff, programs are often provided in cooperation with other agencies, including: MSU Extension, 4-H, school districts and individual schools, community education, health departments, environmental groups, Girl and Boy Scouts, Chamber of Commerce, business and community organizations, etc.

Codes:
[1] Identified by: 1=recycling; 2=composting, 3=household hazardous waste; 4=resource conservation; 5=volume reduction; 6=other
[2] Identified by: w = workshop; r = radio; t = television; n = newspaper; o = organizational newsletter; f = flier; e = exhibits and locations listed; and ot = other
[3] Identified by: p = general public; b = business; I = industry; s = students with grade levels listed. In addition, if the program is limited to a geographic area, then that county, city, village, etc. is listed.
[4] Identified by: EX = MSU Extension; EG - Environmental Group; OO = Private Owner/Operator; HD = Health Department; DPA = Designated Planning Agency; CU = College/University; LS = Local School; ISD = Intermediate School District; O = Other.

Educational and Informational Programs

Publications

Garbage Gazette Newsletter: The *Garbage Gazette* will continue to be the Department's primary vehicle for distributing in-depth information to County residents on many topics. Approximately 6,000 copies will be distributed through schools, recycling sites, grocery stores and other locations.

Garbage Guide: The county will continue to produce the Garbage Guide, which lists organizations that accept clothing, appliances, tires, and all manner of household items. Clinton County will be working with other area municipalities, leading the effort to regionalize this publication. It will be made available in printed form, but will also be available through a searchable database on the internet.

Guide to Backyard Composting: This publication is in stock and will continue to be used to provide basic information to residents who want to start a backyard composting pile.

Recycling at Work: This flier, also in stock, provides resources and information to businesses regarding waste reduction and recycling. The Department may produce additional publications in regard to business recycling, waste reduction and "buying recycled" as needed.

Business Recycling/Buy Recycled Guide: This publication will help businesses identify potentially recoverable items in their waste stream and facilitate their purchase of recycled content products.

Hazardous Household Products - Reducing the Risks: This brochure is designed to be cut into 3"x5" cards and stored in recipe card file. It will continue to be used to provide guidance for reducing the use of hazardous household products, disposal guidelines for such products, and non-toxic alternatives.

Misc. Publications: At times, the Department may produce publications which accompany specific programs. A variety of other fliers and brochures may be used to promote collection programs, changes in program guidelines, etc.

Press Releases: The Department will continue to run press releases in local newspapers on a regular basis. Articles will educate citizens on various aspects of waste reduction, recycling, and composting, and promote the services and activities of the County's Department of Waste Management. A binder of collected clippings is available in the Department office.

Other Print Media: When appropriate, the Department will send short press releases and informational notices to a variety of organizations for publication in

internal or external newsletters; schools, school districts, municipalities, Chamber of Commerce, etc.

Presentations and Workshops

Workshops: The Department may conduct periodic workshops on backyard composting or other topics for municipalities, school districts or clubs. Workshops are more cost-effective when run and promoted through another agency, such as these.

Group Presentations: The Department will continue to provide special presentations to a variety of community and business organizations upon request, and as a method of addressing a particular issue. Programs may have been conducted for groups like individual businesses, Chambers of Commerce, municipal officials, Lions, Rotary, Kiwanis, PTAs, teachers, adult and youth clubs, church groups, etc.

Youth Education Programs

Classroom Programs: The Department will continue to provide entertaining and educational hands-on classroom programs for all Clinton County schools. Generally, department staff develop a specific program, addressing a single issue or theme, and targeted toward specific age groups. The program will then be promoted to the appropriate level teachers.

A number of different education programs have already been developed, including:

- *Wild About Resources* - (for 6th-8th grades) Addresses the issues of natural resources, resource use, pollution, and personal consumption choices.
- *Understanding the 3 R's* - (for 3-5th grades) Utilizes three hands-on activities to help students understand and practice Reducing, Reusing and Recycling.
- *Garbage Pizza* - (for k-2nd grades) Features an action story about where garbage goes, helps students understand why we make garbage and where it goes. Building a garbage pizza helps kids understand what parts of their garbage they can recycle.
- *You're Recycling, Right?* - (adapted for all grade levels) This program quickly addresses quality paper recycling in school classrooms. Usually the program is conducted in 20 minute segments to all rooms in a building in one day.
- *Composting for Kids* - (upper elementary) More schools are beginning to use outdoor classrooms where students plant their own gardens. This program helps students understand how to make a composting bin part of their gardening activities.

Environmental Stewardship Awards for Youth: The Stewardship Award Program is designed to provide special recognition to students who exhibit and practice good stewardship for the environment. Savings Bonds are awarded to the winners. The Department may or may not continue this program as participation has been low.

Misc. Youth Programs: Special hands-on education programs will be made available to scout troops, 4-H clubs, and other youth groups upon request.

- *Animals, Trees & Me* - (for 1st - 4th grades) This series of hands-on activities based upon a wildlife story has been provided a number of times for scout groups and is a 2 ½ hour program.
- *Me and My Worms* - (adaptable for K-8th grade) This program helps students understand how worms recycle garbage, thus how composting works. It has been adapted as an orientation program for middle school science students in preparation for a worm dissection lab.

Resource Library: The Resource Library is a rolling library cart full of videos, books, hands-on kits and other resources for teachers and youth group leaders in the County. Each elementary school will continue to receive the cart and its resources for a 1-2 week period of time. Teachers will be notified in advance of their school's dates to have the materials, so they may schedule their environmental units to coincide with the dates they have the cart at their school. The Department will add materials to the cart as funding permits.

Special Events

Department staff will assist in the coordination of special events held in conjunction with Earth Day or schools, if asked.

Regional Events

Earth Day Calendar of Events: Clinton County may continue to coordinate efforts to increase the number environmentally-focused activities taking place in mid-Michigan, through the production of a calendar of Earth Day events, produced for the last two years. The regional steering committee hopes to repeat the project yearly, encouraging even more local environmental activities.

Misc. Promotions and Activities

When appropriate and when the opportunity arises, the County will become involved in or will coordinate other activities that don't fit neatly into any of the above categories.

On occasion, Department staff participate as a presenter in regional events such as the Arbor Day Celebration at Potter Park Zoo, Healthy People, Healthy Planet at Impression 5 Science Center, the Girl's 6th Grade Science Fair sponsored by the

intermediate school districts, and Rural Education Day sponsored by the Farm Bureau. Department staff will also provide resources, information, and assistance to local environmental initiatives.

5.13 TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implementing components and programs of the Selected System. The Timeline gives a range of time in which the component will be implemented, such as "1995 - 1999" or "On-going." Timelines may be adjusted later, if necessary. Since the infrastructure and funding for implementing the solid waste management plan are already in place, the following addresses objectives set forth in the Plan necessary to achieve the Plan's goals. (Presumes approval of a Plan by March 2000.)

Management Components	Timelines
Administration	
Maintain administrative structure: DWM, SWC, Bd of Comm.	ongoing
Evaluation	
Assemble and review status of current purchasing practices.	ongoing
Internally track and assemble costs and impacts of programs.	ongoing
Use external company to assess effectiveness of programming.	2002
Work to define the County's appropriate role in protecting the public health and environment as it relates to solid waste.	ongoing
Track and assess impact of various legislative initiatives.	ongoing
Modify, maintain or eliminate programs based upon evaluation.	ongoing
Waste Characterization study	2001
Programs	
Provide educational services, collection services and grant services as detailed in Program Priorities matrix.	ongoing
Elevate participation recycling programs.	ongoing
Continue Education in communities, schools - add businesses.	ongoing
Continue enforcement work against illegally handled waste.	ongoing
Continue to implement and support programs which recycle or properly dispose of 'hard to dispose of' items.	ongoing
Track and work on State/Federal initiatives which favor purchase and use of products made from recycled content.	ongoing
Resources	
Assemble and promote best management practices.	ongoing
Assemble samples of purchasing policies and other resources	ongoing
New Services	
Work regionally to target commonly used commodities for possible cooperative purchase.	start Sept 2000
Develop recycling/waste exchange guide for business	May 2000
Work with developers, home owner associations, municipalities to promote minimum levels of solid waste services for high density areas.	start May 2000 ongoing

Provide education about various waste reduction or handling options.	ongoing
Implement an active education and promotional strategy that favors purchase of commodities in recyclable containers and made from recycled content.	ongoing
Work regionally to identify alternative disposal methods for HHW, Universal Wastes, Appliances, Tires, etc.	ongoing
Work to assess the feasibility of a tri-county used auto fluids recycling program	Sum 2000 and ongoing
Work regionally to assess the feasibility and impact of establishing a universal wastes recycling program.	Sum 2000 and ongoing

5.14 SITING NEW FACILITIES OR EXPANSIONS

Clinton County has verified sufficient disposal capacity (exceeds ten years) such that siting or expansion of an existing disposal facility is unnecessary and unanticipated. However, should occasion arise that a developer proposes a facility, and should the County determine that in spite of lack of need, that it should be considered, a site review process is included in the Plan. In this manner, developers will be assured of responses that are prompt and fair. It is intended that this review process be used for consideration of any of the following solid waste facilities:

- Landfill expansion (vertical or horizontal)
- Landfills located in areas not presently hosting such facilities
- Transfer Stations
- Construction or expansion of MRF's handling non-source separated materials.

Municipal solid waste incinerators will not be sited in Clinton County.

CLINTON COUNTY SITING PROCEDURE
NEW DISPOSAL AREAS

The following stipulates the process by which new disposal areas are considered for inclusion into the Clinton County Solid Waste Management Plan.

SECTION I
DEFINITIONS

1. "Disposal Area" - means a solid waste transfer facility, incinerator, sanitary landfill, processing plant or other solid waste handling or disposal facility utilized in the disposal of solid waste. (Part 115 Rules 324.11503(2))

2. "New Disposal Area" - a disposal area that requires a construction permit pursuant to the provisions of section 10(1) or section 11(2)(d) of Part 115 of P.A. 451 of 1994, including all of the following:
   a) A disposal area, other than an existing disposal area, that is proposed for construction.

b) For landfills, a lateral expansion or vertical expansion of an existing disposal area.

c) For disposal areas other than landfills, an enlargement in capacity beyond that indicated in the construction permit or in engineering plans approved before January 11, 1979.

d) For all disposal areas, an alteration of an existing disposal area to a different disposal area type than had been specified in the previous construction permit application or in engineering plans that were approved by the director or his or her designee before January 11, 1979.

e) Any modifications in State or Federal law to this definition is hereby incorporated by reference.

3. "Designated Planning Agency" ("DPA") - Agency formally designated by the county as responsible for the development of the solid waste management plan and plan updates- currently the Clinton County Department of Waste Management

4. "Local Planning Agency" ("LPA") - The local planning agency of the municipality where a new disposal area is proposed represented by Director and/or Board Chairperson. If a local planning agency does not exist, the local governing board shall serve as the "Local Planning Agency."

5. "Site Review Committee" ("SRC") - An ad hoc Committee appointed by the Board of Commissioners which shall consist of one (1) representative from the township where a disposal area is proposed; one (1) representative from the County Board of Commissioners; one (1) representative from the Planning Commission or Planning Department; one (1) representative from the Health Department; one (1) representative from the solid waste industry; one(1) representative from the general public; and one (1) representative of environmental interests.

6. "Host Community Agreement" - Any agreement, memorandum of understanding, contract, letter or other document negotiated between the Developer of a disposal area and a local host Township and/or County executed with signatures of representatives of the Developer, Township Supervisor and/or Board of Commissioners Chairperson.

7. "Board of Commissioners" ("Board") - The Clinton County Board of Commissioners.

SECTION II
PROCESS

1. All proposed disposal areas must be either included in the current or updated Solid Waste Management Plan ("Plan"), or included into the Plan through this Siting Mechanism.

During the Plan Update process or Plan amendment process, the Designated Planning Agency (DPA) shall be responsible for conducting initial reviews and provide application information to both the Local Planning Agency (LPA) and the Site Review Committee (SRC) for their assessment and findings.

3. An Applicant wanting inclusion of a new disposal area into the Plan may initiate the review process by submitting an application, which includes information listed in Section III, to the DPA. Not more than five copies may be required by the DPA. The Applicant must also submit payment of an application fee to cover costs associated with the review (stipulated in the Solid Waste Ordinance, Article 7 (7.4)) to the Clinton County Treasurer. Upon completion of the review process, if costs for the review are less than the fee, a refund of the unexpended fee will be made to the applicant.

4. The Board will determine if the site review process should proceed, except if there is less than 66 months of capacity available to the County for disposal. Should there be less than 66 months of capacity assured, the siting process shall proceed such that adequate capacity is assured.

5. Capacity can be assessed at the time of application through the use of various mechanisms including the following:
   - i) Review yearly disposal quantity needs
   - ii) Review of Air Space Capacity Reports for facilities located within the County which indicate, in aggregate, the amount of space and number of years remaining at those facilities.
   - iii) Compilation of unused permitted capacity of facilities in authorized counties named in this Plan, divided by rate of fill per year to project space remaining. This, in combination with "a)" and taking into consideration of any limitations for exporting to authorized counties should yield an approximate number of years remaining at those facilities. The Capacity Certification form may be used as a tool to assemble such data and is attached.

6. If the process is to proceed, the DPA shall review the application for administrative completeness in accordance with requirements of Section III. If no determination is made within 15 working days, the application shall be considered administratively complete. If the application is found to be incomplete, the developer shall be notified of deficiencies and have 30 days to provide additional information. If the additional information is not provided within 30 days, the application shall be deemed to be denied.

   A host agreement may be entered into between the Applicant and host Community and/or the host County. The Applicant, Community and/or County may decline the necessity for an agreement if they so choose, but must convey that decision to

the SRC. Successful negotiation of an agreement with the host Township will eliminate step #7, #8 and #9 in this section. The host agreement may address the following issues:

a) Hours of Operation;
b) Mud tracking;
c) Funding Issues,
d) Noise, litter, odor, dust control;
e) Access to operating records and reports;
f) Facility security;
g) Monitoring of wastes accepted and prohibited;
h) Composting and Recycling;
i) Annual Caps; and,
j) Any other issues as may negotiated between the parties.
k) This listing is neither meant to be completely inclusive or exclusive of issues which may be addressed in an agreement.

8. At the time that the application is found to be administratively complete, the application shall be forwarded to the LPA and SRC.

9. Within 60 days from the date the application is received, the LPA shall complete its review of the application and make its findings known to the SRC. As a part of the review, and within the 60 day review time period, DPA will conduct a public hearing on the proposed disposal area siting. To the degree that facilities are available in the host municipality, the DPA will attempt to hold the hearing in that locale. Should the LPA fail to complete a review and make its findings know within the 60 day time period, the application shall be considered approved by the LPA. Should the DPA fail to conduct a public hearing, the SRC may order the hearing conducted during its review period.

a) Any Applicant submitting an application with a negotiated host community agreement put in place between the Applicant and host community will not be required to proceed through Step #6 and Step #7.
b) Their application will be forwarded directly to the SRC (Step #8). In this event, during the review period for the SRC, the DPA shall be required to conduct a public hearing, compile the comments and submit them to the SRC.

10. In conducting reviews, consideration shall include the degree to which the application is consistent with the criteria for siting contained in Section IV. The LPA shall forward its findings and comments regarding consistency with the criteria to the SRC. The DPA shall submit public hearing comments to the SRC.

11. The SRC shall have 60 days in which to complete its review of the application. Failure to complete the review in 60 days and to demonstrate completion of a

5.14 SITING NEW FACILITIES OR EXPANSIONS

Clinton County has verified sufficient disposal capacity (exceeds ten years) such that siting or expansion of an existing disposal facility is unnecessary and unanticipated. However, should occasion arise that a developer proposes a facility, and should the County determine that in spite of lack of need, that it should be considered, a site review process is included in the Plan. In this manner, developers will be assured of responses that are prompt and fair. It is intended that this review process be used for consideration of any of the following solid waste facilities:

- Landfill expansion (vertical or horizontal)
- Landfills located in areas not presently hosting such facilities
- Transfer Stations
- Construction or expansion of MRF's handling non-source separated materials.

Municipal solid waste incinerators will not be sited in Clinton County.

CLINTON COUNTY SITING PROCEDURE
NEW DISPOSAL AREAS

The following stipulates the process by which new disposal areas are considered for inclusion into the Clinton County Solid Waste Management Plan.

SECTION I
DEFINITIONS

1. "Disposal Area" - means a solid waste transfer facility, incinerator, sanitary landfill, processing plant or other solid waste handling or disposal facility utilized in the disposal of solid waste. (Part 115 Rules 324.11503(2))

2. "New Disposal Area" - a disposal area that requires a construction permit pursuant to the provisions of section 10(1) or section 11(2)(d) of Part 115 of P.A. 451 of 1994, including all of the following:
   a) A disposal area, other than an existing disposal area, that is proposed for construction.

b) For landfills, a lateral expansion or vertical expansion of an existing disposal area.

c) For disposal areas other than landfills, an enlargement in capacity beyond that indicated in the construction permit or in engineering plans approved before January 11, 1979.

d) For all disposal areas, an alteration of an existing disposal area to a different disposal area type than had been specified in the previous construction permit application or in engineering plans that were approved by the director or his or her designee before January 11, 1979.

e) Any modifications in State or Federal law to this definition is hereby incorporated by reference.

3. "Designated Planning Agency" ("DPA") - Agency formally designated by the county as responsible for the development of the solid waste management plan and plan updates- currently the Clinton County Department of Waste Management

4. "Local Planning Agency" ("LPA") - The local planning agency of the municipality where a new disposal area is proposed represented by Director and/or Board Chairperson. If a local planning agency does not exist, the local governing board shall serve as the "Local Planning Agency."

5. "Site Review Committee" ("SRC") - An ad hoc Committee appointed by the Board of Commissioners which shall consist of one (1) representative from the township where a disposal area is proposed; one (1) representative from the County Board of Commissioners; one (1) representative from the Planning Commission or Planning Department; one (1) representative from the Health Department; one (1) representative from the solid waste industry; one(1) representative from the general public; and one (1) representative of environmental interests.

6. "Host Community Agreement" - Any agreement, memorandum of understanding, contract, letter or other document negotiated between the Developer of a disposal area and a local host Township and/or County executed with signatures of representatives of the Developer, Township Supervisor and/or Board of Commissioners Chairperson.

7. "Board of Commissioners" ("Board") - The Clinton County Board of Commissioners.

SECTION II
PROCESS

1. All proposed disposal areas must be either included in the current or updated Solid Waste Management Plan ("Plan"), or included into the Plan through this Siting Mechanism.

During the Plan Update process or Plan amendment process, the Designated Planning Agency (DPA) shall be responsible for conducting initial reviews and provide application information to both the Local Planning Agency (LPA) and the Site Review Committee (SRC) for their assessment and findings.

3. An Applicant wanting inclusion of a new disposal area into the Plan may initiate the review process by submitting an application, which includes information listed in Section III, to the DPA. Not more than five copies may be required by the DPA. The Applicant must also submit payment of an application fee to cover costs associated with the review (stipulated in the Solid Waste Ordinance, Article 7 (7.4)) to the Clinton County Treasurer. Upon completion of the review process, if costs for the review are less than the fee, a refund of the unexpended fee will be made to the applicant.

4. The Board will determine if the site review process should proceed, except if there is less than 66 months of capacity available to the County for disposal. Should there be less than 66 months of capacity assured, the siting process shall proceed such that adequate capacity is assured.

5. Capacity can be assessed at the time of application through the use of various mechanisms including the following:
   - i) Review yearly disposal quantity needs
   - ii) Review of Air Space Capacity Reports for facilities located within the County which indicate, in aggregate, the amount of space and number of years remaining at those facilities.
   - iii) Compilation of unused permitted capacity of facilities in authorized counties named in this Plan, divided by rate of fill per year to project space remaining. This, in combination with "a)" and taking into consideration of any limitations for exporting to authorized counties should yield an approximate number of years remaining at those facilities. The Capacity Certification form may be used as a tool to assemble such data and is attached.

6. If the process is to proceed, the DPA shall review the application for administrative completeness in accordance with requirements of Section III. If no determination is made within 15 working days, the application shall be considered administratively complete. If the application is found to be incomplete, the developer shall be notified of deficiencies and have 30 days to provide additional information. If the additional information is not provided within 30 days, the application shall be deemed to be denied.

A host agreement may be entered into between the Applicant and host Community and/or the host County. The Applicant, Community and/or County may decline the necessity for an agreement if they so choose, but must convey that decision to

the SRC. Successful negotiation of an agreement with the host Township will eliminate step #7, #8 and #9 in this section. The host agreement may address the following issues:

a) Hours of Operation;
b) Mud tracking;
c) Funding Issues,
d) Noise, litter, odor, dust control;
e) Access to operating records and reports;
f) Facility security;
g) Monitoring of wastes accepted and prohibited;
h) Composting and Recycling;
i) Annual Caps; and,
j) Any other issues as may negotiated between the parties.
k) This listing is neither meant to be completely inclusive or exclusive of issues which may be addressed in an agreement.

Return to Approval Letter

8. At the time that the application is found to be administratively complete, the application shall be forwarded to the LPA and SRC.

9. Within 60 days from the date the application is received, the LPA shall complete its review of the application and make its findings known to the SRC. As a part of the review, and within the 60 day review time period, DPA will conduct a public hearing on the proposed disposal area siting. To the degree that facilities are available in the host municipality, the DPA will attempt to hold the hearing in that locale. Should the LPA fail to complete a review and make its findings know within the 60 day time period, the application shall be considered approved by the LPA. Should the DPA fail to conduct a public hearing, the SRC may order the hearing conducted during its review period.

a) Any Applicant submitting an application with a negotiated host community agreement put in place between the Applicant and host community will not be required to proceed through Step #6 and Step #7.
b) Their application will be forwarded directly to the SRC (Step #8). In this event, during the review period for the SRC, the DPA shall be required to conduct a public hearing, compile the comments and submit them to the SRC.

10. In conducting reviews, consideration shall include the degree to which the application is consistent with the criteria for siting contained in Section IV. The LPA shall forward its findings and comments regarding consistency with the criteria to the SRC. The DPA shall submit public hearing comments to the SRC.

11. The SRC shall have 60 days in which to complete its review of the application. Failure to complete the review in 60 days and to demonstrate completion of a

public hearing shall be deemed automatic approval of the application - and result in it being forwarded to the Michigan Department of Environmental Quality ("MDEQ").

12. The SRC shall make and send the final determination of consistency for the proposal to the applicant.

13. To be found consistent with the Plan, a proposed solid waste disposal area must comply with all siting criteria and requirements described in Section IV. Each proposal will be evaluated only against these criteria. If the disposal area is found to be consistent, a letter of consistency recommended and developed by the SRC shall be forwarded to the MDEQ from the Board of Commissioners.

14. If the proposal is found to be inconsistent with the Plan, the Applicant may provide additional information to address identified deficiencies. Additional information addressing deficiencies must be submitted to the SRC within 30 days. The SRC may only amend its initial findings based on the submitted information if that information clarifies or corrects original deficiencies.

15. If the Applicant does not agree with the consistency decision of the SRC; or, if no consistency determination has been rendered within the prescribed timeframe, the developer may appeal the determination request to the MDEQ.

16. In all circumstances, the MDEQ shall issue a final determination of consistency with the Plan upon submittal by the Applicant of an application for a construction permit. The MDEQ shall review the determination made by the SRC to ensure that the criteria and review procedures have been properly adhered to.

Return to Approval Letter

SECTION III
APPLICATION

1. The application shall include the following contact information:
   a) Name (for the applicant, including partners and other ownership interests)
   b) Address of persons listed above
   c) Phone Number, Fax Number, and E-Mail
   d) The property owner of the site
   e) Name any consultants to be involved in the project and submit their resumes
   f) Name a designated contact person for the Applicant
   g) Specify the type of facility proposed

   The application shall include the following site information:
   a) Site location and orientation
   b) A legal description of the project area

c) A site map which includes roadways and principal land features within two miles of the site

d) Topographic map with contour intervals of no more than ten feet

e) 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 trunkline

f) A current map showing the proposed site and surrounding zoning, domiciles and present usage of all property within one mile of the site.

3. The application shall include the following descriptions:

a) Current site use and ground cover;

b) Map showing locations of:

i) all structures within 1,200 feet of the perimeter of the site,

ii) location of all airports within 10,000 feet,

iii) location of any utilities,

iv) location of 100 year floodplain (within 1,200 feet of the site),

v) location of all wetlands as defined in Part 303,

vi) site soil types,

vii) other general geological characteristics;

viii) all water wells within 800 feet,

ix) all lakes, rivers or streams within 400 feet,

x) all drains within 400 feet.

c) A description of the proposed site and facility design - which shall include final design capacity;

d) Description of operations of the facility including planned annual usage, anticipated sources of solid waste and facility life expectancy.

SECTION IV
CRITERIA

A proposed disposal area must meet the following criteria in order to be considered consistent with the Plan:

1. The Plan area where the disposal area is proposed to be located has less than 66 months of disposal capacity for waste generated in that county as demonstrated by a current capacity certification. Certification may be demonstrated as prescribed in II-.

i) NOTE: If the county has more than 66 months of disposal capacity available, the LPA may, at its discretion, refuse siting of a facility within their jurisdiction. Under such circumstances, the SRC may also, at its discretion, refuse a finding of consistency and disallow

inclusion of the facility in the Plan during either the Plan Update process or any subsequent plan amendment process.

2. An administratively complete application shall be on file.

3. Isolation and location restrictions are specified in Part 115 of P.A. 451 of 1994 as amended and its Administrative Rules as amended. They are incorporated here by reference. Additionally, the following criteria are not intended to be less restrictive than State or Federal law. As such, modifications and amendments adopted into law which produce changed in criteria specifications are hereby incorporated by reference.

4. The active work area for a new facility or expansion of an existing facility shall not be located closer than 500 feet from adjacent property lines, road rights-of-way, lakes and perennial streams.

5. The active work area for a new facility or expansion of an existing facility shall not be located closer than 1,000 feet from residences or public schools existing at the time of submission of the application.

6. A sanitary landfill shall not be constructed within 10,000 feet of a licensed airport runway.

A 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.

8. A facility shall not be located in a wetland regulated by Part 303, Wetlands Protection, of Act 451, unless a permit is issued.

9. A facility shall not be constructed in lands enrolled under Part 361, Farmland and Open Space Preservation, of Act 451.

10. A facility shall not be located in a regulated 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.

11. A facility shall not be located in an area of groundwater recharge as defined by the United States Geological Survey or in a wellhead protection area approved by the Michigan Department of Environmental Quality.

12. A facility shall not be located in a designated historic or archaeological area defined by the state historical preservation officer.

A facility shall not be located or permitted to expand on land owned by the United States of America or the State of Michigan. Disposal areas may be located on State land only if both of the following conditions are met:

a) Thorough investigation and evaluation of the proposed site by the facility developer indicates, to the satisfaction of the 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.

14. Facilities may only be located on property zoned as agricultural, industrial, or commercial.

15. The owner and operator of a facility shall demonstrate effort to cooperate with the county on current and future recycling and composting activities as described in the Plan by submitting a letter to the county indicating their awareness of the strategies described in the Plan and a willingness to cooperate with those strategies.

16. A facility shall be located so that ingress and/or egress to the facility can occur on a paved, all weather "Class A" road. If a facility is not on such a road, the developer shall agree to submit signed statements indicating a willingness to provide for upgrading and/or maintenance of the road serving the facility.

PART IV - DISPOSAL FACILITY CAPACITIES (all figures in cubic yards, last column in years)
Attach extra sheets, as necessary, and include in totals)

	Authorized Airspace	Amount Used to Date	Space Remaining	Space Used /Year	Remaining Capacity (Years)
Type II Facilities (list by name, indicate any restrictions on use)					
In County:					
Out of County:					
Total Type II Capacity					
Type III Facilities (list by name, indicate any restrictions on use)					
In County					
Out of County					
Total Type III Capacity					

PART V - LIFESPAN DISPOSAL CAPACITY

	Column A Yds^3 Generated/Year (from Part III)	Column B Yds^3 Space Available (from Part IV)	Column C Years of Capacity (Column B/Column A)
Type II			
Type III			
Total			

By June 30 of each year, submit this form, along with a certified copy of either a resolution or certified meeting minutes demonstrating approval of this certification by the County Board of Commissioners, to:
Solid Waste Management Unit, Waste Management Division, Department of Environmental Quality, PO Box 30241, Lansing, Michigan 48909-7741.

DEQ Michigan Department of Environmental Quality, Waste Management Division

ANNUAL COUNTY SOLID WASTE DISPOSAL CAPACITY CERTIFICATION

Section 11538(4) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protectic. 1994 PA 451, as amended, requires all Counties in Michigan to prepare and submit to the Department of Environm Quality (DEQ) by June 30 of each year a certification of the solid waste disposal capacity available to that County. Fa to adopt and submit the annual certification is equivalent to a finding that the County has insufficient disposal capacity will require the interim siting mechanism of the County's approved solid waste management plan to be operative. Ar capacity certifications must be approved by the County Board of Commissioners. Evidence of the Boar Commissioners approval (a certified resolution or meeting minutes) must be submitted with this Certification. Submi Certification annually to the address indicated at the end of this form by June 30.

PART I - SOLID WASTE GENERATION

Type II	Tons/Year	Conversion Factor	Yards^3/Year	Compaction Factor	Yards^3 Disposal/Year
-Municipal Solid Waste					
-Incinerator Ash					
-Commercial/Industrial					
-Other					
Total Type II					

Type III (if not included in Type II above)

-Low Hazard Industrial					
-Construct/Demolition					
-Other (explain)					
Total Type III					
Total Solid Waste					

PART II - WASTE REDUCTION AND RECYCLING (Attach additional sheets, as necessary, and include in totals)

Type of Material	Tons/Year Collected	Tons to be Collected Next Year	Conversion Factor	Yds^3 to be Diverted
Total				

PART III - TOTAL WASTE NEEDING DISPOSAL

	Column A Yds^3/Year Generated (from Part I)	Column B Yds^3/Year Diverted (from Part II)	Column C Yds^3/Year Disposed (Column A-Column B)
Type II			
Type III			
Total			

SITING PROCESS FEE

COST ITEM	UNIT COST	TOTAL
Advertise for applicants to be appointed to SRC	$ 40.00	$ 40.00
Notice of Public Hearing 3 papers	$ 500.00	$ 500.00
Court Recorder	$ 150.00	$ 150.00
Per Diem Site Review Committee (2 meetings)	$ 35.00	$ 490.00
Mileage - Site Review Committee (2 meetings)	$ 8.00	$ 112.00
Copies	$ 40.00	$ 40.00
Postage	$ 30.00	$ 30.00
Consulting 20 hours	$ 150.00	$ 3,000.00
TOTAL		**$ 4,362.00**

SET FEE = $4500.00

Current available capacity anticipates minimal need for additional facility siting. Thus, a process which warrants a fee sufficient to cover costs

Staff time is excluded from the basis of this fee. It is presumed that the plan will be staffed and as such, this would be a part of plan implementation duties.
A scenario where the Plan is unstaffed however, may require elevating the site processing fee to cover staffing costs,

NEW DISPOSAL FACILITY SITING PROCESS

Who	Responsibility	Number of Days	If "No"	If There Is a HCA*
APPLICANT	Submit Application to DPA			
BOARD	Determine if should proceed with process	30	30	30
DPA	Review for Completeness	15	15	15
	If incomplete request submittal of further information		30	
	If complete, forward to LPA and SRC			
DPA & LPA	Review application and formulate finding re: consistency. DPA conduct public hearing.	60	60	
	Submit findings of LPA and hearing testimony to SRC			
SRC	Review findings and make determination re: consistency with Plan	60	60	60
	SRC reports finding to the applicant.			
	A finding of consistency means the new disposal area is sited and becomes a part of the Plan. Letter of consistency is forwarded to the MDEQ			
	If found inconsistent, applicant may submit added information to address deficiencies		30	
	SRC may only issue new findings on a re-submitted in regards to criteria originally found deficient. New finding must be forwarded to the MDEQ.		30	
	Should the SRC continue to find the proposed disposal area to be inconsistent, the applicant may appeal to the MDEQ if, and only if, less than 66 months of capacity remains for the Plan area.			
	TOTAL NUMBER OF DAYS	165	255	105

* This represents the fastest timeframe in which a proposed disposal area may be sited and presumes no inadequacies in information provided or deficiencies. Inadequacies or deficiencies would add review time to this schedule.

Return to Approval Letter

SITING CRITERIA - Isolation Distances

CRITERIA IN SITE MECHANISM		LEGAL REFERENCES & NOTES				
DESCRIPTION	DISTANCE	LAW	IN PA 451 RULES		NOTES	
Adjacent Property	(in feet)					
Property Lines	500	Part 115 of PA 451	100	Rule 412	Berm required if less than 200 ft	
Road Rights of Way	500	Part 115 of PA 451	100	Rule 412	Berm required if less than 200 ft	
Lakes/Streams	500	Part 115 of PA 451	400	Rule 412		
Homes	500	Part 115 of PA 451	300	Rule 412		
Water Supplies and		Part 115 of PA 451	various	Rule 412	Or as Defined by the Director	
Wellheads		Part 115 of PA 451				
Airports	1000	Part 115 of PA 451	5000	Rule 414	Must notify affect airport and FAA if expanding to within 5-mile radius	Has been discussion of 12,000 feet
100 Year Floodplain	Prohibited	Part 31/PA 451/Rule 323.311	Allows, but with numerous restrictions	Rule 415		
(none in CC)						
Wetlands	Prohibited	Part 303/PA 451	Generally prohibited	Rule 416	Allows only under specific circumstances and mitigation.	
(map)						
Farmland Preservation Act	Prohibited	Part 361/PA 451			Not addressed in PA 451 - new priority	
(PDR Program)					(none approved in CC yet, 1800 acres applied)	
Historic orArcheological	Prohibited	MI or Fed Register of Historical Places	Prohibited	Rule 413		
Fault Areas			200 ft from fault	Rule 417	(if expansions)	
			Generally prohibited	Rule 417	within seismic impact zones	

PART SIX: MANAGEMENT COMPONENT

6 PART SIX - MANAGEMENT COMPONENT

This section of the Plan identifies the parties responsible for various aspects of the Plan. Further, it delineates responsibilities of the main players accountable for implementation, defines enforcement, plan implementation and funding strategies.

Strategies, programs and services contained in the Plan are constructed with the intent that there be continued increase in the number of residents and businesses who consider and adopt practices and that ultimately fulfill the objectives of this Plan.

6.1 IDENTIFICATION OF RESPONSIBLE PARTIES

Facility or Activity	Responsible Party
General	
Plan Implementation	County Board of Commissioners through Department of Waste Management
Plan Enforcement	County Board of Commissioners through Department of Waste Management
Program Advisement	Solid Waste Council
Plan Update or Amendment	County Board of Commissioners through Department of Waste Management
Resource Conservation	Department of Waste Management through education
Source or Waste Reduction	Department of Waste Management
Product Reuse	Department of Waste Management
Reduce Material Volume	Department of Waste Management, Municipalities
Increased Product Life	Department of Waste Management
Decreased Consumption	Department of Waste Management
Education	Department of Waste Management
Resource Recovery Programs	
Composting	
Municipal Sites	Municipalities
Individual Residents - backyard composting or to Granger drop-off	Residents
Recycling	
County Drop-Off Sites	Department of Waste Management through contracts with vendors
Granger Recycling Center	Granger Container Service Corp.
St. Johns Recycling Site	St. Johns Lions Club
Laingsburg Recycling Site	Greater Laingsburg Recyclers
Subscription Curbside	Residents or businesses

Municipal or Subdivisions	Municipality or homeowner assoc.
Businesses	Businesses
Energy Production	
Methane Energy Plant	Facility owner/operator
Waste Reduction/Volume Reduction	
Volume-based Collection	Municipalities or individuals
Solid Waste	
Residential Subscription Curbside	Residents
Municipalities or Subdivisions	Municipalities or homeowner assoc.
Purchasing	
Education	Department of Waste Management (& Eaton & Ingham Counties)
Disposal Areas	
Processing Plants	Facility owner/operator
Transfer Stations	None sited
Sanitary Landfills	Facility owner/operators
Ultimate Disposal Area Uses	Unknown
Monitoring and Enforcement	County Board of Commissioners through Department of Waste Management

Documentation of acceptance of responsibilities is contained in Appendix D.

6.2 GAPS AND PROBLEM AREAS IN EXISTING MANAGEMENT SYSTEM

Gaps and problems in the existing system come in two primary forms;

a) program and service deficiencies identified by the public and through this planning process, named in Part 3, Section 5: Identification and Evaluation of Deficiencies and Problems; and

b) difficulties in working with local disposal facilities.

The first is dealt with through a commitment identified in the Program Matrix to address gaps in services. Programming places emphasis on working with the business community, promoting purchase of recycled products and constructing a cost effective solution to household hazardous waste handling.

The second problem area requires more communication with the disposal facilities, clear description of the role of the County, and perhaps Legislation. By establishing a baseline Ordinance addressing solid waste handling standards in this County, a portion of this objective is met. The remaining challenge is a matter of cooperation between the disposal facility owner/operators and the County.

6.3 PLAN IMPLEMENTATION COMPONENTS

At minimum these components are necessary for implementing the Plan's chosen system:

- Administrative structure
- Education
- Collection systems
- Analysis and policy making; evaluation
- Enforcement

Administrative Structure

Authorities: Authority to implement and enforce the Plan is delegated by the Board of Commissioners to a person or agency within the County. The Plan envisions continued employment of a Waste Management Coordinator and continuation of the Department of Waste Management as the agency to administer and implement tracking, education, analysis, some collection services and enforcement responsibilities contained in the Plan. The Plan provides for continuation of an advisory Solid Waste Council (SWC - formerly known as the Designated Implementation Agency, or DIA) to meet on a regular basis with the Waste Management Coordinator for the purpose of reviewing existing programming, advising on administrative matters and assessing services as may be appropriate. All funding, staffing, final program and budget approvals are made by the Board of Commissioners.

Staffing: The Plan envisions continued staffing of the Department of Waste Management with the Waste Management Coordinator as Director, an Assistant Waste Management Coordinator responsible for all public relations, education and outreach activity, and a ¾ time Administrative Assistant to manage data tracking, financial matters, meetings, and to field basic questions from residents, businesses and local municipalities on matters of recycling and solid waste. Specific Roles and Responsibilities are detailed in Section 6.4.

Appendix A-1d contains a Programming Matrix outlining programs to achieve objectives of this Plan over the next five years. The Matrix describes each program and the objective it serves. The following are the minimum programming components needed to implement the Plan.

Education Programs

The central strategy used to reduce waste generation, encourage recycling, composting and purchase recycled products is education. Staffing and expenditures of the County reflect the importance of this tool to accomplishing objectives in the Plan. Details of education strategies to be employed are

contained in Section 5.12. The Program Matrix details program strategies for the next five years (Appendix A-1d).

Collection Systems

The Plan authorizes establishment of collection programs and services by the County which are not readily or consistently available at the local level. This includes drop off recycling, collection of hard to dispose of items (refrigerators, couches, tires, etc.), management of household hazardous wastes, automotive fluids, pesticides and containers, etc. While household hazardous wastes may be disposed of as solid waste, this Plan reflects continued commitment to utilize more environmentally responsible methods to the extent available and economically feasible.

Reducing the concentration and amount of such materials disposed of in the two local landfills as well as other landfills is a risk prevention step that should be utilized to the extent that local entities are able. Some collection programs and services may be provided directly by the County through its administering agency (Department of Waste Management); some may be provided through local grants awarded by the County and funded through landfill user fees; and some services will be provided by other entities with whom the county will seek cooperative relationships.

Other than these services, residents and businesses of the County will continue to contract for waste collection and other curbside services independently or through municipal, subdivision or housing association contracts.

Analysis and Policy Making - Evaluation Components

Analysis and Policy Making: Policy development at the local, state and federal levels directly impacts the success of this Plan, and recycling and solid waste management in general. In many respects, the health and success of recycling is directly tied to policy and legislative actions at all governmental levels. This Plan, therefore, affirms and provides for involvement in legislative and policy development. Elected officials or their designees and/or their state or federal Associations are appropriate persons to represent concerns and recommendations of this County. The Plan encourages involvement by elected officials in local, state and federal organizations, meetings, conferences and legislative sessions which address or develop policies to enhance the goals of this plan.

Evaluation and Data: Evaluation of programs and services are essential to keeping programs successful and efficient, and to keeping the Plan dynamic and current. During the last planning cycle, periodic in-house cost/benefit analysis were performed of programs resulting in a surprising conclusion of eliminating two popular, but not very cost-effective programs. Additionally, use of an outside survey company to assess the public's perception of problems and challenges

related to recycling provided insight and guidance in further program development and/or elimination. Such efforts will continue into the next Planning cycle. Once every other year an internal assessment shall be conducted. Once during the five year planning cycle, preferably just prior to the next Plan Update, an independent survey will be conducted. Additionally, once during this Plan Update cycle, a waste characterization study will be conducted to determine recycling impacts, and to compile a profile of waste generated in Clinton County by material type.

Solid data is the cornerstone for evaluating performance. Unfortunately, it's an area where the County has experienced considerable difficulties. The county will continue to refine existing data collection efforts. The County will also work to coordinate its own data collection efforts with those of the State - recognizing the value in consistency among counties for the purpose of sound analysis and comparisons. The previous plan did not *require even* minimal data from waste and recycling service providers. Rather, the county solicited voluntary information. Many providers have volunteered detailed information; others have not. Achieving a level of consistency and credibility will be the focus in the coming Plan period.

Enforcement

Enforcement processes are detailed in Section 6.8 of this Plan and in an adopted Solid Waste Management Ordinance in Appendix D-3. Matters not addressed by the Solid Waste Ordinance but contained within the Plan will seek enforcement through violation penalties prescribed and provided for in Part 115 and its rules and regulations. Additionally, the County may enter into legally executed agreements with vendors, disposal facilities or other entities, to buy or sell equipment, as may be necessary to complete programming consistent with the Plan and which is approved by the County.

6.4 ROLES AND RESPONSIBILITIES

The Administrative Structure used to implement and enforce this Plan includes four primary players: the County Board of Commissioners; the Solid Waste Council; the Waste Management Coordinator; and the Department of Waste Management. The following defines the roles and responsibilities of each.

Board of Commissioners

The Clinton County Board of Commissioner has, by virtue of this Plan, overall authority and responsibility for implementing the approved Solid Waste Management Plan to the extent economically feasible. Specifically, the Board shall have the following roles and responsibilities:

- The Board is responsible for staffing and making appointments as may be necessary to administer and implement the Plan, including appointment of the Waste Management Coordinator and Solid Waste Council.

- The Board annually reviews and approves an operating budget for Plan implementation. The Board approves expenses associated with Plan implementation, approves, and/or amends the budget throughout any given fiscal year.

- So long as implementation of the Plan is funded through collection of a user fee from disposal facilities, the Board shall assure the continuation of a fund separate from the County General fund dedicated to the receipt of fee revenues. The fund shall be used to pay expenses associated with implementation and enforcement of the approved Plan.

- The Board designates the Designated Planning Agency. As of the date of this Plan document, the Department of Waste Management is the County's DPA.

- The Board defines the duties of any staff, departments or councils designated to implement the Plan.

- The Board may enter into agreements or contracts with any person, governmental or private organization on matters pertaining to implementation of the Plan

- The Board may enact ordinances for the purpose of enforcing the Plan, as specified in section 6.8, titled Enforcement, Local Ordinances and Regulation, of this Plan.

Solid Waste Council

The Solid Waste Council is a five-person council appointed by the Board of Commissioners with membership representing: the municipalities hosting disposal facilities; the Health Department; Board of Commissioners; and County Planning and Zoning. Currently two townships host disposal facilities. Should additional municipalities become hosts to disposal facilities, membership may be expanded to include representatives of those municipalities. Township representatives shall hold their appointed offices for a term established by the Board of Commissioners.

The Solid Waste Council replaces the Designated Implementation Agency identified in the previous Plan. This Plan does not intend a disruption in appointments, thus members of the former DIA assume responsibilities of the Solid Waste Council as outlined in this Plan. The Department of Waste Management shall provide staffing to the Council. Specifically, the Solid Waste Council shall have the following roles and responsibilities:

- The Solid Waste Council provides advice to the Waste Management Coordinator, the Department, and provides a forum for discussion of program, services, and enforcement issues pertaining to implementation of the Plan.
- The Solid Waste Council shall conduct a minimum of four meetings per year. Of the four meetings, a minimum of one meeting shall be conducted in each of the townships hosting disposal facilities.
- The Solid Waste Council shall make recommendations to the Board on programming, grants, budgets and enforcement issues as they pertain to implementation of the Plan or Ordinance.
- The Solid Waste Council may conduct public hearings on issues pertaining to implementation of the Plan.
- The Solid Waste Council may establish and maintain bylaws under which it will conduct proceedings, make sub-appointments, and otherwise carry out its responsibilities.
- The Solid Waste Council may negotiate and recommend to the Board agreements as may be necessary for the management of solid waste and implementation of this Plan.

Department of Waste Management

- Serve as the Designated Planning Agency for purposes of preparing Plan Updates and/or Plan Amendments if so designated by the Board of Commissioners.
- In its capacity as Designated Planning Agency, provide staff support to the Solid Waste Management Planning Committee during the Plan Update, or Plan Amendment Process and provide staff support to the Site Review Committee during any facility siting processes.
- As designated by the Board, provide programs, information and services as may be necessary to achieve goals and objectives contained in this Plan.

Waste Management Coordinator

The Board of Commissioners may hire a Waste Management Coordinator (WMC) to serve as Director of the Department of Waste Management. The WMC will be responsible to the Board of Commissioners for programming, information and services of the Department, including Plan implementation, amendments and future Plan Updates. Should the Department of Waste Management be the agency designated as the Designated Planning Agency, the Waste Management Coordinator (WMC) shall serve as the Designated Planning Agency contact for the Michigan Department of Environmental Quality. The WMC shall:

- Be responsible to the Board of Commissioners, and work with the SWC on matters pertaining to implementation of the Plan.
- Assure staff support to the SWC.
- Hire and supervise staff of the Department of Waste Management who may be responsible, under the direction of the WMC, for implementation and enforcement of the Plan.
- The WMC, through the Department of Waste Management, shall be the primary point of contact for the Department of Environmental Quality on Plan implementation matters.
- Prepare and administer an annual budget.
- Develop and direct administrative and programmatic responsibilities of the Department of Waste Management necessary to implement, administer and enforce the Plan and Ordinance including:
    - ✓ Annually evaluate the progress in accomplishing County recycling and waste reduction goals set forth in the Plan, and publish an annual report of progress toward the goal.
    - ✓ Develop a data base that accurately reflects volumes and types of waste being hauled into landfills within the Plan area.
    - ✓ Develop a data base to quantify recycling impacts.
    - ✓ Work with local units of government, service organizations and private haulers to expand recycling collection and waste reduction in the County.
    - ✓ Work with the Board and County Departments to implement the waste reduction policy and encourage recycled product procurement.
    - ✓ Develop and implement public information and education efforts aimed at individuals, students, industries, institutions, commercial establishments and other units of government for the purpose of meeting Plan goals and objectives.
    - ✓ Annually review compliance of any legally enacted agreement entered into by the County in accordance with the Plan.
    - ✓ Inspect and monitor solid waste disposal facilities within Clinton County for compliance with the Plan and Solid Waste Ordinance. The Clinton County Sheriff's Office, and police departments located in the County, are authorized upon the request of the WMC to work with the WMC on Ordinance enforcement activities.

- ✓ Issue appearance tickets or appearance summons to alleged violators of the Ordinance.

Legal Capacity of the Entities Assigned Plan Implementation Responsibilities

All entities assigned responsibilities are legally established entities with legally established authority to implement programs and services specified in the Plan.

6.5 ACCEPTANCE OF RESPONSIBILITIES ASSIGNED

Parties identified in the previous section accept their roles and responsibilities as they pertain to successful implementation of the Plan. The Department of Waste Management accepts its role and responsibilities for programming, implementation and enforcement of the Plan. Documentation of acceptance of responsibilities is contained in Appendix D-2.

Local Units of Government

Local Units of Government continue to retain autonomy over how residential waste handling needs are met. However, this Plan envisions cooperative relationships between the County, Townships, Cities and Villages in matters of shared information and techniques. The County, through the Waste Management Coordinator and Department of Waste Management will provide technical assistance, and opportunities for exchange of techniques and strategies both within the County and outside the County. Issues which may be shared include cooperative purchasing of recycled content products, shared equipment (chippers, leaf vacuums, etc.), and shared techniques for collection services.

Regional Solid Waste Management Planning Agency

Tri-County Regional Planning is no longer the regional solid waste management planning agency (Designated Planning Agency). They do, however, continue to have sophisticated land use, water and zoning information and will continue to play an important support role for the County.

6.6 COORDINATION WITH OTHER PLANS AND PROGRAMS WITHIN THE PLAN AREA

Coordination with other counties in the Plan area occurs on two levels. An informally established group called the Regional Recycling Coordinators Council (R_2C_2) consisting of the education and recycling coordinators of the area assemble regularly to work cooperatively on educational programs and share information on their approaches to implementing educational components of their Plan. Additionally, the DPA's of the Plan area (and beyond) assemble to discuss matters

related to solid waste management strategies in general, policy issues and administrative challenges.

Within the County, coordination occurs on both the educational and enforcement front. The Department of Waste Management works very closely with each of the schools in the County in regard to recycling and waste reduction education. This network will continue and expand to other issues, such as purchasing of products with recycled content and waste reduction measures. Cooperative efforts with Departments, agencies and organizations within the County will also continue. Work with Cooperative Extension, Natural Resource Conservation Service, Clinton Conservation District, the Road Commission, Planning and Zoning and the Sheriff's Office are all essential to the delivery of programs, services and enforcement efforts important to residents. The Department will also be increasing its cooperation with, and assistance to, businesses by offering waste stream analysis, buy-recycled purchasing guidelines, and other forms of programming.

6.7 TRAINING AND PROFESSIONAL DEVELOPMENT

The Board of Commissioners sets the standards for staff through established Position Descriptions. These descriptions are contained in Appendix D-5. Involvement by staff in professional development focused on waste management, recycling, the environment and purchasing issues that provide added opportunities to acquire training shall be encouraged and supported.

6.8 ENFORCEMENT, LOCAL ORDINANCES AND REGULATION

General

The Plan sets forth conditions and circumstances which, if implemented and enforced, will assure capacity for solid waste disposal, and the handling of solid waste in a manner that protects public health, safety and welfare. In implementing and enforcing the Plan, the Department will work cooperatively with other offices and local authorities to assure that persons or organizations involved in violation or improper solid waste handling situations are educated and brought into compliance.

This section of the Plan does not preclude adoption of local ordinances governing the collection and management of solid waste within a municipality so long as such ordinances do not result in a conflict with the Plan. For example, local ordinances may prescribe local funding, collection methods, restrictions on placement of waste and recyclables at the curb, etc., but may not provide for end disposal locations other than those contained within this Plan document.

Authority

In generally, the County Board of Commissioners may enact ordinances to enforce policy over which they have jurisdiction. (See MCL 46.11 et.seq. [MSA 5.331, sec. II (m)]) Part 115 delegates certain implementation and enforcement authorities over solid waste management issues to the County through an approved Solid Waste Management Plan. Under this Plan, the County will utilize a variety of mechanisms to fulfill its implementation and enforcement obligations including, but not limited to, resolutions, agreements, or ordinances. This Plan authorizes the use of a solid waste ordinance to regulate issues as specified in this section (6.8) of the Plan. The Ordinance specifies roles and responsibilities of various persons and entities involved in implementation and enforcement of the Plan. This includes: restrictions in the handling, recycling and disposal of solid waste; prescribed enforcement action which may occur in the face of violation; and details regarding funding of Plan implementation and enforcement through a user fee imposed on solid waste disposed of within Clinton County borders.

Solid Waste Handling

This Plan authorizes the use of a Solid Waste Ordinance (Appendix D-3, Articles 3 5 and 6) to define and regulate the following: The Ordinance defines solid waste generators and solid waste haulers. It stipulates what solid waste items are banned from landfill disposal and reaffirms limitations placed on the import and export of solid waste specified in this Plan. Presently only yard waste is banned from Michigan disposal facilities at the state level, but bans may include other items in the future as State or Federal Law changes and stipulates. This Plan will recognize and enforce all such bans. It is not the intent of this Plan to arbitrarily ban items from local landfills. The Ordinance reinforces and enforces the requirement that generators of solid waste may only transport, dispose of, or otherwise handle solid waste in a manner which is authorized in Part 115, or this Plan.

Disposal Facilities - Located in the County

Clinton County hosts two landfills within its boundaries. Both are owned by Granger. The Wood Road landfill is in southern DeWitt Charter Township and is bisected by the Ingham county line. The Grand River landfill is located in Watertown Charter Township. The facilities each have 30+ years of capacity remaining if they continue to receive waste at current aggregated rates of approximately 1.1 - 1.2 million cubic yards per year. Granger accommodates approximately 80 - 85% of all waste generated in Clinton County. (1997 data from the MDEQ placed this figure at 87%). There are no indications that Granger has accepted waste from outside the State of Michigan. Disposal facilities in Clinton County shall not accept municipal solid waste incinerator ash.

Other Counties and Facilities Recognized in the Plan

This Plan recognizes the following counties in its Plan: Allegan, Barry, Calhoun, Eaton, Genesee, Gratiot, Ingham, Ionia, Isabella, Jackson, Kalamazoo, Kent, Livingston, Montcalm, Oakland, Ottawa, Saginaw, Shiawassee, Washtenaw, Wayne. Waste generated from within Clinton County may be exported to these counties and waste generated from within any of these counties may be imported to Clinton County for disposal provided the following conditions are met: Counties accepting waste from Clinton County must name Clinton County in their Plan; Counties wishing to export waste to Clinton County for disposal must name Clinton County in their Plan as a county to whom they will export. Counties without facilities must promise through a written letter sent to the DPA that, should they construct a disposal facility, they will agree to accept Clinton County waste. Reciprocity is a condition of waste flow between Clinton County and these counties, however, inter-county agreements are not. Agreements will be put in place only if other counties require them as a condition of their Plan. Clinton County will not accept municipal solid waste incinerator ash for disposal in Clinton County.

The two facilities located within Clinton County are expected to continue receiving the vast majority of Clinton County waste. However, capacity being made available in counties beyond this county's borders, further assures that residents will have a place for their waste to go for quite some time without having to consider the siting of new capacity.

Disposal Facilities - Operational Issues

Host Agreements or Memorandums of Understanding

During much of the previous planning period, commencing in 1990, Clinton County's relationship with the two Granger landfills was defined through negotiated agreements called Memorandums of Understandings (MOU's). For the facility located in Watertown Township, the MOU replaced a Special Use Permit governing operational issues at the facility which was enacted when the siting and operations of landfills were still a part of local zoning. County-based authorized Solid Waste Plans required to identify or site disposal capacity for waste generated from within their area, took the place of local zoning. The legislative intent behind this change was to remove the ability of local municipalities to 'zone-out' disposal facilities as land uses. Thus, the Plans and their implementation mechanisms (including agreements, resolutions, ordinances, etc.) have replaced the SUP function.

Similar to the former SUP's, the MOU's or Host Agreements generally deal with locally defined issues, such as hours of operation, waste flow control or annual caps, berming, appearance issues, noise, tracking, litter collection and service provision to host municipalities or the County. The MOU between the Grand River landfill in Watertown Township and the County expired November of 1997. The MOU for the Wood Road landfill was cancelled in December, 1998.

Some aspects of agreements used to define the relationship between the public and disposal facilities have not worked well. However, this Plan continues to recognize the value of and preference for negotiated relationships. Therefore, while agreements are not central to defining such relationships, they are not precluded from future use.

Should a legally executed and valid agreement be entered into which specifically addresses landfill operation stipulations contained within an adopted Solid Waste Ordinance, or as provided for in this Plan, the negotiated terms of the agreement shall have precedence over the Ordinance and this Plan, so long as it is not in conflict with state and federal laws. Precedence is limited, however, to each specific issue or restriction addressed by the agreement and shall not render any other portions of an enacted Solid Waste Ordinance or the Plan null.

Return to Approval Letter

Solid Waste Ordinance

The Plan authorizes a baseline standard of operations for disposal facilities in Clinton County in this document and through a Solid Waste Ordinance. Article 5 of the Solid Waste Ordinance contained in Appendix D-3 specifies each regulatory standard.

The Plan finds that certain regulations of disposal areas located in Clinton County are necessary to ensure the availability of capacity, and the health, safety and welfare of the public. Issues identified in this Plan may not all be stipulated in the Ordinance contained in Appendix D-3. However, they are appropriate issues which are, or may be, regulated should changes in the market, disposal facilities located in the county, or operational procedures at current disposal facilities occur. The following issues are or may be regulated through the Clinton County Ordinance, are specified in Article 5 of the Ordinance, and are enforceable so long as they do not conflict with State Law.

- Ancillary construction details such as landscaping and screening
- Hours of operation
- Noise, litter, odor, dust and mud-tracking
- Data reports pertaining to quantities of solid waste collected by type (Type I, Type II, Type III, commercial, industrial, residential) and county of origin
- Monitoring correspondence between facilities and the MDEQ pertaining to leachate collection, quarterly inspections and monitoring well reports.
- Facility security matters
- Monitoring of wastes accepted and prohibited (municipal solid waste incinerator ash)
- Recycling, so long as it is not source separated
- Annual caps
- Facility capacity reporting
- Right of entry and inspection
- Facility end use
- Licensing of haulers or other 'Non-Disposal Area' activities
- Entrance, egress and traffic related issues

This Plan reflects optimism that disposal area operators and owners will continue to exercise care in abiding by the law and being good corporate citizens of the

County. Regulations included in the Ordinance also reflect this perception. Some issues itemized above are not currently regulated in the Ordinance. Additionally, some parts of the Ordinance allow for differing levels of restriction if provisions are negotiated and provided for in a legally executed agreement. Stipulations currently contained in the Ordinance are not meant to be all inclusive of issues identified in this Plan. The Ordinance may require revision in the future to properly address matters contained in the above listing if they become problematic under future unforeseeable circumstances.

The Ordinance is the implementing arm of the Plan for issues pertaining to facility operations. Therefore, stipulations contained within the Ordinance provide detail on and supercede the following general guidelines. However, should the Ordinance fail, for whatever reason, to be adopted or is otherwise not in force, any disposal facility operating partially or completely in Clinton County without an Agreement in place between the County and the facility owner/operator shall be subject to the following minimum requirements:

- Each facility shall control and, remediate if necessary, mud-tracking, noise, odor and other nuisance issues, as may be judged by the WMC or MDEQ as posing problems which risk the health, safety and welfare of citizens.
- Each facility shall control and remediate traffic problems which are verified as partially or completely caused by the facility.
- Each facility shall not operate beyond the hours of 6:30 am to 4:30 pm Monday through Saturday unless otherwise authorized by state or federal law, a legally executed agreement or a waiver granted by the WMC which does not risk the health, safety and welfare of residents.
- The sum of all facilities in the County will not accept waste for end disposal in amounts that exceed a maximum annual cap of 2,500,000 cubic yards per year. However, the facility owner/operators may only accept up to 2,000,000 cubic yards per year unless they petition the Board to increase the 2,000,000 cubic yards cap by an amount of up to 500,000 cubic yards. The Board shall grant such an increase if the landfill facility owner/operators requesting the increase, confirm in writing that the increase will not jeopardize:

    a) the availability of 10 years disposal capacity from the date of the request for a cap expansion,
    b) their ability to meet Part 115 requirements,
    c) their ability to review traffic, mud-tracking or litter nuisances,
    d) a maximum annual cap of 2,500,000 cubic gate yards

    Once approved by the Board, the annual increase of up to 500,000 shall renew automatically unless the Board reviews the above conditions and

finds that the landfill facility owner/operators, who received the increase, have not met the commitments they confirmed.

The Board must act upon a petition for cap increase within 90 days of receiving the request. Within the 90 day period, the Board shall notice and hold a public hearing on the request, at which time the Board will formally receive the written confirmation.

The MDEQ shall be notified of any changes in the annual cap.

If another facility should be sited in Clinton County beyond those facilities located in the County at the time of this Plan enactment, a Plan amendment would implemented to increase the cap.

- No facility in Clinton County may import municipal solid waste incinerator ash for disposal.
- Upon the effective date of this Plan, landscaping and screening provided at disposal facilities located within the County were regarded as satisfactory by the County. Should changes be made to entrance locations, entrance location landscaping, or should there be a catastrophic occurrence such that present screening and landscaping is materially degraded, the facilities' owners/operators will meet with local officials prior to conducting repairs or providing new landscaping.
- Each facility shall submit monthly data detailing the amount of waste accepted and county of origin. Facility owner/operators shall maintain data apportioning the quantity of waste disposed by types: residential, commercial, industrial and construction/demolition. Annually, the WMC shall be permitted access to review this data on site. However, the WMC is precluded from taking notes regarding such data and will only report trends, not specific data or percentages in public records. Viewing of such data will be used to aid assessment of Plan implementation impact, only.

Licensing

Concerns have been expressed in the past regarding obtaining data from solid waste and recycling companies. Accurate data is necessary to evaluate the progress of Plan implementation, for tracking illegal dumping, and addressing concerns related to types of services provided to residents by service providers. At this time, the Plan strategy will be to address these issues through improving working relationships with haulers, education, and increased enforcement in the case of illegal dumping.

However, if this strategy fails to adequately address any or all of these issues, the County may choose to enact a licensing program to do so, outside the auspices of this Plan. A draft document contained in Appendix D-4 conceptualizes the breadth and purpose of a licensing program.

Certified Health Department

The county may make application to the MDEQ for certified health department status. As a certified health department, the local health department would be allowed to perform duties prescribed in part 115 relating to disposal facilities located within the county. Funding for local health department responsibilities would be derived from the same source as funding for the Department of Waste Management. (The Plan does not intend that a second user fee be levied.)

This action might address perceived ambiguities regarding the county's role in enforcement issues. Certified health departments are explicitly referenced in part 115 and their duties specifically prescribed. They are not, however, responsible for solid waste management plan development or implementation unless they request that such duties be added to responsibilities described in part 115.

Under this scenario, the health department would conceivably assume regulatory, and enforcement responsibilities as prescribed in part 115 which are associated with disposal facilities located in the planning area. It may also assume enforcement responsibilities as outlined in the plan which are not designated in part 115 but contained in this approved Plan. The Department of Waste Management would continue to perform non-enforcement duties and carry out remaining plan implementation duties.

6.9 FUNDING PROGRAM

Implementation of this Plan requires financial support. Costs associated with programs are detailed in the budgets of Appendix A-1f for years 1997, 1998 and 1999, and estimated projections are contained in Appendix A-1e. User fees collected will be segregated in a separate fund and may only be used for the purpose of implementing this Plan or processing future amendments or Plan updates as determined by the Board of Commissioners. Fees are set at rates sufficient to compensate costs and may be adjusted up or down dependent upon need.

User Fee

Funding will primarily be derived from a user fee levied on users of the landfills located in Clinton County. User fees may be collected through agreements with landfill owner/operators, or they may be collected through levy.

User Fee - Through Agreement:

Implementation of the Solid Waste Plan is funded through an agreement between Clinton County and the current facilities owner/operators - Granger Companies. Granger agrees to collect and remit a user fee, currently set at $.25/cubic yard of waste landfilled in Clinton County for the life of both Granger facilities. (Appendix A-1g)

User Fee - Through Levy:

If the User Fee Agreement should cease to exist or be terminated, this Plan intends that a user fee be levied on users of the landfills located in Clinton County. The Fee is established at $ .30/cubic yard and may not increase by more than $ .10/year. Through the same Agreement mentioned above, it is agreed that the County will not levy an amount exceeding $ .40/cubic yard, even if the Agreement should expire. The Fee is to be collected at the gate of the landfills by the facility owner/operator and remitted monthly to the County. Fees will be reviewed at least annually and may be adjusted up or down by the Board to provide for Plan implementation, amendments and/or Plan update budgetary needs. This is also provided for and detailed in Article 7 of the Solid Waste Ordinance.

Other Funding Sources

Other funding methods are acknowledged as legitimate and appropriate and may provide supplemental or alternative funding. Should state level legislation be adopted which provides for adequate funding of solid waste management plan implementation, the Board of Commissioners will reassess the need for user fee mechanisms and may choose to alter their use at that time. Decisions determining which mechanisms will be used, shall be made by the Board of Commissioners. Other funding mechanisms authorized for use should the User Fee method not be utilized include the following:

- General Tax Levy on the Public: P.A. 138 provides that a per household tax may be approved by the public to provide funding for solid waste management plan implementation.
- General Fund Dollars: A yearly allocation would be made dependent upon funds available to provide for solid waste management plan implementation.
- Generator Fee: Passing of a solid waste fee by the Board of Commissioners on businesses and residents of Clinton County. (Eaton County Model - implemented through licensing).
- Grants: The Department of Waste Management is authorized to pursue grant funding from local, state and federal agencies and/or foundations.

- Licensing: A fee levied on vehicles that transport solid waste in Clinton County.
- Or, a combination of the above mentioned alternatives.

Fund management and requirements

Regardless of whether the Fee is levied, or whether it is collected and remitted through Agreement, the following shall apply:

- A user fee specified by the Board or by Agreement will be collected from landfill users and remitted to the County Treasurer for all waste deposited in any landfill or portion of a landfill located in Clinton County.
- User fees collected through Levy or Agreement will be collected monthly and deposited in a segregated fund for the exclusive purpose of funding implementation of the Plan. Unless otherwise stipulated in an Agreement, fees are due by the 15th of the subsequent month.
- Should a user of the disposal facility refuse to pay the user fee levied or enacted through an Agreement, the landfill owner/operator may either refuse to receive the solid waste contained in that load, or the facility owner/operator may pay the user fee and admit the solid waste for disposal.

6.10 CAPACITY CERTIFICATION

This County has more than ten years capacity identified in this Plan and an annual certification process is not included in this Plan. Sufficient capacity for disposal of Clinton County generated solid waste for the next ten years is demonstrated through promises indicated from counties and landfills within and outside of this County.

Facilities located in the County at the time of this Plan enactment, receive the majority of waste generated from within Clinton County. These two facilities have a combined total of 18,598,000 air yards of space available and annually accept, on a combined basis approximately 1,200,000 cubic gate yards per year. This is equivalent to approximately 600,000 (compacted) air yards once disposed of in the facility. At this continued rate, the facilities will last for 31 years. Between 75% and 80% of Clinton County waste is already included in the 1,200,000 yard annual total. To add another 20% of Clinton County waste would shorten the life expectancy of currently sited space to 30¼ years.

An annual cap of 2,000,000 cubic gate yards per year is imposed on the combined total amount of waste permitted for disposal in the two facilities located in the County, unless they have petitioned the County to increase that amount (see section 6.8, part titled Solid Waste Ordinance in this Plan) by up to 500,000 cubic yards per year. The facilities have a combined existing capacity for disposal of a

combined total of 37,196,000 gate yards. At this rate, existing facility capacity would last for 18.6 years. Should the annual cap be increased to a maximum cap of 2,500,000, and using the same calculations, the facility would last for 14.88 years, which still exceeds the 10 year assurance requirement. This assumes that the facilities will reach this cap amount during this Plan period, however current volumes are at a substantially lower rate - actually increasing the number of years capacity would be available.

This capacity accommodation is supplemented by space promises from other facilities in the 20 counties included in the Plan.

Venice Park and Pitsch landfills both have pending expansions which are not included in the above mentioned figures.

The County needs 150,000 yards of space per year for the next five years. The majority of listed facilities have each agreed to accept all Clinton County generated waste; thus further expanding already adequate disposal space available.

Letters of Commitment are contained in Appendix D-1.

6.11 AMENDMENT OF THE PLAN

The Plan may be amended through the process provided for in Part 115. Initiation of the plan amendment process by parties other than the Board of Commissioners requires submittal of a letter to the Board of Commissioners with copies forwarded to the Michigan Department of Environmental Quality and the Designated Planning Agency of the County.