STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JOHN ENGLER
GOVERNOR

RUSSELL J. HARDING
DIRECTOR

June 13, 2002

Mr. Keith Edick, Chairperson
Gladwin County Board of Commissioners
401 West Cedar Avenue
Gladwin, Michigan 48624

Dear Mr. Edick:

The Department of Environmental Quality (DEQ) received the locally approved update to the Gladwin County Solid Waste Management Plan (Plan) on February 5, 2002. Except for the items indicated below, the Plan is approvable. As outlined in the March 26, 2002 letter to you from Ms. Lynn Dumroese, DEQ, Waste Management Division (WMD), and as confirmed in your letter dated April 10, 2002, the DEQ makes the following modifications to the Plan:

On page III-28-1, item C states, "A reasonable number of copies of the application may be required at the discretion of the designated planning agency." Section 11538 (3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, requires that a siting mechanism not be subject to discretionary acts by the local planning entity. The phrase "reasonable number of copies" does not clearly define the number of copies that may be required. Therefore, this sentence is changed to read, "A reasonable number of copies of the application, not to exceed 20 copies, may be required at the discretion of the designated planning agency."

On page III-28-2, item number 1 of the Siting Criteria discusses the opportunity for Gladwin County (County) to refuse siting of a facility as long as 66 months of available capacity has been established. Section 11537a of Part 115 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. Therefore, item number 1 is deleted from the Siting Criteria.

On page III-28-4, item number 14 states, "If a facility is not located on such a road, the facility developer shall agree to provide for upgrading and maintenance of the road serving the facility." As previously mentioned, Section 11538 (3) of Part 115 requires that a siting mechanism not be subject to discretionary acts by the local planning entity and the requirement of an agreement by the developer to follow the indicated operational requirements is an interpretive act, which does not guarantee that a

decision will be reached. In order to resolve this issue, the following language shall replace the sentence referenced above, "If a facility is not located on such a road, the facility developer shall submit a signed statement agreeing to provide for upgrading and maintenance of the road serving the facility."

On page III-28-4, item H states the applicant will have the opportunity to provide additional information if the proposal is found to be inconsistent. There is no time frame or default action established for the designated planning agency to make their determination if this process should need to occur. The County intended for the proposal to go through the entire siting process if the applicant resubmits information due to an inconsistent determination. If the applicant disagrees with the County's determination of consistency, the applicant could also request the DEQ to make a determination of consistency as part of the review of a construction permit application. Item H does not clearly convey either of the options mentioned above; therefore, in order to alleviate any discrepancy, item H is deleted from the Plan.

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

Sincerely,

Lynn Y Buhl

Russell J. Harding ACTING
Director
517-373-7917

cc: Senator Bill Schuette
Representative Dale Sheltrown
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Mr. Thomas M. Hickson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Edwin Haapala, DEQ – Saginaw Bay
Ms. Rhonda Oyer Zimmerman, DEQ
Ms. Lynn Dumroese, DEQ
Gladwin County File

East Central Michigan Planning & Development Regional Commission
Designated Solid Waste Management Planning Agency for Gladwin County
3144 Davenport Avenue, Suite 200, Saginaw MI 48602
Telephone 517-797-0800

January 29, 2002

WASTE MANAGEMENT DIVISION

FEB 05 2002

Ms. Lynn Dumroese
Solid Waste Management Unit
Waste Management Division
Department of Environmental Quality
P.O. Box 30241
Lansing MI 48909

RE: Gladwin County Solid Waste Management Plan Update

Dear Lynn:

The locally approved Gladwin County Solid Waste Management Plan update is enclosed for DEQ review and approval.

The municipal resolutions include 14 approvals (out of 17 local units). No municipalities disapproved the plan.

A copy of the plan on computer disk is also enclosed.

Thank you for your assistance and review. Please contact me if you have any questions.

Sincerely,

Douglas A. Bell, AICP
Project Consultant to Gladwin County

Enclosures

c: Sue Fortune, ECMPDR

Gladwin County
Solid Waste Management Plan Update

Locally Approved Draft
January 2002

Approved by the
Gladwin County Solid Waste Management Planning Committee

Approved by the
Gladwin County Board of Commissioners

Approved by the
Gladwin County Municipalities

Submitted to the
Michigan Department of Environmental Quality for
Final Approval

Prepared by the
Gladwin County Solid Waste Management Planning Committee

With the assistance of the
East Central Michigan Planning & Development Regional Commission
3144 Davenport, Suite 200
Saginaw MI 48602

1997 PLAN UPDATE COVER PAGE

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

DATE SUBMITTED TO THE DEQ:

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

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

Municipality	Original Planning County	New Planning County

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

East Central Michigan Planning & Development Regional Commission (ECMPDR)

CONTACT PERSON: Sue Fortune, Executive Director

ADDRESS: 3144 Davenport Avenue, Suite 200
Saginaw MI 48602

PHONE: 517-797-0800 FAX: 517-797-0896 (If Applicable)

E-MAIL: (If Applicable)

CENTRAL REPOSITORY LOCATION(S): (1) ECMPDR , 3144 Davenport Ave, Suite 200, Saginaw, Michigan, 48602 (2) Gladwin County Clerk, Gladwin County Building, 401 W. Cedar Ave, Gladwin, Michigan 48624.

Gladwin County Solid Waste Management Plan Update

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EXECUTIVE SUMMARY

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

OVERALL VIEW OF THE COUNTY (attach additional pages as necessary)

Township or Municipality Name	Population	% Land Use		% of Economic Base*				
		Rural	Urban	Ag	For	Ind	Com	Other
Beaverton Twp	1,902	97%	3%	11.2%	0	3.2%	2.3%	83.3%
Bentley Twp	855	99%	1%	20.1	0	0.1%	3.1%	76.7%
Billings Twp	2,626	92%	8%	1.7%	0	0.3%	1.4%	96.6%
Bourret Twp	456	99%	1%	2.8%	0	1.0%	0.5%	95.8%
Buckeye Twp	1,135	96%	4%	3.6%	0	0.3%	7.6%	86.1%
Butman Twp	1,135	97%	3%	4.5%	0	0	0.4%	95.9%
Clement Twp	936	95%	5%	1.0%	0	0.1%	3.1%	95.8%
Gladwin Twp	1,044	99%	1%	38.1%	0	0.1%	0.5%	61.4%
Grim Twp	114	100%	0	20.6%	0	0.1%	0%	79.2%
Grout Twp	1,853	96%	4%	22.0%	0	1.4%	4.3%	72.4%
Hay Twp	1,337	94%	6%	2.0%	0	0.3%	4.0%	93.6%
Sage Twp	2,472	95%	5%	10.1%	0	0.1%	1.0%	88.8%
Secord Twp	1,042	95%	5%	1.2%	0	0.3%	1.0%	97.6%
Sherman Twp	907	98%	2%	18.7%	0	0.1%	0.6%	80.6%
Tobacco Twp	2,539	96%	4%	8.1%	0	1.1%	2.4%	88.4%
Beaverton City	1,307	3%	97%	0	0	8.0%	27.2%	64.8%
Gladwin City	2,737	2%	98%	0	0	7.0%	33.3%	59.7%
GLADWIN COUNTY	24,615	97%	3%	6.8%	0	4.6%	1.1%	87.5%

Total Population 24,615

*Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases
Additional listings, if necessary, are listed on an attached page.

EXECUTIVE SUMMARY

CONCLUSIONS

Gladwin County's current solid waste management system is functioning well, and it provides an effective means for managing the solid waste that is generated in the county. Solid waste collection and transportation services are mainly provided by the private sector and are available to all residents, businesses, and industries in the county. Solid waste that is generated in Gladwin County is transported primarily to the Northern Oaks Recycling and Disposal Facility in Clare County for final disposal. This plan also authorizes the disposal of solid waste from Gladwin County at landfills in Bay County (Whitefeather Landfill) and in Crawford County (Waters Landfill). These landfills have sufficient capacity to provide for Gladwin County's solid waste disposal needs for the next 10 years and beyond.

The separation and collection of recyclable materials occurs through several mechanisms. The main recycling operation in the County is White's Recycling Center. This is a privately owned and operated facility that is located in the City of Gladwin's Industrial Park. Materials presently accepted are: newspaper, office paper, corrugated, kraft paper, magazines & catalogs, #1 & #2 plastics, glass, steel cans, and aluminum. Recycling drop-off sites are also available in Bentley and Billings Townships.

Composting in Gladwin County mainly occurs as home composting due to the rural nature of the area. Composting drop-off sites are available to residents in Sage and Tobacco Townships. Collection of brush and leaves takes place in the cities of Beaverton and Gladwin through the municipal Departments of Public Works. However, no formal composting programs are in place in these communities.

It is the conclusion of this planning process that the current solid waste management system is best-suited to meet Gladwin County's needs for solid waste collection, transportation, materials recovery, and disposal. Consequently, the current system has been selected to remain in place for the time period covered by this plan update.

SELECTED ALTERNATIVES

Gladwin County's selected alternative is to retain the current management system. An overview of the major components of this system follows.

1. Collection and Transportation of Solid Waste. The existing collection and transportation system will remain in place. Solid waste collection services will continue to be provided to all county residents, businesses, and industries. These services will continue to mainly be provided by private enterprise through a free market system that utilizes both municipal contracts and individual arrangements with solid waste haulers. However, it is not this plan's intent to preclude involvement by municipalities from providing solid waste collection services to citizens within their respective jurisdictions. The plan also encourages local units of government to continue to arrange for solid waste services through municipal contracts, although such arrangements are certainly not mandated.

2. Disposal of Solid Waste. Licensed Type II landfill s in Clare, Bay, and Crawford Counties will meet Gladwin County's solid waste disposal needs for the planning period.

3. Recycling. Under the selected alternative, the County drop-off site will continue to accept recyclable materials. All local governments are encouraged to provide recycling opportunities for their residents, either through arrangements for drop-off sites or the provision of curbside collection for recyclables. Presently, few local governments provide curbside recycling for their residents through private sector contracts or other means. Recycling services are expected to continue to be mainly provided by private enterprise. However, this does not preclude other entities -- such as environmental organizations, private non-profit groups, and others -- from becoming involved in recycling activities. The plan encourages the involvement of such groups in materials recovery efforts.

4. Composting. Collection of yard wastes from residents for composting will be continued by the private sector. Currently, these services are limited to the City of Beaverton. "Backyard" composting by residents will also continue to be encouraged. Sage Township will continue to operate a composting site. Municipalities are encouraged to provide composting opportunities for their residents as needs dictate, either through curbside collection of yard wastes or through local drop-off sites. Again, it expected that composting services will continue to be furnished by the private sector. The plan, however, does not intend to limit the ability of any local government unit to establish a composting site and program.

5. Separation of Household Hazardous Wastes. There is presently no formal hazardous waste collection program in place. The high costs associated with such programs generally preclude the County from directly providing this type of service. However, the County should work in partnership with the private solid waste industry to explore ways to provide opportunities for separation and collection of household hazardous wastes from residents.

6. Resource Conservation and Waste Reduction. Resource conservation and waste reduction will be encouraged through the voluntary efforts of residents, businesses, and industries. The County should investigate ways to expand public information and education in this area.

7. Public Information and Education. Current educational efforts will be continued under the selected system, such as the programs that are available through MSU Extension. The private solid waste industry also conducts informational programs for local schools and others. The County should investigate ways to coordinate and enhance these efforts.

INTRODUCTION

GOALS AND OBJECTIVES

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

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

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

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

Goal 1: Develop an efficient, environmentally sound, and cost-effective solid waste management system that is capable of meeting the County's diverse needs for the next 10 years.

Objective 1a: Assign within the County the responsibilities for carrying out the various actions required for implementing the adopted Solid Waste Management Plan.

Objective 1b: Encourage new and innovative materials and energy recovery technologies.

Goal 2: 2. Encourage inter-county cooperation in the development of a solid waste management system.

Objective 2a: Arrange for adequate landfill space to meet the County's solid waste disposal needs.

Goal 3: 3. Encourage continued participation by the private sector in all solid waste management activities.

Objective 3a: Arrange for adequate landfill space to meet the County's solid waste disposal needs.

Objective 3b: Encourage the expanded use of private/non-profit organizations for operating and coordinating formal efforts in recycling and resource recovery.

Goal 4 Develop an integrated solid waste management system that includes waste reduction, source separation, recycling, composting, and landfilling as its major components.

Objective 4a: Develop and implement education programs for waste reduction, source separation,, recycling, and integrated solid waste management for County residents.

Objective 4b: Encourage the expanded use of all feasible non-landfill alternatives for solid waste management.

Goal 5: Promote governmental, institutional, commercial, and industrial recycling capabilities.

Objective 5a: Review local government and public institution procurement policies and and encourage the appropriate entities to revise them as necessary to further encourage the use of recycled and recyclable materials.

Objective 5b: Encourage the development and implementation of recycling programs for all feasible materials.

Goal 6: Encourage the creation and expansion of markets for recycled materials, and the use of recyclable and recycled materials by government, business, industry, and the public.

Objective 6a: Review local government and public institution procurement policies and and encourage the appropriate entities to revise them as necessary to further encourage the use of recycled and recyclable materials.

Objective 6b: Encourage appropriate local, state, and federal legislation to provide incentives for waste reduction, source separation, and recycling.

☐ Note: Additional goals and objectives are listed on attached pages.

DATA BASE

Identification of sources of waste generation within the county, total quantity of solid waste generated to be disposed, and sources of the information. (Attach additional pages as necessary)

Solid waste generation estimates for Gladwin County were obtained from the most recent DEQ "Report of Solid Waste Landfilled in Michigan" for the period of October 1, 1997 through September 30, 1998 and from the records kept by the private solid waste industry. The report on volumes landfilled showed that 36,315 cubic yards of solid waste generated in Gladwin County were disposed of at licensed Type II landfills. No Type III solid waste disposal was reported. The main facilities presently used for disposal are the Northern Oaks RDF located in Clare County and the Whitefeather Landfill in Bay County. A small quantity of solid waste was also disposed of in Saginaw County at the Saginaw Valley Landfill (65 cubic yards) during the reporting period that ended September 30, 1998. The Saginaw Valley Landfill reached capacity and was closed in late 1999. It is not considered to be a part of Gladwin County's current solid waste disposal system or its selected solid waste management plan.

Data on recycling collected by private industry show that approximately 170 tons of material were collected and marketed during 1997. This quantity also represents roughly 500 cubic yards of material that would have otherwise been placed in landfills. Also, a presently unknown quantity of yard wastes and other acceptable organic materials were collected and composted during 1997. This represents additional material that was diverted from landfills.

The current solid waste collection and disposal system appears to be working well, and no major problems are anticipated. There are no special wastes generated in the county that create any unique problems for collection, transportation, or disposal. Landfill capacity in the region is adequate and provides Gladwin County with more than ten years of capacity.

TOTAL QUANTITY OF SOLID WASTE GENERATED:
36,815 ☐ Tons or ☒ Cubic Yards in one year (identify unit of time)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:
36,315 ☐ Tons or ☒ Cubic Yards in one year (identify unit of time)

DATA BASE

Inventory and description of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

The following is a listing of the solid waste disposal areas that Gladwin County will utilize to meet its disposal needs for the planning period. All of these facilities are located in surrounding counties. Detailed descriptions of these disposal areas are included on the following pages.

Type II Landfills (County Location):

Whitefeather Landfill (Bay County)
Northern Oaks Recycling & Disposal Facility (Clare County)
Waters Landfill (Crawford County)

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Whitefeather Landfill

County: Bay Location: Town: 17N Range: 4E 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:

☐ Public ☒ Private Owner: Waste Management (sale pending)

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:
Asbestos

Site Size:

Total area of facility property:	106	acres
Total area sited for use:	56.5	acres
Total area permitted:	56.5	acres
Operating:	24.5	acres
Not excavated:	32	acres
Current capacity:	4,175,153	☐ tons or ☒ yds^3
Estimated lifetime:	18.8	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	380,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Northern Oaks Recycling & Disposal Facility

County: Clare Location: Town: 19N Range: 4W Section(s): 32

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

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

☐ Public ☒ Private Owner: 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:
WWTP filter cake, sludge

Site Size:

Total area of facility property:	320	acres
Total area sited for use:	76	acres
Total area permitted:	76	acres
Operating:	19	acres
Not excavated:	57	acres
Current capacity:	8,755,100	☐ tons or ☒ yds^3
Estimated lifetime:	43	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	409,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Waters Landfill

County: Crawford Location: Town: _____ Range: _____ Section(s):

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

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

☐ Public ☒ Private Owner: Waste Management

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:	256	acres
Total area sited for use:	252	acres
Total area permitted:	79	acres
Operating:	9.7	acres
Not excavated:	64.87	acres
Current capacity:	5,700,000	☐ tons or ☒ yds^3
Estimated lifetime:	20	years
Estimated days open per year:	313	days
Estimated yearly disposal volume:	200,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

DATA BASE

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

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

The collection and transportation of solid waste that is generated at residences, businesses, and industries in Gladwin County is accomplished almost exclusively by the private solid waste industry.

Private solid waste collection firms that operated in Gladwin County until recently included Waste Management and City Environmental Services. Due to the recent merger between USA Waste and Waste Management, City Environmental has now become part of the new Waste Management.

In most communities, solid waste collection services are provided under municipal contracts with private firms. City Departments of Public Works in Beaverton and Gladwin collect yard wastes from residences. Sage and Tobacco Townships also provide municipal composting sites. Recycling drop-off sites are available in Bentley Township and the City of Gladwin.

Current information on solid waste collection services in Gladwin County is summarized in the following table. A key to the information in the table is also attached.

Solid Waste Collection Services Information
Gladwin County

Community	1 Service Provider	2 Service Type		3 Payment Method	4 Additional Services	5 Transfer Station		6 Landfill
Townships		Curbside	Drop-off Site			Type A	Type B	
Beaverton	WM	X						Northern Oaks
Bentley	WM	X		S	RD			Northern Oaks
Billings	WM	X						Northern Oaks
Bourret	WM	X		S				Northern Oaks
Buckeye	WM	X		S				Northern Oaks
Butman	WM	X		S				Northern Oaks
Clement	WM	X		S				Northern Oaks
Gladwin	WM	X		S				Northern Oaks
Grim	WM	X		S				Northern Oaks
Grout	WM	X		S				Northern Oaks
Hay	WM	X		S				Northern Oaks
Sage	WM	X		S	CS			Northern Oaks
Secord	WM	X		S				Northern Oaks
Sherman	WM	X		S				Northern Oaks
Tobacco	WM	X		S	CS			Northern Oaks
Cities								
Beaverton	WM	X		S	YW(DPW)			Northern Oaks
Gladwin	WM	X		S	RD YW(DPW)			Northern Oaks

Solid Waste Collection & Transportation Services
Key to Information in the Table

The following numbers refer to the numbered blocks on the form:

1. **Service Provider**. This entry identifies the firms or other organizations that provide solid waste collection services in the community:

   WM Waste Management

2. **Service Type**. These columns are marked to indicate whether solid waste is picked up from residences (curbside service) or must be transported to a drop-off site (transfer station or similar arrangement).

3. **Payment Method**. The following codes to indicate the method of payment for services:

   I Individuals billed directly for service
   G Services are paid for from the local government's General Fund
   S A special fee is levied for trash collection, such as a special assessment

4. **Additional Services**. The following codes indicate any additional services that are available.

   RC Curbside collection of separated recyclable materials from residences is provided.
   RB Collection of specified recyclable materials from businesses is provided.
   RD Separated recyclable materials may be dropped off at a designated site in the community.
   YW Separate collection of yard waste is provided to residences.
   CS A site where residents may drop off yard waste for composting is provided in the community.

5. **Transfer Station**. The columns are marked if a transfer station is located in the community.

   Type A transfer stations are generally enclosed facilities where solid waste is mechanically unloaded from commercial collection vehicles. The waste is often compacted for transport to a landfill in large loads.

   Type B transfer stations generally consist of roll-off units or "dumpster" containers where residents may directly deposit their garbage. The containers are picked up or emptied by collection vehicles for transport to a landfill.

6. **Landfill**. This entry Indicate the landfill where the solid waste generated in the community is taken for final disposal.

DATA BASE

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

As part of the plan update process, the Gladwin County Solid Waste Management Planning Committee (SWMPC) considered problems and deficiencies in the current solid waste system. The following is a compilation of the committee's responses on this topic:

1. There should be some type of hazardous waste collection.

2. Dumping on forested lands is a problem.

3. Disposal of tires and old appliances (i.e., refrigerators) is a problem area.

4. Recycling program needs to be strengthened & expanded.

5. Need to promote composting options.

DATA BASE

DEMOGRAPHICS

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

From 1990 to 1997, Gladwin County's population is estimated to have grown by 13.6%. This represents an annual growth rate of nearly 2%. If this trend continues, the county population will reach 27,822 by 2003 and 30,521 by 2008.

Population estimates for the municipalities within the county are available through 1996. Population growth within the local government units during 1990 through 1996 ranged from 2.1% to 14.0%. During this period, seven townships grew by 14%, and the remaining nine grew by well over 13%.

The county population centers are the Gladwin City/Gladwin Township and the Beaverton City/Beaverton Township areas. Together, these communities make up nearly a third of the total county population. These areas also represent the centers for manufacturing, retail trade, and services within the county. Consequently, these communities are also the county's centers of solid waste generation. The two areas are expected to remain the centers of both population and solid waste generation for the five-year and ten-year planning periods.

Information on recent population trends in Gladwin County, and projections for both population growth and solid waste generation over the next 10 years are shown on the attached pages.

Gladwin County
Current Annual Solid Waste Generation & Disposal

Disposal Facility	Type II Solid Waste	Type III Solid Waste
Northern Oaks RDF (Clare)	21,146 cubic yards	0
Whitefeather (Bay)	15,104 cubic yards	0
Saginaw Valley (Saginaw)	65 cubic yards	0
Total	**36,315 cubic yards**	**0**

Source: "Report of Solid Waste Landfilled in Michigan October 1, 1997 -- September 30, 1998," Michigan Department of Environmental Quality, Waste Management Division, February 4, 1999.

Gladwin County Population Trends

1990 Census	1996 Estimate	1997 Estimate	% Change 1990 -- 1997	Average Change Per Year
21,896	24,590	24,879	13.6%	1.94%

Source: Bureau of the Census, U.S. Department of Commerce, Federal-State Cooperative Program for Population Estimates, Released on March 17, 1998.

Gladwin County
Population and Solid Waste Generation Projections

	1998	2003	2008
County Population	25,362	27,822	30,521
Annual Solid Waste Generation	38,073 cubic yards	41,766 cubic yards	45,817 cubic yards

DATA BASE

LAND DEVELOPMENT

The following describes current and projected land development patterns, as related to the Selected Solid Waste Management System, for the next five and ten year periods.

The eastern portion of Gladwin County consists primarily of public forest lands with residential development concentrated around numerous recreational lakes. The county has over 85,000 acres of public lands. The western portion of the county is comprised mainly of agricultural lands. Urbanized areas are centered around the cities of Beaverton and Gladwin. Scattered commercial and industrial development is found mainly along the M-18, M-30, and M-61 corridors.

Land cover data for Gladwin County and its municipalities were tabulated from the Michigan Resource Information System (MIRIS). The major land cover types for the county as a whole are:

☐ Woodlands	53%
☐ Agriculture & Open Land	34%
☐ Water Bodies & Wetlands	10%
☐ Urban	3%

As previously described, the county population centers are the Gladwin City/Gladwin Township and the Beaverton City/Beaverton Township areas. Together, these communities make up nearly a third of the total county population. These areas also represent the centers for manufacturing, retail trade, and services within the county. Consequently, these communities are also the county's centers of solid waste generation. The two areas are expected to remain the centers of both population and solid waste generation for the five-year and ten-year planning periods.

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES (attach additional pages as necessary)

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

The following alternative systems were discussed and evaluated by the County Solid Waste Management Planning Committee (SWMPC):

Alternative A: Retain the Current Management System
Alternative A represents the "status quo" alternative and is always an option. This assumes the continuation of the current management system (i.e., continued use of the out-of-county landfills) without any major changes. The Northern Oaks and Whitefeather Landfills would continue to meet Gladwin County's disposal needs. However, this alternative would include the addition of the Waters Landfill in Crawford County to the list of disposal facilities authorized by the plan update. Recycling and composting would be continued as they are currently practiced, without any major expansion efforts.

Advantages:
- ☐ Acceptance of current system
- ☐ New costs would be minimal
- ☐ No new sites or facilities required
- ☐ No major institutional or administrative changes

Disadvantages:
- ☐ Lack of efforts to improve management system or services to public
- ☐ No mechanism to increase materials recovery beyond current levels
- ☐ No mechanisms to increase awareness and involvement by government and citizens.

Alternative B: Existing Landfills with Enhanced Recycling & Composting.
Under this option, use of the present landfills outside the county for disposal would be continued. However, attention would focus on the expansion of recycling and composting opportunities within the county.

Under the present system, recycling and composting efforts are primarily being conducted by the private solid waste industry. Alternative B would call for greater involvement by county and local government in promoting and coordinating materials recovery programs.

Advantages:
- ☐ Increased levels of materials recovery (recycling & composting)

- Greater public involvement & awareness
- Conservation of landfill space
- Low capital costs — minimal facility requirements

Disadvantages:
- Some funding required for program establishment & activities
- Requires change — always some difficulties with acceptance
- Requires greater coordination efforts

Alternative C: Regional Solid Waste Management System
This alternative calls for the creation of a regional solid waste management system in cooperation with several surrounding counties. From an institutional standpoint, this option calls for the creation of a formal solid waste management authority or similar entity.

Under this option, the use of the existing, privately-owned landfills within this group of counties would continue. Due to current disposal capacity, this alternative does not call for the development of a new regional landfill. However, the creation of an authority would give the counties greater ability to control the solid waste stream and to direct it to certain facilities, if necessary.

Advantages:
- Regional collection of recyclable materials
- Regional marketing of recyclable materials
- Regional purchasing of recycled products
- Potential regional processing facilities for mixed waste and composting
- Regional franchises for solid waste collection and other services.

Disadvantages:
- Political barriers to intergovernmental cooperation
- Higher costs associated with potential regional processing facilities
- Difficulties in siting any new solid waste facilities

Evaluation of Alternative Solid Waste Management Plans
The alternatives were evaluated according to the following factors, as specified in Act 451:

Technical feasibility. Can the alternative be implemented using available technology, or will the needed technology become available in the near future?

Economic feasibility. How much will it cost to implement the alternative? Is the cost greater than the financial capabilities of public and private entities? How will facility development, operation, and maintenance costs be provided?

Access to Land and Transportation Routes. Does the alternative require the acquisition of land? Would facilities be efficiently located? Will the existing transportation system be adequate, or will road improvements be required?

Energy Consumption/Production. Is the alternative energy-efficient for transportation and operation

requirements? Would energy be produced in conjunction with any processing or disposal operations? Would any revenue be generated by energy production?

Environmental Impacts. What environmental impacts would result from implementation of the alternative? Would implementation create long-term impacts associated with operation and maintenance of solid waste facilities?

Public Health Effects. Would the alternative create, continue, or mitigate public health hazards associated with improper handling or disposal of solid waste?

Public Acceptability. Is the alternative likely to be accepted by county residents? Will it be politically acceptable to local governments? Will the alternative comply with all applicable laws, especially Act 451?

Evaluation Method

The three alternatives were evaluated through the use of a numerical ranking system. Using this point system, each committee member assigned a numerical score for each of the evaluation factors for each of the three alternatives. For each evaluation factor, the point values assigned by the members were added together to obtain a raw score for each factor. The points assigned for all the evaluation factors were then added to obtain a total score for each alternative plan. This evaluation process was performed for each alternative plan for both the five-year and ten-year planning periods.

Based on the results of the SWMPC's evaluation process, Alternative A, Retain the Current Management System, is the preferred alternative. Further details on the evaluation process and results may be found in the appendix.

THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

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

Gladwin County's selected alternative is to retain the current management system. An overview of the major components of this system follows.

1. Collection and Transportation of Solid Waste. The existing collection and transportation system will remain in place. Solid waste collection services will continue to be provided to all county residents, businesses, and industries. These services will continue to mainly be provided by private enterprise through a free market system that utilizes both municipal contracts and individual arrangements with solid waste haulers. However, it is not this plan's intent to preclude involvement by municipalities from providing solid waste collection services to citizens within their respective jurisdictions. The plan also encourages local units of government to continue to arrange for solid waste services through municipal contracts, although such arrangements are certainly not mandated.

2. Disposal of Solid Waste. Licensed Type II landfill s in Clare, Bay, and Crawford Counties will meet Gladwin County's solid waste disposal needs for the planning period.

3. Recycling. Under the selected alternative, the County drop-off site will continue to accept recyclable materials. All local governments are encouraged to provide recycling opportunities for their residents, either through arrangements for drop-off sites or the provision of curbside collection for recyclables. Presently, few local governments provide curbside reccycling for their residents through private sector contracts or other means. Recycling services are expected to continue to be mainly provided by private enterprise. However, this does not preclude other

entities -- such as environmental organizations, private non-profit groups, and others -- from becoming involved in recycling activities. The plan encourages the involvement of such groups in materials recovery efforts.

4. Composting. Collection of yard wastes from residents for composting will be continued by the private sector. Currently, these services are limited to the City of Beaverton. "Backyard" composting by residents will also continue to be encouraged. Sage Township will continue to operate a composting site. Municipalities are encouraged to provide composting opportunities for their residents as needs dictate, either through curbside collection of yard wastes or through local drop-off sites. Again, it expected that composting services will continue to be furnished by the private sector. The plan, however, does not intend to limit the ability of any local government unit to establish a composting site and program.

5. Separation of Household Hazardous Wastes. There is presently no formal hazardous waste collection program in place. The high costs associated with such programs generally preclude the County from directly providing this type of service. However, the County should work in partnership with the private solid waste industry to explore ways to provide opportunities for separation and collection of household hazardous wastes from residents.

6. Resource Conservation and Waste Reduction. Resource conservation and waste reduction will be encouraged through the voluntary efforts of residents, businesses, and industries. The County should investigate ways to expand public information and education in this area.

7. Public Information and Education. Current educational efforts will be continued under the selected system, such as the programs that are available through MSU Extension. The private solid waste industry also conducts informational programs for local schools and others. The County should investigate ways to coordinate and enhance these efforts.

IMPORT AUTHORIZATION

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

Table 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Gladwin	None	None			

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

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

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

Table 1-B

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

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Gladwin	None	None Planned	____	____	____
____	____	____	____	____	____
____	____	____	____	____	
____	____	____	____	____	____
____	____	____	____	____	
____	____	____	____	____	

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

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

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

EXPORT AUTHORIZATION

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

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Gladwin	Clare	Northern Oaks	____	____	P
Gladwin	Bay	Whitefeather	____	____	P
Gladwin	Crawford	Waters LF	____	____	P
____	____	____	____	____	
____	____	____	____	____	
____	____	____	____	____	____

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

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

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

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

Table 2-B

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

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Gladwin	None identified	None planned	____	____	____
____	____	____	____	____	
____	____	____	____	____	
____	____	____	____	____	
____	____	____	____	____	
____	____	____	____	____	____

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

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

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

SOLID WASTE DISPOSAL AREAS

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the next five years and, if possible, the next ten years. Pages III-7-1 through III-7-5 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

Northern Oaks (Clare County)

Whitefeather (Bay County)

Waters (Crawford County)

Type A Transfer Facility:

None

Type B Transfer Facility:

None

Type III Landfill:
None

Processing Plant:
None

Incinerator:
None

Waste Piles:
None

SELECTED SYSTEM

Waste-to-Energy Incinerator: Other:

None

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill
Facility Name: Northern Oaks Recycling & Disposal Facility
County: Clare Location: Town:19N Range:4W Section(s):32

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

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes :
☐ Public ☒ Private Owner: 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	☒	special wastes *
☐	pending	☐	other: _

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

Site Size:

Total area of facility property:	320	acres
Total area sited for use:	76	acres
Total area permitted:	76	acres
Operating:	19	acres
Not excavated:	57	acres
Current capacity:	8,755,100	☐ tons or ☒ yds^3
Estimated lifetime:	43	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	409,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill
Facility Name: Whitefeather Development Company

County: Bay Location: Town: 17N Range: 4E 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 :
☐ Public ☒ Private Owner: Republic Services

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:	752	acres
Total area sited for use:	106	acres
Total area permitted:	56.5	acres
Operating:	24.5	acres
Not excavated:	32.0	acres
Current capacity:	4,175,153	☐ tons or ☒ yds^3
Estimated lifetime:	18.8	years
Estimated days open per year:	260	days
Estimated yearly disposal volume:	380,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill
Facility Name: Waters Landfill

County: Crawford Location: Town:_____Range:_____Section(s):

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

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

☐ Public ☒ Private Owner: Waste Management

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:	256	acres
Total area sited for use:	252	acres
Total area permitted:	79	acres
Operating:	9.7	acres
Not excavated:	64.87	acres
Current capacity:	5,700,000	☐ tons or ☒ yds^3
Estimated lifetime:	20	years
Estimated days open per year:	313	days
Estimated yearly disposal volume:	200,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

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

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

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

The existing collection and transportation system, as previously described, will remain in place. The various solid waste collection and transportation firms doing business in the county may change due to municipal contracts, mergers, and other factors. Also, this plan does not preclude public (government) entities from providing solid waste magement services.

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 yr	10th yr
Waste reduction education efforts aimed at residents, businesses, & industries	0	3%	6%

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

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

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

Technique Description	Est. Air Space Conserved Yds^3/Yr		
	Current	5th yr	10th yr
Efforts limited to those practiced by the private sector in collecting, transporting, and disposing of solid waste; and collecting & marketing recyclable materials: compacting, baling, shredding, etc.	Unknown		

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

Overview of Resource Recovery Programs:

The following describes the type and volume of material in the County's waste stream that may be available for recycling or composting programs. How conditions in the County affect or may affect a recycling or composting program and potential benefits derived from these programs is also discussed. Impediments to recycling or composting programs which exist or which may exist in the future are listed, followed by a discussion regarding reducing or eliminating such impediments.

Please refer to the discussion of recycling and composting on page III-17.

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

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

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

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

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

☒ Separation of potentially hazardous materials from the County's waste stream has been evaluated and it has been determined that it is not feasible to conduct any separation programs because of the following:

It is not presently feasible for Gladwin County or the municipalities within the County to conduct such programs due to the high costs involved. Residents are encouraged to participate in the annual Household Hazardous Waste Collection Day at the Northern Oaks Landfill in Clare County. Also, the updated plan calls for the County to work with the private sector to explore opportunities for providing these services in Gladwin County in the future.

RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis, Tables III-1, III-2, & III-3 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. Tables III-4, III-5, & III-6 list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

The main recycling operation in the County is White's Recycling Center. This is a privately owned and operated facility that is located in the City of Gladwin's Industrial Park. Materials presently accepted are: newspaper, office paper, corrugated, kraft paper, magazines & catalogs, #1 & #2 plastics, glass, steel cans, and aluminum. Recycling drop-off sites are also available in Bentley and Billings Townships.

Composting in Gladwin County mainly occurs as home composting due to the rural nature of the area. Composting drop-off sites are available to residents in Sage and Tobacco Townships. Collection of brush and leaves takes place in the cities of Beaverton and Gladwin through the municipal Departments of Public Works. However, no formal composting programs are in place in these communities.

TABLE III-1

RECYCLING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
White's Recycling Center	Gladwin County	Priv	d	d	ABCDEF	5	5	5

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

[5] Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 25.

TABLE III-2

COMPOSTING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
Sage Twp. Composting Site	Sage Twp.	Public	d	d	G L	Twp	Twp.	Twp.
Tobacco Twp. Composting Site	Tobacco Twp	Public	d	d	G L	Twp	Twp	Twp.

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

[5] Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; L1, L2 etc. = as identified on page 25.

TABLE III-3

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

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

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
NONE								
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

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

TABLE III-4

PROPOSED RECYCLING:

Program Name (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
No new programs proposed								

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

[5] Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 25.

TABLE III-5

PROPOSED COMPOSTING:

Program Name, (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
No new programs proposed								

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

[5] Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; L1, L2 etc. = as identified on page 25.

TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Program Name, (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
NONE		____	____	____	____	____	____	____
		____	____	____	____	____	____	____
		____	____	____	____	____	____	____

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

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

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).

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

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

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

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

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

Environmental Groups:

None identified with management responsibilities.

Other:

The County Solid Waste Management Advisory Board will be responsible for educational & promotional activities for resource recovery (recycling & composting) programs. The private solid waste management industry and the municipalities within the county for furnishing recycling & composting options to county residents, businesses, and industries.

PROJECTED DIVERSION RATES:

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

Collected Material:	Projected Annual Tons Diverted:			Collected Material:	Projected Annual Tons Diverted:		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Yr
A. TOTAL PLASTICS:	____	____	____	G. GRASS AND LEAVES:	____	____	
B. NEWSPAPER:	____	____	____	H. TOTAL WOOD WASTE:	____	____	
C. CORRUGATED CONTAINERS:	____	____	____	I. CONSTRUCTION AND DEMOLITION:	____	____	
D. TOTAL OTHER PAPER:	130	143	157	J. FOOD AND FOOD PROCESSING:	____	____	
E. TOTAL GLASS:	____	____	____	K. TIRES:	____	____	
F. OTHER MATERIALS:				L. TOTAL METALS:	____	____	
F1. Mixed plastices, metal & glass	40	44	48				
F3. ____	____	____					
F2. ____	____	____	____	F4. ____	____	____	

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

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

Collected Material:	In-State Markets	Out-of-State Markets	Collected Material	In-State Markets	Out-of-State Markets
A. TOTAL PLASTICS:	100%	____	G. GRASS AND LEAVES:	____	
B. NEWSPAPER:	100%	____	H. TOTAL WOOD WASTE:	____	
C. CORRUGATED CONTAINERS:	100%	____	I. CONSTRUCTION AND DEMOLITION:	____	
D. TOTAL OTHER PAPER:	100%	____	J. FOOD AND FOOD PROCESSING	____	
E. TOTAL GLASS:	100%	____	K. TIRES:	____	
F. OTHER MATERIALS:			L. TOTAL METALS:		
F1. ____	____	____	F3. ____	100%	
F2. ____	____	____	F4. ____	____	

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participate in such programs as waste reduction and waste recovery. Following is a listing of the programs offered or proposed to be offered in this County.

Program Topic[1]	Delivery Medium[2]	Targeted Audience[3]	Program Provider[4]
1	f	p	EX & Recycling Committee
1	classroom	s-5th (Beaverton)	EX & Recycling Committee
1	poster contest	s	EX & Recycling Committee
1 (to Isabella Co. MRF)	Field trips	p	EX & Recycling Committee
1	w	p	EX & Recycling Committee

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

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

[3] Identified by p = general public; b = business; 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 (Identify name); OO = Private Owner/Operator (Identify name); HD = Health Department (Identify name); DPA = Designated Planning Agency; CU = College/University (Identify name); LS = Local School (Identify name); ISD = Intermediate School District (Identify name); O = Other which is explained.

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

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implement components of the Selected System. The Timeline gives a range of time in which the component will be implemented such as "1995-1999" or "On-going." Timelines may be adjusted later, if necessary.

TABLE III-7

Management Components	Timeline
Resource Conservation & Waste Reduction	Ongoing
Collection & transportation	Ongoing
Recycling	Ongoing
Composting	Ongoing
Landfilling	Ongoing
Recycling Education	Ongoing

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

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

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this Plan. (attach additional pages if necessary)

See the attached siting criteria and process.

Siting Process for Solid Waste Disposal Areas

A. Proposals for all new solid waste disposal areas must be found consistent with the criteria contained in this section before a determination of consistency with the County Solid Waste Management Plan may be issued. Any proposal for a disposal area type that is not allowed by the Plan is automatically inconsistent with the Plan unless specifically added to the Plan through a properly approved Plan amendment.

B. Solid waste facility siting proposals will be reviewed for consistency with the Plan by the designated planning agency and approved by the county solid waste management planning committee according to the procedures outlined in this section. A proposal that is found to be consistent with the Plan shall become part of the Plan upon issuance of a construction permit by the DEQ.

C. To initiate the review process under this Plan, the applicant shall submit the required information as specified in ***Part D*** below to the county designated planning agency. A reasonable number of copies of the application may be required at the discretion of the designated planning agency.

D. Upon receipt of an application, the designated planning agency (DPA) shall review the application for administrative completeness in accordance with the requirements listed in items 1 and 2 below. If the planning agency determines that the application is not complete, the developer shall be notified and given the opportunity to provide the information required to make the application complete. If no determination on completeness is made within 30 days, the application shall be considered administratively complete.

1. The application shall include a name, address, and telephone number for the applicant (including any partners and ownership interests), the current property owner(s) of the site, any consultants that will be involved in the project, and a designated contact person for the facility developer (if different than the applicant). The application shall specify the type of facility being proposed.

2. The application shall include the following information on the site and the surrounding area:

   i. A legal land description of the project area;
   ii. A site map showing all roadways and principal land features with two (2) miles of the site;
   iii. A topographic map of the site with contour intervals of no more than ten (10) feet;
   iv. A map and description of all access roads showing their location, surface type, proposed access point(s) to the facility, and waste hauling routes from access roads to the nearest state trunkline;

v. A map of the proposed site and surrounding area showing current zoning, location of residences, and the present use of all property within one (1) mile of the site;
vi. A description of the current site use and ground cover;
vii. A map showing the locations of all existing structures within 1,200 feet of the perimeter of the site;
viii. The locations of all existing utilities within 1,200 feet of the site;
ix. The location of the 100-year floodplain as defined by Rule 323.311 of the administrative rules of Part 31, Water Resources Protection, of Act451 within 1,200 feet of the site;
x. The locations of all wetlands as defined by Part 303, Wetlands Protection, of Act 451 within 1,200 feet of the site;
xi. The locations of all public and private water wells within 2,000 feet of the site; and
xii. The locations of all surface water (lakes, streams, and drains) within 1,200 feet of the site.
xiii. The site soil types and general geological characteristics.
xiv. The application shall contain a written narrative description of the proposed site development and facility design, including the proposed final design capacity.
xv. The application shall contain a written narrative description of the proposed operations of the facility, including the planned annual usage, anticipated sources and types of solid waste, and the facility life expectancy.
xvi. If necessary to satisfy the requirements of criterion # 14, the application shall include a signed statement indicating the willingness of the facility developer to provide for road improvements and maintenance.

E. Within ninety (90) days from the date the application is determined to be administratively complete, the designated planning agency shall complete the consistency review and make its recommendations to the county solid waste management planning committee. The planning committee shall send the county's final written determination of consistency for the proposal to the applicant.

F. To be found consistent with the Plan, a proposed solid waste disposal area must comply with all the siting criteria and requirements described in subparts 1 through 14 below:

1. If the proposed facility is a sanitary landfill and the County has 66 months or more of disposal capacity remaining for all solid waste generated in the County, the County may, at its discretion, refuse to allow this siting procedure to be used. Remaining disposal capacity shall be determined by the DPA by using the solid waste generation data contained in this plan and the capacity calculations on page IV-1. Furthermore, the DPA shall verify the capacity remaining at each of the disposal facilities authorized in this plan at the time an application is received.

2. The active work area for new facilities or expansions to existing facilities shall not be located closer than 500 feet to adjacent road rights-of-way, lakes, or perennial streams.

3. The active work area for new facilities or expansions to existing facilities shall not be located closer than 1,000 feet to domiciles existing at the time the application is submitted.

4. The active work area for new facilities or expansions to existing facilities shall not be located closer than 800 feet to adjacent property lines.

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

6. 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.

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

8. A facility shall not be located on lands enrolled under Part 361, Farmland and Open Space Preservation, of Act 451.

9. A facility shall not be located in an area defined in Section 32301 of 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.

10. A facility shall not be located in a designated historic or archaeological area as defined by the State Historic Preservation Officer (SHPO).

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 or permitted to expand on land owned by the United States of America or the State of Michigan. Disposal areas may be located on state land only if both of the following conditions are met:
    a. Thorough investigation and evaluation of the proposed site by the facility developer indicates, to the satisfaction of the DEQ, that the site is suitable for such use.
    b. The state determines that the land may be released for disposal area purposes and the facility developer acquires the property in fee title from the state in accordance with state requirements for such acquisition.

13. Solid waste facilities may only be sited on property that is zoned agricultural, commercial, industrial, or other designation that specifically permits such

facilities at the time the facility developer applies for a determination of consistency under the Plan. Facilities may not be located on property that is zoned residential.

14. A facility shall be located on a paved, all weather "Class A" road. If a facility is not located on such a road, the facility developer shall agree to provide for upgrading and maintenance of the road serving the facility.

G. If the applicant does not agree with the consistency determination made by the County solid waste management planning committee or if no consistency determination has been made within 90 days, the applicant may request that the DEQ determine the consistency of the proposal with the Plan as part of DEQ review of a construction permit application.

H. If the proposal is found to be inconsistent with the Plan, the applicant may provide additional information to address the identified deficiencies. The designated planning agency may only determine consistency on such a re-submittal in regard to the criteria originally found to be deficient.

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

SOLID WASTE MANAGEMENT COMPONENTS[1]

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

SEE THE ATTACHED PAGES

[1] Components or subcomponents may be added to this table.

Existing Management Capabilities

A. Ongoing Planning, Coordination, and Plan Implementation

Countywide solid waste management planning and coordination is an ongoing process. Act 451 requires that the Solid Waste Plan is updated every five years and that plan implementation must be ensured through the assignment of management responsibilities.

The East Central Michigan Planning and Development Regional Commission (ECMPDR) has been assigned the responsibility of overseeing the plan update. ECMPDR, as the designated solid waste management planning agency, has coordinated the plan update process with the Solid Waste Management Planning Committee.

Coordination and cooperation among the municipalities in Gladwin County, and between the public and private sectors are major elements of successful plan implementation. The Solid Waste Management Planning Committee has outlined a way to achieve this coordination. However, the duties of this committee are officially completed once the updated plan receives final approval. No other existing organization is available to serve this function. However, this plan update recommends the establishment of a "Solid Waste Management Advisory Board" to oversee and coordinate the implementation of the plan. This is further described on the following page under the ***Recommended Management System*** heading.

B. Collection and Transportation of Solid Waste

The private solid waste management industry currently provides solid waste collection and transportation services to all parts of Gladwin County, either through municipal contracts or individual subscriptions with homes and businesses. No public agency in the county presently operates a solid waste collection and transportation system. The private sector can continue to provide these services economically and efficiently as long as disposal facilities are available within a reasonable distance.

C. Construction, Operation, and Maintenance of Solid Waste Facilities

With the exception of Type B transfer facilities, the construction and operation of solid waste facilities in compliance with Act 451 is a costly undertaking that cannot typically be accomplished by a single rural municipality. Rural municipalities, such as townships, have the financial capabilities to develop Type B transfer facilities. However, the operation and maintenance of these facilities is most typically performed by the private solid waste industry.

There is currently no county agency with the administrative and technical capabilities to operate a solid waste disposal facility. The County Board of Public Works has the legal authority to own and operate a solid waste facility in accordance with this plan and applicable laws. However, the County Board of Public Works is not currently authorized to take on this responsibility.

The private sector has the capabilities to construct and operate a solid waste disposal facility. However, there are presently no formal plans or agreements to develop or operate new disposal facilities in Gladwin County.

D. Financial Capabilities

The municipalities and residents of Gladwin County have the capability to finance the collection and transportation of solid waste by entering into contracts with private haulers. Gladwin County is the only public agency with the capability to construct and operate a solid waste disposal facility, such as a sanitary landfill. The construction of a disposal facility is a costly undertaking that cannot typically be financed by an individual rural municipality.

E. Regulation and Enforcement

Regulations for construction and operation of solid waste facilities are defined by state legislation, particularly Act 451. The Michigan Department of Environmental Quality is the enforcement body for compliance with Act 451 within the county. For specific enforcement of the County Solid Waste Management Plan, the Gladwin County Board of Commissioners is empowered to identify violations of this plan and to bring suit against violators as required.

Recommended Management System

The updated plan recommends the establishment of a single advisory body at the county level to oversee plan implementation, in coordination with the County Board of Commissioners. This body would address various tasks and make recommendations within the areas specified in the plan. The advisory body will represent the same groups as specified for planning committees in Act 451. However, to distinguish the role of the advisory board from that of the planning committee, the body will be called the Gladwin County Solid Waste Management Advisory Board (SWMAB). The Advisory Board should be appointed by the County Board of Commissioners within three months after DEQ approval of this plan update.

The Advisory Board may require staff assistance to carry out its duties, and the county may assign staff for this purpose. Alternatively, the county may contract with the regional solid waste planning agency (the current DPA) or other qualified personnel to assist the SWMAB as needed.

Other entities with management responsibilities for carrying out the plan's various provisions are identified on the following pages.

IDENTIFICATION OF RESPONSIBLE PARTIES

Document which entities within the County will have management responsibilities over the following areas of the Plan.

Resource Conservation:

Source or Waste Reduction – All citizens, businesses, and industries. Educational & promotional efforts led by Solid Waste Management Advisory Board (SWMAB).

Product Reuse - All citizens, businesses, and industries. Educational & promotional efforts led by Solid Waste Management Advisory Board (SWMAB).

Reduced Material Volume - All citizens, businesses, and industries. Educational & promotional efforts led by Solid Waste Management Advisory Board (SWMAB).

Increased Product Lifetime - All citizens, businesses, and industries. Educational & promotional efforts led by Solid Waste Management Advisory Board (SWMAB).

Decreased Consumption - All citizens, businesses, and industries. Educational & promotional efforts led by Solid Waste Management Advisory Board (SWMAB).

Resource Recovery Programs:

Composting – Private solid waste industry, municipalities, residents.

Recycling – SWMAB & Recycling Committee (promotion & education), municipalities, businesses, industries, residents, private solid waste industry.

Energy Production – Not included in plan.

Volume Reduction Techniques: Private solid waste industry (collection, disposal, & recycling operations). Also residents, businesses, and industries through voluntary efforts.

SELECTED SYSTEM

Collection Processes: Private solid waste industry & municipalities.

Transportation: Private solid waste industry.

Disposal Areas:

Processing Plants –Private industry

Incineration –Private industry

Transfer Stations – Type B: private solid waste industry & municipalities. Type A: private solid waste industry.

Sanitary Landfills – Private solid waste industry.

Ultimate Disposal Area Uses: Private solid waste industry with input from host municipalities.

Local Responsibility for Plan Update Monitoring & Enforcement: SWMAB (plan implementation monitoring); County Board of Commissioners (plan enforcement); Michigan DEQ (general Act 451 enforcement).

Educational and Informational Programs: SWMAB, Recycling Committee, MSU Extension

Documentation of acceptance of responsibilities is contained in Appendix D.

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

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

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

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

A. Geographic area/Unit of government:

Type of disposal area affected:

Ordinance or other legal basis:

Requirement/restriction:

B. Geographic area/Unit of government:

Type of disposal area affected:

Ordinance or other legal basis:

Requirement/restriction:

C. Geographic area/Unit of government:

Type of disposal area affected:

Ordinance or other legal basis:

Requirement/restriction:

D. Geographic area/Unit of government:

Type of disposal area affected:

Ordinance or other legal basis:

Requirement/restriction:

E. Geographic area/Unit of government:

Type of disposal area affected:

Ordinance or other legal basis:

Requirement/restriction:

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

☐ Additional listings are on attached pages.

Gladwin County and the municipalities within the county are authorized to adopt and implement local regulations governing the following subjects in regard to any solid waste disposal facilities that may be sited in accordance with this plan:

1. Facility design elements: greenbelts, landscaping, screening, and fencing.
2. Hours of facility operation.
3. Control of noise, litter, dust, odors, and pest species.
4. Operating records and reports.
5. Site security.
6. Monitoring of wastes accepted and prohibited.
7. Waste disposal surcharges.

CAPACITY CERTIFICATIONS

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

☒ This County has more than ten years capacity identified in this Plan and an annual certification process is not included in this Plan.

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

CAPACITY CALCULATIONS

The following summarizes the listed capacity for the various facilities that Gladwin County will use to meet its disposal capacity requirements.

Facility	Capacity (cubic yards)
Northern Oaks (Clare County)	8,755,100
Whitefeather (Bay County)	4,175,153
Waters (Crawford County)	5,700,000
TOTAL	**18,630,253**

Over the next ten years (2000 – 2009), Gladwin County is projected to generate a total volume of 430,000 cubic yards of solid waste. This figure is based on current disposal volumes and projected county growth. The figure has not been adjusted for any additional diversion that may occur due to increases in materials recovery volumes. For final disposal volumes, a compaction ratio of 2:1 has been assumed. On this basis, Gladwin County will require 215,000 cubic yards of landfill capacity for the next 10 years. This represents about 1.2 percent (1.2%) of the total capacity shown above.

Based on the listed capacity available at the three landfills shown above, Gladwin County has access to sufficient disposal capacity for over 866 years.

APPENDIX

ADDITIONAL INFORMATION

REGARDING THE

SELECTED

SYSTEM

Gladwin County Solid Waste Management Plan Update

EVALUATION OF RECYCLING

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

An overview of current recycling programs in Gladwin County has been presented in the "Overview of Resource Recovery Programs" section in the main body of the plan document on page III-16.

The main recycling operation in the County is White's Recycling Center. This is a privately owned and operated facility that is located in the City of Gladwin's Industrial Park. Materials presently accepted are: newspaper, office paper, corrugated, kraft paper, magazines & catalogs, #1 & #2 plastics, glass, steel cans, and aluminum. Recycling drop-off sites are also available in Bentley and Billings Townships.

Composting in Gladwin County mainly occurs as home composting due to the rural nature of the area. Composting drop-off sites are available to residents in Sage and Tobacco Townships. Collection of brush and leaves takes place in the cities of Beaverton and Gladwin through the municipal Departments of Public Works. However, no formal composting programs are in place in these communities.

Resource recovery education efforts are also conducted in Gladwin County. The County maintains a Recycling Education Committee with the main objective of conducting educational and promotional activities for recycling.

The current resource recovery programs in Gladwin County are functioning well, and they provide all residents with an opportunity to participate. There are no major obstacles or impediments known to exist at the local level. Participation rates among residents continue to improve. Educational efforts will be continued under the updated plan, and improved as opportunities arise. Negative factors that affect the current recycling programs are the volatility of the markets for recyclable materials, and the present low market prices. However, these factors are beyond the County's control.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

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

A detailed waste stream assessment has never been conducted for Gladwin County. The quantities of various materials that are available for recovery have been estimated based on the solid waste components identified for similar rural areas and current solid waste generation estimates for the County. The following estimates are based on total annual solid waste generation of about 12,616 tons.

Material	% of Waste Stream	Annual Quantity (Tons)
Paper (all types)	15%	1,892
Plastics	9%	1,136
Glass	5%	631
Ferrous metals	7%	883
Aluminum	0.8%	101
Yard waste	4%	505

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

Equipment Selection

Existing Programs:
RECYCLING: Equipment is currently selected by private the solid waste industry as its needs dictate. No major problems have been encountered in the selection of this equipment.
COMPOSTING: Current equipment selection is addressed by the private solid waste industry in providing yard waste collection services in various communities. Municipalities that provide some form of yard waste collection generally utilize normal public works equipment such as portable chippers for brush. No specific problems with equipment selection have been reported and no major new equipment needs have been identified.

Proposed Programs:
No new programs or equipment needs have been identified.

Site Availability & Selection

Existing Programs:
RECYCLING: Programs will continue to operate at their existing sites, mainly at White's Recycling Center in the Gladwin Industrial Park. No specific site needs have been identified. However, any municipality that wishes to establish a recycling drop-off site for use by residents is encouraged to do so.
COMPOSTING: No specific site needs have been identified. The private solid waste industry that collects yard waste has made adquate arrangements for compositng areas, usually adjacent to the existing landfill sites. Municipalities that collect yard waste & brush generally utilize vacant publicly-owned sites for placement of material.

Proposed Programs:
No new programs or siting needs have been identifed.

Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.
There are no commercial composting facilities in the county, and these parameters are not monitored for the existing municipal programs.

Existing Programs:

Program Name:	pH Range	Heat Range	Other Parameter	Measurement Unit

Proposed Programs:

Program Name	pH Range	Heat Range	Other Parameter	Measurement Unit

COORDINATION EFFORTS:

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

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

1. The municipalities within Gladwin County may enter into agreements (i.e., contracts) with other entities, both public and private, for solid waste management services, including the collection and transportation of solid waste, recyclable materials, and yard waste.

2. The Gladwin County Board of Commissioners may negotiate written inter-county agreements with the counties specified in the "Current Export Authorization" section of this plan (Table 2-A, p. III-5) for acceptance of solid waste generated in Gladwin County for disposal at landfills located in the specified counties.

3. This updated plan calls for the creation of a Solid Waste Management Advisory Board (SWMAB) to oversee and generally coordinate the implementation of the plan. As such, the SWMAB will work in cooperation with County government, local government units, the private solid waste industry, businesses, industries, institutions, and the general public to facilitate the various actions required to carry out the updated Solid Waste Management Plan.

COSTS & FUNDING:

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

System Component[1]	Estimated Costs	Potential Funding Sources
Resource Conservation Efforts	Unknown	Voluntary efforts by private enterprise: businesses, industries & institutions
Resource Recovery Programs	Unknown	Private industry, municipalities, customer fees
Volume Reduction Techniques	Unknown	Private enterprise
Collection Processes	Unknown	Private enterprise & customer fees
Transportation	Unknown	Private enterprise & customer fees
Disposal Areas	Unknown	Private enterprise & customer fees
Future Disposal Area Uses	Unknown	Private enterprise & host counties
Management Arrangements	Unknown -- minor cost	Gladwin County Board of Commissioners
Educational & Informational Programs	Unknown -- minor cost	Gladwin County Board of Commissioners

[1] These components and their subcomponents may vary with each system.

EVALUATION SUMMARY OF THE SELECTED SYSTEM:

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

The selected system is technically and economically feasible. All of the major components, including collection, transportation, disposal, recycling, and composting are proven technologies that are currently in place and have been accepted by the public. The selected plan is essentially a continuation of the current management system.

The following discussion describes the anitcipated positive and negative impacts on public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production.

PUBLIC HEALTH

The selected plan relies mainly on the available landfills located in other counties for final disposal of solid waste. Landfills that are properly sited, constructed, and operated will have minimal effects on groundwater and the environment.

Recycling and composting may reduce public health impacts by removing materials from the waste stream that would otherwise go to a disposal facility.

The proper collection and transportation of solid waste reduces the potential for negative health impacts.

ECONOMICS

Landfilling is stll the most economical method of solid waste disposal. However, landfilling could be costly if a landfill is improperly designed or operated, resulting in surface or groundwater pollution. The selected plan relies on landfills located in surrounding counties that are in full compliance with Act 451 and other applicable laws. Properly designed and operated landfills will minimize the risk of pollution. However, landfilling will also result in the disposal of materials that could be recycled or reused at a lower cost than the manufacture of new materials.

It is this plan's intent that the County may explore and implement all feasible options in the future for financing resouice recovery programs, including educational programs. This includes the authority to impose waste disposal surcharges, as recently (October 1998) determined by the Michigan Court of Appeals.

The recycling component of the selected system also has positive economic impacts by generating revenues from the sale of materials. However, these revenues are typically subject to wide market fluctuations, and they are not expected to entirely offset the costs of operation.

Solid waste collection through an open market system provides competive pricing and economies of scale. Transfer stations can provide cost savings by making collection routes more efficient and reducing the transportation costs incurred by collection vehicles.

ENVIRONMENTAL CONDITIONS

The selected system will have minimal environmental impacts because it does not call for the siting of any major new solid waste facilities.

Recycling and composting facilities help to reduce reliance on landfills and, consequently, they also help to reduce the environmental consequences of landfills. However, recycling and composting facilites can also cause nuisance conditions if they are not properly designed and maintained. Also, composting facilities can have odor problems if they are not properly operated.

SITING CONSIDERATIONS

The selected system will have minimal impacts on siting because no new facilities are proposed. Landfills are extremely difficult to site because of public opposition and the need to identify an environmentally sound location that will meet all Act 451 requirements. Gladwin County has access to sufficient capacity for the next 10 years and beyond. There is no need to site a new landfill or any other disposal facilities.

EXISTING DISPOSAL AREAS

The selected plan relies on the existing landfills in Clare, Bay, and Crawford Counties to provide disposal capacity for the next 10 years. No new landfills will be required.

ENERGY CONSUMPTION AND PRODUCTION

The selected plan relies on landfills located outside Gladwin County for the disposal of the County's solid waste. The current system results in greater energy consumption than if solid waste only had to be transported to a disposal facility located in Gladwin County.

The transportation of recyclable materials and yard waste also consumes energy. However, materials recovery can also save energy by reusing certain items, or substituting recycled materials for newly manufactured components.

Sanitary landfills represent a loss of energy resources due to the burial of materials that could be otherwise recovered and utilized. However, methane gas can be recovered from landfills which is then used as an energy source. No methane recovery currently takes place at the landfills identified in this plan.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

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

ADVANTAGES:

1. 1. Major components already in place
2. System is accepted by the public
3. Minimal costs
4. No new sites or facilities required
5. No major institutional changes required

DISADVANTAGES:

1. No strong incentive to increase materials recovery much beyond current levels

NON-SELECTED

SYSTEMS

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

ALTERNATIVE B: ENHANCED MATERIALS RECOVERY
Under this option, use of the present landfills outside the county as the primary means of disposal would continue. However, attention would focus on the expansion of recycling and composting opportunities within the county.

ALTERNATIVE C: REGIONAL SOLID WASTE MANAGEMENT SYSTEM
This alternative called for the creation of a regional solid waste management system in cooperation with several surrounding counties. This option would involve the creation of a formal solid waste management authority or similar entity.

Alternative B

SYSTEM COMPONENTS:

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

RESOURCE CONSERVATION EFFORTS:

Voluntary measures by consumers, businesses, and industries.

VOLUME REDUCTION TECHNIQUES:

Use of volume reduction equipment by private solid waste industry & materials recovery programs: compactors, balers, shredders.

RESOURCE RECOVERY PROGRAMS:

1. Expanded curbside recycling in municipalities
2. Yard waste collection by private industry & municipalities.
3. Home composting by residents.

COLLECTION PROCESSES:

Collection mainly by private solid waste industry under municipal contracts & individual subscriptions.

TRANSPORTATION:

Transportation mainly by private solid waste industry.

DISPOSAL AREAS:

Landfills located outside of Gladwin County

INSTITUTIONAL ARRANGEMENTS:

1. Arrangements for solid waste collection & transportation under municipal contracts and individual subscriptions with residents & businesses.
2. Inter-county agreements between Gladwin County and counties where available landfills are located.

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Countywide education programs conducted by County, MSU Extension, or other entity.

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Specific costs are unknown. Operating costs would be greater than the existing system due to cost for increased collection and transportation of recyclable materials.

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

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

The technical and economic feasibility of implementing this alternative (enhanced materials recovery) were judged to be less desirable than the selected system. Also, this alternative would consume more energy due to expanded collection and transportation of recyclable materials.

Also, opportunities for materials recovery are widely available under the selected system. There is no documented demand for additional services in this regard. Under the selected system, local governments are free to establish resource recovery programs in any manner they feel best suits the needs of their residents. This arrangement was judged to be preferable to mandating recovery programs under Alternative B.

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

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

ADVANTAGES:

1. Increased levels of materials recovery

2. Greater conservation of landfill space through diversion.

3. Low capital costs due to minimal facility requirements.

DISADVANTAGES:

1. Higher operating costs for expanded collection & transportation of recyclable materials

2. Municipalities would need to accept expanded responsibilities for contracting for solid waste services.

3. Municipalities & residents would need to accept higher costs for expanded recycling collection, either curbside or through establishment of additional drop-off sites.

Alternative C

SYSTEM COMPONENTS:

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

RESOURCE CONSERVATION EFFORTS:
Voluntary measures by consumers, businesses, and industries.

VOLUME REDUCTION TECHNIQUES:
Use of volume reduction equipment by private solid waste industry & materials recovery programs: compactors, balers, shredders.

RESOURCE RECOVERY PROGRAMS:
1. Potential development of regional MRF and composting facility.
2. Regional marketing of recyclable materials and compost

COLLECTION PROCESSES:
Collection mainly by private solid waste industry under contracts with regional solid waste authority or similar entity.

TRANSPORTATION:
Transportation mainly by private solid waste industry.

DISPOSAL AREAS:
Landfills located in other counties

INSTITUTIONAL ARRANGEMENTS:

1. Establishment of formal multi-county solid waste management authority or similar entity.
2. Agreements between authority & counties for solid waste services.
3. Agreements between municipalities and counties and/or directly with authority for solid waste services.
4. Agreements between authority and private solid waste industry for collection, transportation, and other solid waste services.

EDUCATIONAL AND INFORMATIONAL PROGRAMS:
Programs carried out by multi-county authority

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

1. High initial start-up costs for establishment of authority; administration & staffing.
2. Potential high capital costs for regional materials recovery & composting facilities.

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

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

ALTERNATIVE C
Again, the evaluation of this alternative was similar to the selected system in many respects. However, there were also some significant differences. The following discussion describes the positive and negative impacts on public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production, as they differ from the selected system:

1. This alternative would be expected to have somewhat greater public health benefits than the selected system by further reducing reliance on landfills through a higher level of materials recovery. Proper collection of solid waste would be better served by contracting for collection services on a regional basis.

2. This option would generate greater revenues from recycled materials by collecting a larger quantity of materials. Also, it may be possible to achieve cost savings on solid waste services by obtaining competitive bids on a regional basis. However, higher costs would be associated with the initial formation of an authority, and with the development of regional resource recovery facilities. Feasibility studies would need to be conducted for such facilities, and their proposed capital and operating costs are not presently known.

3. Like the selected system, no new disposal areas would need to be sited under this alternative. The existing landfills that presently serve the counties participating in the authority would continue to be used. However, as previously noted, large-scale regional materials recovery and waste processing facilities are considered to be part of this alternative. Such facilities would face public opposition and would be difficult to site.

4. Energy would also be consumed under this alternative to collect and transport solid waste,

recyclable materials, and yard waste. However, there would presumably be greater energy savings through a greater level of materials recovery. Depending on the locations of materials recovery and processing facilities, there may be greater fuel consumption to transport materials than under the selected system.

Alternative C was not selected for the following major reasons:

1. A major problem associated with the alternative is the complexity of creating a regional solid waste authority. In particular, there does not presently appear to be any strong support for this concept. Local governments are likely to perceive the creation of a solid waste authority as a loss of home rule authority. Also, the formation of an authority would likely be perceived as creating another level of government ("bureaucracy") and would meet with public opposition. The private solid waste industry would probably also oppose the formation of an authority as excessively restrictive or unfairly competitive. Without strong support by elected officials, the public, and private industry, a proposed solid waste authority would not succeed.

2. There are simply too many technical, economic, and political uncertainties to make a regional system feasible at this time. However, the concept does hold potential, and it should be re-evaluated in the future as the solid waste management systems in the region continue to evolve.

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

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

ADVANTAGES:

1. Regional collection & marketing of recyclable materials.

2. Regional purchasing of recycled products.

3. Potential cost savings through regional contracts for solid waste services.

DISADVANTAGES:

1. Political barriers to establishing multi-county authority.

2. Higher costs for regional processing facilities.

3. Opposition to siting any new solid waste facilities.

PUBLIC PARTICIPATION

AND APPROVAL

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

Several mechanisms were used to encourage involvement by local governments and the public in the Solid Waste Management Plan update process. These are summarized below:

1. Time for public comment was reserved on the agenda for each meeting of the Planning Committee.

2. Notices of each Planning Committee meeting were distributed to all municipalities in the County in advance of each meeting.

3. A general notice was published as required that announced the general availability of the draft plan when it was released for public review for a three-month period.

4. The draft plan was distributed to all municipalities in the County and adjacent counties for review.

5. A general notice announcing the public hearing on the draft plan was published at least 30 days prior to the hearing.

6. A public hearing was held on the draft plan to provide all interested persons an opportunity to voice questions or concerns regarding the updated plan.

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

The public involvement process is described on the preceding page. The Solid Waste Management Planning Committee met on the following dates:

April 13, 1998
May 4, 1998
June 1, 1998
July 6, 1998
October 26, 1998
November 23, 1998
December 15, 1998
January 19, 1999
February 10, 1999
May 11, 1999 (Public Hearing)
June 9, 1999

PLAN APPROVALS:
The updated County Solid Waste Management Plan was approved by the County Solid Waste Management Planning Committee on June 9, 1999.

The updated Solid Waste Management Plan was approved by the Gladwin County Board of Commissioners in January 2000.

The updated Solid Waste Management Plan was submitted to the municipalities within Gladwin County in January 2000.

The updated Solid Waste Management Plan was approved by 67% of the municipalities in the County in December 2001.

The updated Solid Waste Management Plan was submitted to the Michigan Department of Environmental Quality on January 29, 2002.

The updated Solid Waste Management Plan was approved by the Michigan Department of Environmental Quality on _____, 2002.

Gladwin County Solid Waste Management Planning Committee
Wednesday, February 10, 1999
MSU Extension Office
555 W. Cedar Ave.
Gladwin MI 48624

1. **Call to Order.** The meeting was called to order at 10:05 a.m. Members present: Patton, K. White, Greer, Hart, Govitz, Harmon, Follenius, Basner, Wilton. Others present: Bell, Przytas.

2. **Revised Siting Criteria.** The committee had previously reviewed the draft plan update. It was noted that the main focus of this meeting was to finalize the siting criteria. Those present reviewed the siting criteria revisions that had been tentatively accepted at the January meeting. The committee had no further changes at this time.

3. **Release of Draft Plan.** The committee discussed a schedule for releasing the draft plan for public review and holding a public hearing. Doug Bell stated that the draft document could be ready for distribution at the beginning of March. It was the consensus of the members present that the draft plan should be placed at the County Board Office and at the County Branch Libraries in Gladwin and Beaverton. Kathy Wilton stated that the public hearing could be held in the County Board Chambers.

   Motion by Harmon, support by Follenius to approve the release of the draft Solid Waste Plan Update for public review from March 3 through June 4, 1999, and to set the public hearing date as May 11, 1999 at 3:00 p.m. in the County Board of Commissioners Chambers.
   Ayes: All. Opposed: None. Motion Carried.

4. **Other.** Bell stated that he would make the necessary arrangements to print and distribute the draft plan. He will also draft the required public notices for publication by the County. Unless some major issue comes up, it will probably not be necessary for the committee to meet again until the public hearing in May.

5. **Adjournment.** Motion by White, support by Patton to adjourn the meeting. Ayes: All. Opposed: None. Motion carried. The meeting was adjourned at 10:55 a.m.

Respectfully submitted,

Kathy Wilton, Secretary

Douglas A. Bell

Douglas A. Bell, Recording Secretary

East Central Michigan Planning & Development Regional Commission
Designated Solid Waste Management Planning Agency
3535 State Street Saginaw MI 48602 **Telephone 517-797-0800**

Notice of Public Meeting

Gladwin County Solid Waste Management Planning Committee

Date: Wednesday, February 10, 1999

Time: 10:00 a.m.

Place:
MSU Extension Office
555 W. Cedar Avenue
Gladwin, Michigan 48624

Agenda

1. CALL TO ORDER
2. APPROVAL OF MINUTES
3. APPROVAL OF AGENDA
4. COMMUNICATIONS
5. COMMITTEE WORK SESSION: COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE
   A. Review of Draft Plan Update (including revised siting process)
   B. Executive Summary & Miscellaneous Attachments
   C. Establish Schedule for Release of Draft Plan & Public Comment Period
6. PUBLIC COMMENT
7. ADJOURNMENT

East Central Michigan Planning & Development Regional Commission
3535 State Street Saginaw MI 48602 **Telephone 517-797-0800**
Designated Solid Waste Management Planning Agency for Gladwin County

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Public Notice of Availability
Proposed Update of the
Gladwin County Solid Waste Management Plan

The Gladwin County Solid Waste Management Planning Committee (SWMPC) has prepared a draft update of the Gladwin County Solid Waste Management Plan. The updated County Solid Waste Management Plan has been prepared in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

The proposed Solid Waste Management Plan will be available for public review and comment through the close of business on June 4, 1999. The plan is available for inspection and copying at cost at the Gladwin County Board of Commissioners Office, Gladwin County Building, 401 W. Cedar Avenue, Gladwin, MI 48624 during regular business hours. The draft plan is also available for review at the Gladwin County Libraries in Gladwin and Beaverton. The draft plan is also being sent to each township and city in Gladwin County.

Written comments on the draft plan should be sent to the Solid Waste Planning Committee in care of the County Board Office, County Building, 401 W. Cedar, Gladwin MI 48624. Please submit written comments so that they are received by June 4, 1999.

Please also note that a public hearing will be held on May 11, 1998 to receive written and verbal comments on the draft plan. A separate notice of the public hearing will be published and circulated at a later date.

Your views on the updated Gladwin County Solid Waste Management Plan are welcomed and encouraged.

East Central Michigan Planning & Development Regional Commission
3535 State Street Saginaw MI 48602 **Telephone 517-797-0800**
Designated Solid Waste Management Planning Agency for Gladwin County

Memorandum

March 3, 1999

TO: All Townships in Gladwin County
Cities of Beaverton and Gladwin

FROM: Doug Bell, ECMPDR, and the
Gladwin County Solid Waste Management Planning Committee

RE: Draft Gladwin County Solid Waste Management Plan Update

A draft copy of the Gladwin County Solid Waste Management Plan Update is enclosed for your review and comment. The updated County Solid Waste Management Plan has been prepared in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

The proposed Solid Waste Management Plan is available for public review and comment through the close of business on **June 4, 1999**.

Written comments on the draft plan should be sent to the Solid Waste Planning Committee in care of the County Board Office, County Building, 401 W. Cedar, Gladwin MI 48624. **Please submit written comments so that they are received by June 4, 1999.**

Please keep this document on file, and make it available to municipal officials (Township Board or City Council) and other interested persons.

Please also note that a public hearing has been scheduled for **May 11, 1999** to receive written and verbal comments on the draft plan. A separate notice confirming the time and place of the public hearing will be published and distributed to each municipality at a later date.

Your views on the updated Gladwin County Solid Waste Management Plan are welcomed and encouraged.

East Central Michigan Planning & Development Regional Commission
3535 State Street Saginaw MI 48602 **Telephone 517-797-0800**
Designated Solid Waste Management Planning Agency for Gladwin County

Memorandum

March 3, 1999

TO: Gladwin County Board of Commissioners Office
Gladwin County Public Libraries

FROM: Doug Bell, ECMPDR, and the
Gladwin County Solid Waste Management Planning Committee

RE: Draft Gladwin County Solid Waste Management Plan Update

The draft Gladwin County Solid Waste Management Plan Update is enclosed. The public comment period for the plan is March 3 through June 4, 1999.

Please keep this document on file, and make it available to interested persons.

Written comments on the draft plan should be sent to the Solid Waste Planning Committee in care of the County Board Office, County Building, 401 W. Cedar, Gladwin MI 48624. **Written comments must be received by June 4, 1999.**

Please also note that a **public hearing** has been scheduled for **May 11, 1999** to receive written and verbal comments on the draft plan. A separate notice confirming the time and place of the public hearing will be published and distributed at a later date.

Thank you for your assistance in the public review process for the Gladwin County Solid Waste Plan.

Enclosure

Notice of Public Hearing
Gladwin County Solid Waste Management Plan Update

The Gladwin County Solid Waste Management Planning Committee will hold a public hearing on the proposed update of the Gladwin County Solid Waste Management Plan. The public hearing will be held as follows:

Date: Tuesday, May 11, 1999
Time: 3:00 p.m.
Place: County Commission Chambers
Gladwin County Building
401 W. Cedar Avenue
Gladwin, MI 48624

The purpose of the hearing is to accept public comments on the proposed Solid Waste Management Plan update. Both written and verbal comments will be accepted at the hearing.

The plan is available for inspection and copying at cost at the Gladwin County Board of Commissioners Office, Gladwin County Building, 401 W. Cedar Avenue, Gladwin, Michigan 48624, during regular business hours. The plan has also been sent to the Clerk of each township and city in the County. The draft plan is also available for review at the Gladwin County Libraries in Gladwin and Beaverton.

Written comments on the proposed plan update will be accepted through the close of business on June 4, 1999. Written comments on the draft plan should be sent to the Solid Waste Planning Committee in care of the County Board Office, County Building, 401 W. Cedar, Gladwin MI 48624. Please submit written comments so that they are received by June 4, 1999.

Your views on the updated Gladwin County Solid Waste Management Plan are welcomed and encouraged.

East Central Michigan Planning & Development Regional Commission
Designated Solid Waste Management Planning Agency
3535 State Street Saginaw MI 48602 **Telephone 517-797-0800**

Notice of Public Meeting

Gladwin County Solid Waste Management Planning Committee

Date: Tuesday, May 11, 1999

Time: 3:00 p.m.

Place:
County Commission Chambers
Gladwin County Building
401 W. Cedar Avenue
Gladwin, Michigan 48624

Agenda

1. CALL TO ORDER
2. APPROVAL OF MINUTES
3. APPROVAL OF AGENDA
4. PUBLIC HEARING ON THE DRAFT COUNTY SOLID WASTE PLAN UPDATE
   A. Overview of the Solid Waste Plan Update (Doug Bell, ECMPDR)
   B. Review written comments received on the draft plan
   C. Accept verbal comments on the draft plan
5. NEXT MEETING DATE
6. ANY OTHER BUSINESS
7. ADJOURNMENT

East Central Michigan Planning & Development Regional Commission
Designated Solid Waste Management Planning Agency
3535 State Street Saginaw MI 48602 Telephone 517-797-0800

Notice of Public Meeting

Gladwin County Solid Waste Management Planning Committee

Date: Wednesday, June 9, 1999

Time: 10:00 a.m.

Place:
MSU Extension Office
555 W. Cedar Avenue
Gladwin, Michigan 48624

Agenda

1. CALL TO ORDER
2. APPROVAL OF MINUTES
3. APPROVAL OF AGENDA
4. REVIEW COMMENTS & PROPOSED CHANGES TO DRAFT PLAN
   A. Inclusion of Montmorency/Oscoda Landfill for waste exports from Gladwin County.
   B. Other proposed changes
5. COMMITTEE APPROVAL OF UPDATED PLAN & RECOMMENDATION TO COUNTY BOARD
6. ANY OTHER BUSINESS
7. ADJOURNMENT

Gladwin County Solid Waste Management Planning Committee
Wednesday, June 9, 1999
MSU Extension Office
555 W. Cedar Ave.
Gladwin MI 48624

1. **Call to Order.** The meeting was called to order at 10:00 a.m. Members present: Parton, K. White, R. White, Greer, Hart, Emmert, Harmon, Follenius, Basner, Wilton. Others present: Doug Bell.

2. **Review Comments on Draft Plan.** ECMPDR had received comments on the draft plan from DEQ in a June 1, 1999 letter. Copies of the letter were distributed to committee members. It appeared that the DEQ comments were generally favorable and did not present any major obstacles to completing the plan update. The only other comments received on the draft plan were as follows:

   a. March 24, 1999 letter from Midland County stating that the Gladwin County Plan is compatible with the Midland County Plan.
   b. May 11, 1999 from White's Recycling Center requesting that the Montmorency-Oscoda Landfill be included in the Gladwin County Plan as a disposal facility that would accept solid waste from Gladwin County.

3. **Approval of Plan and Recommendation to County Board.** The committee discussed the changes they desired to be made in the draft plan. ***Motion by K. White, support by Emmert to approve the Plan Update and forward the plan to the County Board for approval, with the following changes: (1) Make the changes requested by DEQ in their June 1, 1999 letter, and (2) add the Montmorency-Oscoda Landfill for acceptance of Gladwin County Solid Waste.*** Ayes: All. Opposed: None. Motion carried.

4. **Other business.** Doug Bell thanked the committee members fro their efforts on behalf of the DPA. Unless the County Board had objections, it would probably not be necessary for the Committee to meet again.

5. **Adjournment.** Motion by R. White, support by Basner to adjourn the meeting. Ayes: All. Opposed: None. Motion carried. Meeting adjourned at 10:25 a.m.

Respectfully submitted,

Kathy Wilton, Secretary

Douglas A. Bell

Douglas A. Bell, Recording Secretary

Gladwin County Board of District Commissioners Minutes of April 11, 2000

The Gladwin County board of District Commissioners met in regular session on Tuesday, April 11, 2000 At 9 a.m. The meeting was called to order by Chairman Edick and the Pledge of Allegiance was recited. Roll call found all Commissioners present.

Chairman Edick reviewed agenda amendments.

There were now public comments.

The minutes of 3/28/00 were then reviewed, as well as the Executive Session minutes of the same day. It was pointed out that on page 2 Commissioner Presidio's motion should read "Capital Improvement" instead of "Public Improvement". Motion by Commissioner Matthews, supported by Commissioner Wilton, to approve the minutes as corrected, as well as the Executive session minutes. Ayes carried, motion passed.

The semi-monthly finance was then presented for consideration:

General Fund	$146,506.13
Gypsy Moth	161.46
286 Fund	885.00

- Discussion was had on the use of credit card by the Sheriff's Dept. for purchase of uniforms. It was the Board's understanding that the credit cards were only for emergency purchases.
- Commissioner Lier questioned the inmate health care expense and if any of those expenses will be recouped.
- Questions were also raised regarding over $8300.00 paid to Neilson & Associates from the 286 fund, for computer services since the first of the year, when the County has a computer person on staff. Specifically who hired and authorized the hourly rates being charged. Lt. Cripps was called for clarification. Committee will further address the matter.

Motion by Commissioner McMahon, supported by Commissioner Wilton, to approve the finance as presented. Ayes carried, motion passed.

Dennis Vannest, CCT, came before the Board and presented statistics through March. Mr. Vannest also presented the Project Zero Contract Grant and the proposed resolution-approving contract #2000-0244. Discussion. Motion by Commissioner Mathews, supported by Commissioner Lier, to approve the resolution as presented. Roll call vote as follows: Commissioner Whittington-yes, Wilton-yes, Edick-yes, Matthews-yes, Lier-yes, Presidio-yes, and McMahon-yes. Ayes carried, resolution #2000-9 declared adopted. (Resolution attached)

Commissioner McMahon reported:

- On attending the Farm Bureau Directors meeting on Land Use.
- On attending the Environmental Affairs committee meeting.
- Commissioner Lier reported on the Airport meeting and activities.

Commissioner Wilton reported:

- On attending the MAC Environmental Affairs meeting and items of discussion
- On the County Affairs Environmental meeting.
- On the Parks and Rec. meeting and summer programs planned for the parks & rec area.
- On the up-dated Solid Waste Plan. Discussion. Motion by Commissioner Wilton to accept the current Solid Waste plan update. Motion supported by Commissioner McMahon. Ayes carried, motion passed.
- On meeting with Animal control officer Ron Taylor regarding a security system at the Animal Shelter. Discussion. Commissioner Wilton requested that in light of recent break-ins at Animal Shelter, the matter of a security system be further checked. The Buildings and Grounds committee will address the matter.

Discussion was then had on whether Gladwin County is or is not in compliance with Soil Erosion.

Board then recessed for a five-minute break. Recalled to order by Chairman Edick.

Lt. Cripps, Jail Administrator, met with the Board to discuss the Nielson billings. Lt. Cripps explained the need for the new computer system and the transfer of data. Lt. Cripps was not aware if there was a contract with Nielson for the work or who authorized the hourly rate ranging from $60 - $100 per hour. The Sheriff's committee/Finance committee will check further into the matter.

Dick Behnke, past Board Chair, appeared to offer compliments to the Board on their recent decision to purchase property for county recreational programs and approve a millage question for support of the same.

Commissioner Whittington reported:

- On attending the Billings & Bentley Township meetings
- On attending the Finance meeting.
- On attending the Gypsy Moth committee meeting – that another call-in date is being scheduled and further that the Gypsy Moth Coordinator will be attending the required spring training.
- Discussion was had on computer support and services provided by computer consultant Ron Wilson.

Commissioner Presidio reported:

- On the Finance meeting and consideration of communication from Northern Michigan Correctional Care: that being a letter of resignation dated 3/23/00 stating that health care services would be provided until May 31, 2000 as stipulated in the service contract.

  Then the committee then became aware that services by Northern Michigan Correctional Care had been terminated 3/28/00 by the Sheriff and the County was being billed for 2 months of service as provided for in the service contract.

Further discussion on the Northern Correctional Care contract:

In further review of the matter, Commissioner Presidio noted that the Sheriff had broken the contract, and further those terms of the contract must be met and payment would have to be made.

Comment was made that both the Board and the Sheriff entered into the contract, the Board being responsible for the financial side and the Sheriff responsible for jail administration. It was also noted that the committee had tried to reach the Sheriff regarding this matter on two different days and had not been able to reach him.

Commissioner Presidio felt that before action was taken by the Sheriff to break the terms of the contract he should have met with Board members and advised them of the situation.

Sheriff Hargrave commented that he felt the matter should be addressed in committee and not in open session.

Commissioner Lier noted that the committee had tried to reach the Sheriff and that he is bothered that the contract was not adhered to.

The committee will meet Wednesday, April 12 at 11:00 for further discussion of this matter.

Commissioner Presidio reported further on finance matters:

- On the request from Doug Jacobson to transfer $100.00 from 255-000-969.000 to 255-9000-727.000 and approve payment of billing of $297.67 to Burstein International for Remonumentation supplies. Motion by Commissioner Presidio, supported by Commissioner Whittington, to approve request as presented. Ayes carried, motion passed.

- On the request from Bev Przystas, MSU Extension Director to transfer $200.00 from the Contingent line to 101-529-727.000 the Recycle/Solid Waste line for Earth Day celebration educational items. Motion by Commission Presidio, supported by Commissioner Matthews, to approve the transfer as requested. Ayes carried, motion passed.

- On communication from the Friend of the Court requesting the establishment of an overtime line 101-141-704.001 and then to transfer $3000 from the Chief Financial Officer Line 101-141-706.000 to the new overtime line. Motion by Commissioner Presidio, supported by Commissioner Wilton, to approve establishment of the new line and make the transfer as requested. Discussion. All overtime over 35 hours per week will be charged to the new line; no payments to be made once funds are depleted. Ayes carried, motion passed.

- On the request submitted to fill the Chief Deputy County Clerk position. Discussion. Motion by Commissioner Presidio, supported by Commissioner Wilton to allow the filling of the vacant position. Ayes carried, motion passed.

- Review was then had of the Letter of Agreement, on the transfer of an employee from UAW Court unit to UAW Unit #7. Motion by Commissioner Presidio, supported by Commissioner Wilton, to approve and sign the Letter of Understanding as presented. Ayes carried, motion passed

- It was noted that there are currently vacancies in District Court and Friend of the Court, but no requests had been received to fill those positions.

Commissioner Presidio reported further:

- That the language for millage requests to be placed on the August ballot would be acted upon at the next Commissioner's meeting (Library, Senior Services and Recreational)
- On Union negotiations with the Health Dept. and the resolution reached.
- That the Adult Day Care Grant funds had been pooled between the parties and funds awarded to Mt. Pleasant. Board members were unhappy that Gladwin County would not benefit from this decision.
- That Area Agency on Aging office space is not adequate and they are looking into leasing or possible purchase.

Commissioner Matthews reported:

- On the Buildings and Grounds committee meeting with Mr. Ghent regarding temporary custodial staffing.
- That he will be attending the MAC Judiciary meeting on Monday.
- That he would like to attend the MMRMA meeting in Mt. Pleasant. Chairman Edick noted that if Commissioner Matthews could not attend, he would go in his stead.
- That an executive session was needed for discussion of possible property purchase and a personnel matter. Motion by Commissioner Matthews, supported by Commissioner Lier, to go into Executive session. Ayes carried, motion passed.

EXECUTIVE SESSION

Motion by Commissioner Matthews, supported by Commissioner Lier, to return to regular session. Ayes carried.

Commissioner Matthews then moved that due to the current status of the County Junk Ordinance, Mr. Turney be placed on lay-off effective Friday, April 14. Motion supported by Commissioner Lier. Ayes carried, motion passed.

Commissioner Lier then requested adoption of a **resolution to adopt and approve execution of the contract grant agreement between the County and MDOT for obtaining Federal funding for the Airport runway project.** Motion by Commissioner Lier, supported by Commissioner Matthews, to adopt the resolution as presented. Discussion. Roll call vote as follows; Commissioner Wilton-yes, Edick-yes, Matthews-yes, Lier-yes, Presidio-no, McMahon-yes and Whittington-no. Ayes carried, Resolution #2000-10 declared adopted. (Resolution attached)

Commissioner Matthews then moved that the County proceed to purchase property adjacent to the Library (subject to clear title) at a cost of $65,000.00 plus closing costs and give current owners 90 days to vacate. Motion supported by Commissioner Wilton. Discussion.

Commissioner Presidio noted that he is opposed to such action as the price is too high and the County can't spare the $65,000.00, citing current union negotiations and other county projects that would require funds.

Commissioner Lier noted that he is indeed concerned about the County's cash flow.

Commissioner Wilton noted that she finds it interesting that these issued were not raised at the last meeting when $45,000.00 was given to Beaverton City for recreational improvements.

Chairman Edick noted that the County is in desperate need of parking and that MDOT wants $35,000.00 to add 5 or 6 spaces along the highway in front of the Courthouse. he feels that this purchase would be a much better invesment.

Continued discussion on the motion to purchase property:

Commissioner Presidio then commented that the sellers almost always bear the selling cost and that those were even included in the motion to be paid by the County.

Commissioner McMahon felt that the price was too high, and that the selling costs should be borne by the sellers.

Roll call vote on the motion was as follows: Commissioner Edick-yes, Matthews-yes, Lier-no, Presidio-no. McMahon-no, Whittington-no and Wilton-yes. 4 no and 3 yes, motion is defeated.

Commissioner Matthews then moved to receive and file the following:

MMRMA report
Capital Current paper
Animal Control Report
Clerk's Quarterly Report

Motion supported by Commissioner Wilton. Ayes carried, motion passed.

Commissioner Matthews then moved to adjourn, supported by Commissioner Lier. Ayes carried, meeting was adjourned at 12 noon, until April 25, 2000 unless otherwise ordered.

Laura Flach
Clerk

Keith Edick
Chairman

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

The County Board of Commissioners developed a list of potential candidates for the Planning Committee, including several individuals who had been involved in the preparation of the County's previous Solid Waste Plan under Act 641. After reviewing the list of candidates, the County Board appointed the 14 member Planning Committee in March 1998. Additional appointments were made as necessary over the course of the plan update to fill vacancies.

PLANNING COMMITTEE

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

Four representatives of the solid waste management industry:

1. Merle Harmon, Waste Management
2. Wayne Follenious, Waste Management
3. Fred Still, City Environmental
4. Ron White, White's Recycling Center

One representative from an industrial waste generator:

1. Kevin White, White's Recycling Center

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

1. Bob Emmert, Upper Tittabawassee River Task Force
2. John Krohn

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

1. Bob Patton, Gladwin County Health Department (County Board Designee)

One representative from township government:

1. Walt Hart, Sherman Township Treasurer

One representative from city government:

1. Scott Govitz, City of Beaverton Administrator (City Council designee)

One representative from the regional solid waste planning agency:

1. Kathy Wilton, East Central Michigan Planning & Development Regional Commissioner and County Board of Commissioners

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

1. Tom Fruchey
2. Sally Basner
3. Mark Greer

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Bourret of _____
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the November 14 2000
(Board/Council/Commission)
of Bourret twp held on Nov 14, 2000.
(Name of Local Unit) *(Date)*

Timothy R Smith
ABSENT BOURRET TWP SUPERVISOR
Chief Elected Official

Elizabeth Ordeway
Deputy Clerk
Clerk

1000 West Cedar Ave. • Gladwin, Michigan 48624-1865
Phone: (517) 426-9231 • FAX: (517) 426-6942

RECEIVED
MAR 07 2001

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government
Resolution 01-13

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and

WHEREAS, the Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, the City of Gladwin has reviewed the Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Council of this municipality hereby approves the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution offered by Council Member Matteson, supported by Council Member Jungman

Roll Call Vote:

Ayes:	Caffrey, Crawford, Hindman, Jungman, Matteson, Novak, Winarski
Nays:	Mienk
Absent:	None

Resolution declared adopted this 6th day of November, 2000

Tom Winarski, Mayor Pro Tem

John Simpson, Deputy City Clerk

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Clement
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Clement held on 11-8-00, 2000.
(Name of Local Unit) *(Date)*

11-8-00 11-8-00

Chief Elected Official Clerk

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Bentley
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Township of Bentley held on Nov 13, 2000.
(Name of Local Unit) *(Date)*

Roy O'Hare
Chief Elected Official

Mary McCann
Clerk

RESOLUTION # 01-1

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Butman
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Butman Township held on February 8, ~~2000~~ 2001
(Name of Local Unit) *(Date)*

Chief Elected Official

Clerk

Don Joyce
Butman Twp. Clerk
5005 N. Hockaday Rd.
Gladwin, MI 48624-8599

Resolution 2001-5

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Beaverton Twp (*Township/City*) of Township (*Name of Local Unit*)

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board (*Board/Council/Commission*) of this

municipality hereby Disapprove (*Approves/Disapproves*)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board (*Board/Council/Commission*)

of Beaverton Twp (*Name of Local Unit*) held on 7-9 (*Date*), 2001.

Jeff Rod
Chief Elected Official

Madalyn J Hale
Clerk

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Secord Twp. Board of _____
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Township Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Secord Twp Board
(Board/Council/Commission)

of Secord Twp Board held on 7-18, 2001.
(Name of Local Unit) *(Date)*

Chief Elected Official

Clerk

2001-10

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Grout
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Township Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/~~Disapproves~~)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Grout Township held on August 6, 2001
(Name of Local Unit) *(Date)*

Wm J. Shearer
Chief Elected Official

Barbara Stahl
Clerk

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AUG 31 2001

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Twp. (*Township/City*) of Buckeye (*Name of Local Unit*)

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Twp. Board (*Board/Council/Commission*) of this

municipality hereby Approves (*Approves/Disapproves*)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board (*Board/Council/Commission*)

of Buckeye Twp. (*Name of Local Unit*) held on 8-29- (*Date*), 2001.

Gary Most
Chief Elected Official

Nancy S. Bates
Clerk

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Grim of Grim
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Grim of this
(Board/Council/Commission)

municipality hereby approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Grim
(Board/Council/Commission)
of Grim held on Aug 14, 2001.
(Name of Local Unit) *(Date)*

Keith L. Cousineau
Chief Elected Official

Darlene Showalter
Clerk

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AUG 22 2001

Resolution - 09-01

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Gladwin *(Township/~~City~~)* of Gladwin Township *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board *(Board/~~Council/Commission~~)* of this

municipality hereby Approves *(Approves/Disapproves)*

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board *(Board/Council/Commission)* of Gladwin Township *(Name of Local Unit)* held on 8-15 *(Date)*, 2001.

Richard Berg
Chief Elected Official

Clerk

RECEIVED
SEP 14 2001

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Billings
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Billings Twp held on October 8, 2001.
(Name of Local Unit) *(Date)*

Boyd Wallace
Chief Elected Official

Sandra Aulton
Clerk

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OCT 17 2001

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Sage
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)
of Sage held on October 10, 2001.
(Name of Local Unit) *(Date)*

Arlene Agg
Chief Elected Official

Kristin J. Simrau
Clerk

Resolution for Action on the
Gladwin County Solid Waste Management Plan Update by
Local Units of Government

WHEREAS, Gladwin County has prepared an updated Solid Waste Management Plan in accordance with Part 115 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and

WHEREAS, The Gladwin County Board of Commissioners has approved the plan as prepared and submitted by the County Solid Waste Management Planning Committee; and

WHEREAS, The Township of Tobacco
(Township/City) *(Name of Local Unit)*

has reviewed the updated Solid Waste Plan and its recommendations;

NOW, THEREFORE, BE IT RESOLVED that the Board of this
(Board/Council/Commission)

municipality hereby Approves
(Approves/Disapproves)

the Gladwin County Solid Waste Management Plan Update in accordance with Act 451, as amended.

Resolution declared adopted at a regular meeting of the Board
(Board/Council/Commission)

of Tobacco Township held on November 12, 2001.
(Name of Local Unit) *(Date)*

Don Freeman
Don Freeman
Chief Elected Official

Roshelle Brubaker
Roshelle Brubaker
Clerk

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DEC 11 2001

APPENDIX D

Plan Implementation Strategy

The following discusses how the County intends to implement the plan and provides documentation of acceptance of responsibilities from all entities that will be performing a role in the Plan.

ACTION #1: Establish the Solid Waste Management Advisory Board (SWMAB) as the body responsible for overseeing and coordinating plan implementation.

Lead Responsibilities: County Board of Commissioners

Timeline: 1999; within 3 months after DEQ approval of plan update.

ACTION #2: Develop and distribute materials recovery education materials.

Lead Responsibilities: Recycling Education Committee, MSU-E, SWMAB

Timeline: Ongoing

ACTION #3: Promote establishment of additional municipal composting operations.

Lead Responsibilities: Recycling Education Committee, MSU-E, SWMAB

Timeline: Ongoing

ACTION #4: Continue to promote recycling efforts on a countywide basis.

Lead Responsibilities: Recycling Education Committee, MSU-E, SWMAB

Timeline: Ongoing

ACTION #5: Investigate ways to expand and promote opportunities for separation & collection of household hazardous wastes.

Lead Responsibilities: SWMAB, private solid waste industry.

Timeline: Initiate investigations & discussions in Fall 1999.

ACTION #6: Review implementation progress and recommend adjustments as necessary.

Lead Responsibilities: SWMAB, County Board of Commissioners.

Timeline: Initiate 6 months after DEQ approval; at 6-month intervals thereafter.

ATTACHMENTS

Resolutions

The following are resolutions from County Board of Commissioners approving municipality's request to be included in an adjacent County's Plan.

None

ATTACHMENTS

Listed Capacity

Documentation from landfills that the County has access to their listed capacity.

Letters from various landfill operators will be attached as they are received.

NORTHERN OAKS RECYCLING AND DISPOSAL FACILITY
A WASTE MANAGEMENT COMPANY

P.O. Box 813
513 N. County Farm Road
Harrison, Michigan 48625
(517) 539-6111

September 27, 2000

Mr. Douglas A. Bell, AICP
Community Planning Consultant
214 East State Street
Clare, Michigan 48617

Dear Mr. Bell:

Pursuant to your request for information this shall serve that Northern Oaks Recycling and Disposal Facility has sufficient capacity to receive waste from Arenac, Gladwin, Ogemaw, Roscommon and Iosco Counties for the next 10 years.

If you require further information please do not hesitate to contact me.

Respectfully,

Richard Leszcz
Manager

WASTE MANAGEMENT

11375 Sherman Rd.
Frederic, MI 49733
(517) 732-3553
(517) 732-1398 Fax

October 9, 2000

Mr. Douglas Bell
Community Planning Consultant
214 East State Street
Clare, MI 48617

RE: Arenac, Gladwin, Ogemaw, Roscommon, and Iosco Counties Solid Waste Plan Updates

The following is in response to your request for documentation regarding the disposal of the above listed counties waste at the Waters Landfill in Crawford County.

Solid waste that is generated in the above listed counties can be accepted for disposal at Waters Landfill. Disposal capacity for the above listed counties will be available in accordance with the Crawford County Solid Waste Plan.

If you have any questions, please call me at (517) 732-3553

Sincerely,

Debora L Johnston

Debora Johnston
Site Engineeer

Cc: Crawford County
Maple Forest Township

REPUBLIC WASTE SERVICES

36850 Van Born Rd.
P.O. Box 68
Wayne, MI 48184
734-641-3555
734-729-8890 Fax

November 30, 2000

Mr. Douglas Bell
Community Planning Consultant
214 East State Street
Clare, Michigan 48617

RE: Acceptance for Disposal & Assurance of Landfill Capacity

Dear Mr. Bell,

Republic Services of Michigan hereby acknowledges receipt of your letter dated September 27, 2000, wherein the following Counties of Arenac, Gladwin, Ogemaw, Roscommon, and Iosco, request capacity assurance to meet the needs of their respective County's updated solid waste management plan for the next ten years.

Republic will commit and accept up to 100 percent of the daily and annual volume generated within Arenac, Gladwin, Ogemaw, Roscommon and Iosco Counties at the following Republic owned and operated facilities: the Whitefeather Landfill, located in Bay County, the Elk Run Landfill, located in Presque Isle County, and the Brent Run Landfill in Genesee County. We will commit this capacity for the ten-year planning period commencing upon the date of approval of the updated plan by the MDEQ.

Republic looks forward to assisting these counties in planning for their long-term disposal needs. Please feel free to contact us if there is any other means in which we can provide assistance.

Respectfully,

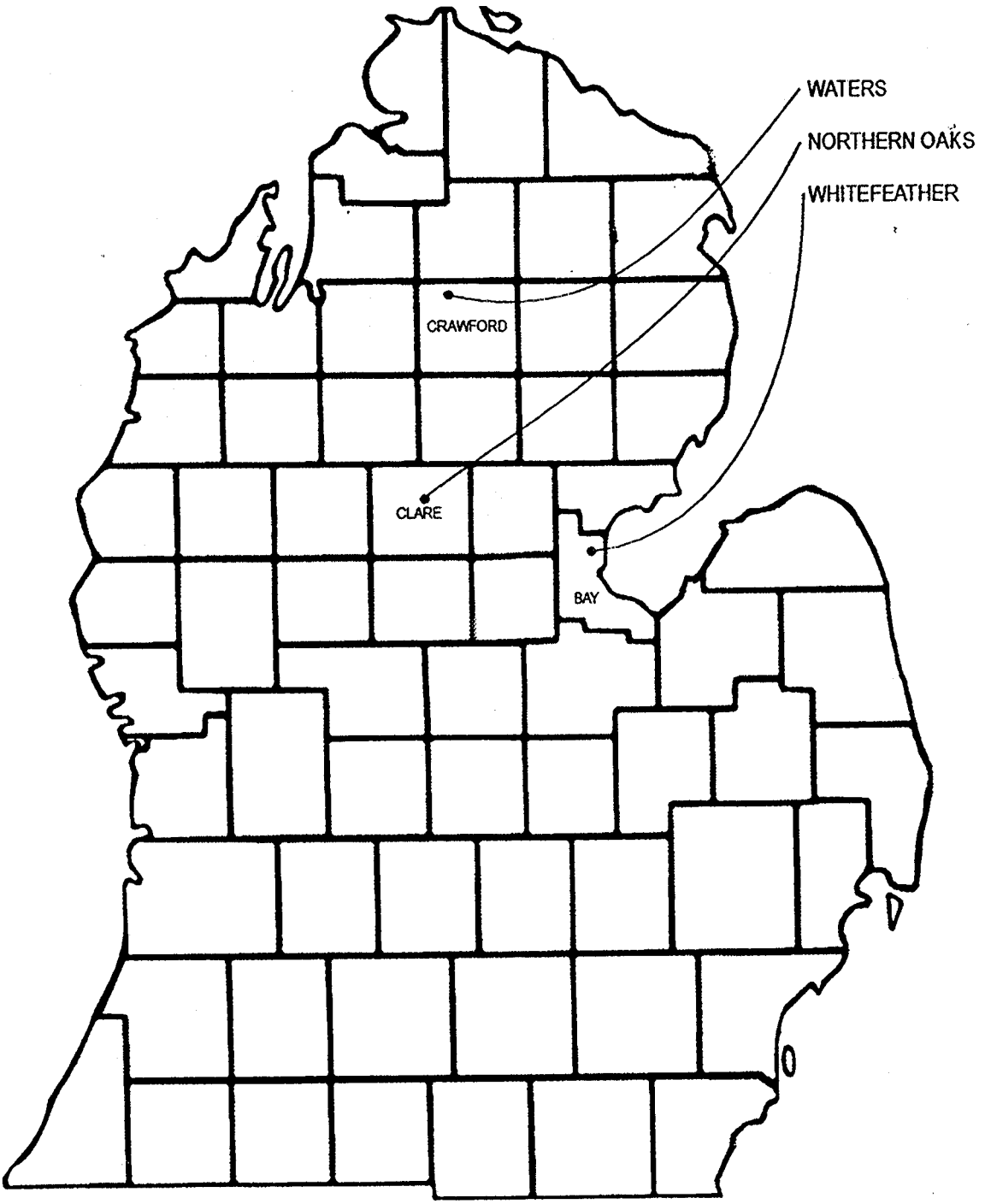
Stephanie Glyssen
Director of Governmental Affairs

Cc: Matt Neely, Republic Waste

ATTACHMENTS

Maps

Maps showing locations of solid waste disposal facilities used by the County.



Landfill Locations

ATTACHMENTS

Inter-County Agreements

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

Special Conditions

Special conditions affecting import or export of solid waste.

Clare County requires a written inter-county agreement for acceptance of solid waste generated in Gladwin County for disposal at the Northern Oaks Landfill. A copy of the agreement will be attached when it is executed.