STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

August 11, 1999

Mr. James Bailey, Chairperson
Barry County Board of Commissioners
220 W. State Street
Hastings, Michigan 49058

Dear Mr. Bailey:

The Department of Environmental Quality (DEQ) received the locally approved update to the Barry County Solid Waste Management Plan (Plan) on June 18, 1999.

The Plan provides for more than ten years of disposal capacity by relying on the City Environmental Services of Hastings Type II Landfill, located in Barry County (County), to meet your final solid waste disposal needs. In addition, the County has authorized its waste to be exported to any of the remaining 82 other Michigan counties that authorize imports from the County in their plans. As a result, the County has chosen not to include a siting process in its Plan. The County authorizes the importation of waste from Allegan, Berrien, Branch, Calhoun, Cass, Clinton, Eaton, Hillsdale, Ingham, Ionia, Jackson, Kalamazoo, Kent, Lenawee, Montcalm, Muskegon, Ottawa, St. Joseph, and Van Buren Counties.

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

If you have any questions, you may contact Mr. Seth Phillips, at 517-373-4750.

Sincerely,

Russell J. Harding
Director
517-373-7917

cc: Senator Joanne G. Emmons
Representative Terry Geiger
Dr. V. Harry Adrounie, Barry County Solid Waste Planning Committee
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Ms. Amy Lachance, DEQ-Grand Rapids
Mr. Seth Phillips, DEQ
Mr. Jim Johnson, DEQ

BARRY COUNTY
SOLID WASTE MANAGEMENT PLAN
UPDATE

FINAL PLAN
FEBRUARY, 1999

PREPARED BY:
Barry County Solid Waste
Planning Committee

Dr. V. Harry Adrounie, Chairman
220 West State Street
Hastings, MI 49058
(616) 948-4890

FLEIS & VANDENBRINK
ENGINEERING, INC.
4771 - 50th Street SE, Grand Rapids, MI 49512
Ph 616/541-6000 Fax 616/541-6010

2/1/99

BARRY COUNTY COURTHOUSE

220 W. STATE STREET
HASTINGS, MICHIGAN 49058

June 14, 1999

RECEIVED
JUN 18 1999
Waste Management Division

Solid Waste Management Unit
Solid Waste Program Section
Waste Management Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909

RE: BARRY COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

Gentlemen:

On behalf of the Barry County Board of Commissioners, we are submitting one copy of Barry County's locally approved Solid Waste Management Plan Update for your review and approval

Changes and revisions to the draft plan were completed based on you department's January 7, 1999 review letter. The Board of Commissioners approved the plan on March 9, 1999 and have received at least 67% approval from the local municipalities.

The following municipalities have approved the update plan as of this date:

Village of Middleville	Rutland Charter Township	Orangeville Township
Village of Nashville	Hope Township	Castleton Township
City of Hastings	Maple Grove Township	Johnstown Township
Baltimore Township	Thornapple Township	Yankee Springs Township
Hastings Charter Township	Carlton Township	Assyria Township

If you have any questions during your review and approval of the plan update, please contact us at the Barry County Offices at (616) 948-4879.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

Enclosure
cc: James Bailey, Board of Commissioners

BARRY COUNTY
SOLID WASTE MANAGEMENT PLAN
UPDATE
FINAL PLAN
FEBRUARY, 1999

Prepared By: Barry County Solid Waste Planning Committee

Committee Members: Dr. V. Harry Adrounie, Chairman

Steve Essling

Ken Kensington

Jeff Mansfield

Charles McSweeney

Clyde Morgan

Kenneth Neil

James Schnackenburg

William Sweeney

Richard Thomas

Robert Wenger

PLAN FORMAT

FOR PREPARING

COUNTY SOLID WASTE MANAGEMENT PLANS

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

John Engler, Governor
Russell J. Harding, Director

Michigan Department of Environmental Quality
Waste Management Division

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

EQP 5210 (8-97)

1997 PLAN UPDATE COVER PAGE

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

DATE SUBMITTED TO THE DEQ: February 15, 1999

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:

Barry County Solid Waste Management Planning Committee

CONTACT PERSON: Dr. V. Harry Adrounie, Chairman

ADDRESS: 220 West State Street
Hastings, MI 49058

PHONE: 616-948-4890 FAX: 616-948-4884 (If Applicable)

E-MAIL: (If Applicable)

CENTRAL REPOSITORY LOCATION(S): Barry County Courthouse

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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

Township or Municipality Name	Population	% Land Use		% of Land Use*					
		Rural	Urban	Ag	For	Ind	Com	Other	Res
CITIES									
Hastings	6,394			8.92	18.43	4.68	8.14	28.28	31.55
VILLAGES									
Freeport	475			47.88	10.34	4.94	4.59	11.34	20.91
Middleville	2,063			12.08	14.51	4.21	14.06	24.28	30.87
Nashville	1,608			19.31	18.94	1.43	3.51	34.21	22.61
Woodland	487			72.65	1.69	.32	3.60	3.48	18.24
TOWNSHIPS									
Assyria	1,960			41.57	29.10	.02	.03	24.01	5.27
Baltimore	1,716			45.20	29.71	.01	.04	21.30	3.74
Barry	3,473			48.94	19.68	.16	.51	25.03	5.68
Carlton	2,205			64.04	22.28	.03	.15	9.61	3.89
Castleton	1,946			54.30	25.01	.09	.38	15.08	5.14
Hastings	3,069			47.33	23.27	.81	1.41	17.38	9.80
Hope	3,142			30.69	32.68	.05	.16	30.71	5.71
Irving	1,623			39.24	38.44	.06	.40	18.58	3.28
Johnston	2,906			46.43	22.35	.06	.26	25.13	5.77
Maplegrove	1,456			59.16	20.79	.00	.07	15.17	4.81
Orangeville	3,137			26.14	41.86	.00	.07	26.93	5.00
Prairieville	3,505			52.47	18.67	.02	.21	22.43	6.20
Rutland	3,129			29.80	7.54	.47	.31	56.89	4.99
Thornapple	3,553			59.38	18.39	.12	1.09	12.85	8.17
Woodland	1,699			74.49	14.52	.05	.51	6.37	4.06
Yankee Springs	3,028			15.84	49.36	.05	.22	29.21	5.32
Total Population (1995)	***52,574***	***94%***	***6%***						

Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases; Res = Residential.

Due to the rounding, population figures may not equal County population totals.

Sources: Michigan Department of Management and Budget and Barry County Land Use Plan.

EXECUTIVE SUMMARY (cont.)

CONCLUSIONS

Barry County has a good existing system for managing its' solid waste. The County has one private Type II landfill that has approximately 23 years of capacity at current disposal rates. The County also has recycling opportunities for all of its' citizens through nine (9) recycling drop off stations strategically located throughout the County. The County and the private landfill also jointly sponsor an annual household hazardous waste collection service.

The Solid Waste Management Planning Committee reviewed the existing system during the planning process. After evaluation of the existing system and alternatives, they concluded that the present system is working well and should be continued.

The plan calls for the continued use of City Environmental Services Landfill, Inc. of Hastings (CESLH) for primary disposal, continuation of the present recycling drop off box system and household hazardous waste collection system, and promotion of recycling, reuse and waste reduction within the County.

SELECTED ALTERNATIVE SYSTEM

The following strategies and methods will be utilized by the County to handle its' solid waste for the next five and ten year planning periods. This selected alternative system was chosen by the Planning Committee during their development of the plan update.

- Landfilling - continued reliance for waste disposal at the CESLH for the five and ten year planning period.
- Recycling and Composting - continue present drop-off recycling box system throughout the County and existing composting operations.
- Source Separation - continue annual household hazardous waste collection program.

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: **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 Barry County's air land and surface water.**

Objective 1a: Provide convenient, attractive and cost effective options for proper disposal of residential, industrial and commercial solid wastes within the County.

Objective 1b: Provide the proper political, educational and social framework conducive to promoting transportation, disposal and storage of waste materials in appropriately designed and maintained facilities intended for that purpose.

Objective 1c: Promote adoption of ordinances, contractual agreements and other local regulations aimed at encouraging transportation, storage and disposal of solid waste in appropriate facilities.

Objective 1d: Promote enforcement of regulatory measures aimed at minimizing unsuitable or undesirable storage of solid waste on a County wide basis.

Objective 1e: Develop ordinance regulating burning of solid waste outside confines of licensed incinerator.

Objective 1f: Promote and foster a cost effective and customer attractive disposal site or alternative option for waste disposal which conforms to the most current Federal, State and Local regulations.

GOALS AND OBJECTIVES (cont.)

Objective 1g: Encourage a positive, dynamic and mutually beneficial environment for interaction between the solid waste disposal industry and the public.

Objective 1h: Promote proper and cost effective alternative collection and disposal of wastes not intended to be disposed of in traditional landfill facilities (such as and not limited to hazardous wastes).

Goal 2: To assure access to compliant, environmentally sound aesthetically acceptable and economically attractive solid waste disposal facilities.

Objective 2a: Provide suitable County based monitoring to ensure independent review of landfill related operations as a system of checks and balances.

Objective 2b: Work to ensure that the disposal of out-county wastes within Barry County does not supplant Barry County's ability to dispose of its own wastes internally, and does not come at an unacceptable environmental, social or economic cost to Barry County.

Objective 2c: Foster an open and competitive environment to support qualified haulers and disposal facilities able to serve Barry County in a suitable and satisfactory manner.

Objective 2d: Recognize the positive and negative impact of landfills and landfilling operations.

Goal 3: Establish an effective and "user friendly" means of communicating solid waste related issues to the citizens of Barry County. Provide a corresponding means of gathering and addressing concerns forwarded from the citizenry regarding solid waste management issues.

Objective 3a: Clearly define, empower and charge the Barry County Solid Waste Oversight Committee with the tasks outlined in this goal.

Objective 3b: Provide the necessary funding and support staff to ensure that the Solid Waste Oversight Committee is able to effectively act within its prescribed role and carry out its desired duties.

Objective 3c: Encourage the Solid Waste Oversight Committee to work cooperatively with the solid waste industry and major solid waste generators to promote a mutually beneficial relationship. Provide an environment for sharing of essential information and proactive response to potential problems.

Objective 3d: Seek to encourage citizen participation with the efforts to develop and implement the Solid Waste Plan.

GOALS AND OBJECTIVES (cont.)

Goal 4: **To recover to the maximum extent possible, the resources available in Barry County's waste stream through source reduction, source separation, recycling and reuse.**

Objective 4a: Work toward reduction, reuse or disposal of solid waste.

Objective 4b: Provide educational materials and promote citizen support of alternative methods of solid waste management.

Objective 4c: Work with the solid waste disposal industry to provide a framework conducive to alternative means of solid waste disposal.

Objective 4d: Establish, promote and fund activities aimed at reduction, reuse and recycling of solid waste.

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.

The following data base is derived from the following sources:

The reported data represents actual volumes disposed or handled by the CESLH. The projected five and ten year annual volumes are based on the projected population trends presented in the projected population trends in the Demographics Section of the update. The commercial and industrial waste volumes are projected to increase at the same rate as the overall County population.

Overall, the County does not anticipate major problems associated with managing the solid waste generated within its borders, since the CESLH has over 23 years of capacity based on the current 48 acres permitted.

COUNTY	WASTE TYPE	CURRENT ANNUAL VOLUME (in yards)	FIVE-YEAR ANNUAL VOLUME (in yards)	TEN-YEAR ANNUAL VOLUME (in yards)
Barry	Household solid waste	113,028	118,800	124,900
	Commercial solid waste	27,306	28,700	30,200
	Industrial solid waste	15,508	16,300	17,100
	Industrial sludge	1,000	1,100	1,200
	Municipal sludge	2,100	2,200	2,300
	Construction/Demolition	4,000	4,200	4,400
		162,942	171,300	180,100

TOTAL QUANTITY OF SOLID WASTE GENERATED:
162,942 ☐ Tons or ☒ Cubic Yards in 1997

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL: (actual landfill records)
138,768 ☐ Tons or ☒ Cubic Yards in 1997

DATA BASE (cont.)

SOLID WASTE DISPOSAL AREAS

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.

Waste disposal for Barry County is provided by the CESLH Type II landfill located north of the City of Hastings off M-43 in Hastings Township. A site location map is included in Appendix D. The following facility inventory description details the specific operating status, wastes types received, site size and current capacity.

Documentation provided by CESLH confirming that Barry County has access to the landfill capacity is provided in Appendix D.

DATA BASE (cont.)

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

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

County: Barry Location: Town: 3W Range: 8N Section(s): 6

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

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

☒ Public ☐ Private Owner: U.S. Waste

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

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

Foundry Sand, Fly Ash, Municipal wastewater Sludges, Trees & Stumps

Site Size:

Total area of facility property:	330	acres
Total area sited for use:	330	acres
Total area permitted:	48	acres
Operating:	19.5	acres
Not excavated:	28.5	acres
Current capacity:	4,000,000	☐ tons or ☒ yds^3 (In-Place)
Estimated lifetime:	23	years
Estimated days open per year:	308	days
Estimated yearly disposal volume:	175,000	☐ tons or ☒ yds^3 (In-Place)

(if applicable)
Annual energy production:

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

DATA BASE (cont.)

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.

Provider	Area	Payment	Facility
Jim's Pick-up Service	County	customer	CESLH
Les's Sanitary Service	County	customer	CESLH
Sunset Waste	County	customer	CESLH
Sherrod's	County	customer	CESLH
Browning Ferris Industries	County	customer	CESLH/out of County
Waste Management of MI	County	customer	CESLH
Kipp's Refuse	County	customer	CESLH/out of County
City Environmental Services	County	customer	CESLH
Best Way	County	customer	out of County landfill

All of the above service providers are private commercial haulers.

The main primary haul roads throughout the County are illustrated in Appendix D. The current transportation infrastructure within the County is well maintained by the County Road Commission and the Michigan Department of Transportation (MDOT). No major road improvements are required to meet the solid waste hauling requirements to the existing landfill facility on M-43 for the County's waste over the next ten years.

DATA BASE (cont.)

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

Overall Barry County has a very good system for managing its' solid waste. CESLH has approximately 23 years of capacity at current and future disposal rates for the current 48 acres permitted for disposal.

The County has a well used and established recycling drop off box system, curbside recycling opportunities in the City of Hastings, the Gun Lake area, and the Village of Middleville along with an annual household hazardous waste collection program. Participation in this annual program has been excellent and the two to three days per year has been sufficient to meet the demands of the County. Curbside recycling opportunities may be developed by private hauling companies as private customers request and the private service companies evaluate costs of service.

The County has an established solid waste collection and transportation infrastructure with collection service provided by over nine existing private service companies.

Composting sites are operated and maintained by the individual municipalities and CESLH. There has been no significant deficiencies and/or problems reported with these systems.

Municipal wastewater sludges from the City of Hastings is disposed at the CESLH and has provided a cost-effective and efficient means for the City. The sludge disposal has caused no operational problems at the landfill for over ten years.

DATA BASE (cont.)

DEMOGRAPHICS

Barry County is primarily a rural county. The estimated population in 1998 is 53,145. The project population growth rate is estimated at 1.02% per year. Using this figure, the estimated population for 2003 is 55,856 and for 2008 is 58,565.

The County's scenic rural nature and central location to the Grand Rapids, Kalamazoo and Battle Creek urban centers make the County a desirable location for many commuters that work in these areas but desire to live in a rural setting. It is expected that their will be continued growth in the County especially in the areas of the County that are the closest to urban centers.

The largest city in the County is Hastings with a population of approximately 6,400. Thornapple Township has the largest township population of approximately 3,600. These are followed by Barry, Prairieville and Yankee Springs Townships that all have approximately 3,500 residents and are located on the southwest or west side of the County.

There are about 4,100 industrial employees throughout the County with the main industrial area being in the City of Hastings. It is expected that this industrial center will be fairly stable over the next five to ten year period. The Hastings area is expected to continue to be the main center of waste generation in the County.

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.

POPULATION PROJECTIONS
Barry County, 1980 - 2020

1980	1990	1995	2000	2005	2010	2015	2020
45,781	50,057	52,571	54,593	56,287	57,862	59,302	60,413

	1990	1991	1992	1993	1994	1995	1996
CITIES							
Hastings	6549	6509	6516	6493	6452	6394	6349
VILLAGES							
Freeport	458	460	466	469	472	475	476
Middleville	1966	1982	2009	2028	2044	2063	2083
Nashville	1654	1633	1634	1631	1620	1608	1600
Woodland	466	470	476	479	485	487	492

DATA BASE (cont.)

POPULATION PROJECTIONS (cont.)							
	1990	1991	1992	1993	1994	1995	1996
TOWNSHIPS							
Assyria	1799	1830	1867	1902	1931	1960	1999
Baltimore	1701	1715	1725	1726	1722	1716	1712
Barry	3190	3246	3310	3372	3422	3473	3543
Carlton	2024	2059	2100	2140	2173	2205	2249
Castleton	1786	1817	1853	1888	1917	1946	2984
Hastings	2830	2877	2931	2984	3027	3069	3127
Hope	2933	2995	3040	3070	3110	3142	3187
Irving	1490	1516	1546	1575	1599	1623	1656
Johnstown	2932	2909	2922	2925	2918	2906	2901
Maple Grove	1337	1360	1388	1414	1435	1456	1485
Orangeville	2880	2930	2989	3045	3091	3137	3200
Prairieville	3409	3412	3434	3464	3470	3505	3525
Rutland	2797	2843	2904	2958	3006	3129	3199
Thornapple	3260	3319	3383	3447	3499	3553	3622
Woodland	1559	1586	1618	1648	1673	1699	1733
Yankee Springs	2977	3028	3045	3048	3041	3028	3023
TOTALS	**50,057**	**50,496**	**51,156**	**51,706**	**52,107**	**52,574**	**53,145**

Source: Michigan Department of Management and Budget, Office of the State Demographer

POPULATION PROJECTIONS 1995 - 2020						
COUNTY	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**
Allegan	97,700	102,600	107,100	111,900	116,900	121,800
Barry	52,600	54,600	56,300	57,900	59,300	60,400
Calhoun	140,900	142,900	145,500	145,500	146,400	147,200
Eaton	98,000	102,100	105,900	109,000	113,500	117,400
Ionia	59,800	61,300	62,500	63,800	64,800	65,500
Kalamazoo	228,100	233,800	237,900	241,300	244,500	247,500
Kent	525,400	553,500	579,800	607,300	636,900	667,400
Michigan	**9,556,100**	**9,786,700**	**9,963,800**	**10,121,300**	**10,285,000**	**10,454,700**

Source: U.S. Census

COUNTY	WASTE TYPE	CURRENT ANNUAL VOLUME (in yards)	FIVE-YEAR ANNUAL VOLUME (in yards)	TEN-YEAR ANNUAL VOLUME (in yards)
Barry	Household solid waste	113,028	118,800	124,900
	Commercial solid waste	27,306	28,700	30,200
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	Industrial sludge	1,000	1,100	1,200
	Municipal sludge	2,100	2,200	2,300
	Construction/Demolition	4,000	4,200	4,400
		162,942	171,300	180,100

DATA BASE (cont.)

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.

Throughout Barry County, the trend in land use for the past 16 years (1978 thru 1994) has been a slow decline in agricultural land coupled with a similar increase in residential land use. Tables 1-4 indicate each townships land use percentages for 1978 and 1994. The largest amount of change has occurred in the northwestern part of the County. Thornapple Township has lost over 4% of its agricultural land (1% represents approximately 230 acres of land). In the same period, Thornapple's residential land use has increased by almost 4.5%.

The overall percentages of land use for the County indicate that there are definite patterns of land use. The highest percentages of agricultural land use are primarily in the eastern and southern portions of the County. Many of these areas have high quality soils for agricultural production. Additionally, Thornapple Township has a high percentage of agricultural land because of its high quality soil. The highest residential percentages are in the northwest corner of the County and in Hastings. Land use in Hastings Township and the City of Hastings has 9.8% of its land use dedicated to residential use. Thornapple Township and the Village of Middleville has 8.17% of it's land in residential use. The townships with the smallest percentages of residential land use are Irving, Baltimore and Carlton, which are all less than 4%, although Irving has increased significantly since 1978. The highest percentages of woodlands are in the west-central portions of the County. Yankee Springs, Orangeville, and Hope Townships, respectively, have the highest percentages of woodlands in the County; each with over 30%. There are several other townships that have more than 20% woodlands.

Current state wide trends in land use parallel Barry County's land use pattern. All across the State, agricultural land is being converted into residential land use, and many other parcels are being subdivided into 10 acre lots following guidelines set by the 1967 Subdivision Control Act (P.A. 167). It is estimated in the State of Michigan that 10 acres of farmland are lost every hour of every day.

Future trends show that the pattern will continue. The population of the state is projected to continue to grow, and the growth will occur in areas not currently zoned residential. In fact, the amount of land being used for urban land use will increase by 63-87% for a modest population increase of 11%.

If this trend of growth is uniform across the state, then Barry County's projected population growth of 15-20% over the next 20 years will result in a potential increase of 85-100% of the land being converted to residential development.

Residential growth is expected to occur in rural townships, in areas that have not traditionally been used for residential development.

Source: Barry County Land Use Plan

SOLID WASTE MANAGEMENT ALTERNATIVES

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

Alternative No. 1 System

Landfilling - The County has enough landfill space to meet its' disposal needs for the next 23 year period and this alternative was considered to be the most economically feasible. The County's solid waste disposal will continue to be landfilled for the next 5 to 10 years. Increasingly stringent regulations and environmental safeguards have made landfill more acceptable in recent years. The Michigan Department of Environmental Quality, Waste Management Division has regulatory authority over landfills.

Recycling - Barry County has a well used network of recycling drop off boxes and curbside recycling opportunities. The system has had a positive impact on waste reduction within the county and the Committee recommends continuation of the present system.

Composting - The public and private sectors both have composting opportunities available that significantly reduce the volume of the solid waste stream. These systems have served the County well and the Committee recommends that the present system be continued.

Household Hazardous Waste Collection - To minimize the contamination of the waste stream with toxic chemicals the Committee recommends that the present annual Household Hazardous Waste collection be continued.

Alternative No. 2 System

Disposal - Closure of the existing CESLH in Barry County for primary disposal and relying on the exporting of the County's waste to outlying landfills authorizing importing of Barry County's solid waste.

Resource Recovery - Recycling & Composting

- Maintain current recycling drop-off box system by private sector
- Continue curbside recycling opportunities by private sector

Collection Process & Transportation - Continue the use of private industry to collect solid waste throughout the County.

Volume Reduction - Continue private existing volume reduction techniques currently practiced by industry and CESLH.

Institutional Arrangements - Maintain the current institutional arrangements between County and private industry.

Alternative No. 2 is maintenance of the existing system within the County except for the exporting and disposal of solid waste outside Barry County. Landfill disposal in outlying counties would be limited to counties approving the importing of Barry County's waste and the distribution of the County's waste determined by economic considerations of hauling distances/tipping fees determined by private haulers.

It is anticipated that user costs would increase due to longer hauling distances. Environmental impacts would be the same as Alternative No. 1 since the County's solid waste would be exported to licensed landfills. More energy would be used by private haulers due to the longer hauling distances. Since the existing CESLH has existed for over 20 years, no difference in public acceptance would be expected over the other alternatives if the CESLH landfill was closed under this alternative.

Alternative No. 3 System

Disposal - Closure of the existing CESLH in Barry County for primary disposal and relying on the existing incinerator disposal at Kent County's facility.

Resource Recovery - Recycling & Composting

- Maintain current recycling drop-off box system by private sector
- Continue curbside recycling opportunities by private sector

Collection Process & Transportation - Continue the use of private industry to collect solid waste throughout the County.

Volume Reduction - Continue private existing volume reduction techniques currently practiced by industry and CESLH.

Institutional Arrangements - Maintain the current institutional arrangements between County and private industry.

Alternative No. 3 relies on Kent County's incinerator as the primary disposal option for the County's solid waste. Institutional arrangements between the County's private haulers and Kent County would need to be established to assure waste disposal at Kent County's incinerator facility. This alternative is technically feasible since the incinerator already exists and is permitted.

There would be increased costs due to higher hauling and tipping fees for disposal at the incinerator site over existing disposal at CESLH. This alternative would have positive impacts on energy use due to the recovery at the incinerator site. These energy savings may be offset by increased fuel usage for the longer hauling distances. Public acceptance may be less than the other alternatives due to higher anticipated customer costs for Barry County residents. Environmental impacts are about the same with the relative impacts of landfill/groundwater versus incinerator/air quality issues.

ALTERNATIVE SYSTEM EVALUATIONS

Parameters	No. 1 System Existing System	No. 2 System Out-of-County Disposal (Outlying Landfills)	No. 3 System Out-of-County Disposal (Kent County Incinerator)
Technical Fasibility	5	5	4
Economic Feasibility	5	3	2
Access to Land	5	4	4
Access to Transportation	5	3	2
Effects on Energy	3	2	4
Environmental Impacts	4	4	4
Public Acceptance	5	3	2
Totals	32	24	22

lternative No. 1 System scored the highest on the rating system. The advantages and disadvantages of each system are discussed in Appendix B.

anking System with 5 being the best ranking or least constraint or impact;
being least desirable or most constraint or impact.

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:

The selected solid waste alternative is as follows:

Alternative No 1 System

- **Landfilling** - The County has enough landfill space to meet its' disposal needs for the next 23 year period and this alternative was considered to be the most economically feasible. The County's solid waste disposal will continue to be landfilled for the next five to ten years. Increasingly stringent regulations and environmental safeguards have made landfill more acceptable in recent years. The Michigan Department of Environmental Quality, Waste Management Division has regulatory authority over landfills.

- **Recycling** - Barry County has a well used network of recycling drop off boxes and curbside recycling opportunities. The system has had a positive impact on waste reduction within the county and the Committee recommends continuation of the present system.

- **Composting** - The public and private sectors both have composting opportunities available that significantly reduce the volume of the solid waste stream. These systems have served the County well and the Committee recommends that the present system be continued.

- **Household Hazardous Waste Collection** - To minimize the contamination of the waste stream with toxic chemicals the Committee recommends that the present annual Household Hazardous Waste collection be continued.

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.

The import of solid waste from the following counties are considered to be consistent with this Solid Waste Management Plan and the host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings (CESLH).

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]
Barry County	Berrien County	CESLH			P
Barry County	Cass County	CESLH			P
Barry County	St. Joseph County	CESLH			P
Barry County	Branch County	CESLH			P
Barry County	Hillsdale County	CESLH			P
Barry County	Lenawee County	CESLH			P
Barry County	Jackson County	CESLH			P
Barry County	Van Buren County	CESLH			P
Barry County	Allegan County	CESLH			P
Barry County	Eaton County	CESLH			P
Barry County	Ingham County	CESLH			P
Barry County	Clinton County	CESLH			P

Table 1-A (cont.)

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Barry County	Ionia County	CESLH			P
Barry County	Kent County	CESLH			P
Barry County	Ottawa County	CESLH			P
Barry County	Montcalm County	CESLH			P
Barry County	Muskegon County	CESLH			P
Barry County	Calhoun County	CESLH			P
Barry County	Kalamazoo County	CESLH			P
			***475 tons per day**	**173,375 tons per year**	
			Total Estimated Capacity for all Counties		

[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; * = Current authorized total quantity tons per day for all existing Counties plus Barry County's waste as detailed in Item 4 "Waste Volume and Origin Restrictions" in host agreement dated 2/16/96. Stepped increases in total waste volumes are proposed in later years by the host agreement up to 1,600 tons per day.

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]

Not Applicable.

EXPORT AUTHORIZATION

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

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY*	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Barry					

***All other 82 Counties that list Barry County as an exporting County in their Solid Waste Management Plans.**

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]

Not Applicable.

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-8 through III-12 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:
CESLH

Type A Transfer Facility:

Type B Transfer Facility:
(Castleton, Nashville, & Maple Grove Twp.)
Orangeville Twp. and Barry Twp. transfer stations (conditionally exempt from licensing)

Type III Landfill:

Processing Plant:

Incinerator:

Waste Piles:

Waste-to-Energy Incinerator:

Other:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

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

County: Barry Location: Town: 3W Range: 8N Section(s): 6

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

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

☒ Public ☐ Private Owner:

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

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

Foundry Sand, Fly Ash, Waste Water Sludges, Trees & Stumps

Site Size:

Total area of facility property:	330	acres
Total area sited for use:	330	acres
Total area permitted:	48	acres
Operating:	19.5	acres
Not excavated:	28.5	acres
Current capacity:	4,000,000	☐ tons or ☒yds^3 (In-Place)
Estimated lifetime:	23	years
Estimated days open per year:	308	days
Estimated yearly disposal volume:	175,000	☐ tons or ☒yds^3 (In-Place)

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Conditionally exempt Type B Transfer Station
Facility Name: Castleton, Nashville, & Maple Grove Townships

County: Barry Location: Town: 2N Range: 7W Section(s): 1 Maple Grove Township

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 : CESLH

☒ Public ☐ Private Owner:

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:	7	acres
Total area sited for use:	7	acres
Total area permitted:	-----	acres
Operating:	-----	acres
Not excavated:	-----	acres
Current capacity:	-----	☐ tons or ☐ yds^3
Estimated lifetime:	-----	years
Estimated days open per year:	-----	days
Estimated yearly disposal volume:	504	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Conditionally exempt Type B Transfer Station
Facility Name: Orangeville

County: Barry Location: Town: 2N Range: 10W Section(s): 20

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 : CESLH

☒ Public ☐ Private Owner:

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:	20	acres
Total area sited for use:	____	acres
Total area permitted:	____	acres
Operating:	____	acres
Not excavated:	____	acres
Current capacity:	____	☐ tons or ☐ yds^3
Estimated lifetime:	____	years
Estimated days open per year:	____	days
Estimated yearly disposal volume:	252	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Conditionally exempt Type B Transfer Station

Facility Name: Barry Township

County: Barry Location: Town: 1N Range: 9W Section(s): 14

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

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

☒ Public ☐ Private Owner: _____

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:	10	acres
Total area sited for use	10	acres
Total area permitted:	_____	acres
Operating:	_____	acres
Not excavated:	_____	acres
Current capacity:	_____	☐ tons or ☐ yds^3
Estimated lifetime:	_____	years
Estimated days open per year:	_____	days
Estimated yearly disposal volume:	1,104	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

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

All pick up is by private industry and contract with the customer.

Private solid waste haulers collect and transport all solid waste in the County. Several of the municipalities provide leaf, grass and wood pick up on a occasional basis for their residents. The map (Figure No. D-1) enclosed in Appendix D details the main road infrastructure throughout the County.

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.

Resource conservation efforts are encouraged and coordinated by the Solid Waste Oversight Committee and educational materials are disseminated to interested groups on an informal basis throughout the year.

Backyard composting, curbside recycling, drop-off recycling, household hazardous waste collection, paper drives, and commercial/industrial recycling is estimated to divert up to 30% of the County's total waste stream requiring landfill disposal. Estimated diversion rates are presented as follows:

Estimated Diversion Tons/yr.

Current	5th Year	10th Year
8,060	8,475	8,910

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

Since volume reduction is practiced voluntarily and because technologies change and equipment may need replacing, persons within the County are encouraged to utilize the technique that provides the most efficient and practical volume reduction for their needs. The Solid Waste Oversight Committee will work to achieve Goal No. 4 as presented in Section I, provide educational materials, and promote citizen and private sector support for increased waste reductions, recycling and composting programs.

Total diversion rates are presented on page III-13 for the five and ten year planning periods based on current estimated diversion rates and projected total waste generated from the County.

SELECTED SYSTEM

VERVIEW 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.

Materials percent in the waste stream. From OSWER 1994, 1996.

Paper = 22.4%
Cardboard = 16.4%
Plastics = 9.5%
Rubber = 2.2%
Glass = 6.3%
Yard Waste, Brush & Leaf Composting = 14.6%
Wood = 7.0%
Mixed Metals = 7.6%

All categories of these materials have availability to be recycled in Barry County, although specific types of materials such as plastic wrapping may not be accepted for recycling. The main impediments to recycling of materials is market availability, sorting and transportation costs and price. Markets for recycled material fluctuate bringing uncertainty to the economics feasibility of collection and marketing of these materials.

The established markets for the materials being presently collected justifies the continued collection of these materials. Periodic market evaluation for expanded material collection is part of this Solid Waste Plan. If stable markets appear to become available, the collection of expanded material will be considered to be added to the present system.

Yard waste, brush and leaf composting has become more important since the ban on landfilling of these materials. All communities within the county have leaf and yard waste collection or site availability.

☒ 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:

RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis the tables on pages III-18, 19, & 20 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-21, 22, & 23 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.

Barry County has a network of drop-off sites for recycling opportunities for its' residents. The current sites are as follows:

1. Hastings Industrial Incubator, 1035 E. State Street, Hastings.
2. Dowling Drop Off Center, Dowling Road, east of M-37.
3. Delton Drop Off Center, 9929 S. Wall Lake Road, Delton.
4. Middleville Drop Off Center, 1045 Arlington, Middleville.
5. Castleton, Nashville, & Maple Grove Township Transfer Station, Casgrove Road East, Nashville.
6. Barry Township Transfer Station, 2994 Osborne Road, Hickory Corners.
7. CESLH Recycling Site, 1869 N. Broadway, Hastings.
8. Orangeville Transfer Station, Lindsey Road, Orangeville.

These drop-off sites for recycling may change locations and operators over the next ten years, depending on recycling trends and market conditions.

In addition to these sites, residents of the City of Hastings, the Gun Lake areas and in the Villages of Middleville and Woodland have the option of purchasing bi-weekly curbside recycling from private solid waste haulers.

Composting sites are operated and maintained by the municipalities and CESLH. These sites are relatively low technology and utilize existing municipal equipment. There have been no significant problems reported with these systems.

An annual household hazardous waste collection is sponsored by CESLH and the County. This is publicized in local newspapers before taking place. There has been a good community response to this event.

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
Hastings Industrial Incubator	Hastings	5	d	d	A,E,F	5	5	5
Dowling Drop Off Center	Dowling	5	d	d	A,E,F	5	5	5
Delton Drop Center	Delton	5	d	d	A,E,F	5	5	5
Middlville Drop off Center	Middleville	6	d	d	A,E,F,B	6	5	5
Nashville Transfer Station	Nashville	6	d	w	A,E,F	6	5	5
Barry Township	Barry Township	5	d	w	A,B,E,F,D	5	5	5
CESLH	Hastings	5	d	w	A,B,E,F	6	5	5
Orangeville Transfer Station	Orangeville Township	5	d	b	A,B,E,F	5	5	5

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

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

[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.

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
City of Hastings	City	Public	c	Sp, Fa	G, L, W	3	3	3
Village of Nashville	Village	Public	c	Sp, Fa	G, L, W	3	3	3
Village of Middleville	Village	Public	c	Sp, Fa	G, L, W	3	3	3
Village of Woodland	Village	Public	c	Fa	G, L, W	3	3	3
CESLH	County	Private	c	b	G, L, W	5	5	5
Sunset Waste	Gun Lake Areas	Private	c	b	G, L, W	5	5	5

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

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

[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.

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
CESLH	County	Private	d	Annual	See list below	5	5	5

Household Hazardous Waste Collected: AR, A, B1, B2, C, H, P, PS (See footnote below for legend)

[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 1); 5 = Private Owner/Operator; 6 = Other (Identified on page 1).

[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 proposed new programs. Plan continues with existing programs.		-----	-----	-----	-----	-----	-----	-----
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[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 1); 5 = Private Owner/Operator; 6 = Other (Identified on page 1).

[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 2.

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 proposed new programs. Plan continues with existing programs.		-----	-----	-----	-----	-----	-----	-----
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[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 1); 5 = Private Owner/Operator; 6 = Other (Identified on page 1).

[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 2.

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
No proposed new programs. Plan continues with existing programs.		-----	-----	-----	-----	-----	-----	-----

[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 1); 5 = Private Owner/Operator; 6 = Other (Identified on page 1).

[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.

The Barry County Solid Waste Planning Committee - is the Designated Solid Waste Planning Agency and is responsible for development of and implementation of the solid waste plan.

The Barry County Board of Commissioners - Appoints the members of the Solid Waste planning Committee and has approval/rejection of the solid waste management plan. The Board is also responsible for approving and appropriating fund for the solid waste management programs in the County.

The Barry County Solid Waste Oversight Committee is appointed by the County Commissioners and is charged with implementing the plan. Members must be appointed from specific agencies, organizations and the public as required by Barry County Solid Waste Management Plan.

Membership consists of County residents with one representative from the following:
Barry-Eaton District Health Department staff; Planning Commission; Road Commission, a Village; the City of Hastings; Township Supervisor association; environmental health association; waste industry; a recognized recycling program; and two private citizen's. (See Attachment D-7 for current membership)

CESLH is responsible for development, operation and compliance of the landfill. They are also responsible for the contracted recycling drop off sites, curbside recycling in the City of Hastings, their privately operated compost site, and in conjunction with the Board of Commissioners, the annual household hazardous waste collection.

Private refuse haulers are responsible for the collection and transportation of all the solid waste within the County.

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: Tons Diverted:	Projected Annual Tons Diverted:			Collected Material:	Projected Annual		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Y
A TOTAL PLASTICS:	55	59	64	G. GRASS AND LEAVES:	10,865	11,419	12,002
B. NEWSPAPER:	1,216	1,301	1,411	H. TOTAL WOOD WASTE:	no data	no data	no data
C CORRUGATED CONTAINERS:	1,032	1,112	1,977	I. CONSTRUCTION AND DEMOLITION:	no data	no data	no data
D. TOTAL OTHER PAPER:	no data	no data	no data	J. FOOD AND FOOD PROCESSING:	no data	no data	no data
E. TOTAL GLASS:	no data	no data	no data	K. TIRES:	no data	no data	no data
F. OTHER MATERIALS:				L. TOTAL METALS:	476 5	513	553
F1.				F3.			
F2				F4			------

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

The following identifies how much volume in percent 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-St Markets
A. TOTAL PLASTICS:	100		G. GRASS AND LEAVES:	100	
B NEWSPAPER:	100		H. TOTAL WOOD WASTE:	NA	
C. CORRUGATED CONTAINERS:	100		I. CONSTRUCTION AND DEMOLITION:	NA	
D. TOTAL OTHER PAPER:	NA		J. FOOD AND FOOD PROCESSING	NA	
E. TOTAL GLASS:	NA		K. TIRES:	NA	
F. OTHER MATERIALS:			L. TOTAL METALS:		
F1.	NA		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, 2, 4	f, video	p, s K-12	O - Oversight Committee
1	f	p	O - Oversight Committee
O - Map of recycling centers	n	p	O - Oversight 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.

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
Landfill	Ongoing
Recycling	Ongoing
Composing	Ongoing
Educational and Informational Programs	Ongoing

FLEIS & VANDENBRINK
ENGINEERING, INC.

4771 - 50th Street S.E., Grand Rapids, MI 49512
Office (616) 541-6000 FAX (616) 541-6010

RECEIVED
JUL 02 1999
Waste Management
Division

July 1, 1999

Seth Phillips
MDEQ - Waste Management Division
Solid Waste Program Section
PO Box 30241
Lansing, MI 48909

RE: Barry County Solid Waste Management Plan Update

Dear Seth:

On behalf of the Barry County Board of Commissioners and the Barry County Solid Waste Planning Committee, enclosed please find the correct Page III-27 that should be inserted into the Plan that was submitted to your office on June 14, 1999 for approval.

As we discussed on the phone today, a typo was corrected on this page after submittal to the Board and municipalities, and the last paragraphs under "Siting Criteria And Process" were inadvertently deleted during this change and sent with your approval copy of the Plan.

The Siting Criteria And Process paragraphs were included in the reports approved by the Board of Commissioners and the municipalities.

If you have any questions concerning the above, please contact us. We apologize for this error

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.

Randall C. Kriscunas, P.E.
Project Manager

Enclosure

cc: V. Harry Adrounie, Ph.D - Chairman

3222phillips1

SITING REVIEW PROCEDURES

(Not Applicable.)

AUTHORIZED DISPOSAL AREA TYPES

City Environmental Services Landfill, Inc. of Hastings and locally approved expansions.

NON-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.

Not Applicable.

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. CESLH has 330 acres approved for development as described in its facility description under current construction/operating permits. Any development within these 330 acres must be constructed and approved by MDEQ under Part 115, PA 451 rules and regulations.

Barry County has at least 23 years of certified capacity and therefore Barry County is not required to have a siting process in its Plan.

SITING REVIEW PROCEDURES

Not Applicable.

AUTHORIZED DISPOSAL AREA TYPES

City Environmental Services Landfill, Inc. of Hastings and locally approved expansions.

NON-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.

Not Applicable.

SOLID WASTE MANAGEMENT COMPONENTS

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

Solid Waste Management Planning - The Barry County Solid Waste Planning Committee is responsible for development of the Solid Waste Management Plan. The Committee has all the technical, administrative, financial and legal powers vested in it by the County Board of Commissioners.

The Barry County Board of Commissioners - The Board is responsible for appointment of the Solid Waste Planning Committee, contracts with the landfill and appropriation of funds for the various public solid waste management activities in the County.

The Barry County Solid Waste Oversight Committee is appointed by the County Commissioners and is charged with implementing the Plan. Members must be appointed from specific agencies, organizations and the public as required by Barry County Solid Waste Management Plan. (See Page III-23 for membership)

State of Michigan - Responsible for development, operation and enforcement of the various laws and rules regarding the management of solid waste in the State of Michigan.

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 - Barry County Solid Waste Oversight Committee

Product Reuse - Private Sector

Reduced Material Volume - Private Sector

Increased Product Lifetime - Private Sector - through education

Decreased Consumption - Private Sector -

Resource Recovery Programs:

Composting - Left up to the individual public and private composters.

Recycling - Recycling drop off boxes, left up to private enterprise markets and individual communities.

Energy Production - Not applicable.

Volume Reduction Techniques: Private Haulers and CESLH

Collection Processes: Private Haulers

Transportation: Private Haulers

Disposal Areas:

Processing Plants - NA

Incineration - NA

Transfer Stations - Private

Sanitary Landfills - CESLH

Ultimate Disposal Area Uses: CESLH

Local Responsibility for Plan Update, Monitoring & Enforcement:

Plan Update - Barry County Solid Waste Planning Committee
Monitoring - Barry County Solid Waste Oversight Committee
Enforcement - Barry County Board of Commissioners

Educational and Informational Programs: Barry County Solid Waste Oversight Committee

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.

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:

APPENDICES

ADDITIONAL INFORMATION

REGARDING THE

SELECTED

SYSTEM

APPENDIX A

ADDITIONAL INFORMATION REGARDING THE SELECTED SYSTEM

EVALUATION OF RECYCLING

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

The present solid waste management system has improved and evolved over the last decade. The drop off recycling system was started by CESLH as a service to the community and was expanded to provide curbside recycling opportunities to the City of Hastings, the Gun Lake area, and the Village of Middleville at a modest monthly fee. The recycling system continues to do well and is expected to evolve and improve in the future depending on markets and prices of recycled materials. The Committee deemed its' responsibility to facilitate this evolution by encouraging efforts in the public and private sectors to take advantage of opportunities that are presented.

The major impediments to the system are cost related. Limited resources do not allow the County to be in position to extensively subsidize recycling and other efforts to minimize the solid waste disposed of. Changes in the availability of landfill disposal space and low disposal rates have encouraged this disposal option. Also market fluctuations have put many recycled materials at an economic disadvantage. The Committee felt that if recycling, reuse and waste reduction would be viable long-term alternatives, they would have to be economically feasible for the private sector.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

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

According to OSWER 1997 the average percentage of materials available for recycling and composting in the waste stream are as follows:

Paper = 22.4%
Cardboard = 16.4%
Plastics = 9.5%
Rubber = 2.2%
Glass = 6.3%
Yard Waste, Brush & Leaf Composting = 14.6%
Wood = 7.0%
Mixed Metal = 7.6%

All categories of these materials have the potential to be recycled in Barry County although specific types of materials such as plastic wrapping may not be accepted for recycling. The main impediments to recycling are again the handling, haul distance and market price of recycled materials.

The subsidies and established markets for the materials presently being collected justifies the continued collection of these materials. Periodic evaluation by the Solid Waste Planning Committee and cooperation with recyclers in private industry will enhance the present system. Also encouragement of the pubic and private sectors to purchase recycled materials.

Composting

Yard waste, brush and leaf composting has become more important since the enactment of the Michigan ban on landfilling these materials. They also comprise a significant part of the waste stream (14.6%) There have been no major problems experienced with the establishment of composting sites within the county. The nature of the process takes more time if state of the art procedures are not followed but the process is forgiving.

There is one major recycling industry located within the County and that is Padnos Iron & Metal in Hastings. They recycle 5,100 tons of steel annually and 500,210 tons of mixed metal at the Hastings facility.

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: Left up to the individual municipalities and private industry to choose the most appropriate technology.

Proposed Programs: **None.**

Site Availability & Selection

Existing Programs:

Proposed Programs: **None.**

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.

Existing Programs:

Program Name:	pH Range	Heat Range	Other Parameter	Measurement Unit
City of Hastings	Left up to individual operators			
Village of Nashville	Left up to individual operators			
Village of Middleville	Left up to individual operators			
Village of Woodlands	Left up to individual operators			
CESLH	Left up to individual operators			

Proposed Programs:

Program Name	pH Range	Heat Range	Other Parameter	Measurement Unit
None.				

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.

The Barry County Board of Commissioners and CESLH have entered into an agreement regarding community host fees, expansion of the landfill, authorized capacity, service area, household hazardous waste collection and other matters.

Solid waste coordination in the county is a cooperative effort between the public and private sectors. The Solid Waste Planning Committee has taken an important role in evaluating alternatives and recommending actions to the County Board of Commissioners. The Solid Waste Oversight Committee will continue to implement the plan.

Private industry including haulers and CESLH have worked cooperatively with the Solid Waste Planning Committee, Oversight Committee, and the County Board of Commissioners.

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	0	private & public
Resource Recovery Programs	unknown	
Volume Reduction Techniques	unknown	private
Collection Processes	unknown	private
Transportation	unknown	private
Disposal Areas	unknown	private
Future Disposal Area Uses	unknown	private
Management Arrangements	unknown	private
Educational & Informational Programs	unkonwn	host agreement tipping fees

[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 goals and objectives outlined in Section I. The following summarizes the findings of this evaluation and the basis for selecting this system:

The selected system (Alternative No. 1 System) is a continuation of the existing solid waste management system that has worked well for the County. Based on the existing data that the Committee was able to compile approximately 30% of the waste stream is being diverted from the landfill and is being recycled or composted. The remaining 70% of the waste stream is currently being landfilled. This present system is working toward the State's goal of having 40% - 60% of the waste stream recovered by reduction, reuse, composting and recycling by the year 2005.

Public health, environmental, economics, technical feasibility and social acceptance impacts were all considered by the Solid Waste Planning Committee. The Committee agreed that continuation of the present system was the most appropriate alternative for the County at this point in time.

It was the consensus of the Committee that increasing material recovery was desirable but economic forces in the private sector limit the amount of materials that can be recovered from the waste stream without governmental subsidies. The Committee felt that if recycling, reuse and waste reduction would be viable long term alternative that they have to be economically feasible for the private sector.

The potential impacts of the Selected Alternative are discussed below.

Public Health - The Selected system relies on the use of landfills for final disposal. Because of recent improvements in landfill design and monitoring, the public health is safe guarded much better than in the past. The disadvantage is there is a long term liability and maintenance associated with the placement of refuse in landfills. Since the State is responsible for enforcement of landfill regulation adequate staffing and enforcement must remain in place to protect the public health.

Economics - Economics is one of the primary factors that decide solid waste management alternatives. As long as other systems do not favorable compare to landfills they will continue to be the primary source for disposal. Landfill disposal at the CESLH remains the most cost effective disposal alternative for the County.

Environmental Conditions - The environmental conditions of the selected system will remain constant over the present system. Material recovery from the waste stream will occur if private sector forces warrant. This is mainly an issue of economics due to comparatively high costs of material recovery.

Energy Use - The selected system is efficient in collection of solid waste due to short hauling distance to the disposal area. CESLH may also recover energy from the methane generated at the landfill in the future. The disadvantage of the selected system is incineration may be more efficient at energy production. Costs is the major factor that inhibits incineration in Alternative No. 3.

Siting Problems - The selected system major advantage is that it relies on the existing CESLH and has a site large enough to accommodate the County for the next 23 years. With this system there are no problems with siting.

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. Established solid waste management system that is working well.
2. More cost effective than other alternatives.
3. Technically feasible.
4. Politically and socially acceptable.
5. Encourages public and private sector partnership.
6. Encourages rather than forces action.

DISADVANTAGES:

1. May not maximize material recovery from the waste stream.
2. May not present the most convenient recycling opportunities to the majority of the population.

APPENDIX B

NON-SELECTED SYSTEMS

NON-SELECTED SYSTEMS

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

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

The non-selected systems were evaluated to determine their 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 non-selected systems were viewed as being economically non competitive with the existing system. The benefits derived from the non selected systems were not considered to be substantially enough to justify the expenditure and change in the present system.

Alternative No. 2 System

System Components:

Disposal - Closure of the existing CESLH in Barry County for primary disposal and relying on the exporting of the County's waste to outlying landfills authorizing importing of Barry County's solid waste.

Resource Recovery - Recycling & Composting

- Maintain current recycling drop-off box system by private sector
- Continue curbside recycling opportunities by private sector

Collection Process & Transportation - Continue the use of private industry to collect solid waste throughout the County.

Volume Reduction - Continue private existing volume reduction techniques currently practiced by industry and CESLH.

Institutional Arrangements - Maintain the current institutional arrangements between County and private industry.

Alternative No. 2 is maintenance of the existing system within the County except for the exporting and disposal of solid waste outside Barry County. Landfill disposal in outlying counties would be limited to counties approving the importing of Barry County's waste and the distribution of the County's waste determined by economic considerations of hauling distances/tipping fees determined by private haulers.

It is anticipated that user costs would increase due to longer hauling distances. Environmental impacts would be the same as Alternative No. 1 since the County's solid waste would be exported to licensed landfills. More energy would be used by private haulers due to the longer hauling distances. Since the existing CESLH has existed for over 20 years, no difference in public acceptance would be expected over the other alternatives if the CESLH landfill was closed under this alternative.

ADVANTAGES AND DISADVANTAGES OF THE NON SELECTED SYSTEM:

Advantages:

1. Technically feasible
2. Land use planned for disposal used for other purposes
3. No additional environmental imports
4. Public acceptance not changed

Disadvantages:

1. Higher user costs due to longer hauling distances
2. More energy use by private haulers over existing system
3. May not maximize material recovery from waste stream
4. May not present the most convenient recycling opportunities to the majority of the population

Alternative No. 3 System

System Components:

Disposal - Closure of the existing CESLH in Barry County for primary disposal and relying on the existing incinerator disposal at Kent County's facility.

Resource Recovery - Recycling & Composting

- Maintain current recycling drop-off box system by private sector
- Continue curbside recycling opportunities by private sector

Collection Process & Transportation - Continue the use of private industry to collect solid waste throughout the County.

Volume Reduction - Continue private existing volume reduction techniques currently practiced by industry and CESLH.

Institutional Arrangements - Maintain the current institutional arrangements between County and private industry.

Alternative No. 3 relies on Kent County's incinerator as the primary disposal option for the County's solid waste. Institutional arrangements between the County's private haulers and Kent County would need to be established to assure waste disposal at Kent County's incinerator facility. This alternative is technically feasible since the incinerator already exists and is permitted.

There would be increased costs due to higher hauling and tipping fees for disposal at the incinerator site over existing disposal at CESLH. This alternative would have positive impacts on energy use due to the recovery at the incinerator site. These energy savings may be offset by increased fuel usage for the longer hauling distances. Public acceptance may be less than the other alternatives due to higher anticipated customer costs for Barry County residents. Environmental impacts are about the same with the relative impacts of landfill/groundwater versus incinerator/air quality issues.

ADVANTAGES AND DISADVANTAGES OF THE NON SELECTED SYSTEM:

Advantages:

1. Increased energy recovery with incinerator
2. Land use planned for disposal used for other purposes

Disadvantages:

1. Higher user costs due to longer hauling distances/higher tipping fees for incinerator
2. Public acceptance less due to higher costs
3. Implementation issues between counties and private haulers for waste diversion to incinerator site

APPENDIX C

PUBLIC PARTICIPATION

PUBLIC PARTICIPATION

AND APPROVAL

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

PUBLIC INVOLVEMENT 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.

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. Public notice with meeting dates, times and locations were sent to all municipalities within the County early in the planning process at least ten days before the meeting dates. In addition, news releases were sent to all news agencies within the County where the public was made aware of the meetings and invited to attend. Public meeting had time reserved for questions and comments from the general public. Meetings were held monthly during the planning process.

The plan approval process was followed according to the legislation. The draft plan was approved by the Solid Waste Planning Committee and at least 90 days were allowed for review and comments on the proposed plan. A copy of the plan was sent to the MDEQ director, each municipality and adjacent counties.

The Solid Waste Planning Committee published notice in a paper with major circulation in the County not less than 30 days before such a hearing, which included a location where the public could inspect copies of the plan, time, and place of the public hearing.

The Solid Waste Planning Committee prepared a recording and minutes of the public hearing proceedings. This could be copied or inspected by the general public upon request after the public hearing. No written comments were received by the Solid Waste Planning Committee during the 90-day period except from those received from the MDEQ. No public comments were made during the public hearing.

The Solid Waste Planning Committee revised the plan in response to the MDEQ's comments. A list of the meeting locations and dates, along with the dated notice as published in the newspaper. The plan was then submitted to the County Board of Commissioners for their approval.

The plan was then submitted to all municipalities within the County for approval.

FLEIS & VANDENBRINK
ENGINEERING, INC.
4771 - 50th Street SE, Grand Rapids, MI 49512
Ph 616/541-6000 Fax 616/541-6010

Facsimile Cover Sheet

To: The Banner
Company:
Phone: 616-948-8051
Fax: 616-945-5192

From: Randy Kriscunas
Company: FLEIS & VANDENBRINK ENGINEERING, INC.
Phone: (616) 541-6000
Fax: (616) 541-6010

Date: October 12, 1998
Pages including this Cover Page: 2

Notes: Attached is Public Notice we would like published in the Banner for Thursday, Oct. 15, 1998 edition.

Please review and call me to confirm Thursday's publication date. Please send to our office proof of publication and invoice the Barry County Solid Waste Planning Committee at the address shown on the notice. Call if you have any questions.

RECEIVED

OCT 23 1998

FLEIS & VANDENBRINK ENGINEERING, INC.

Affidavit of Publication

STATE OF MICHIGAN, County of Barry } ss.

Fredric J. Jacobs

being first duly sworn deposes and says that he is one of the publishers of the Hastings Banner

a newspaper printed and circulated in said County of Barry ; that the annexed notice of Barry County Solid Waste Management Plan Update Draft Plan REview and Public Hearing Notice

has been duly published in said paper for 1 issues, on the following dates, to-wit:

October 15 A.D. 1998

A.D. 19

A.D. 19

A.D. 19

A.D. 19

A.D. 19

Subscribed and sworn to before me this 15th day of October A.D. 1998

Bobbie Wilkins

Notary Public for Barry County

My Commission expires 19

BOBBIE WILKINS
Notary Public, Barry County, MI
My Commission Expires Nov. 27, 1998

PUBLIC NOTICE
BARRY COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE DRAFT PLAN REVIEW AND PUBLIC HEARING NOTICE

The Barry County Solid Waste Planning Committee has drafted a Solid Waste Management Plan update as required by the Natural Resources and Environmental Protection Act, 1994 PA 451, Part 115, Solid Waste Management, and its administrative rules. The draft Plan addresses the County's strategies and methods to handle its solid waste for the next five and ten year planning periods.

The selected alternatives chosen by the Planning Committee include continued reliance on the existing systems which include landfilling for waste disposal, recycling drop-off box and curbside systems, composting operations, and an annual household hazardous waste collection program.

A 90-day review and comment period on the draft Plan has been established for review by regulating agencies, all municipalities in the County and the general public. The draft Plan can be reviewed by the public at the following locations:

Barry County Courthouse
Barry County Solid Waste Planning Committee
220 West State Street
Hastings, MI 49058

Hastings Public Library
121 S. Church Street
Hastings, MI 49058

Barry-Eaton County District Health Department
110 W. Center Street
Hastings, MI 49058

A Public Hearing on the draft Plan will be conducted on December 16, 1998 for the purpose of receiving comments from interested persons. The hearing will be held at 7:00 p.m. at the following location:

Barry County Courts & Law Building
Community Room
220 West Court Street
Hastings, MI 49058

Written comments received through January 12, 1999 will be considered by the Committee prior to final adoption and should be sent to:

Dr. V. Harry Adrounie, Chairman
Barry County Solid Waste Planning Committee
220 West State Street
Hastings, MI 49058

SOLID WASTE PLAN UPDATE PUBLIC HEARING
DECEMBER 16, 1998

A Public Hearing was held in the Community Room of the Courts & Law Building, Hastings, Michigan at 7:00 p.m.

MEMBERS PRESENT: Adrounie, Neil, Essling, Sweeney, Schnackenberg

MEMBERS EXCUSED: Morgan

MEMBERS ABSENT: McSweeney, Mansfield, Wenger, Thomas, Kensington

OTHERS PRESENT: Randy Kriscunas, Fleis & Vandenbrink Engineering

Chairman Adrounie called the Public Hearing to order at 7:00 p.m.

Moved by Essling, support by Schnackenberg to approve the agenda. All ayes. Motion carried.

Moved by Schnackenberg, support by Sweeney to excuse Clyde Morgan. All ayes. Motion carried.

Essling stated that Marva Shumway has not received any comments regarding the Plan update, nor has Judy Milan, Harry Adrounie or the commissioners.

Moved by Neil, support by Essling to close the Public Hearing. All ayes. Motion carried.

A Solid Waste Planning Committee Meeting to adopt the Plan update is scheduled for Friday, January 15, 1999 at 1:30 p.m. in the Commission Chamber of the Barry County Courthouse.

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

August 27, 1998

Dr. V. Harry Adrounie
Barry County Solid Waste Planning Committee
110 West Center Street
Hastings, Michigan 49058

Dear Dr. Adrounie:

The Department of Environmental Quality (DEQ) has been charged with preparing the Update to the Mecosta County Solid Waste Management Plan (Plan) as required under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. As part of the preparation of the Plan Update, the counties to which solid waste from Mecosta County may be exported must be explicitly authorized in the body of the Plan Update. I am writing to inform you of the DEQ's intent to include Barry County in the Mecosta County Plan Update as authorized to receive solid waste from Mecosta County.

In order for Barry County to receive solid waste from Mecosta County, Part 115 requires such transfers of solid waste to be authorized in the Plans of both the importing and the exporting counties. I would like to request that Mecosta County be included in the Barry County Plan Update as a county authorized to export waste to Barry County for final disposal.

Please provide confirmation that Mecosta County has been, or will be, included in the Barry County Plan Update as a county authorized to export solid waste to Barry County. Also, please indicate if the Barry County Plan requires reciprocal agreements to allow the movement of solid waste between counties or other limitations or special conditions which may be imposed so that arrangements can be made to address these issues.

In addition, I am seeking information on solid waste disposal facilities in Barry County. I would appreciate it if you would send me a copy of the "Facility Description" page, as it appears in the Barry County Plan Update, for each disposal facility in Barry County.

Thank you for your assistance in this matter. If you should have any questions regarding the Mecosta County Plan Update or the information I have requested, please feel free to contact me.

Sincerely,

James E. Johnson
Solid Waste Management Unit
Solid Waste Program Section
Waste Management Division
517-373-4738

cc: Mecosta County Planning File
Barry County Planning File

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

James E. Johnson
Solid Waste Management Unit
MDEQ - Waste Management Division
P.O Box 30241
Lansing, MI 48909-7741

RE: Import/Export Authorization - Mecosta County Plan Update

Dear Mr. Johnson:

This letter is in response to your August 27, 1998 letter concerning the MDEQ's intent to include Barry County as an importing County in the Mecosta County Plan update.

The current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings details specific authorized counties for import of waste into Barry County. Mecosta County is not an identified exporting County. Therefore, Mecosta County can not be included in Barry County's Plan update as a exporting County to Barry County for final disposal.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans. Please advise whether Barry County would be authorized to export waste to Mecosta County.

We have also included a copy of the City Environmental Services Landfill, Inc of Hastings Facility Description sheet per your request.

If you have any questions concerning the above information and the Barry County Plan update, please feel free to contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

WAYNE COUNTY

Edward H. McNamara
County Executive

July 21, 1998

Dr. V. Harry Adrounie
Barry County Solid Waste Planning Committee
110 West Center Street
Hastings, MI 49058

ATTN: Dr. V. Harry Adrounie
County Solid Waste Planning Agency

Dear Dr. Adrounie:

In the preparation of our 1998 update of the County Solid Waste Plan, Wayne County will consider recognizing all 83 counties in Michigan for import/export authorization if that is the desire of your County, and subject to the conditions outlined in the Plan. Wayne County will require a reciprocal agreement for the transfer of solid waste to your county in the event that your County has, or in the future sites, a solid waste facility.

If your County requests to be identified in our plan as an exporter of waste to Wayne County, your County should identify the maximum quantity of solid waste that your County wants authorization to export into Wayne County each year. Similarly each County willing to accept waste from Wayne County should identify the maximum volume of waste which Wayne County would be authorized to export to your County.

Wayne County will also require that each municipality within your County that wishes to export waste to Wayne County comply with the waste reduction and resource recovery goals of the Wayne County Plan. Compliance with this requirement is established by the submission of the appropriate resolutions from each County municipality to each solid waste facility within Wayne County that will receive waste from your County. Upon adoption, a copy of each municipal resolution should also be sent to this office.

DEPARTMENT OF ENVIRONMENT
3600 COMMERCE COURT • BUILDING E • WAYNE, MICHIGAN 48184
(734) 326-3936 FAX (734) 326-4421

Wayne County will accept a reciprocity agreement from your County if that is the method which you will utilize to document the agreements by the County to import and export solid waste. If you require a particular form for such a reciprocal agreement, please provide me with a copy of the form for our review.

You may want to review facility descriptions for the Wayne County solid waste facility or facilities, which your county, or a municipality in your county, proposes to export Type II or other waste from your County. You should contact each facility within Wayne County directly to determine if there are any specific stipulations, conditions, or restrictions that will affect the import of waste into each facility. As indicated above, Wayne County does require the submission of the appropriate resolutions from each County municipality that will export its waste to both this Department and the facility.

We do not yet have an estimated date for the completion and approval of the 1998 update of the Wayne County Solid Waste Plan. If I can provide any further information at this time, please let me know.

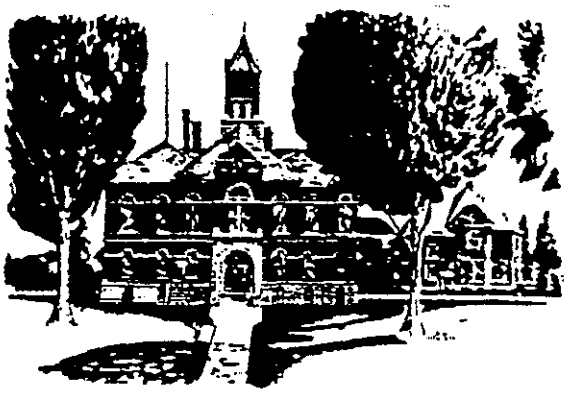
Future correspondence should be directed to my attention at this address.

Very truly yours,

Robert H. Fredericks

Robert H. Fredericks, Director
Land Resource Management Division

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



October 9, 1998

Robert H. Fredericks, Director
Wayne County Land Resource Management Division
3600 Commerce Court Building E
Wayne, MI 48184

RE: Import/Export Authorization - Wayne County Plan Update

Dear Mr. Fredericks:

This letter is in response to your letter concerning your intent to include Barry County as an importing County in the Wayne County Plan update.

The current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings details specific authorized counties for import of waste into Barry County. Wayne County is not an identified exporting County. Therefore, Wayne County can not be included in Barry County's Plan update as an exporting County to Barry County for final disposal.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans. Please advise whether Barry County would be authorized to export waste to Wayne County without a reciprocal agreement.

If you have any questions concerning the above information and the Barry County Plan update, please feel free to contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

N. Harry Adrounie, Ph.D
Chairman

GRAND TRAVERSE COUNTY
SOLID WASTE OFFICE
400 BOARDMAN AVENUE
TRAVERSE CITY, MI 49684-2577
(616) 922-4576 • FAX (616) 922-4427

August 27, 1998

Dr. V Harry Adrounie
Solid Waste Planning Committee
110 W. Center St.
Hastings, MI 49058

Dear Dr. Adrounie:

Grand Traverse County is in the process of preparing the 1998 Update to our County Solid Waste Management Plan and would like to include Barry County as an export county for our solid waste management purposes. Grand Traverse County would also include Barry County as an import county.

Grand Traverse County has a firm commitment to resources recovery and hazardous materials management, yet at this time does not have a licensed type II landfill within the County and our only type III facility is due to close in the next two years. However, our draft update to the County Solid Waste Management Plan outlines the potential of a County developed landfill or contract for waste disposal. During this planning period, Grand Traverse County would anticipate exporting by contract from 150,000 to 300,000 cubic yards of solid waste annually.

As an importer of solid waste, Grand Traverse County would accept up to 300,000 cubic yards of solid waste annually from any one or a combination of counties listed in our plan for primary and/or contingency disposal in solid waste facilities so long as they are open to the public and comply with our County Solid Waste Ordinance and Intergovernmental Agreement. Our Draft Solid Waste Management Plan will be released by September 1, 1998 for the 90 day public review period.

In order to provide the best options for both Counties, we will include Barry County in our Solid Waste Management Plan Update, and appreciate your inclusion of Grand Traverse County in the Barry County Solid Waste Management Plan.

If you have any questions, please do not hesitate to contact me at (616) 922-4576.

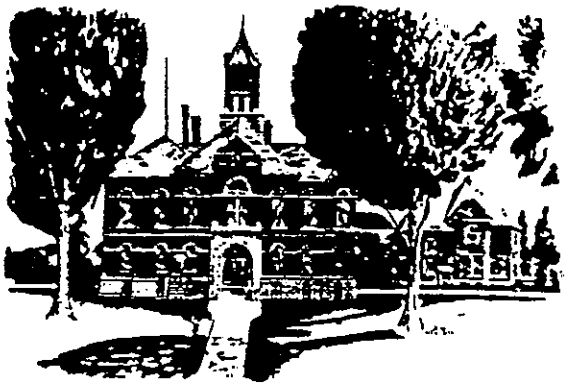
Sincerely,

Randall S. Smith
Solid Waste Coordinator

RECYCLED PAPER

BARRY COUNTY COURTHOUSE

220 W. STATE STREET
HASTINGS, MICHIGAN 49058



October 9, 1998

Randall S. Smith, Solid Waste Coordinator
Grand Traverse County Solid Waste Office
400 Boardman Avenue
Traverse City, MI 49684-2577

RE: Import/Export Authorization - Grand Traverse County Plan Update

Dear Mr. Smith:

This letter is in response to your letter concerning your intent to include Barry County as an importing County in the Grand Traverse County Plan update.

The current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings details specific authorized counties for import of waste into Barry County. Grand Traverse County is not an identified exporting County. Therefore, Grand Traverse County can not be included in Barry County's Plan update as an exporting County to Barry County for final disposal.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans. It is our understanding that Barry County would be authorized to export waste to Grand Traverse County.

If you have any questions concerning the above information and the Barry County Plan update, please feel free to contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

DEPARTMENT OF ENVIRONMENT AND INFRASTRUCTURE SERVICES
PUBLIC WORKS DIVISION
110 NORTH FOURTH AVENUE
P.O. BOX 8645, ANN ARBOR, MI 48107-8645

RECEIVED
AUG 21 1998
FLEIS & VANDENBRINK
ENGINEERING, INC.

August 7, 1998

Dr. V. Harry Adrounie
Barry County Solid Waste Planning Committee
110 West Center Street
Hastings, MI 49058

Dear Dr. Adrounie,

In preparing its 1998 Part 115 Solid Waste Management Plan Update, Washtenaw County is considering recognizing all 83 counties in Michigan for import/export authorization. Exhibit A (attached) describes Washtenaw County's intended import/export authorizations, including quantities, for each county in the State. Please review this document carefully, noting particularly our proposed levels of solid waste importation from and exportation to your County.

Washtenaw County currently has one licensed and operational Type II landfill located within its borders, the Arbor Hills Landfill operated by Browning Ferris Industries. Per statutory requirements, it is necessary for both the generating and receiving county plans to explicitly authorize waste transfers and amounts. Washtenaw County is hereby requesting that your County authorize the receipt of Washtenaw County solid waste, in the quantity identified in Exhibit A, through explicit authorization in your solid waste plan.

Washtenaw County intends to release the draft of its Plan Update in October of this year. In order to ensure that your County's disposal needs are included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import/export intentions by September 1, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me at (734) 994-2398 or via e-mail at todds@co.washtenaw.mi.us.

Sincerely,

Susan Todd
Solid Waste Coordinator

Enc.

Authorized Importation of Solid Waste

From all sources, the Arbor Hills Landfill shall not receive more than 4 5 million gate cubic yards in any one year and no more than 17,500,000 gate cubic yards in the most recent consecutive five year period that concludes at the end of the current year of activity.

Subject to this overall limit, import of solid waste to the Arbor Hills Landfill from the following counties in the quantities specified is explicitly recognized in this Plan Update:

Jackson County – No more than 250,000 gate cubic yards of solid waste per year may be imported from Jackson County to the Arbor Hills Landfill.

Kalamazoo County - No more than 200,000 gate cubic yards of solid waste per year may be imported from Kalamazoo County to the Arbor Hills Landfill.

Lenawee County – No more than 750,000 gate cubic yards of solid waste per year may be imported from Lenawee County to the Arbor Hills Landfill.

Livingston County – No more than 750,000 gate cubic yards of solid waste per year may be imported from Livingston County to the Arbor Hills Landfill.

Macomb County – No more than 1,500,000 gate cubic yards of solid waste per year may be imported from Macomb County to the Arbor Hills Landfill.

Monroe County - No more than 1,500,000 gate cubic yards of solid waste per year may be imported from Monroe County to the Arbor Hills Landfill.

Oakland County – No more than 1,500,000 gate cubic yards of solid waste per year may be imported from Oakland County to the Arbor Hills Landfill.

Wayne County – No more than 2,000,000 gate cubic yards of solid waste per year may be imported from Wayne County to the Arbor Hills Landfill.

In addition, a total of no more than 500,000 gate cubic yards of solid waste may be imported from one or any combination of the counties listed below, subject to the overall limit identified above:

Alcona	Dickinson	Lake	Oceana
Alger	Eaton	Lapeer	Ogemaw
Allegan	Emmet	Leelanau	Ontonagon
Alpena	Genesee	Lenawee	Osceola
Antrim	Gladwin	Livingston	Oscoda
Arenac	Gogebic	Luce	Otsego
Baraga	Grand Traverse	Macinac	Ottawa
Barry	Gratiot	Macomb	Presque Isle
Bay	Hillsdale	Manistee	Roscommon
Benzie	Houghton	Marquette	Saginaw
Berrien	Huron	Mason	Saint Clair

Branch	Ingham	Mecosta	Saint Joseph
Calhoun	Ionia	Menominee	Sanilac
Cass	Iosco	Midland	Schoolcraft
Charlevoix	Iron	Missaukee	Shiawasee
Cheyboygan	Isabella	Monroe	Tuscola
Chippewa	Jackson	Montcalm	Van Buren
Clare	Kalamazoo	Montmorency	Wayne
Clinton	Kalkaska	Muskegon	Wexford
Crawford	Kent	Newago	
Delta	Keweenaw	Oakland	

These imports are contingent upon the export being explicitly recognized in the generating County's approved Part 115 Solid Waste Plan.

Authorized Export of Solid Waste

A portion of the County's waste stream may be disposed of at licensed facilities in other counties as specified in this Plan. Export of solid waste to the following counties in the quantities specified below is explicitly recognized and authorized in this Plan Update:

Jackson County: No more than 250,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Jackson County.

Kalamazoo County: No more than 200,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Kalamazoo County.

Lenawee County: No more than 750,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Lenawee County.

Livingston County: No more than 750,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Livingston County.

Macomb County: No more than 1,500,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Macomb County.

Monroe County: No more than 1,500,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Monroe County.

Oakland County: No more than 1,500,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Oakland County.

Wayne County: No more than 2,000,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in Wayne County.

In addition, a total of no more than 500,000 gate cubic yards per year of solid waste may be exported to licensed disposal facilities in the following counties:

EXHIBIT A **As Proposed: 08/10/98**

Alcona	Dickinson	Lake	Oceana
Alger	Eaton	Lapeer	Ogemaw
Allegan	Emmet	Leelanau	Ontonagon
Alpena	Genesee	Lenawee	Osceola
Antrim	Gladwin	Livingston	Oscoda
Arenac	Gogebic	Luce	Otsego
Baraga	Grand Traverse	Macinac	Ottawa
Barry	Gratiot	Macomb	Presque Isle
Bay	Hillsdale	Manistee	Roscommon
Benzie	Houghton	Marquette	Saginaw
Berrien	Huron	Mason	Saint Clair
Branch	Ingham	Mecosta	Saint Joseph
Calhoun	Ionia	Menominee	Sanilac
Cass	Iosco	Midland	Schoolcraft
Charlevoix	Iron	Missaukee	Shiawasee
Cheyboygan	Isabella	Monroe	Tuscola
Chippewa	Jackson	Montcalm	Van Buren
Clare	Kalamazoo	Montmorency	Wayne
Clinton	Kalkaska	Muskegon	Wexford
Crawford	Kent	Newago	
Delta	Keweenaw	Oakland	

This authorization is contingent upon the receiving County explicitly authorizing the receipt of Washtenaw County waste in their approved Part 115 Solid Waste Plan.

BARRY COUNTY COURTHOUSE

220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

Susan Todd, Solid Waste Coordinator
Washtenaw County Public Works Division
P.O. Box 8645
Ann Arbor, MI 48107-8645

RE: Import/Export Authorization - Washtenaw County Plan Update

Dear Ms. Todd:

This letter is in response to your letter concerning your intent to include Barry County as an importing County in the Washtenaw County Plan update.

The current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings details specific authorized counties for import of waste into Barry County. Washtenaw County is not an identified exporting County. Therefore, Washtenaw County can not be included in Barry County's Plan update as an exporting County to Barry County for final disposal.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans. It is our understanding that Barry County would be authorized to export waste to Washtenaw County.

If you have any questions concerning the above information and the Barry County Plan update, please feel free to contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

Cass County
Board of Commissioners

Courthouse
Cassopolis, Michigan 49031
Phone (616) 445-4420
Fax (616) 445-8978
Tax I.D. 38-6004839

To: Designated Solid Waste Planning Agency Representatives for:
Berrien, St. Joseph, Branch, Hillsdale, Lenawee, Monroe, Wayne, Washentaw, Jackson, Calhoun, Kalamazoo, Van Buren, Allegan, Barry, Eaton, Ingham, Livingston, Oakland, Shiawassee, Clinton, Ionia, Kent, Ottawa, Gratiot, Montcalm, Muskegon, Oceana, Newaygo, Mecosta, Isabella
Date: July 29, 1998
Re: Solid Waste Management Plan Update Import/Export Arrangements

The Cass County Solid Waste Planning Committee has identified 30 counties in Michigan as possible candidates for import/export authorization of solid waste. Cass County would like to list your county in our plan as an importer and exporter of solid waste. Cass County is requesting that your county plan update authorizes Cass County for 100 percent solid waste import and export.

Exportation of Cass County Solid Waste
Cass County will authorize the exportation of up to 100 percent of the Cass County solid waste stream to any of the counties listed above whose Solid Waste Management Plan specifically authorizes the acceptance of Cass County's solid waste.
Importation of Out-of-County Solid Waste
Currently, Cass County does not have any disposal areas within its borders. However, Cass County will list your county as a possible future importer of solid waste if a facility is ever sited within the County.

The Michigan Department of Environmental Quality requires that a letter of authorization for import and export of solid waste is included in the Plan Update. If your county decides to include Cass County as an importer and exporter of solid waste, please send a letter stating the authorization and any stipulations or conditions that may apply. Cass County would also like facility descriptions for each Type II and Type III landfill, Type A and Type B transfer station, incinerator, and waste-to-energy facility operating within your county.

To be able to complete the draft plan update, a prompt response letter would be greatly appreciated. Please direct all correspondence to the address below. If you have any questions or would like to discuss this matter in more detail, please call me at (616)925-1137 or e-mail swmicomm@cpuinc net.

Sincerely,
Marcy Hamilton
Marcy Hamilton
Southwestern Michigan Commission
185 E. Main Street, Suite 701
Benton Harbor, MI 49022 fax (616) 925-0288

C:\MYDOCS\CASSSWMP\IMPORT.WPD

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

Marcy Hamilton
Southwestern Michigan Commission
185 E. Main Street, Suite 701
Benton Harbor, MI 49022

RE: Import/Export Agreements for Solid Waste Management

Dear Ms Hamilton:

The Barry County Solid Waste Planning Committee is currently drafting its update plan.

Cass County is listed as an authorized importing county in our draft Solid Waste Management Plan update The import of Cass County's waste is consistent with the current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans.

It is also our understanding that Cass County will list Barry County as an identified exporting county in your Solid Waste Plan update We have also included the Facility Description for the City Environmental Services Landfill, Inc. of Hastings per your request.

If you have any questions concerning the above, please contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

WATER AND SEWER DIVISION
Financing
Construction
Operation

Board of Public Works

JERRY O. KOOIMAN
Chairman
ROGER G. LANINGA
Vice Chairman
BEVERLY R. REKENY
Secretary
CHERRY H. JACOBUS
KATHERINE KUHN
PAUL McGUIRE
DAVID H. MORREN
CURT A. KEMPPAINEN
Director

September 1, 1998

Harry Adrounie
Barry County Solid Waste Planning Committee
110 West Center Street
Hastings, MI 49058

Re: Solid Waste Management Plan Committee

Dear Dr. Adrounie:

In preparing its 1998 Part 115 Solid Waste Management Plan Update and as part of the County's integrated solid waste system, Kent County is recognizing 14 counties in Michigan for import and/or export authorization. Exhibit A (attached) describes Kent County's intended import and/or export authorizations for each county recognized in their Plan limited to the conditions as stated. Also included are Tables 1-A and 2-A from the updated Plan.

In order to ensure that your County is included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import and/or export intentions by October 5, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me.

Best regards,

KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Douglas G. Wood

Douglas G. Wood
Deputy Director

Earl G. Woodworth Building • 1500 Scribner Avenue, N.W. • Grand Rapids, Michigan 49504-3299
Telephone: (616) 336-3694 Facsimile: (616) 336-3338 E-Mail address: kcdpw@dpw.co.kent.mi.us

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

Douglas G. Wood, Deputy Director
Kent County Board of Public Works
1500 Scribner Avenue NW
Grand Rapids, MI 49504-3299

RE: Import/Export Agreements for Solid Waste Management

Dear Mr. Wood:

The Barry County Solid Waste Planning Committee is currently drafting its update plan.

Kent County is listed as an authorized importing county in our draft Solid Waste Management Plan update. The import of Kent County's waste is consistent with the current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans.

It is also our understanding that Kent County will list Barry County as an identified exporting county in your Solid Waste Plan update limited to the conditions stated in your "Solid Waste Import Condition".

If you have any questions concerning the above, please contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adroumie, Ph.D
Chairman

EATON COUNTY DEPARTMENT OF RESOURCE RECOVERY
1045 INDEPENDENCE BLVD
CHARLOTTE, MI 48813

August 27, 1998

DR. V HARRY ADROUNIE
BARRY CO SWPC
110 W CENTER ST
HASTINGS, MI 49058

Dear DR. ADROUNIE:

As an update to the letter dated May 27, 1998, the Eaton County Solid Waste Management Planning Committee has decided to list all counties in the attached table as candidates for import/export in the Solid Waste Management Plan. It was further decided to include language that states import/export authorizations are contingent upon any restrictions being met, and ***if and only if*** each county listed has Eaton County specified as both a future importer (Eaton County has no active disposal facility within its borders at this time) and current exporter of solid waste (reciprocity). Although no formal agreement is required, these criteria must be met for waste to flow freely between Eaton County and those listed in the attached table.

As Eaton County moved forward in the planning process, it became apparent that the above procedure was the best way to identify a large area of free-flow, while at the same time continuing with the Plan Update. The draft Eaton County Solid Waste Management Plan is tentatively scheduled to be placed out for public review in mid-September. Therefore, it is important that any restrictions your county wishes to place on import/export be identified for inclusion in the Eaton County Plan. You should also note that each county on the table is authorized as a Primary Disposal site. This relates to the incorporation of free-flow in the Eaton County Plan.

As a side note, this office has received responses from many counties already establishing their participation (or non-participation) in this system. I apologize for any redundancy or extra work this new approach may cause. However, by direction of the SWMPC, all counties identified are to be included in the Eaton County Plan, and therefore are to be notified.

If you have any questions or would like additional information, please do not hesitate to contact me at (517) 543-7500 x627 or via E-mail at **mhill@co.eaton.mi.us**. Thank you for time.

Sincerely,

Marc A Hill
Resource Recovery Coordinator
(County Designated Planning Agency)

Enclosure

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

Mark A. Hill
Eaton County Department of Resource Recovery
1045 Independence Blvd.
Charlotte, MI 48813

RE: Import/Export Agreements for Solid Waste Management

Dear Mark:

The Barry County Solid Waste Planning Committee is currently drafting its update plan.

Eaton County is listed as an authorized importing county in our draft Solid Waste Management Plan update. The import of Eaton County's waste is consistent with the current host agreement between Barry County and City Environmental Services Landfill, Inc. of Hastings.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans.

It is also our understanding that Eaton County will list Barry County as an identified exporting county in your Solid Waste Plan update.

If you have any questions concerning the above, please contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

BRANCH COUNTY
COURTHOUSE

31 DIVISION STREET • COLDWATER • MICHIGAN • 49036
TELEPHONE (517) 279-4301 FAX (517) 278-4130

August 25, 1998

Barry County Solid Waste Planning Commitee
Dr. V. Harry Adrounie
110 West Center Street
Hastings, MI 49058

Re: Import/Export Agreement for Solid Waste Management

Dear Mr. Adrounie:

Branch County hereby requests that Barry County include Branch County as an approved importing county in its 1998 Solid Waste Management Plan (SWMP) update. In turn, Branch County will list Barry County as an approved importing county in its SWMP. However, please be advised that Branch County does not currently contain a solid waste disposal facility within its borders. Branch County has opted to require a written agreement for other counties to be included in its SWMP. Please contact Ken Strong at (517) 279-4310 at your earliest convenience to indicate Barry County's willingness to proceed as requested, or if a written agreement will be required. We appreciate your prompt response in this regard.

Yours very truly,

BRANCH COUNTY COURTHOUSE

Charlene Zurch

Board of Commissioners

cc: Ken Strong, Branch County Drain Commissioner
Jeff Eves, American Hydrogeology Corporation

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

October 9, 1998

Ken Strong
Branch County Drain Commissioner
Branch County Court House
31 Division Street
Coldwater, MI 49036

RE: Import/Export Agreements for Solid Waste Management

Dear Ken:

The Barry County Solid Waste Planning Committee is currently drafting its update plan.

Branch County is listed as an authorized importing county in our draft Solid Waste Management Plan update. The import of Branch County's waste is consistent with the current host agreement between Barry County and City Environmental Services Landfill, Inc of Hastings.

Our current draft Plan lists export authorization to all other counties in Michigan that will list Barry County as an exporting county in their plans.

It is also our understanding that Branch County will list Barry County as an identified exporting county in your Solid Waste Plan update.

If you have any questions concerning the above, please contact us.

Sincerely,

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE

V. Harry Adrounie, Ph.D
Chairman

GENESEE COUNTY METROPOLITAN PLANNING COMMISSION

ROOM 223 - 1101 BEACH STREET FLINT, MICHIGAN 48502-1470

TELEPHONE (810) 257-3010 FAX (810) 257-3185

CHAPIN W. COOK, AICP
DIRECTOR-COORDINATOR
THOMAS G. GOERGEN
ASSISTANT DIRECTOR

September 21, 1998

Dr. V. Harry Adrounie
Barry County
Barry County Solid Waste Planning Committee
110 W. Center St.
Hastings, MI 49058

Subject: Genesee County Solid Waste Management Plan Update

Dear Dr. Adrounie:

The Genesee County Solid Waste Management Committee has just initiated the Update to the County's Solid Waste Management Plan. The Committee has not addressed the import/export authorization of solid waste nor determined if reciprocal agreements will be approved. As we proceed with the update of the Plan, these issues will be resolved and communicated to you

If you have any questions, please don't hesitate to contact me.

Sincerely,

Thomas Goergen

Thomas Goergen
Assistant Director

k:\ wastemgt\letters\imexre.doc

Region 2 Planning Commission

Jackson County Tower Building - 16th Floor
120 West Michigan Avenue
Jackson, Michigan 49201

Fax: 517-788-4635 **517-788-4426** Email: Region2@dmci.net

June 16, 1998

V. Harry Adrounie, Ph. D
Barry County Solid Waste Planning Committee
220 W. State Street
Hastings, MI 49058

Dear Dr. Adrounie:

Jackson County is currently updating its Solid Waste Management Plan. The Solid Waste Planning Committee has not yet discussed the issue of importing and exporting waste with other counties. However, I assume that they will want to include the same counties identified in the current plan as counties with which Jackson County may form reciprocal agreements for importing and exporting waste. Barry County is one of those counties

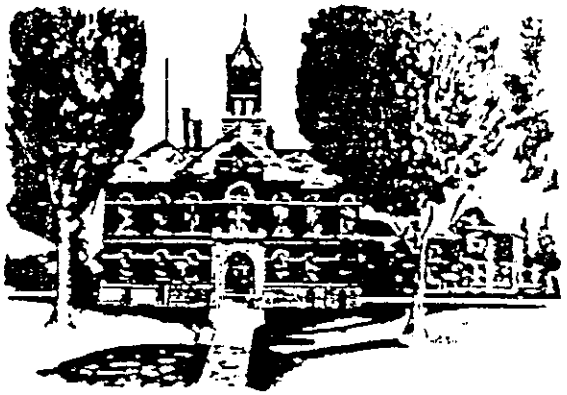
According to your letter of May 22, 1998, Barry County is willing to wait for any official action from Jackson County until the plan is updated I will certainly make Barry County's interest known to the Solid Waste Planning Committee, and I will advise you of their action regarding your request.

Sincerely,

Deborah L. Kuehn, AICP
Principal Planner

c. Randy Terronez, Jackson County Administrator

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 22, 1998

Mr Carl Baepke, Chairman
Montcalm County Solid Waste Planning Committee
P O Box 368
Stanton, Mi 48888

Dear Mr Baepke,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Montcalm County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Montcalm County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph D
Chairman

cc: Mr Edward Sell
Mr Roger Waldron

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 28, 1998

Ms. Terri Zick - Chairman
Calhoun County Solid Waste Planning Committee
Calhoun County
Administration Office
315 W Green St
Marshall, Mi 49068

Dear Ms Zick,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Calhoun County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Calhoun County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes.

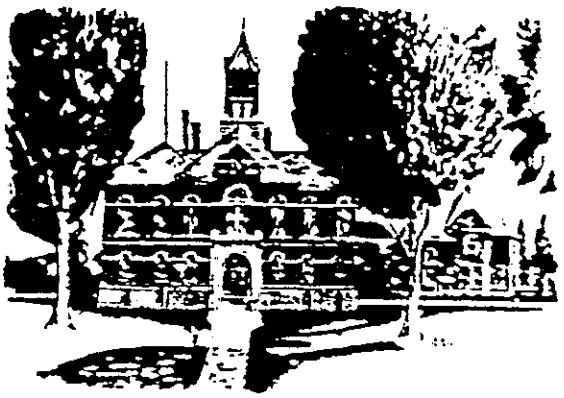
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph D
Chairman

cc: Mr. Ronald L. Ivey
Mr Roger Andrews
Ms. Keeley Taylor

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Mr Michael Swords - Chairman
Kalamazoo County Solid Waste Planning Committee
201 W Kalamazoo Avenue
Kalamazoo, Mi 49007

Dear Mr Swords,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Kalamazoo County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Kalamazoo County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Mr Dean Holub
Ms Charlotte B Sumney

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 28, 1998

Mr Pat Linemann - Chairman
Ingham County Solid Waste Planning Committee
Ingham County
707 Buhl
Mason, Mi 48854

Dear Mr Linemann,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Ingham County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Ingham County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

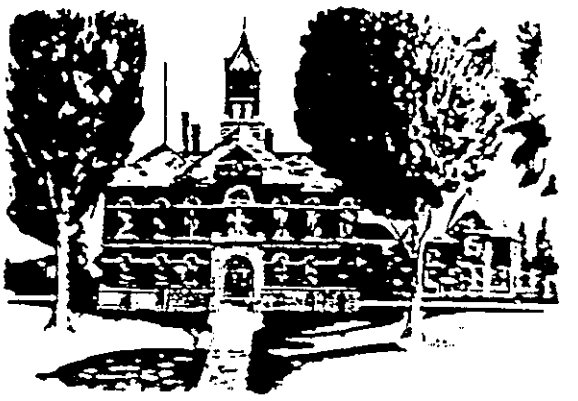
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

Harry Adrounie, Ph D
Chairman

cc: Mr Mark Grebner
Mr Jim Wilson

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Mr James Lancaster - Chairman
Solid Waste Planning Committee
Clinton County
100 E Cass St.
St Johns, Mi 48879

Dear Mr Lancaster,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Clinton County.

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Clinton County to Barry County. We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

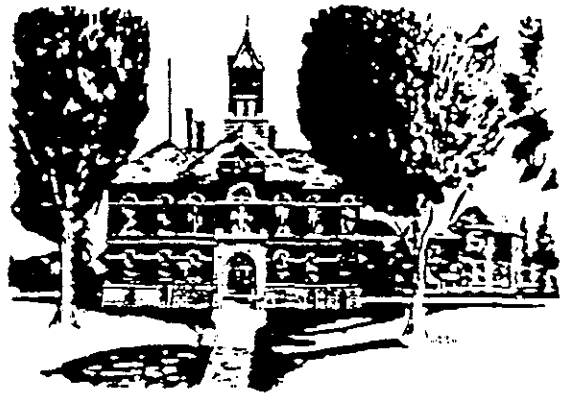
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516.

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Mr Richard Hawks
Ms Ann Mason

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Mr Arthur Lucas - Chairman
Ottowa County Solid Waste Planning Committee
Ottowa County
414 Washington St
Grand Haven, Mi 49417

Dear Lucas,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Ottowa County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Ottowa County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

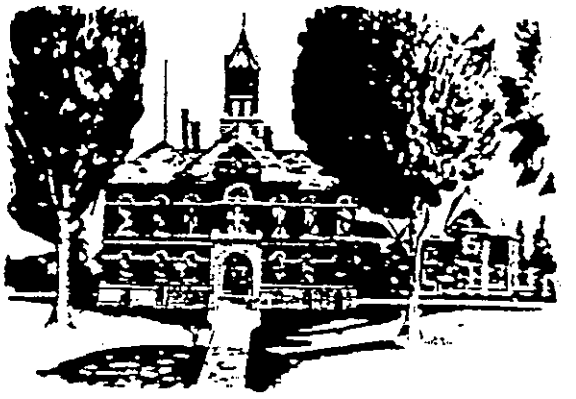
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

Harry Adrounie, Ph D
Chairman

cc: Mr Cornelius VanderKam
Mr Darwin Baas

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 22,1998

Robert Ribbons
Muskegon County Department of Public Works
Muskegon County Building
990 Terrace
Muskegon, Mi 49442

Dear Mr. Ribbons,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Muskegon County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Muskegon County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Frank Bednorek - Administrator

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 28, 1998

Mr. Mark Smuts, Chairman
Eaton County Solid Waste Planning Committee
Eaton County
Department of Resource Recovery
1045 Independence Boulevard
Charlotte, Mi. 48813

Dear Mr. Smuts,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Eaton County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Eaton County to Barry County. We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph.D
Chairman

cc: Mr. Leonard Peters
Mr. Marc Hill
Mr. Jim Stewart

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 22,1998

Kenneth Hulka, Chairman
Muskegon County Board of Commissioners
Muskegon County Building
990 Terrace
Muskegon, Mi 49442

Dear Mr Hulka,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Muskegon County.

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Muskegon County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

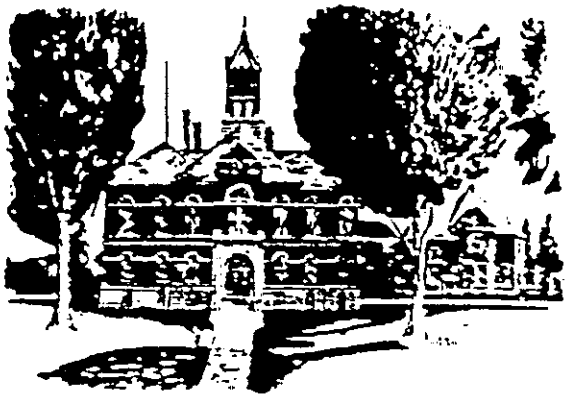
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516.

Sincerely,

V Harry Adrounie, Ph.D
Chairman

cc: Frank Bednorek - Administrator

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Mr Robert Spies, Chairman
Berrien County Solid Waste Planning Committee
215 S Park Rd
Benton Harbor, Mi 49022

Dear Mr Spies,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Berrien County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Berrien County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

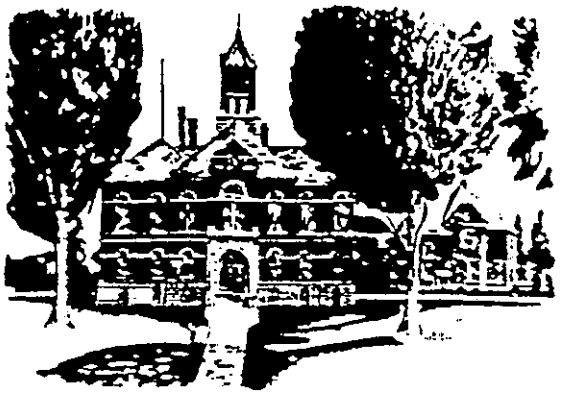
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph D
Chairman

cc: Mr Neil Nitz
Mr John Gruchot

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Mr John Schlaack - Chairman
Kent County Solid Waste Planning Committee
Earl G Woodworth Building
1500 Scribner Avenue, NW
Grand Rapids, Mi 49504-3299

Dear Mr Schlaack,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Kent County

Since Kent and Barry Counties are contiguous, solid waste has been moving back and forth from county to county for decades, even prior to solid waste planning Transfer of solid waste across county boundries was identified in previous solid waste plans

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Kent County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

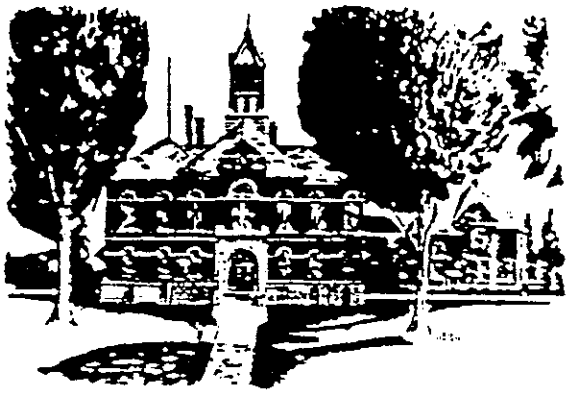
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

Harry Adrounie, Ph D
Chairman

cc: Mr Douglas Wood

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 27,1998

Julie Pioch - Solid Waste Coordinator
M S U Extention Office
801 Hazen St
Suite A
PawPaw, Mi 49079

Dear Ms. Pioch,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is VanBuren County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from VanBuren County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

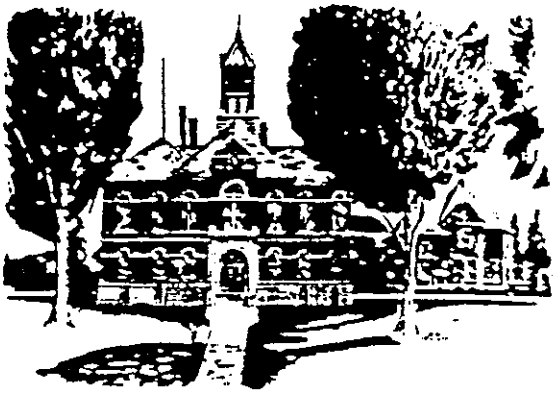
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph D
Chairman

cc: Mr. Douglas DeLeo

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 27,1998

Carl Holsinger - Chairman
Solid Waste Planning Committee
P O Box 277
Centreville, Mi 49032

Dear Mr Holsinger,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is St Joseph County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from St. Joseph County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph.D
Chairman

cc: Ms. Judy West

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 22, 1998

Don Lehman
Ionia County Solid Waste Coordinator
100 Main St
Ionia, Mi 48846

Dear Mr Lehman,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Ionia County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Ionia County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

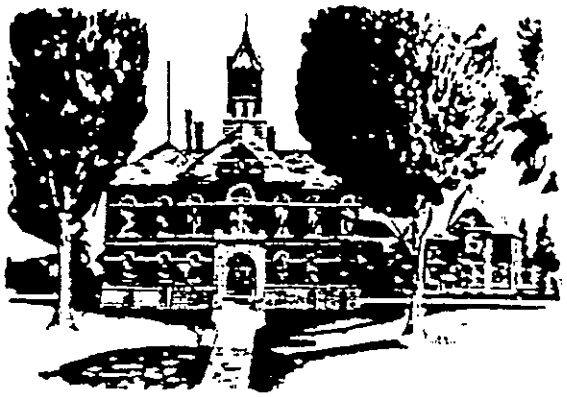
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph D
Chairman

cc: Ms Mary Claire Cusack

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 22,1998

Mr. Bill Dryfhout, Chairman
Allegan County Solid Waste Planning Committee
County Building
113 Chestnut St
Allegan, Mi 49010

Dear Mr. Dryfhout,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Allegan County.

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Allegan County to Barry County. We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes.

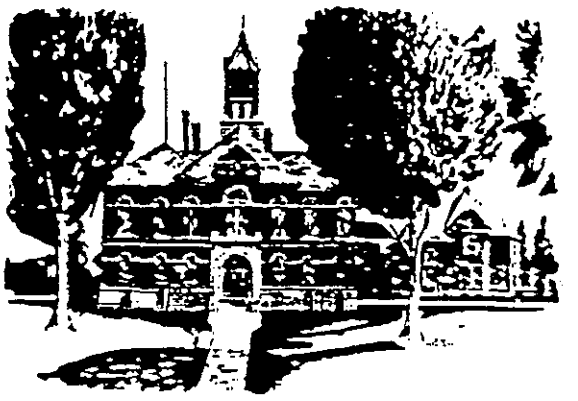
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516.

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Mr. John Cambell
Ms. Mary Jones

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 22,1998

Mr Vern Webster, Chairman
Jackson County Solid Waste Planning Committee
County Tower Building
120 W. Michigan Avenue
Jackson, Mi 49201

Dear Mr. Webster,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Jackson County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Jackson County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes.

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Mr. Gene McGraw
Mr Randy Terranz

Region 2 Planning Commission

Jackson County Tower Building - 16th Floor
120 West Michigan Avenue
Jackson, Michigan 49201

Fax: 517-788-4635 517-788-4426 Email: Region2@dmci.net

November 2, 1998

Dr. V. Harry Adrounie
Barry Co. Solid Waste Planning Comm.
110 West Center Street
Hastings, MI 49058

Dear Dr. Adrounie:

The Jackson County Solid Waste Management Planning Committee, through the Jackson County Solid Waste Management Plan Update, would like to continue to recognize Barry County as eligible for import/export authorization. The committee proposes to maintain the current process of identifying counties with which Jackson may enter into agreements for the import/export of municipal solid waste, but requiring that formal agreements be made if the need to import or export becomes necessary.

Please consider this to be Jackson County Solid Waste Planning Committee's request to be recognized in the Barry County Solid Waste Plan Update as eligible for import/export authorization.

If you have any questions or concerns about this matter, please feel free to contact me at (517) 768-6711.

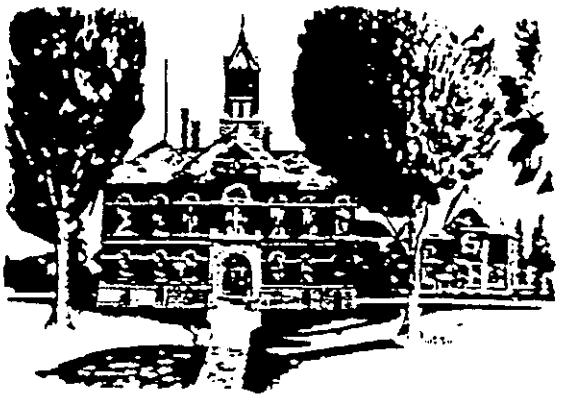
Sincerely,

Deborah Kuehn

Deborah L. Kuehn
Principal Planner

F:\DLK\SOLIDWAS\JACKSON\#3.LTR

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 22,1998

Mr Dick Williams, Chairman
Lenawee County Solid Waste Planning Committee
301 N Main St
Adrian, Mi 49221

Dear Mr. Williams,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Lenawee County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Lenawee County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V Harry Adrounie, Ph.D
Chairman

cc: Ms Lois Kelley
Mr Lowell Eisenmann

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058

May 22,1998

Mr Ken Strong, Chairman
Solid Waste Planning Committee
Branch County Court House
31 Division St
Coldwater, Mi 49036

Dear Mr Strong,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Branch County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Branch County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

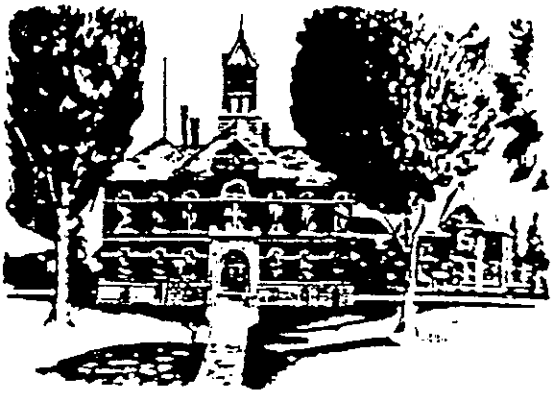
If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adroume, Ph D
Chairman

cc: Ms. Charlene Burch

BARRY
COUNTY
COURTHOUSE
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 27,1998

Terry Proctor - Administrator
Cass County
120 N Broadway
Cassapolis, Mi 49031

Dear Mr Proctor,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Cass County

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Cass County to Barry County We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes.

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,

V. Harry Adrounie, Ph D
Chairman

cc: Mr R James Guse

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

Vacant positions on the Solid Waste Planning Committee are advertised and applications and interviews conducted for candidates seeking nominations. The candidates are reviewed by the Board of Commissioners, then voted on for appointment to the Solid Waste Planning Committee.

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. Ken Neil

2. Bill Sweeney

3. Steve Essling

4. vacant

One representative from an industrial waste generator:

1. Ken Kensington

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

1. V. Harry Adrounie, Ph.D

2. James Schnackenberg

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

1. Bob Wenger

One representative from township government:

1. Richard Thomas

One representative from city government:

1. Jeff Mansfield

One representative from the regional solid waste planning agency:

1. vacant (no regional solid waste)
   Not Applicable

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

1. Clyde Morgan

2. Charles McSweeney

3. vacant

APPENDIX D

ATTACHMENTS

ATTACHMENTS

APPENDIX D

PLAN IMPLEMENTATION STRATEGY

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

The main emphasis of the Solid Waste Management Plan is the continuation of the present system. This system has worked well in the County and no major changes are foreseen in the five year planning period. CESLH has by contract agreed to pay the County a host community fee. However, due to the relatively low volumes, this fee is expected to be insufficient to fund major improvements to the present system. Responsibilities of the various governmental agencies are limited.

The Barry County Solid Waste Planning Committee is the designated Planning Agency and is responsible for writing the Barry County Solid Waste Management Plan.

The Solid Waste Oversight Committee is responsible for the oversight and implementation of the Solid Waste Management Plan. The County Board of Commissioners are responsible for appropriating funds for the various public programs and contracts with the private sector of the solid waste management industry.

RESOLUTIONS

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

Not Applicable.

LISTED CAPACITY

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

See attached letter.

CITY ENVIRONMENTAL SERVICES - HASTINGS • P.O. BOX 336 • 1869 N. BROADWAY • HASTINGS, MI 49058
(616) 945-4493 • FAX (616) 945-4582

V Harry Adrounie Ph.D Chairman
Barry County Solid Waste Planning Committee
Barry County Courthouse
220 W. State St
Hastings, Mi. 49058

RE: Capacity Certification

Dear Dr. Adrounie,

The following report is City Environmental Services Landfill Inc. of Hastings certification of landfill capacity for solid waste planning purposes. To complete our review certain assumptions (acceptable industry wide) must be made. They are:

1. "Gate" yards differ from "Bank" yards
   a. "gate" yards are the volume of trash on the truck as it enters the facility.
   b. "bank" yards are the volume or capacity of the cell, or the refuse compacted in place. The recognized industry or national value for gate yards-vs-inplace yards is 2 to 1

2. Tonnage cannot be substituted for yardage directly. Tonnage varies greatly depending on the types and percentage of waste the facility accepts. Foundry sand and contaminated soils are heavy, where loads with high percentage of plastic wrap or styrofoam would tend to be light. Industry recognized averages are 3 gate yards to 1 ton when computing for an extended period of time.

Totals reported to the State of Michigan for the required reporting period of Oct. 1, 1996 to Sept. 30, 1997 are 282,541 gate yards. These figures were taken from the Feb. 27, 1998 Michigan Department of Environmental Quality, "Report of Solid Waste Landfills in Michigan." Facility records for Oct. 1, 1997 to Sept. 30, 1998 equal 345,843

1997 totals = 282,541 gate yds which equal 141,270 bank yds = 28 years
1998 totals = 345,843 gate yds which equal 172,921 bank yds = 23 years

Based on the assumption that the 18 acre expansion approved by the M.D.E.Q. on April 28, 1998 has at least 4 million plus bank yards, the Hastings Landfill more than adequately has 10 years of disposal capacity.

If you have questions regarding this communication please feel free to contact me at 616-945-2260

Sincerely,

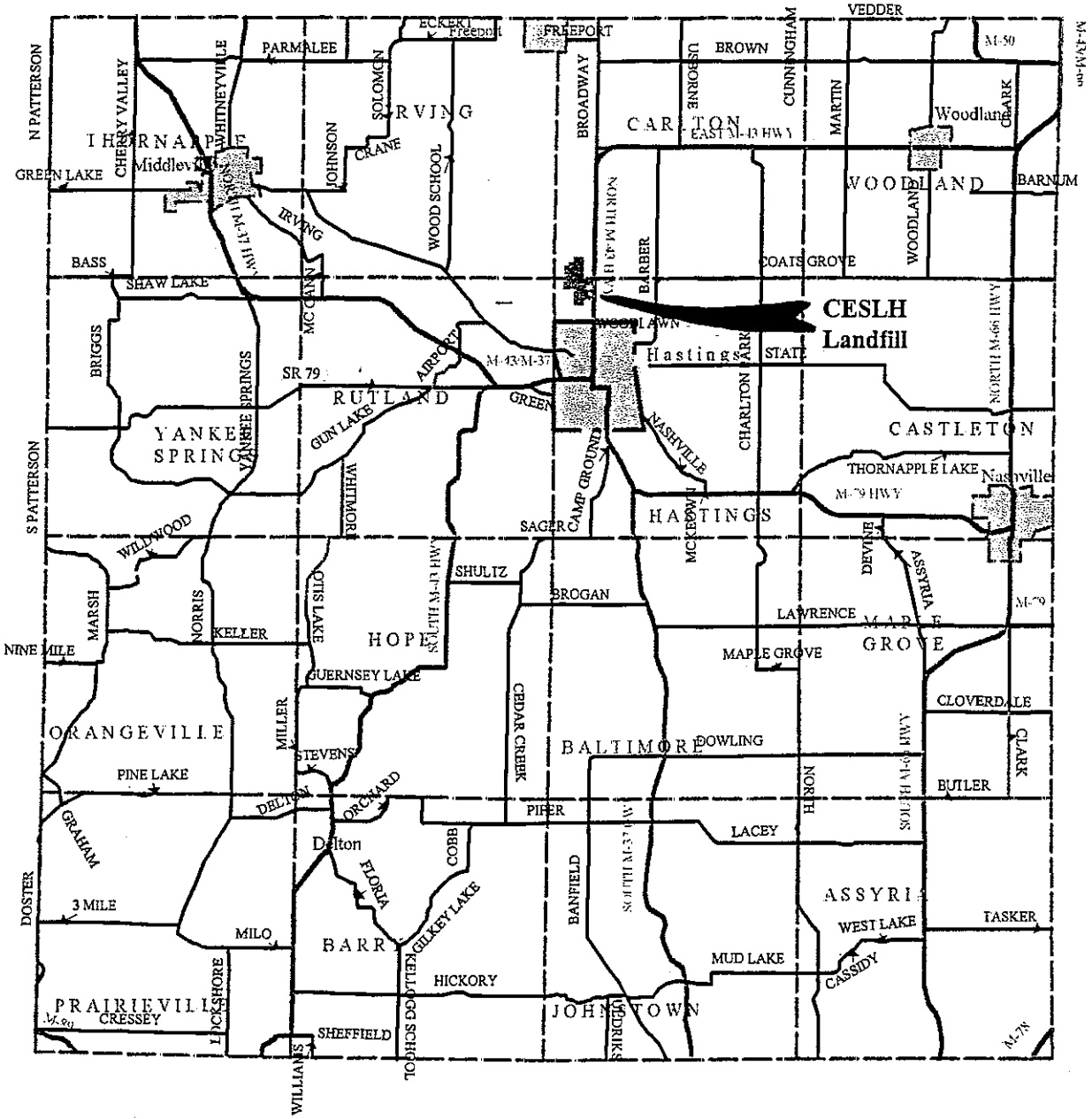
Steve Essling

RECYCLED PAPER

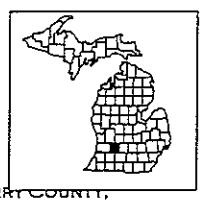
MAPS

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

See Map Section.



Map Locator



Barry County, Michigan

Barry County Primary Roads

North

Scale 1" = 4 Miles

Barry County Land Information Services 2/98

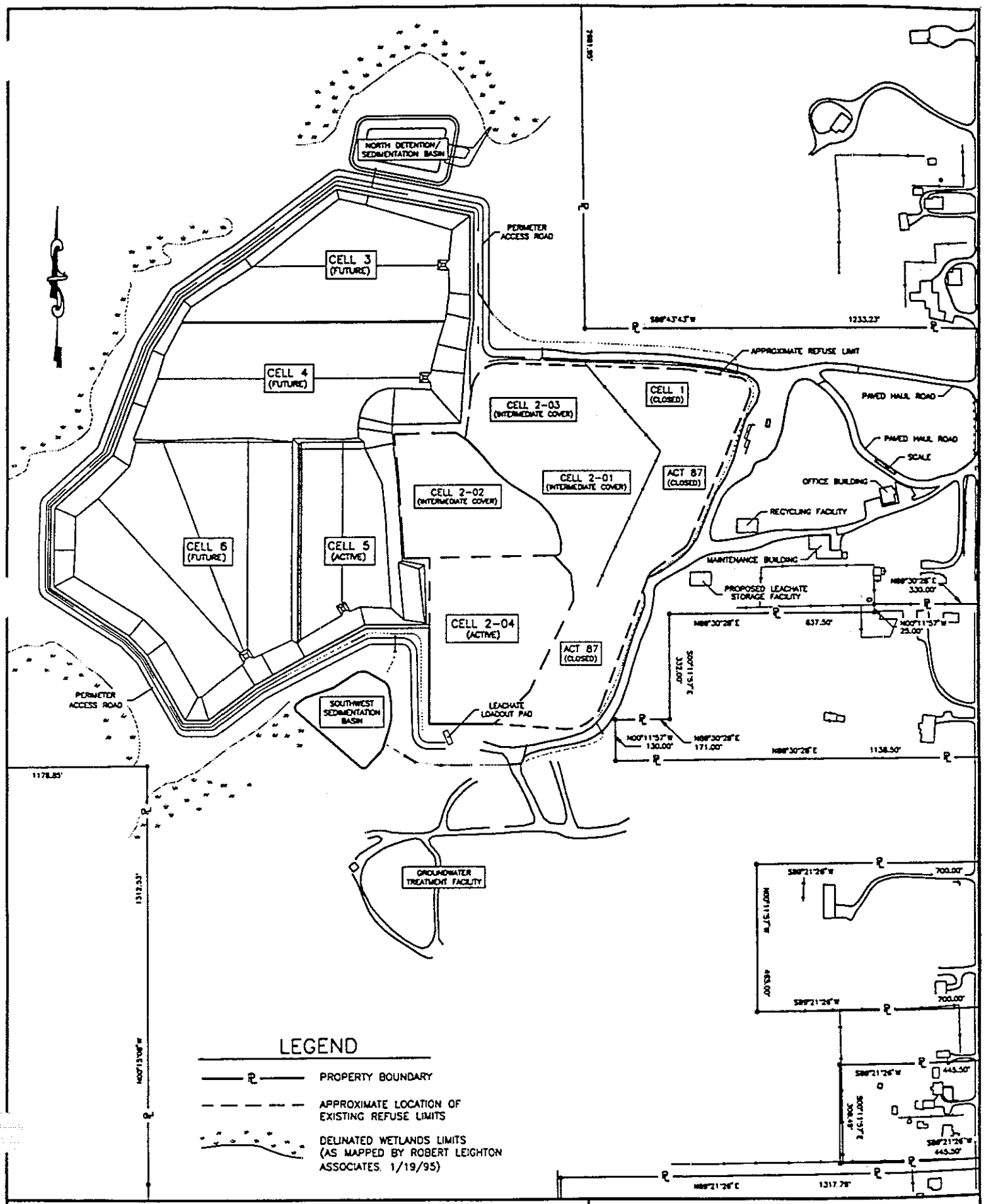


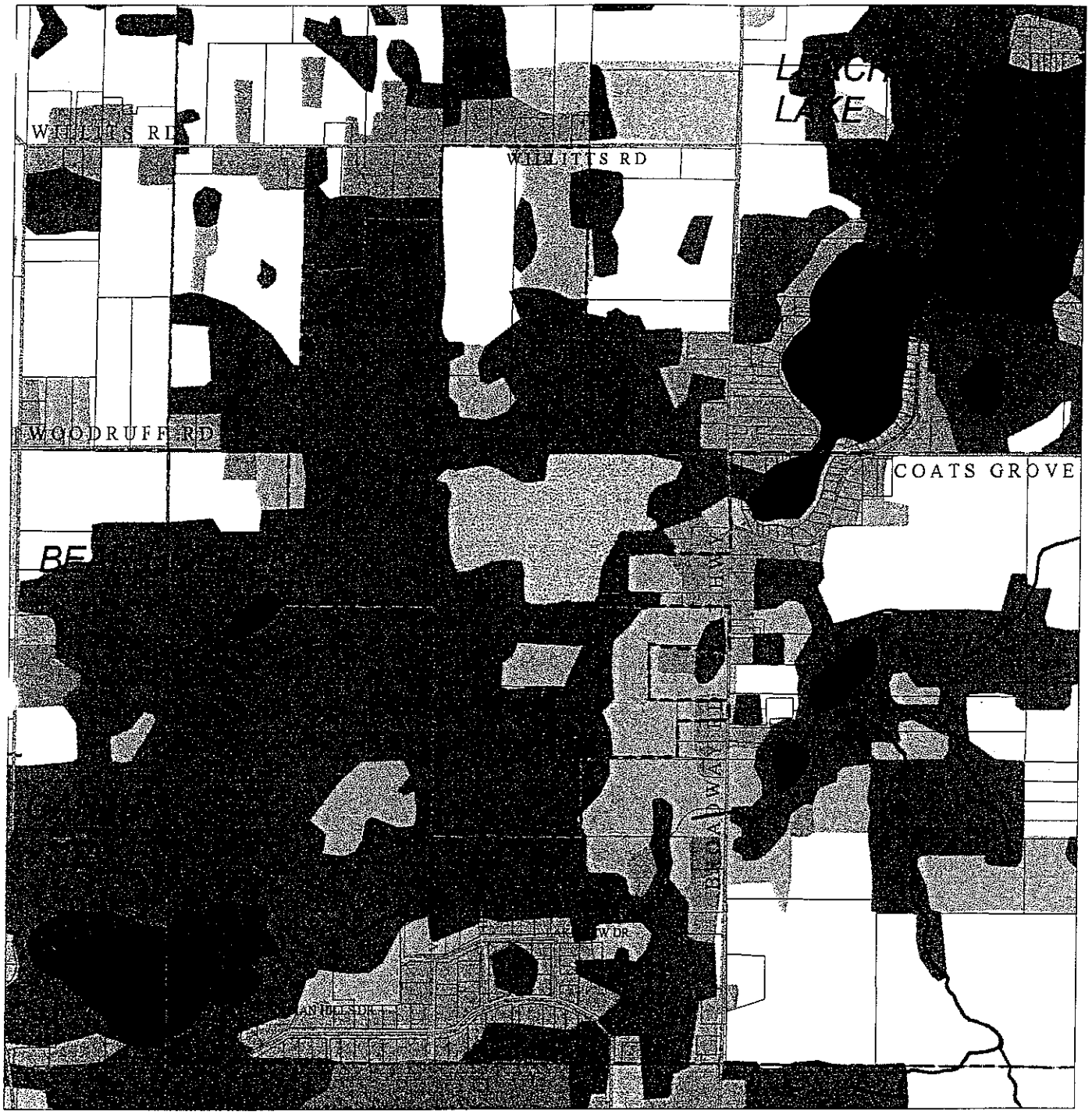
FIGURE D-1

CITY ENVIRONMENTAL SERVICES LANDFILL, INC. OF HASTINGS

GENERAL SITE PLAN

DATE: 10/3/97

HSS-GSP.DWG



MAP LOCATOR

BARRY COUNTY
MICHIGAN

BARRY COUNTY LANDFILL

AGRICULTURE
OPENLAND
FOREST
WETLAND
RESIDENTIAL
COMMERCIAL
LANDFILL
RECREATIONAL
WATER
LANDFILL BOUNDARY

NORTH
SCALE
1" = 1/4 MILE

BARRY COUNTY
LAND INFORMATION
SERVICES 2/98

INTER-COUNTY AGREEMENTS

Copies of Inter-County agreements with other Counties.

SPECIAL CONDITIONS

Special conditions affecting import or export of solid waste.

Host agreement between Barry County and City Environmental Service Landfill, Inc of Hastings.

1998 BARRY COUNTY SOLID WASTE OVERSIGHT COMMITTEE

NAME	REPRESENTING
V. Harry Adrounie, P.H.D.	Environmental
James Schnackenberg	"
Richard Mead	Public
Ed TenHaaf	"
Steven Essling	Industrial Waste Generator
Jeff Mansfield	City
Kenneth Neil	Industry
Vacant	Planning
Richard Thomas	Townships
Robert Wenger	Commissioners
Don Willcut	Road Commissioners

FLEIS & VANDENBRINK
ENGINEERING, INC.
4771 - 50th Street SE, Grand Rapids, MI 49512
Ph. 616/541-6000 Fax 616/541-6010

Date: June 23, 1999

TRANSMITTAL FORM

Attention: Solid Waste Management Unit
To: Solid Waste Program Section
Waste Management Division
Michigan Dept. of Environmental Quality
PO Box 30241
Lansing, MI 48909

Project No.: 3222
Project Description: Barry County Solid Waste
Job Location: Management Update Plan

QTY	DESCRIPTION
1	Motion by Solid Waste Planning Committee 1/15/99
1	Motion by Barry County Board of Commissioners 3/9/99
1	Resolution by Various Municipalities Approving Plan

REMARKS:

On behalf of Barry County Board of Commissioners, please find enclosed motions and resolutions per your request.

RECEIVED
JUN 24 1999
Waste Management Division

☒ For Approval
☐ For Field Use
☐ For Your File
☐ Other
☐ For Grade Inspection
☒ For Your Information
☒ As Requested

CC: V. Harry Adrounie, Ph.D., Chairman
James Bailey, Board of Commissioners

FLEIS & VANDENBRINK ENGINEERING, INC.
By:
Randall C. Kruscunas, P.E.

3222trmdeq.doc

BARRY COUNTY SOLID WASTE PLANNING COMMITTEE MINUTES
JANUARY 15, 1999

The Barry County Solid Waste Planning Committee met in the Commission Chamber of the Barry County Courthouse, Hastings, Michigan, at 3:00 p.m.

Members present: Adrounie, Neil, Morgan, Essling, Mansfield, McSweeney, Wenger, Thomas, Sweeney

Members excused: Schnackenberg, Kensington

Others present: Randy Kriscunas, Fleis & Vandenbrink Engineering

Chairman Adrounie called the meeting to order at 3:00 p.m.

Moved by Morgan, support by Neil to approve the agenda. All ayes. Motion carried.

Moved by Morgan, support by Essling to approve Minutes of the October 9 and December 16, 1998 meetings. All ayes. Motion carried.

Essling advised that Wendell Shafer, former member of the Planning Committee, passed away. Committee members recognized Shafer for his past efforts.

Kriscunas has been in contact with DEQ's Mindy Keillor who has some suggestions/questions regarding the Plan update.

1) Internet/web site access
2) Facility description (acreage)
3) Landfill capacity inconsistencies
4) Tonnage table
5) Non-selected components

Discussion of items to be changed in the update. Discussion of Host Community Agreement's validity if the landfill should close.

Moved by Neil, support by Wenger to have Kriscunas make the necessary corrections/changes to the Plan update per DEQ suggestions, discuss same with the Chairman and distribute changes to committee members, and send update to municipalites for review and approval. Discussion.

Moved by Neil, support by Wenger to amend the motion as follows: submit Plan Update to the Board of Commissioner's with committee's recommendation for approval before distribution to municipalities. All ayes. Motion carried.

Moved by Morgan, support by Essling to adjourn until call of the Chair. Adrounie thanks members for their hard work on this project.

BARRY COUNTY

Board of Commissioners

220 W. State St. Hastings, MI 49058
Ph. (616) 948-4891 Fax (616) 948-4884

The regular session of the Barry County Board of Commissioners was called to order on March 9, 1999 by Chairman Bailey at 9:33 a.m. in the Barry County Commission Chamber. Roll call was taken. The following members were present: James; Herrington; Bailey; Tripp; Barnett; MacKenzie. Absent; Wenger; Goebel.

Moved by James, support by Herrington to bring Solid Waste Management Update to the floor for discussion. Rolll call vote Motion carried unanimously.

Moved by James, support by Herrington that the Barry County Solid Waste Plan Update be approved and sent on to local municipalities for their approval. Roll call vote. Motion carried unanimously.

James L. Bailey, Chairman
Barry County Board of Commissioners

STATE OF MICHIGAN)
)
COUNTY OF BARRY)

Debbie S. Smith, County Clerk for the County of Barry, does hereby certify that the foregoing is a true and complete excerpt of the official proceedings of the Barry County Board of Commissioners, from proceedings of the Barry County Board of Commissioners, held at the Barry County Courthouse, 220 W. State Street, Hastings MI 49058, on March 9, 1999.

Debbie S. Smith
Barry County Clerk

Kimberly Gravelle

By: Kimberly Gravelle, Deputy

Date MAY 13, 1999

Resolved by the BOARD of the TOWNSHIP of YANKEE SPRINGS
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the TOWNSHIP of the YANKEE SPRINGS
(Board or Council) (Local Gov't)

of TOWNSHIP hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the TOWNSHIP
(Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members LONDON, FINKBEINER, HEROLD, LIPPERT.

NAYS: Members COOK

RESOLUTION DECLARED ADOPTED:

Janice C. Lippert
(Twp./~~Village~~ Clerk)
Yankee Springs

RESOLUTION NO. 64

Date MAY 12, 1999

Resolved by the BOARD (Board or Council) of the TOWNSHIP (Twp./Village or City) of RUTLAND CHARTER (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the BOARD (Board or Council) of the RUTLAND CHARTER (Local Gov't)

of TOWNSHIP (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the TOWNSHIP (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members HAUSE, PALMER, WALTERS, HANSFORD, MCKENNA AND EDWARDS

NAYS: Members NONE

ABSENT: MEMBERS MUNJOY

RESOLUTION DECLARED ADOPTED: MAY 12, 1999

Robin McKenna

(Twp./~~Village~~ Clerk) ROBIN MCKENNA

Date 4-22-99

Resolved by the Council of the Village of Nashville
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Council of the Village
(Board or Council) (Local Gov't)

of Nashville hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Village
(Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Dunham, Kenyon, White, Wheeler, Wolff, Mapes

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

Cathy Lentz
(Twp./Village Clerk)

Date 27 May 1999

Resolved by the Council (Board or Council) of the Village (Twp./Village or City) of Middleville (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Council (Board or Council) of the Village (Local Gov't)

of Middleville (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

OW, THEREFORE, BE IT FURTHER RESOLVED THAT the Middleville (Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Mr. Kenyon, Mr. Lytle, Mrs. VandenBerg, Mr. Myers, Mr. Bray, Mr. Nesbitt, Mr. Newman

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

Roselle Havens

(Twp./Village Clerk) Roselle Havens

Date May 5, 1999

Resolved by the Board of the Twp. of Maple Grove
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board of the Maple Grove
(Board or Council) (Local Gov't)

of Twp. hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the township
(Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Butler, Cady, Crothers, Spitzer, Shilton

NAYS: Members _____

RESOLUTION DECLARED ADOPTED:

Susie Butler, Maple Grove Twp Clerk.
(Twp./Village Clerk)

Date May 4, 1999

Resolved by the Board of the Township of Orangeville
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board of the Township
(Board or Council) (Local Gov't)

of Orangeville hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Township
(Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Harper, Cook, Lewis, Kahllo, and Gates.

NAYS: Members -0-

RESOLUTION DECLARED ADOPTED:

Darlene Harper
(Twp./Village Clerk)

Date April 19, 1999

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Carlton (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Carlton (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Township (Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members David Kaiser; Marlene Forman; Cary Smith; Gary Vandecar

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

Linda Erb, Deputy Clerk
(Twp./Village Clerk)
Linda Erb, Deputy Clerk

Date MAY 5, 1999

Resolved by the BOARD of the TOWNSHIP of CASTLETON
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the BOARD of the TOWNSHIP
(Board or Council) (Local Gov't)

of CASTLETON hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the TOWNSHIP
(Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members 5

NAYS: Members 0

RESOLUTION DECLARED ADOPTED:

Lorna L. Wilson, Clerk
(Twp./Village Clerk)

Date 4/5/99

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Assyria (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Assyria (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Assyria Twp. (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Struin, Boles, Massimino, Morgan, Jarrard

NAYS: Members _____

RESOLUTION DECLARED ADOPTED:

Debbiah S. Massimino
(Twp./Village Clerk)

10-C

99-16

Date April 26, 1999

Resolved by the Council (Board or Council) of the City (Twp./Village or City) of Hastings (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Council (Board or Council) of the City (Local Gov't)

of Hastings (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the City (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Jasperse, McIntyre, White, May, Bleam, Tubbs, Wood and Campbell

NAYS: Members None

ABSENT: Hawkins

RESOLUTION DECLARED ADOPTED:

(Twp./Village Clerk)
Everil G. Manshum
City Clerk

RECEIVED
APR 30 1999

Date April 14, 1999

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Johnstown (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Johnstown (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Township (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members C.W. Strickland, Doster, W. Strickland, Powell, Earl

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

June Doster

(Twp./Village Clerk)
June Doster
Johnstown Township Clerk

HOPE TOWNSHIP RESOLUTION No. 99-5

Date April 12, 1999

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Hope (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Hope (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Hope Township (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Adams, Forster, Tonkin, Albert

NAYS: Members None. (Woods absent, not voting)

RESOLUTION DECLARED ADOPTED:

Sylvia (W). Forster
(Twp./Village Clerk)

Date 4-15-99

Resolved by the Board of the Charter Twp. of Hastings
(Board or Council) (Twp./Village or City) (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board of the Charter Twp.
(Board or Council) (Local Gov't)

of Hastings hereby approved the Update to the Barry County Solid
(Twp. or Village)

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Township
(Twp. or Village)
Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Thomas, Crutrenden, Phillips, Beckwith, Wilder, Smith, Bassett

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

Bonnie L. Crutenden
(Twp./Village Clerk)

Date March 30, 1999

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Baltimore (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Baltimore (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Township (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Drake, Mitchell, Keagle, Cullers, Rhodes

NAYS: Members _____

RESOLUTION DECLARED ADOPTED:

Tracy Mitchell
(Twp./Village Clerk)

Date April 12, 1999

RESOLUTION 3-99

Resolved by the Board (Board or Council) of the Township (Twp./Village or City) of Thornapple (Local Gov't)

WHEREAS: the Barry County Board of Commissioners have approved an update of the Barry County Solid Waste Management Plan; and

WHEREAS: **THE PLAN UPDATE REQUIRES APPROVAL OF AT LEAST 67% (14) OF THE COUNTY'S LOCAL UNITS OF GOVERNMENT**

NOW, THEREFORE, BE IT RESOLVED THAT the Board (Board or Council) of the Township (Local Gov't)

of Thornapple (Twp. or Village) hereby approved the Update to the Barry County Solid

Waste Management Plan as adopted by the Barry County Board of Commissioners on

March 9, 1999.

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT the Thornapple Twp. (Twp. or Village)

Clerk is hereby directed to inform the County Board of Commissioners of this approval in writing,

including a copy of the resolution of approval.

James L. Bailey, Chairman
Barry County Board of Commissioners
Courthouse
220 W. State Street
Hastings, MI 49058

AYES: Members Boysen, Stagray, Eaton, Getty, Schad, Kelley, Eavey

NAYS: Members None

RESOLUTION DECLARED ADOPTED:

Donna Stagray

(Twp./Village Clerk) Donna Stagray, Clerk
Thornapple Township