



JOHN ENGLER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



RUSSELL J. HARDING
DIRECTOR

January 10, 2002

Mr. Scott Hanson, Chairperson
Crawford County Board of Commissioners
200 West Michigan
Grayling, Michigan 49738

Dear Mr. Hanson:

The Department of Environmental Quality (DEQ) received the locally approved update to the Crawford County Solid Waste Management Plan (Plan) on September 7, 2001. Except for the items indicated below, the Plan is approvable. As outlined in the October 15, 2001 letter to Mr. Patrick Merrill, Crawford County Environmental Monitor (Environmental Monitor), from Ms. Lynn Dumroese, DEQ, Waste Management Division, and as confirmed in Mr. Merrill's letter dated October 26, 2001, the DEQ makes the following modifications to the Plan:

On page 65, the Plan states the Environmental Monitor shall review the application and determine consistency with the Plan within 90 days of receiving the application. A default mechanism has not been established if the Environmental Monitor does not make a determination of consistency within the 90-day time period. Without a default mechanism, there is no assurance that a decision will be made in a timely fashion. Section 11538(3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, requires that a siting mechanism not be subject to discretionary acts and that the siting procedure will guarantee a decision. In order to resolve this issue, the following language is added, "If the Crawford County Environmental Monitor fails to make a determination of consistency within 90 days, the application will be considered consistent with the Plan by the County."

On page 65, the fourth siting criterion states, "Will the proposed expansion meet all of the requirements of the Stipulated Order of Settlement?" The Stipulated Order of Settlement makes reference to the Solid Waste Planning Agreement (Agreement) and included in that Agreement, there appears to be operation standards for City Environmental Services, Inc. of Waters. It is the Crawford County's (County's) intent to have the facility meet the operation standards addressed in the Agreement; however, evaluating whether or not some of these operation standards have been met would be difficult to determine before the expansion has been constructed. The Plan states the expansion would be deemed consistent with the Plan if the answers to all of the siting

criteria questions are yes; therefore, in order to make this criterion objective, measurable, and consistent with the siting requirements of the Plan, the following sentence shall replace the current language, "Has the developer submitted a signed statement agreeing to meet all of the requirements of the Stipulated Order of Settlement?"

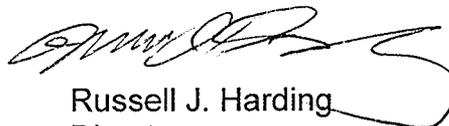
With these modifications, the County's updated Plan is hereby approved, and the County now assumes responsibility for the enforcement and implementation of this Plan. Please ensure that a copy of this letter is included with copies of the approved Plan distributed by the County.

By approving the Plan with modifications, the DEQ has determined that it complies with the provisions of Part 115 and the Part 115 administrative rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms that authorize the state, a county, a municipality, or a person to take legal action to guarantee compliance with the Plan, as required by Part 115. The Plan is enforceable, however, only to the extent the County properly implements these enforceable mechanisms under applicable enabling legislation. The Plan itself does not serve as such underlying enabling authority, and DEQ approval of the Plan neither restricts nor expands County authority to implement these enforceable mechanisms.

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

The DEQ applauds your efforts and commitment in addressing the solid waste management issues in Crawford County. If you have any questions, please contact Ms. Rhonda Oyer Zimmerman, Chief, Solid Waste Management Unit, at 517-373-4750.

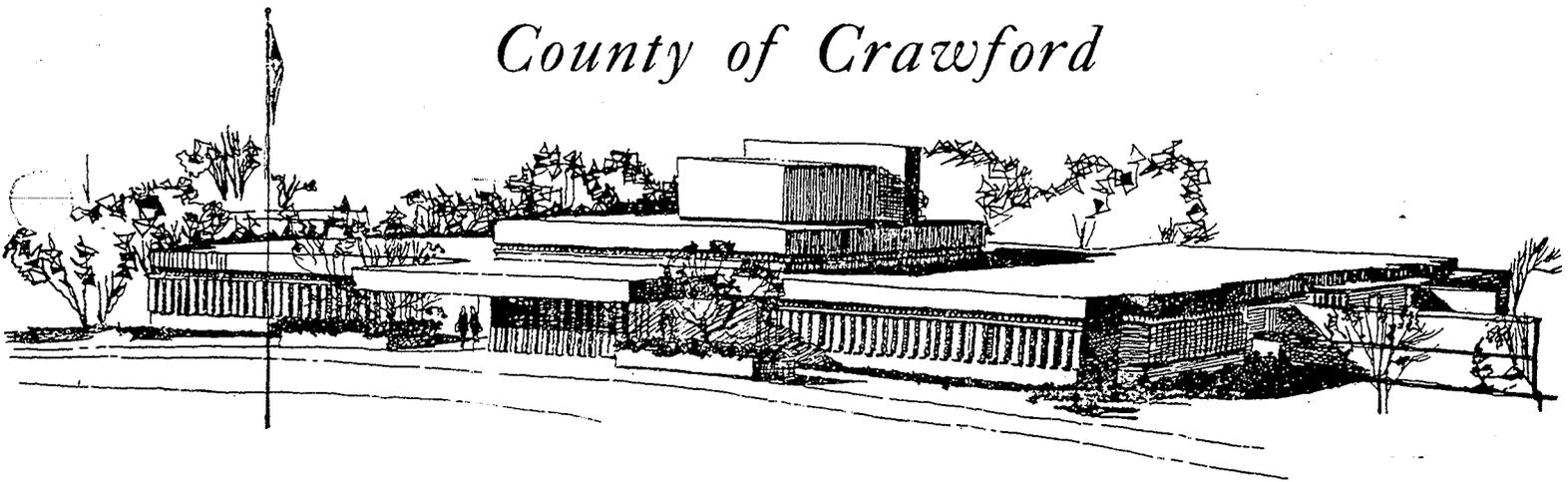
Sincerely,



Russell J. Harding
Director
517-373-7917

cc: Senator George A. McManus, Jr.
Representative Kenneth L. Bradstreet
Mr. Patrick Merrill, Crawford County Environmental Monitor
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Mr. Thomas M. Hickson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Philip Roycraft, DEQ – Cadillac
Ms. Rhonda Oyer Zimmerman, DEQ
Ms. Lynn Dumroese, DEQ
Crawford County File

County of Crawford



October 26, 2001

Lynn Dumroese
Solid Waste Management Unit
Waste Management Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI. 48909-7741

Dear Ms. Dumroese:

In response to your letter dated October 15, 2001, the County of Crawford respectfully requests that the DEQ approve the Crawford County Solid Waste Management Plan (CCSWMP) with the modifications that were requested in your correspondence.

On behalf of the County of Crawford, I concur with the recommended changes suggested by the Waste Management Division to the CCSWMP. The changes are as follows:

- On page 65, a default mechanism needs to be inserted with the following language, " If the Crawford County Environmental Monitor fails to make a determination of consistency within 90 days, the application will be deemed consistent with the Plan by the County".
- Also on page 65, the fourth citing criterion should state, " Has the developer submitted a signed statement agreeing to meet all the requirements of the Stipulated Order of Settlement?"

Thank you for your thorough review of the Crawford County Solid Waste Management Plan. We look forward to your approval, so that we may move forward with the implementation phase of our Plan.

Sincerely,

Pat Merrill
Crawford County Environmental Monitor



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

October 15, 2001

Mr. Patrick Merrill
Crawford County
200 W. Michigan Avenue
Grayling, Michigan 49738

Dear Mr. Merrill:

This letter is a follow-up to my conversation with you on October 9, 2001, regarding resolving approval issues in the Crawford County Solid Waste Management Plan Update (Plan).

In order to be able to recommend approval of the Plan, the following changes need to be made. The modifications would not actually be made to the text of the document, but rather, would be made by reference in the Department of Environmental Quality's (DEQ) approval letter for the Plan.

On page 65, the Plan states the Crawford County Environmental Monitor (Environmental Monitor) shall review the application and determine consistency with the Plan within 90 days of receiving the application. A default mechanism has not been established if the Environmental Monitor does not make a determination of consistency within the 90-day time period. Without a default mechanism, there is no assurance that a decision will be made in a timely fashion. Section 11538(3) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, requires that a siting mechanism not be subject to discretionary acts and that the siting procedure will guarantee a decision. In order to resolve this issue, the following language should be added, "If the Crawford County Environmental Monitor fails to make its determination of consistency within 90 days, the application will be considered consistent with the Plan by the County."

On page 65, the fourth siting criterion states, "Will the proposed expansion meet all of the requirements of the Stipulated Order of Settlement?" The Stipulated Order of Settlement makes reference to the Solid Waste Planning Agreement (Agreement) and included in that Agreement, there appears to be operation standards for City Environmental Services, Inc. of Waters. From my conversation with you on October 9, 2001, the Agreement is part of the Stipulated Order of Settlement; therefore, it is the County's intent to have the facility meet the operation standards addressed in the Agreement. Evaluating whether or not some of these operation standards have been met would be difficult to determine before the expansion has been constructed. The Plan states the expansion would be deemed consistent with the Plan if the answers to all of the siting criteria questions are yes; therefore, in order to make this criterion objective, measurable, and consistent with the siting requirements of the Plan, the following sentence should replace the current language, "Has the developer submitted a signed statement agreeing to meet all of the requirements of the Stipulated Order of Settlement?"

If Crawford County agrees with having the DEQ administratively make these modifications to the Plan as part of the DEQ's approval of the Plan, please have a party who is authorized to act on the County's behalf in this regard, provide a letter to us indicating the County's agreement with these changes and requesting that the DEQ issue our approval with these modifications. I have included an example of such a letter as an enclosure.

I believe that the Crawford County Plan is not approvable without the modifications outlined above. If Crawford County decides not to agree to have the DEQ make these changes as part of the approval process, then my recommendation will be that the DEQ not approve the Crawford County Solid Waste Management Plan Update as written.

Please contact me if you have any questions at the telephone number below, or by e-mail, at dumroesl@state.mi.us.

Sincerely,

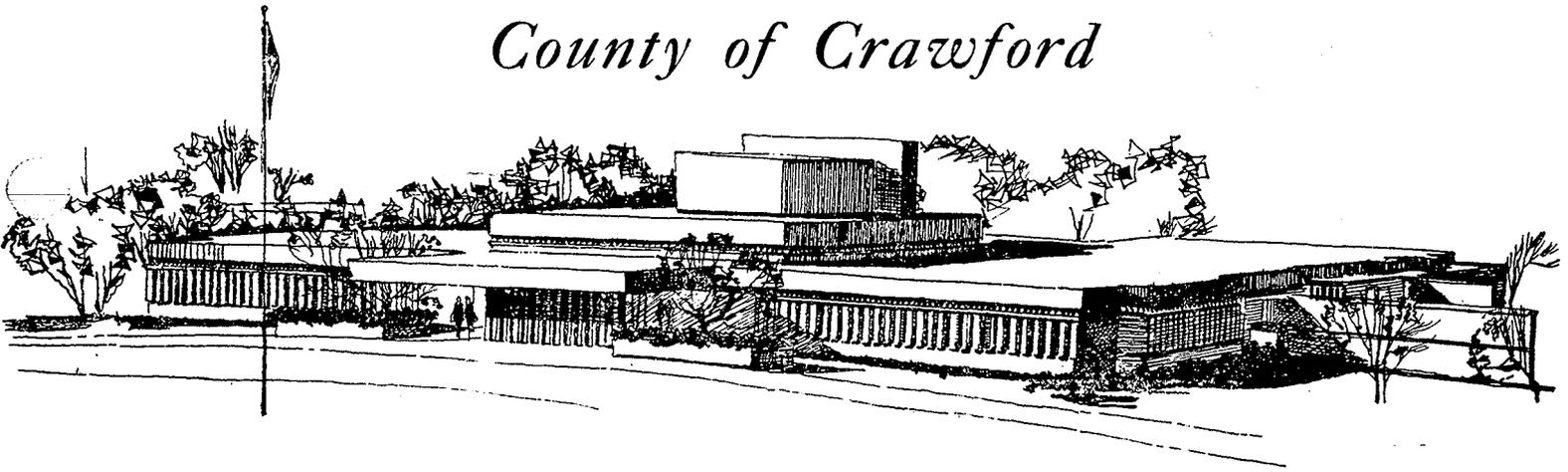


Lynn Dumroese
Solid Waste Management Unit
Waste Management Division
517-373-4738

Enclosure

cc: Ms. Rhonda Oyer Zimmerman, DEQ
✓ Crawford County File

County of Crawford



September 5, 2001

Mr. Stan Idziak
Michigan Department of Environmental Quality
Solid Waste Management Division
Hollister Building
P.O. Box 30473
Lansing, MI. 48909-7973

Dear Stan,

Enclosed with this correspondence you will find the final draft of the Crawford County Solid Waste Management Plan. I hope that you will find it complete, and that it can now be approved by the DEQ.

Please let me know if you require any additional information, and I thank you for your assistance and patience with this matter.

Sincerely,

Pat Merrill
Crawford County Environmental Specialist

WASTE MANAGEMENT DIVISION

SEP 07 2001

CRAWFORD COUNTY SOLID WASTE MANAGEMENT PLAN

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: August 31, 2001

PARICIPATING COUNTIES: Crawford

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

<u>Municipality</u>	<u>Original Planning County</u>	<u>New Planning County</u>
N/A		

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:
Crawford County Environmental Department

CONTACT PERSON: Patrick Merrill, Crawford County Environmental Specialist

ADDRESS: 200 W. Michigan Ave.
Grayling, MI. 49738

PHONE: (989) 344-3258

FAX: (989) 344-3265

E-MAIL: merrillp@kirtland.cc.mi.us

CENTRAL REPOSITORY LOCATION(S): Crawford County Building

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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 would take precedence over the executive summary.

OVERALL VIEW OF THE COUNTY

Township or Municipality Name	Population	% Land Use		% of Economic Base*				
		Rural	Urban	Ag	For	Ind	Com	Oth
Beaver Creek Twp.	1,175	100	0	<1	<1	21	44	35
Frederic Twp.	1,287	100	0	<1	<1	25	47	27
Grayling, City of	1,944	0	100	<1	<1	14	49	36
Grayling Twp.	5,647	100	0	1	1	11	43	45
Lovells Twp.	420	100	0	1	1	24	33	41
Maple Forest Twp.	407	100	0	1	1	19	51	28
South Branch Twp.	1,380	100	0	1	1	20	41	37

Total Population: 12,260 (1990 Census)

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

EXECUTIVE SUMMARY

CONCLUSIONS

The Crawford County Board of Commissioners established the Crawford County Solid Waste Planning Committee utilizing newspaper advertisements and appointments. Once committee positions were filled, the County Board of Commissioners voted on and approved the committee.

Committee meetings were held in order to obtain input into the overall plan. The current solid waste management system was reviewed and the deficiencies of this system were analyzed. In developing the selected system, attempts were made to resolve the problems and deficiencies in the current system.

Each solid waste management alternative for Crawford County was assessed based on technical feasibility, economic feasibility, access to land, access to transportation, effects on energy, environmental impacts, pollution prevention, waste reduction, resource recovery, public acceptability, conservation of natural resources, and institutional arrangements. Selection of the solid waste management system was based on the system that would be in the best interest of the residents of Crawford County. The selected system was chosen by a majority vote of the Solid Waste Planning Committee.

SELECTED ALTERNATIVES

Selection of the solid waste management system was based on economics, environmental protection and prudent waste management practices. The primary solid waste disposal facilities for the selected system will be the Waste Management, Inc. - Waters Facility, Montmorecy - Oscoda Sanitary Landfill, Charlevoix County, Chippewa County and Wexford County. In accordance with the **STIPULATED ORDER OF SETTLEMENT (see attachment A)**, Crawford County reserves the right to use facilities located in the following counties on an emergency basis: Alcona, Alpena, Antrim, Arenac, Cheboygan, Emmet, Grand Traverse, Iosco, Kalkaska, Luce, Mackinac, Missaukee, Ogemaw, Otsego, Presque Isle and Roscommon.

Private hauling companies will continue to provide residential, commercial, and industrial service pick-up in Crawford County. Collection of solid waste will continue to be through private agreements with customers. Crawford County and its municipalities do however, reserve the right to haul residential waste if this becomes the most cost effective disposal method.

The recycling and composting programs in Crawford County are presently being converted to a County operated system. The Environmental Department of the County has initiated a recycling program operated and paid for through monies received from landfill impact fees. The recyclable materials are then processed at a municipally run Material Recovery Facility (MRF). Over the 5 year planning period, Crawford County, along with adjacent counties and the private sector, will work to establish a multi-county recycling program. This project is currently underway, and will involve the development of an expanded MRF for centralized processing and marketing. Containers will be placed throughout the participating counties for use by residents. Education efforts will increase and will be a key component of the program emphasizing reduce, reuse, recycle and buy recycled products.

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 that they support:

Crawford County Solid Waste Goals and Objectives

Goal 1: The Crawford County Solid Waste Management Plan will remain in compliance with, and enforce, the **Stipulated Order of Settlement (Case No. 95-6409 CK (D))**.

Objectives:

1. To ensure compliance with all Federal, State of Michigan, and local solid waste laws, rules, regulations and licenses.
2. To ensure that impact fees received from the Waters Landfill are used to employ a full time Environmental Monitor, and fund his/her operating expenses.
3. To ensure that the remainder of the impact fees are not converted to general fund monies until a county recycling program is in place, and all other programs that are environmentally beneficial to Crawford County residents are fully funded.

Goal 2: Establish and maintain a resource recovery program to reduce the overall dependency on land disposal and to provide for the conservation of natural resources.

Objectives:

1. Initiate a countywide or multi-county recycling program.
2. Develop a strategic plan for recycling program implementation.

3. Develop a comprehensive recycling education program to include, but not limited to, the schools, civic organizations, business, local government and the general public.
4. Explore the feasibility of joint purchasing of recycled paper products.
5. Develop a program for the collection of used motor oil.
6. Develop a program for the collection and reuse/recycling of scrap tires.

Goal 3: Expand and improve composting opportunities in Crawford County.

Objectives:

1. Educate the public on the benefits of composting. This may include the distribution of information on various composting techniques.
2. Conduct a survey to determine composting needs.
3. Establish composting sites as determined by the survey.
4. Examine the possibility of purchasing a large quantity of backyard composting kits that would then be made available to the public at cost.

Goal 4: Provide for the protection of the public's health and the quality of the natural resources: air, land, ground and surface waters, by increasing the overall efficiency of solid waste collection, transportation and disposal.

Objectives:

1. Organize and hold an annual household hazardous waste disposal program. The cost would be paid from landfill impact fees as long as these are available to Crawford County. The county does however, reserve the right to pass on a portion of the cost in the form of user fees should the need arise.
2. Develop and distribute educational materials that describe which wastes qualify as hazardous and explain proper disposal techniques.
3. Promote the region's Operation Clean Sweep site in Grand Traverse County, which allows for the disposal of unwanted/unused pesticides.
4. Meet with other counties in the region to explore the possibility of holding joint hazardous waste collection days.

Goal 5: Reduce illegal dumping of solid waste on State, Federal and private forestlands.

Objectives:

1. Review the existing enforcement system to determine if additional regulations are needed.
2. If deemed necessary, enact a county ordinance that provides for fines and/or other penalties for illegal dumping. This may include offering rewards for information, which may encourage witnesses to step forward.
3. Provide a reasonably priced disposal method for large items and white goods. This includes public education, and promoting facilities that will accept some metal items at little or no charge.

Goal 6: Maintain competitive waste management services for county residents.

Objectives:

1. Encourage new businesses to become involved in the solid waste disposal industry in Crawford County. This does not include the construction of additional landfills.
2. Encourage public participation in the decision making process of solid waste planning. This may include holding of public "town hall" meetings.
3. Meet with local solid waste haulers to discuss possible improvements to the solid waste system.

DATA BASE

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

Residential/commercial solid waste data was calculated by the Crawford County Environmental Department based on the generation rate of 6.25 lbs./capita/day (approximately 67% of waste generated in Crawford County is residential, with the other 33% being industrial or special wastes). This figure was derived from information reported to the Department for 1998 & 1999 by Waste Management, Inc. of Waters. The increases in future volume come from the projected growth rate based on population projections provided by the Michigan Department of Management and Budget (1996). The only significant sources of industrial waste are the Weyerhaeuser Grayling Plant, and the Grayling Generating Station. The major by-products are ash and wood wastes, which is used by the landfill as daily cover. Industrial Waste was calculated using 1998 & 1999 figures provided by Waste Management, with increases calculated by the increase in population. The projected solid waste generation for Crawford County is shown in the following tables. These figures are based on future population trends, and do not take into consideration any factors affecting solid waste fluctuations.

Crawford County Solid Waste Generation Residential and Commercial

Municipality	% of waste stream	1998 – 1999 Volume tons/year	2000 Volume tons/year	2005 Volume tons/year	2010 Volume tons/year
Beaver Creek Twp.	9.5	1460	1614	1762	1920
Frederic Twp.	10.5	1613	1783	1947	2122
City of Grayling	15	2305	2548	2781	3031
Grayling Twp.	46	7067	7813	8530	9298
Lovells Twp.	3.5	538	594	649	708
Maple Forest Twp.	3.5	538	594	649	708
South Branch Twp.	12	1844	2038	2225	2425
Crawford County Totals	100	15365	16984	18543	20212

Crawford County Solid Waste Generation

Industrial Waste

Entity	1998/99 Volume tons/year	2000 Volume tons/year	2005 Volume tons/year	2010 Volume tons/year
Weyerhaeuser Grayling Co-Gen	7567	8256	9016	9846

Crawford County does not anticipate a major problem associated with managing the solid waste generated within the county, as the WMI Waters Landfill has 20 plus years of projected capacity. Increases in waste due to increased tourism and seasonal home development will be handled through private hauling companies. The recycling program and the household hazardous waste program will moderate increases due to population growth. Both of these programs are currently operational, and are run by the Crawford County Environmental Department.

TOTAL QUANTITY OF SOLID WASTE GENERATED:

1998/99: 22,932 tons/year

2000: 25,240 tons/year

2005: 27,559 tons/year

2010: 30,058 tons/year

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:

As all of the waste generated in Crawford County is currently designated to go to the Waters Landfill, the waste quantities which are listed above will be disposed there. The Crawford County Recycling program will reduce this amount, but how much is difficult to calculate. In June 2001, the recycling program will have been in operation under the Crawford County Environmental Department for one year, at which time this area can be revisited.

DATA BASE - 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.

Solid waste generated in Crawford County will be disposed of at the Waste Management Inc. Landfill in Waters, Michigan, The Montmorency – Oscoda Sanitary Landfill, The Wexford County Landfill, The WMI Dafter Landfill in Chippewa County, and the WMI Cedar Ridge Landfill in Charlevoix County. These facilities are in accordance with the Circuit Court Order (**Attachment A**).

Type B transfer stations are utilized by many of the townships in the county and are located in the following townships: Beaver Creek, Frederic, Grayling, Lovells, and South Branch.

See **Attachment B** for a map showing the location of transfer stations, disposal sites and relative distances to disposal sites.

DATA BASE - FACILITY DESCRIPTIONS

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: City Environmental Services of Waters

County: Crawford

Location: Town: 28N

Range: 8E

Section(s): 4

Map identifying location included in Attachment Section: Yes

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

Owner: Privately owned by Waste Management, Inc.

Operating Status (check) Waste Types Received (check all that apply)

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

- Explanation of special wastes, including a specific list and/or conditions:
- Asbestos, contaminated soils, ash, sludge, oil field waste, misc. special waste.

Site Size:

Total area of facility property:	252.2	acres
Total area sited for use:	252.2	acres
Total area permitted:	79.07	acres
Operating:	9.7	acres
Not excavated:	64.87	acres

Current capacity:	8.2 million yds ³
Estimated lifetime:	+20 years
Estimated days open per year:	313 days
Estimated yearly disposal volume:	185,000 – 200,000 yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Montmorecy – Oscoda Sanitary Landfill

County: Montmorecy

Location: Town: 29N

Range: 3E

Section(s): 6

Map identifying location included in Attachment Section: Yes

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

Owner: Publicly owned by Montmorency and Oscoda Counties

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

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

Site Size:

Total area of facility property:	80	acres
Total area sited for use:	80	acres
Total area permitted:	80	acres
Operating:	3-4	acres
Not excavated:	37-40	acres

Current capacity:	3,500,000	yds ³
Estimated lifetime:	30	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	145,000	yds ³

Annual energy production:

Landfill gas recovery projects:	Will be adding recovery in the future
Waste-to-energy incinerators:	NA megawatts

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill
Facility Name: Cedar Ridge Landfill

County: Charlevoix Location: Town: 33N Range: 7W Section(s): 19

Map identifying location included in Attachment Section: Yes

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

Owner: Waste Management, Inc. of Michigan

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

*Explanation of special wastes, including a specific list and/or conditions:
East Jordan Iron Works. Also may receive waste from dismantling Big Rock point and Wolverine Power Plants.

Site Size:

Total area of facility property:	120	acres
Total area sited for use:	40	acres
Total area permitted:	40	acres
Operating:		acres
Not excavated:		acres

Current capacity:	Approximately 400,000 bank yds ³
Estimated lifetime:	<3 years
Estimated days open per year:	260 days
Estimated yearly disposal volume:	300,000 yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Dafter Sanitary Landfill

County: Chippewa

Location: Town: 46N

Range: 1W

Section(s): 33

Map identifying location included in Attachment Section: Yes

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

Owner: Waste Management, Inc.

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

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

Site Size:

Total area of facility property:	87	acres
Total area sited for use:	44	acres
Total area permitted:	32	acres
Operating:	13	acres
Not excavated:	4	acres

Current capacity:	653,700	yds ³
Estimated lifetime:	6.7	years
Estimated days open per year:	255	days
Estimated yearly disposal volume:	190,800	yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill
Facility Name: Wexford County Landfill

County: Wexford Location: Town: 23N Range: 9W Section(s): 34

Map identifying location included in Attachment Section: Yes

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

Owner: Wexford County Department of Public Works

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

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

Site Size:

Total area of facility property:	187.34	acres
Total area sited for use:	81.4	acres
Total area permitted:	81.4	acres
Operating:	4	acres
Not excavated:	N/A	acres

Current capacity:	2,932,645	yds3
Estimated lifetime:	15	years
Estimated days open per year:	254	days
Estimated yearly disposal volume:	210,000	yds3

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station
Facility Name: Beaver Creek Township Transfer Station

County: Crawford Location: Town: 25N Range: 3W Section(s): 20

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. Of Waters

Owner: Publicly owned by Beaver Creek Township

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

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

Site Size:

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

Current capacity:	100 loose	yds ³
Estimated lifetime:		years
Estimated days open per year:	130	days
Estimated yearly disposal volume:		yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station
Facility Name: Frederic Township Transfer Station

County: Crawford Location: Town: 28N Range: 4W Section(s): 35

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Frederic Township (Will be closing in 2000)

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

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

Site Size:

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

Current capacity:	40 compacted	yds3
Estimated lifetime:		years
Estimated days open per year:	156	days
Estimated yearly disposal volume:		yds3

Annual energy production:

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

****Frederic Township changed to curbside pickup on March 1, 2001.**

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Grayling Township Transfer Station and Recycling Center

County: Crawford

Location: Town: 26N

Range: 3W

Section(s): 5

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Grayling Township

Operating Status (check)

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

Waste Types Received (check all that apply)

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

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

Site Size:

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

Current capacity:	40 compacted	yds3
Estimated lifetime:		years
Estimated days open per year:	156	days
Estimated yearly disposal volume:		yds3

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Lovells Township- Old County Road 612 Site

County: Crawford

Location: Town: 28N

Range: 2W

Section(s): 24

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Lovells Township

Operating Status (check)

Waste Types Received (check all that apply)

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

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

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

Site Size:

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

Current capacity:	40 compacted	yds3
Estimated lifetime:		years
Estimated days open per year:	156	days
Estimated yearly disposal volume:		yds3

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Lovells Township - North Down River Road Site

County: Crawford

Location: Town: 27N

Range: 1 W

Section(s): 21

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Lovells Township

Operating Status (check)

Waste Types Received (check all that apply)

X open

X residential

closed

commercial

licensed

industrial

unlicensed

construction & demolition

construction permit

contaminated soils

open, closure pending

special wastes *

other:

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

Site Size:

Total area of facility property: acres

Total area sited for use: acres

Total area permitted: acres

Operating: acres

Not excavated: acres

Current capacity: 40 compacted yds3

Estimated lifetime: years

Estimated days open per year: 156 days

Estimated yearly disposal volume: yds3

Annual energy production:

Landfill gas recovery projects: megawatts

Waste-to-energy incinerators: megawatt

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: South Branch Township – McMasters Bridge Site

County: Crawford

Location: Town: 26N

Range: 1W

Section(s): 2

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by South Branch Township

Operating Status (check)

Waste Types Received (check all that apply)

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

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

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

Site Size:

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

Current capacity:	96 loose yds3
Estimated lifetime:	years
Estimated days open per year:	208 days
Estimated yearly disposal volume:	yds3

Annual energy production:

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

DATA BASE - SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

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

Collection of residential, commercial and industrial solid waste in Crawford County is accomplished by commercial haulers providing curbside pickup and container service, or by individuals transporting their own waste to transfer stations or to the Waters Landfill. The haulers currently serving the County of Crawford are:

Solid Waste Collection Services

<u>Service Provider</u>	<u>Public/Private</u>	<u>Service Area</u>	<u>Payment</u>	<u>Disposal Facility</u>
Waste Management	Private	Crawford County	Customer	WMI Waters
Arrow Sanitation	Private	Crawford County	Customer	WMI Waters
Area Container	Private	Crawford County	Customer	WMI Waters
G & L Roll-Off	Private	Crawford County	Customer	WMI Waters

In addition, the County of Crawford and its municipalities reserve the right to haul waste through a municipal system if this becomes the most cost-effective manner of disposal.

DATA BASE - EVALUATION OF DEFICIENCIES AND PROBLEMS

Crawford County presently has a recycling program that is run by the Environmental Department of the County. Although the program has been successful, funds available for upgrading equipment and supplementing labor costs are limited. There also needs to be incentives to increase participation in the program. This can be accomplished through education, or converting the entire county to volume based pricing.

Composting of yard waste is offered at a few sites in the county. The location of the composting sites are: WMI Waters Landfill, Grayling Township Transfer Station and the South Branch Township Pioneer Site. Although there are deficiencies in the current composting system, Grayling Township has an excellent program, which could be expanded if funds were available. There also needs to be an expansion of backyard composting, which could be broadened through education and public outreach.

The Crawford County Environmental Department also runs a household hazardous waste program, as well as scrap tire collections. Once again, these events can only be held once a year, as funds available for the programs are limited. The events are held in the summer in conjunction with one another, and participation in both programs has grown immensely. The small, rural counties of northern Michigan will need outside financial assistance if programs such as these are ever going to expand beyond current levels.

Major deficiencies with regards to solid waste in Crawford County are primarily the result of minimal revenue available for solid waste management, lack of competition, a low population base and the rural nature of the county.

Crawford County has a relatively small year-round population, and is comprised of approximately 70% State of Michigan, Federal and Military lands. Because of these conditions, the county has a minimal tax base to support growing infrastructure and public service needs. Crawford County does however, experience seasonal influxes of population due to tourism and seasonal residents, which results in the need for increased local services and infrastructure costs. The rural nature of the county also impacts transportation costs, which severely limits what changes are feasible within the solid waste system.

Though it is decreasing, there is still a problem with dumping in the woods. Larger items such as refrigerators, washers, dryers and furniture are the major problem. Although we have been successful on a limited basis in prosecuting the dumping of household garbage, the large items cannot be tracked the way household refuse can (i.e.: addresses on papers). With the amount of public lands in Crawford County, it is felt that the State and Federal Governments need to do more to police these lands. Local units of government do hold large item clean up days, but the costs for holding such events have become exorbitant. Once again, outside help will be needed if we are ever going to solve this problem.

The final issue in regard to deficiencies was mention previously, and that is the lack of competition following the recent mergers and acquisitions. There must be more competition in northern Michigan, or the resident and seasonal populations will find other alternatives. Again, dumping in the woods. In a free market economy this is a complex issue, but steps need to be taken to begin to address the problem.

DATA BASE - DEMOGRAPHICS

The following presents 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. If generation data was extrapolated from yearly data, then it was calculated using 365 days per year, unless otherwise noted.

The Northeast Region of Michigan's Lower Peninsula is experiencing a significant increase in population. As the state's population ages, people are moving from urban to rural areas, seeking a higher quality of life than found in the cities. Additionally, many second homes are now being converted to primary residents as people move north. This has not however, affected the number of second homes currently being built in the region by the younger people who have benefited from the country's excellent economy over the past few years.

The major population centers of Crawford County are the City of Grayling, and in Grayling Township along the AuSable River and Lake Margrethe. Although Crawford County has experienced a population growth of 15.4% between 1990 and 1998, the majority of the county is sparsely populated. Much of this can be attributed to the large amounts of public lands, which are uninhabited. With a poverty level of 13.7% (based on 1995 figures), the county has a fairly low median income, which only leaves a small amount of disposable income for refuse collection and disposal.

Crawford County also experiences an influx of people during the summer months, as 49.1% of the dwelling units in the county are vacation/second homes, and the area is a major tourist magnet. This creates a large increase in refuse during the summer months, which falls off after the Labor Day Holiday. With such seasonal variations in the population, managing solid waste collection and recycling services becomes a difficult task.

CRAWFORD COUNTY POPULATION PROJECTIONS

	1995	2000	2005	2010
Crawford County	13,518	14,890	16,257	17,720
Beaver Creek Twp.	1284	1415	1544	1683
Frederic Twp.	1419	1563	1707	1861
City of Grayling	2028	2234	2439	2658
Grayling Twp.	6219	6849	7478	8152
Lovells Twp.	473	521	569	620
Maple Forest Twp.	473	521	569	620
South Branch Twp.	1622	1787	1951	2126

Source: Michigan Department of Management and Budget

In summary, the population of Crawford County has increased at a steady rate, and it is anticipated that this trend will continue. Although the County is one of the fastest growing counties in the State based on percentages, it is still one of the smaller counties based on overall population.

DATA BASE- LAND DEVELOPMENT

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

Land use trends in Crawford County indicate residential development occurring along lakes, rivers, and adjacent to major roadways. Commercial and industrial development occurs primarily around the City of Grayling, and at the Four Mile Road I-75 interchange. Agricultural land in the county is limited, with the majority being in the southwest and north central portions. The majority of the county is forested lands, which accounts for the industrial base being primarily forest-related.

Future trends indicate that residential development will continue to follow roads, and will be clustered around lakes and streams. Development will most likely occur on forest lands, and the already limited agricultural areas. Commercial and industrial development will continue to concentrate in the City of Grayling, and at the expanding Four Mile Road interchange. Second home development will steadily increase as more people move north. This will continue the current practice of splitting large parcels into smaller 5 and 10 acre building sites.

DATA BASE - SOLID WASTE MANAGEMENT ALTERNATIVES (attach additional pages as necessary)

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

Each solid waste management alternative for Crawford County was assessed based on the following criteria:

- Technical Feasibility
- Economic Feasibility
- Access to Land
- Access to Transportation
- Effects on Energy
- Environmental Impacts
- Public Acceptability
- Resource Conservation
- Waste Reduction
- Pollution Prevention
- Resource Recovery
- Ultimate Disposal Area Uses
- Institutional Arrangements

The majority of the selected alternatives focus on sanitary landfilling, transfer stations, recycling, composting or combinations of each. The following is a brief review of the selected alternative:

Sanitary Landfilling: Sanitary Landfilling is a cost-effective system in northern Michigan when implemented on a multi-county basis. Present landfill sites exist, and the public is accustomed to their location and costs. A problem that arises for Crawford County is the potential closing of the Cedar Ridge landfill in Charlevoix County. This is a primary site for waste to be exported, as stated in **Attachment A**. this could limit our ability to keep prices down. Potential environmental risks include groundwater contamination.

Modular Incineration: Conversion of solid waste to energy is very attractive, however, a lack of markets and limited waste for fuel makes this alternative cost prohibitive. Air pollution has also been problematic at existing facilities.

Volume Reduction: Volume reduction benefits from large scale shredding and bailing of solid waste is not cost effective, as the region has excess landfill capacity and the cost of equipment is extremely high. For vehicle volume reduction, the rear loading packer truck is the most cost-effective vehicle for the region.

Transfer Stations: Transfer stations can be a very cost-effective method of transporting solid waste in rural areas, or when long hauls are necessary to dispose of solid waste at a multi-county landfill.

Recycling: Recycling rates very high in public acceptability. Volume reduction through recycling is currently underway in Crawford County, although monies to expand the program are limited. Impact

fees from the Waters Landfill are used by the county to run its recycling program. A multi-county recycling program has been discussed, and would seem to be the most cost-effective method in such a rural area. Financial support from either the State or Federal Government (or both) would greatly increase recycling opportunities in the area.

Composting: Composting is the least costly and energy intensive method of disposing of solid waste, especially in a rural region. Composting provides a reusable resource with limited economic value, and can be implemented individually or on a countywide basis. Although Crawford County has had some limited success with composting, funds to educate and promote such a program are inadequate.

ALTERNATIVE 1: USE OF THE WMI WATERS LANDFILL WITH LIMITED RESOURCE RECOVERY INITIATIVES

This alternative utilizes the WMI Waters Landfill for the next 20 year planning period. This alternative assumes that all solid waste generated within Crawford County will be disposed of at said landfill. Recycling, household hazardous waste and composting opportunities currently in operation in Crawford County will continue at their current level. Backyard composting programs will be promoted for the rest of the sparsely populated areas of the county. Educational efforts will involve utilizing existing agencies and organizations for information dissemination.

Technical Feasibility: The technical feasibility of sanitary landfilling is well proven and the most widely used system for solid waste disposal in the United States. Recycling and composting have also proven to be technically feasible when incentives are in place.

Economic Feasibility: This alternative is economically feasible, as it uses an existing regional landfill. Crawford County currently receives monies from the landfill (See Attachment A), which are used to fund various programs for county residents.

Access to Land: The landfill is situated on 252.20 acres, which is currently owned by Waste Management, Inc. Over 150 acres are still undeveloped, so the projection of 20+ years of capacity insures the future disposal needs of Crawford County will be met.

Access to Transportation: The Waters Landfill is located just east of I-75. Because of the central location, the landfill is extremely accessible from all directions.

Effects on Energy: Sanitary landfilling is an energy intensive system. The disposal of materials which required energy to produce, also require energy to transport to the site and energy to mechanically cover the materials daily. Although some energy is conserved by utilizing transfer stations, it is hoped that by-products (i.e.: methane) of decomposing materials will some day be used as an alternative energy source.

Environmental Impacts: In view of the fact that this alternative utilizes an existing site, initial environmental impacts have not been considered. It should be noted however, that this site was previously contaminated, and a great deal of money has been spent on remediation. As with all sanitary landfills, future contamination of the groundwater remains a primary concern. Although the site is constructed utilizing the latest technology, no one can be 100 % certain that future problems will not arise. Methane gas produced through the decomposition of refuse is also a concern, but the technology does exist for utilizing this by-product in a constructive manner.

Public Acceptability: Public acceptability will continue for this program, as the majority of the population does not wish to put a great deal of thought into solid waste disposal. There will however, be concern over the limited opportunities for recycling.

Resource Conservation: Conservation of natural resources will occur through continuation of the recycling programs, and increasing the utilization of backyard composting programs.

Waste Reduction: Waste reduction will be achieved through education. As educational efforts will be limited, it is likely that this alternative will not result in significant waste reduction.

Pollution Prevention: This alternative will not increase pollution prevention efforts, but will maintain

them at their present level. This alternative does provide a means to remove household hazardous waste from the waste stream, through the annual Crawford County program. The draw back is that the county can only fund the HHW program one time per calendar year.

Resource Recovery: Resource recovery efforts currently in operation in Crawford County will continue at their present level of operation. The program may be expanded by the county as needed and budget constraints allow.

Ultimate Disposal Area Uses: Although Waste Management privately owns the Waters Landfill, it is the hope of Crawford County that the area will ultimately be used for recreational purposes.

Institutional Arrangements: There will be no additional institutional arrangements with this alternative. Educational activities will continue at their present level through existing agencies programs.

ALTERNATIVE 2: INITIAL USE OF THE WMI WATERS LANDFILL WITH EMPHASIS ON RESOURCE RECOVERY INITIATIVES.

This alternative utilizes the WMI Waters Landfill for the next 20-year planning period, but does leave open the possibility of other disposal options if needed. Under this alternative, Crawford County would like to get all of the municipalities on the same bid schedule, so as to streamline the collection process, as well as reduce costs. The location of the Waters facility makes it the logical destination for Crawford County's solid waste, but providing the lowest price for county residents, with the best service, must also be considered. Recycling and composting will be essential components of this system. The recycling program that is currently run by the Crawford County Environmental Department will continue to operate and expand. Crawford County will also work with adjacent counties to develop a regional recycling program. It is the goal of the County to ensure that all residents have ample opportunities to recycle. The household hazardous waste and scrap tire disposal programs will continue to operate at their present level, but grants will be submitted to expand these when possible. Composting opportunities will also be maintained, but emphasis will be placed on backyard composting initiatives.

Technical Feasibility: The technical feasibility of sanitary landfilling is well proven and the most utilized system of solid waste management in the U.S. The technical feasibility of recycling and composting is well proven. Because Crawford County already operates numerous programs, the development and expansion of programs is technically feasible.

Economic Feasibility: The economics of selecting this system are already in place. The Waters Landfill is privately owned by WMI, so no capital outlay will be required. The county will work with the municipalities to combine services and bidding on solid waste collection, so as to not only eliminate duplicate services, but also reduce costs. The recycling and household hazardous waste programs will continue to be funded by impact fees received from the Waters Landfill (See Attachment A). These programs, as well as future programs, will be developed through a county-municipality partnership.

Access to Land: The landfill is situated on 252.20 acres, which is currently owned by Waste Management, Inc. Over 150 acres are still undeveloped, so the projection of 20+ years of capacity insures the future disposal needs of Crawford County will be met. If a different primary disposal site is selected in the future, the County of Crawford and/or its municipalities will negotiate an agreement with the importing county.

Access to Transportation: The Waters Landfill is located just east of I-75. Because of its central location, the landfill is extremely accessible from all directions.

Effects on Energy: Sanitary landfilling is an energy intensive system. The disposal of materials which required energy to produce, also require energy to transport to the site, and energy to mechanically cover the materials daily. Although utilizing transfer stations conserves some energy, the county wishes to combine numerous sites to further reduce energy requirements. Additionally, it is hoped that by-products (i.e.: methane) of decomposing materials will some day be used as an alternative energy source.

Environmental Impacts: In view of the fact that this alternative utilizes an existing site, initial environmental impacts have not been considered. This would also be the case if Crawford County selects an alternative primary site listed under Attachment A for use. It should be noted however, that this site was previously contaminated, and a great deal of money has been spent on remediation. As

with all sanitary landfills, future contamination of groundwater remains a primary concern. Although the site is constructed utilizing the latest technology, no one can be 100% certain that future problems will not arise. Methane gas produced through the decomposition of refuse is also a concern, but the technology does exist for utilizing this by-product in a constructive manner.

Public Acceptability: This alternative will meet with wide acceptance from the public as it simplifies the solid waste collection process, and emphasizes resource recovery. It also has the potential to reduce disposal costs through consolidation of services and recycling. The household hazardous waste and scrap tire programs have already been extremely successful.

Resource Conservation: Conservation of natural resources will occur through continuation and expansion of existing programs.

Waste Reduction: Waste reduction will be achieved through education, and by making recycling as convenient as possible for all Crawford County residents.

Pollution Prevention: This alternative will increase pollution prevention efforts through the continuation and expansion of existing programs. To date, the household hazardous waste program has been extremely successful. We expect the increase in use by the public to continue, and would like to be the Host County for a permanent site. This may be accomplished through grants available through the State of Michigan.

Resource Recovery: With the continuation and expansion of the current county run program, resource recovery will only continue to increase. The general public wants convenience, and it is the goal of the Crawford County Environmental Department to continue to make recycling as convenient as possible. Working to establish a multi-county program will also increase resource recovery, and steps have already been taken to make this a reality.

Ultimate Disposal Area Uses: It is hoped that the Waters Landfill will ultimately be utilized for recreational purposes.

Institutional Arrangements: It is likely that aspects of the education program will be institutionalized by the various participating agencies.

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 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 A. Following is an overall description of the Selected System:

Selection of the solid waste management system was based on economics, environmental impacts, and sound waste management practices. Alternative 2 was selected based on the above criteria.

The primary solid waste disposal facilities are in accordance with the **Stipulated Order of Settlement (Attachment A)**. These are the Waste Management Waters Facility, Montmorency-Oscoda Landfill, Charlevoix County, Chippewa County and Wexford County. It is anticipated that the Waters and Montmorency-Oscoda Landfills will be the facilities utilized most often. Presently, all of the waste collected in Crawford County is being disposed of at the Waters Landfill.

Private hauling companies will continue to provide residential, commercial, and industrial service pick-up in Crawford County. Crawford does however, reserve the right to haul municipal waste if this becomes the most cost-effective method for the residents of the county. The interests of the taxpayers are of utmost concern. Initially however, the collection of solid waste will continue to be through private hauling agreements with customers.

Initially, recycling and composting operations currently in operation in Crawford County will continue at their present level of operation. The County-Municipality Recycling Alliance will continue to meet monthly to discuss ways to improve and expand these programs. Backyard composting programs will be promoted for the more rural areas of the county. Educational efforts will be spearheaded by the Crawford County Environmental Office, and will include existing agencies and organizations for information dissemination. Over the 5-year planning period, Crawford County will continue to meet with adjacent counties and the private sector in order to develop a regional recycling program. The MRF, which is owned by Grayling Township, and partially funded by the county, will continue to be expanded and up-graded as needed. Funds for the program will continue to come from the impact fees received from the Waters Landfill.

SELECTED SYSTEM

IMPORT AUTHORIZATION

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

Table 1-A
CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

Exporting County	Importing County	Facility Name ¹	Authorized Quantity/ Daily	Authorized Quantity/ Annual	Authorized Conditions ²
Alcona	Crawford	Waters	100%	100%	P
Alpena	Crawford	Waters	100%	100%	P
Antrim	Crawford	Waters	100%	100%	P
Arenac	Crawford	Waters	100%	100%	P
Charlevoix	Crawford	Waters	100%	100%	P
Cheboygan	Crawford	Waters	100%	100%	P
Chippewa	Crawford	Waters	100%	100%	P
Emmet	Crawford	Waters	100%	100%	P
G. Traverse	Crawford	Waters	100%	100%	P
Iosco	Crawford	Waters	100%	100%	P
Kalkaska	Crawford	Waters	100%	100%	P
Luce	Crawford	Waters	100%	100%	P
Mackinac	Crawford	Waters	100%	100%	P
Missaukee	Crawford	Waters	100%	100%	P
Montmorency	Crawford	Waters	100%	100%	P
Ogemaw	Crawford	Waters	100%	100%	P
Oscoda	Crawford	Waters	100%	100%	P
Otsego	Crawford	Waters	100%	100%	P
Presque Isle	Crawford	Waters	100%	100%	P
Roscommon	Crawford	Waters	100%	100%	P
Wexford	Crawford	Waters	100%	100%	P

The counties listed above are in accordance with the **Stipulated Order of Settlement (Attachment A)**. Solid waste from counties outside of Crawford and Otsego may total up to 951,008 cubic yards. In the event that this limit is reached, Crawford County reserves the right to negotiate with the owner of the Waters Landfill, in order to agree to a new volume cap and payment schedule.

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

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

SELECTED SYSTEM

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

Table 1-B

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

Exporting County	Importing County	Facility Name ¹	Authorized Quantity/ Daily	Authorized Quantity/ Annual	Authorized Conditions ²
---------------------	---------------------	-------------------------------	----------------------------------	-----------------------------------	---------------------------------------

NOT APPLICABLE

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

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

SELECTED SYSTEM

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 Name¹	Authorized Quantity/ Daily	Authorized Quantity/ Annual	Authorized Conditions²
-----------------------------	-----------------------------	--------------------------------------	---	--	--

Under the terms of the Stipulated Order of Settlement (Attachment A), Crawford County is allowed primary disposal of solid waste in the following counties:

- Charlevoix
- Chippewa
- Montmorency/Oscoda
- Wexford

The County of Crawford is also allowed to enter into reciprocal agreements with the following counties for the purpose of disposal of Type II solid waste on a contingency basis: Alcona, Alpena, Antrim, Arenac, Cheboygan, Emmet, Grand Traverse, Iosco, Kalkaska, Luce, Mackinac, Missaukee, Ogemaw, Otsego, Presque Isle and Roscommon.

Under terms of the Circuit Court Settlement, the Crawford County Solid Waste Plan lists the above counties for disposal in accordance with the judges order.

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

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

SELECTED SYSTEM

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

Table 2-B

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

Exporting County	Importing County	Facility Name ¹	Authorized Quantity/ Daily	Authorized Quantity/ Annual	Authorized Conditions ²
---------------------	---------------------	-------------------------------	----------------------------------	-----------------------------------	---------------------------------------

NOT APPLICABLE

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

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

SELECTED SYSTEM

SOLID WASTE DISPOSAL AREAS

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

Type II Landfill:

- Waste Management, Waters
- Montmorency – Oscoda Sanitary Landfill
- Chippewa County – Dafter Landfill
- Charlevoix County – Cedar Ridge
- Wexford County Landfill
- Presque Isle County – Elk Run
(Contingency Only)

Type A Transfer Facility:

Type B Transfer Facility:

- Beaver Creek Township
- Frederic Township
- Grayling Township
- Lovells Township
 - Old County Road 612 Site
 - North Down River Road Site
- South Branch Township
 - Pioneer Road Site
 - McMasters Bridge Road Site

Type III Landfill:

Processing Plant:

Incinerator:

Waste Piles:

Waste-to-Energy Incinerator:

Other:

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 (Also refer to Attachment A).

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: City Environmental Services of Waters

County: Crawford

Location: Town: 28N

Range: 8E

Section(s): 4

Map identifying location included in Attachment Section: Yes

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

Owner: Privately owned by Waste Management, Inc.

Operating Status (check)

Waste Types Received (check all that apply)

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

- Explanation of special wastes, including a specific list and/or conditions:
- Asbestos, contaminated soils, ash, sludge, oil field waste, misc. special wastes.

Site Size:

Total area of facility property:	252.2	acres
Total area sited for use:	252.2	acres
Total area permitted:	79.07	acres
Operating:	9.7	acres
Not excavated:		acres

Current capacity:	8.2 million	yds ³
Estimated lifetime:	+20	years
Estimated days open per year:	313	days
Estimated yearly disposal volume:	185,000-200,000	yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Montmorency – Oscoda Sanitary Landfill

County: Montmorency

Location: Town: 29N

Range: 3E

Section(s): 6

Map identifying location included in Attachment Section: Yes

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

Owner: Publicly Owned by Montmorency and Oscoda Counties

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

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

Site Size:

Total area of facility property:	80	acres
Total area sited for use:	80	acres
Total area permitted:	80	acres
Operating:	3-4	acres
Not excavated:	37-40	acres

Current capacity:	3,500,000	yds ³
Estimated lifetime:	30	years
Estimated days open per year:	310	days
Estimated yearly disposal volume:	145,000	yds ³

Annual energy production:

Landfill gas recovery projects:	Will be adding recovery in the future
Waste-to-energy incinerators:	NA megawatt

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill
Facility Name: Cedar Ridge Landfill

County: Charlevoix Location: Town: 33N Range: 7W Section(s): 19

Map identifying location included in Attachment Section: Yes

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

Owner: Privately owned by Waste Management, Inc.

Operating Status (check) Waste Types Received (check all that apply)

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

- Explanation of special wastes, including a specific list and/or conditions:
- East Jordan Iron Works. Also may receive waste from the dismantling of Big Rock Point and Wolverine.

Site Size:

Total area of facility property:	120	acres
Total area sited for use:	40	acres
Total area permitted:	40	acres
Operating:		acres
Not excavated:		acres

Current capacity:	Approximately 400,000 bank yds ³
Estimated lifetime:	<3 years
Estimated days open per year:	260 days
Estimated yearly disposal volume:	300,000 yds ³

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Dafter Sanitary Landfill

County: Chippewa

Location: Town: 46N

Range: 1W

Section(s): 33

Map identifying location included in Attachment Section: Yes

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

Owner: Waste Management, Inc.

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

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

Site Size:

Total area of facility property:	87	acres
Total area sited for use:	44	acres
Total area permitted:	32	acres
Operating:	13	acres
Not excavated:	4	acres

Current capacity:	653,700 yds3
Estimated lifetime:	6.7 years
Estimated days open per year:	255 days
Estimated yearly disposal volume:	190,800 yds3

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill
Facility Name: Wexford County Landfill

County: Wexford Location: Town: 23N Range: 9W Section(s): 34

Map identifying location included in Attachment Section: Yes

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

Owner: Wexford County Department of Public Works

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

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

Asbestos

Site Size:

Total area of facility property:	187.34	acres
Total area sited for use:	81.4	acres
Total area permitted:	81.4	acres
Operating:	4	acres
Not excavated:	N/A	acres

Current capacity:	2,932,645	yds3
Estimated lifetime:	15	years
Estimated days open per year:	254	days
Estimated yearly disposal volume:	210,000	yds3

Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station
Facility Name: Beaver Creek Township Transfer Station

County: Crawford Location: Town: 25N Range: 3W Section(s): 20

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. Of Waters

Owner: Publicly owned by Beaver Creek Township

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

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

Site Size:

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

Current capacity:	100 loose yds
Estimated lifetime:	years
Estimated days open per year:	130 days
Estimated yearly disposal volume:	yds ³

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Frederic Township Transfer Station

County: Crawford

Location: Town: 28N

Range: 4W

Section(s): 35

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Frederic Township (Will be closing in 2000)

Operating Status (check)

Waste Types Received (check all that apply)

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

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

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

Site Size:

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

Current capacity:	40 compacted	yds3
Estimated lifetime:		years
Estimated days open per year:	156	days
Estimated yearly disposal volume:		yds3

Annual energy production:

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

Frederic Township changed to curbside pick-up on March 1, 2001.

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Grayling Township Transfer Station and Recycling Center

County: Crawford

Location: Town: 26N

Range: 3W

Section(s): 5

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Grayling Township

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

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

Site Size:

Total area of facility property: acres

Total area sited for use: acres

Total area permitted: acres

Operating: acres

Not excavated: acres

Current capacity: 40 compacted yds3

Estimated lifetime: years

Estimated days open per year: 156 days

Estimated yearly disposal volume: yds3

Annual energy production:

Landfill gas recovery projects: megawatts

Waste-to-energy incinerators: megawatt

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Lovells Township- Old County Road 612 Site

County: Crawford

Location: Town: 28N

Range: 2W

Section(s): 24

Map identifying location included in Attachment Section: Yes

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Waste Management Inc. of Waters

Owner: Publicly owned by Lovells Township

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

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

Site Size:

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

Current capacity:	40 compacted	yds ³
Estimated lifetime:		years
Estimated days open per year:	156	days
Estimated yearly disposal volume:		yds ³

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

SELECTED SYSTEM

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

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

The selected system provides the ability to maintain the current collection services with primary solid waste disposal at the Waters Landfill. The selected system also has built in flexibility, which allows for solid waste disposal alternatives should this become necessary. The haulers currently serving Crawford County will continue to provide residential, commercial, and industrial service pick up. The selected system also allows for inviting others to bid on, and become involved in, the disposal of solid waste. Collection of solid waste will continue to be arranged through private agreements with customers. The selected system will continue to utilize Type B Transfer Stations located throughout the county.

Existing transportation routes will continue to be utilized to transport waste. If additional or optional routes become necessary, the selected system will allow for such change.

SELECTED SYSTEM

RESOURCE CONSERVATION EFFORTS:

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

Effort Description	Est. Diversion Tons/Yr		
	<u>Current</u>	<u>5th yr</u>	<u>10th yr</u>
Recycling	1200	1930	3000
Education	Negligable	500	1000
Composting	60	300	350

Crawford County is and has been committed to resource conservation efforts to reduce overall dependency of landfilling solid waste. The county operates a municipal recycling program, and this will be continued in the future. Over the 5 year planning period, resource conservation efforts will be increased to include a multi-county recycling program, enhancement of the existing composting program, development of a recycled products procurement program, and the initiation of a comprehensive education program. During the planning period, it is also hoped that a "pay as you throw" system can be developed in the county. It is believed that by charging for the volume of waste disposed, an incentive for recycling will be provided.

During the 5 year planning period, Crawford County will continue to operate and expand its recycling program. We will also work with adjacent counties and the private sector to try to expand this effort to the region. A backyard-composting program will also be promoted for the more rural areas of the county.

The use of recycled products is paramount to increasing the demand and resultant markets for recycled products. There must be a market for raw recyclable materials to make recycling cost-effective. Crawford County will analyze the feasibility of procurement of recycled products. Joint purchasing between county organizations and departments will be explored as a means of making it locally affordable.

The county will also examine the possibility of developing a collection program for used motor oil and other products that are not presently included in the recycling program. The scrap tire collections will continue, and may include working directly with the Grayling Generating Station, which may be using tire-derived fuel in the near future.

Public Education is a key component of the overall program. Public education will be accomplished in coordination with municipalities, MSU Extension, Conservation Districts, Natural Resource Conservation Service, Health Departments, NEMCOG, and other pertinent organizations.

SELECTED SYSTEM

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

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

Technique Description	Est. Air Space Conserved Yds³/Yr		
	<u>Current</u>	<u>5 th yr</u>	<u>10 th yr</u>
Compaction		unknown	

The only volume reduction technique presently utilized in Crawford County is compaction. Shredding, baling, incineration and other volume reduction techniques are not practiced in Crawford County, and there are no plans to increase volume reduction efforts within the next planning period.

SELECTED SYSTEM

Overview of Resource Recovery Programs:

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

Recycling Portion of Wastestream (estimate)

Material	%	2005	5% Goal	2010	10% Goal
Paper	40	11024 T/Yr	552 T/Yr	12023 T/Yr	1202 T/Yr
Plastic	10	2756 T/Yr	138 T/Yr	3006 T/Yr	300 T/Yr
Metals	6	1654 T/Yr	83 T/Yr	1803 T/Yr	180 T/Yr
Glass	5	1378 T/Yr	69 T/Yr	1503 T/Yr	150 T/Yr
Aluminum	1	276 T/Yr	14 T/Yr	301 T/Yr	31 T/Yr

Composting	2005	25% Goal	2010	50% Goal
4% of Waste	1102 T/Yr	276 T/Yr	1202 T/Yr	601 T/Yr

Education

5 Year Goal = 5% reduction of solid waste through educational efforts

10 Year Goal = 5% reduction of solid waste through educational efforts

The above chart shows the type and volume of material that potentially may be available for recycling and composting. The overall goal of the resource recovery program is to reduce dependency on landfills. Public support for the current Crawford County recycling program has been high. The benefits of reducing the amount of solid waste which is currently landfilled, and the savings derived from the reuse of recycled materials have direct social, environmental and economic benefits.

Impediments to expanding the current Crawford County program include:

- Long Distance to Markets
- Unavailable Markets
- Additional Financial Support

It is anticipated that the above impediments to the expansion of the current recycling program can be overcome by increasing the volume of materials. This can be accomplished through incentives for recycling, as well as working on a multi-county approach. In addition, the program will continue to provide a high quality product. This will attract long term relationships with markets dependant on volume and quality recyclable materials.

Most of Crawford County is primarily rural. Backyard composting is the best method for leaf and yard waste disposal in these areas and will be promoted through educational outreach. Elimination of

household hazardous materials in the waste stream will continue through the Crawford County Household Hazardous Waste Program. The scrap tire program, which is held in conjunction with the HHW Day, will continue to operate for as long as it remains feasible.

Recycling programs within the County are feasible. Details of existing and planned program 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:

SELECTED SYSTEM

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.

Although Crawford County currently operates a recycling program, it is the goal of the county and municipalities to continue to expand and improve the program. The selected recycling program reflects this desire to improve. Crawford County has also hosted regional recycling meetings, and has had participation from adjacent counties. There is an interest in developing a regional approach to recycling. The regional meetings have also included tours of the Emmett County Recycling Facility, as well as the Grayling Township MRF that is utilized by the Crawford County program.

In addition, Crawford County will continue operating the recycling program at the current level. Impact fees from the Waters Landfill operation will continue to be used to fund and improve recycling efforts in Crawford County. This will include the purchase of additional slotted containers, as well as additional equipment and labor for the Grayling Township MRF. It is the goal of the Crawford County Environmental Department to have a recycling trailer available to each municipality on a full time basis in calendar year 2001. Any county resident may already utilize the MRF at any time. Over the 5-year planning period, the county will continue to discuss a regional approach with adjacent counties and the private sector. Although we are committed to such an effort, it is up to the other entities to become involved in our already successful program.

Initially, composting operations currently in operation in Crawford County will continue at their present level. Composting facilities in Grayling Township, South Branch Township and at the Waters Landfill will continue to be available for resident's use. Backyard composting programs will be promoted, and possibly subsidized by the county, for the more rural areas.

Financing of the recycling program will continue through the impact fees received from the Waters Landfill. If grant monies become available through State and Federal sources, these will be aggressively pursued to help expand and improve the program.

TABLE III-1

SELECTED SYSTEM

EXISTING RECYCLING

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities</u> ² <u>Operation</u> <u>Evaluation</u>
Crawford County	Crawford Co.	Public	d	d	A,B,C,D,F	Crawford Co.	Environmental Office
Grayling Township	Crawford Co.	Public	o	d(3 days/week)	A,B,C,D,E,F	Grayling Township	
City of Grayling	City	Private	c	m	A,B,C,D,E,F		Waste Management

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

-
- 1 Identified by where the program will be offered. If throughout the planning area then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.
 2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
 3 Identified by c = curbside; d = dropoff; o = onsite; and if other, explained.
 4 Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = spring; Su = summer; Fa = fall; Wi = winter
 5 Identified by the materials collected by listing of the letter located by that material type. A = plastics; B = newspaper; C = corrugated containers; D = other paper; E = glass; F = metals; P = pallets; J = construction/demolition; K = tires; L1,L2 etc. = as identified on page 25.

SELECTED SYSTEM

TABLE III-2

EXISTING COMPOSTING

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²
						<u>Development</u> <u>Operation</u> <u>Evaluation</u>
Grayling Twp.	Grayling Twp.	Public	o	d(3 days/week)	G, L, W	Operated by Grayling Twp.
City of Grayling	City	Public	c	d	W	Operated by Grayling DPW
City of Grayling	City	Private	c	Sp,Fa	L	Contract with Waste Mgt.
South Branch Twp.	Same	Public	o(Pioneer Site)	d(4 days/week)	G, L, W	Operated by South Branch Twp.

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

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

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

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

4 Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = spring; Su = summer; Fa = fall; Wi = winter.

5 Identified by the materials collected by listing of the letter located by that material type. G = grass clippings; L = leaves; F = food; W = wood; P = paper; S = municipal sewage sludge; A = animal waste/bedding; M = municipal solid waste; L1, L2 etc. = as identified on page 25.

SELECTED SYSTEM

TABLE III-3

EXISTING 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.

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Responsibilities</u> ²		
						<u>Development</u>	<u>Operation</u>	<u>Evaluation</u>
Crawford County	Crawford Co.	Public	d	Su	AN, B1, B2, C, H, OF, P, PS, PH, U, OT.			

The Crawford County Household Hazardous Waste Program is operated by the Environmental Department through agreements with private contractors. It is hoped that during the 5-year planning period, the county will be able to secure grant funding through the State of Michigan to become a permanent HHW collection site.

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

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

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

3 Identified by c = curbside; d = dropoff; 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 and antifreeze; AN = antifreeze; B1 = lead acid batteries; B2 = household batteries; C = cleaners and polishes; 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.

SELECTED SYSTEM

TABLE III-4

PROPOSED RECYCLING

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities</u> ² <u>Operation</u>	<u>Evaluation</u>
Crawford County Recycling Program	Crawford Co.	Public	d,o	d	A,B,C,D,E,F,K		See Below	

The Crawford County Recycling Program is a coalition formed between the county and all of the municipal governments. The program is currently being expanded to allow all county residents convenient access to recycling on a daily basis.

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

-
- 1 Identified by where the program will be offered. If throughout the planning area then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.
 - 2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
 - 3 Identified by c = curbside; d = dropoff; o = onsite; and if other, explained.
 - 4 Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = spring; Su = summer; Fa = fall; Wi = winter.
 - 5 Identified by the materials collected by listing of the letter located by that material type. A = plastics; B = newspaper; C = corrugated containers; D = other paper; E = glass; F = metals; P = pallets; J = construction/demolition; K = tires; L1,L2 etc. = as identified on page 25.

SELECTED SYSTEM

TABLE III-5

PROPOSED COMPOSTING

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities</u> ² <u>Operation</u>	<u>Evaluation</u>
---------------------	----------------------------------	----------------------------	--	--	---	---	--	-------------------

The composting program, which is currently in place, will continue to operate. Expansion of the program will include educating the public on the benefits of backyard composting, which may also include some municipal funding for bins.

In the long term, the county would like to expand on composting availability, but this is quite a labor-intensive issue. Funding must be secured for equipment and manpower needs if the county is to provide a large composting facility.

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

1 Identified by where the program will be offered. If throughout the planning area then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.
2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
3 Identified by c = curbside; d = dropoff; o = onsite; and if other, explained.
4 Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = spring; Su = summer; Fa = fall; Wi = winter.
5 Identified by the materials collected by listing of the letter located by that material type. G = grass clippings; L = leaves; F = food; W = wood; P = paper; S = municipal sewage sludge; A = animal waste/bedding; M = municipal solid waste; L1, L2 etc. = as identified on page 25.

SELECTED SYSTEM

TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS

<u>Program Name</u>	<u>Service Area</u> ¹	<u>Public/ Private</u>	<u>Collection Point</u> ³	<u>Collection Frequency</u> ⁴	<u>Materials Collected</u> ⁵	<u>Program Management Development</u>	<u>Responsibilities</u> ² <u>Operation</u>	<u>Evaluation</u>
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Crawford County currently operates a household hazardous waste collection once per year in June. The program has seen a tremendous increase in both number of users, as well as pounds of waste collected. The county will continue to fund this program as long as there is a need, and impact fees from the Waters Landfill are received.

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

1 Identified by where the program will be offered. If throughout the planning area then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.
2 Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page 24); 5 = Private Owner/Operator; 6 = Other (Identified on page 24).
3 Identified by c = curbside; d = dropoff; 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 and antifreeze; AN = antifreeze; B1 = lead acid batteries; B2 = household batteries; C = cleaners and polishers; H = hobby and art supplies; OF = used oil filters; P = paints and solvents; PS = pesticides and herbicides; PH = personal and health care products; U = used oil; OT = other materials and identified

SELECTED SYSTEM

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

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

Environmental Groups:

Local environmental groups will be enlisted for information dissemination on an as needed basis. The Crawford County Environmental Office does, and will continue, to forward relevant information to groups for inclusion in their newsletters.

The Crawford County Environmental Monitor currently attends membership meetings of several property owners and conservation groups, in order to notify the members of current and upcoming events. This will continue to take place.

Other:

- Health Department: Education Dissemination
- NRCS: Education Dissemination
- MSU Extension: Education Dissemination
- Townships: Provide secure sites for recycling trailers (this includes site supervisor). White Goods Programs.
- Crawford County: Provide recycling trailers, truck and manpower to move the equipment to and from the MRF. The county will also fund and operate the HHW and scrap tire programs. The Environmental Office will also be responsible for handling questions, educating the public, and expanding and improving the recycling program wherever possible.

SELECTED SYSTEM

PROJECTED DIVERSION RATES:

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

<u>Collected Material:</u>	<u>Projected Annual Tons Diverted:</u>			<u>Collected Material:</u>	<u>Projected Annual Tons Diverted</u>		
	Current	5th Yr	10th Yr		Current	5th Yr	10th Yr
A. TOTAL PLASTICS:	138	300		G. GRASS AND LEAVE	276	601	
B. NEWSPAPER:				H. TOTAL WOOD WASTE:			
C. CORRUGATED CONTAINERS:				I. CONSTRUCTION AND DEMOLITION:			
D. TOTAL OTHER PAPER:	552	1202		J. FOOD AND FOOD PROCESSING:			
E. TOTAL GLASS:	69	150		K. TIRES: Variable			
F. OTHER MATERIALS:				L. TOTAL METALS:			
F1.				F3. Metals	83	180	
F2.				F4. Aluminum	14	31	

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

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

Crawford County currently operates a recycling program, and the end product is clean and very marketable.

- | | |
|---------------------------|---------------------------------|
| A. TOTAL PLASTICS: | G. GRASS AND LEAVES: |
| B. NEWSPAPER: | H. TOTAL WOOD WASTE: |
| C. CORRUGATED CONTAINERS: | I. CONSTRUCTION AND DEMOLITION: |
| D. TOTAL OTHER PAPER: | J. FOOD AND FOOD PROCESSING |
| E. TOTAL GLASS: | K. TIRES: |
| F. OTHER MATERIALS: | L. TOTAL METALS: |
| F1. | F3. |
| F2. | F4. |

SELECTED SYSTEM

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.

<u>Program Topic</u> ¹	<u>Delivery Medium</u> ²	<u>Targeted Audience</u> ³	<u>Program Provider</u> ⁴
1	R, N, O, F, E	p, b, s-K-12	EX, DPA, EG-POA, Crawford County
2	N, O, F, E	p	EX, Crawford Co.
3	R, N, O, F, E	p	Crawford County
4	N, O, F, E	p	Crawford Co., NRCS, EX, EG-TU
5	N, O, F, E	p	Crawford County

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.

SELECTED SYSTEM

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

Recycling Program

Operational-Ongoing

Household Hazardous Waste Disposal Program

Operational-Ongoing

Composting Program

Operational-Ongoing

Education/Conservation Program

Operational-Ongoing

SELECTED SYSTEM

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

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

A Type II Sanitary Landfill may not be sited by this Plan. Any and all expansions of the existing Waters Landfill must meet the criteria listed below.

Type III landfill may not be sited by this Plan.

Type A Transfer Stations may not be sited by this Plan.

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this Plan. The Crawford County Environmental Monitor will review the expansion application, and determine consistency with the Plan within 90 days of receiving said application.

- Does the developer of the facility own the property onto which the facility expansion is proposed?
- Is the proposed expansion more than 2000 feet from any existing dwelling units (other than that of the facility operator)?
- Will the proposed expansion only be used by the counties that are listed as authorized importing counties (In accordance with the Commerce Clause of the U.S. Constitution, this criterion does not prohibit/regulate out of state or out of country waste)?
- Will the proposed expansion meet all of the requirements of the **Stipulated Order of Settlement**?

If the answer to all of the above questions is yes, then the expansion would be deemed consistent with this Plan. If any of the answers are no, then the proposed expansion would be considered inconsistent with this Plan.

SELECTED SYSTEM

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.

Crawford County Environmental Monitor

The Crawford County Environmental Monitor shall be ultimately responsible for the implementation and enforcement of the Crawford County Solid Waste Management Plan. The Environmental Monitor will report to the Crawford County Board of Commissioners, as well as the Crawford County Prosecutor, any potential violations in regards to solid waste disposal. The Crawford County Board of Commissioners may direct the Prosecutor to take such legal action as may be necessary to enforce the plan.

The Environmental Monitor, with County Board approval, shall take such actions necessary to secure funds to provide for the implementation and enforcement of the plan including; applying for federal, state and foundation grants. The Environmental Monitor shall also be responsible for ensuring that the Stipulated Order of Settlement is complied with. This includes annual payments made to Crawford County by the owner of the Waters Landfill.

Crawford County Board of Commissioners

The Crawford County Board of Commissioners is responsible for any legislative action(s) that may be necessary to implement the goals of the Plan. This may include, but is not limited to; flow control, recycling incentives, household hazardous waste collection, and related policy in harmony with the state statute, as well as the Stipulated Order of Settlement.

Northeast Michigan Council of Governments (NEMCOG)

Crawford County will utilize NEMCOG for assistance in solid waste planning, as well as grant writing and research as deemed necessary.

Natural Resource Conservation Service

The Natural Resource Conservation Service will assist with dissemination of information of literature regarding recycling, composting, scrap tire, and household hazardous waste collection programs.

MSU Extension

MSU Extension will assist with public educational and promotional programs necessary for operating various components of the plan, including recycling, composting, scrap tire and household hazardous waste collection programs. MSU Extension will assist with dissemination of information and literature designed to inform the public on matters related to recycling, resource recovery and conservation.

Environmental Groups

Local environmental and property owner groups will be utilized whenever possible to disseminate information to the general public.

*** Involvement is not limited to these groups.**

SELECTED SYSTEM

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 - Will achieve through educational activities in partnership with local organizations.

Product Reuse – Will achieve through educational activities in partnership with local organizations.

Reduced Material Volume – Will achieve through educational activities in partnership with local organizations.

Increased Product Lifetime – Will achieve through educational activities in partnership with local organizations.

Decreased Consumption – Will achieve through educational activities in partnership with local organizations.

Resource Recovery Programs:

Composting –

- Crawford County Environmental Office
- Crawford County Municipalities
- Waters Landfill

Recycling -

- Crawford County Environmental Office
- Crawford County Municipalities
- Crawford County Board of Commissioners

Energy Production - None

Volume Reduction Techniques:

- Crawford County Environmental Office

Collection Processes:

- Crawford County Environmental Office
- Crawford County Municipalities
- Crawford County Board of Commissioners

SELECTED SYSTEM

Transportation:

- Crawford County Environmental Office
- Crawford County Municipalities
- Crawford County Board of Commissioners

Disposal Areas:

Processing Plants –

- Crawford County Environmental Office

Incineration –

- None

Transfer Stations –

- Townships: Beaver Creek, Frederic, Grayling Twp., Lovells, Maple Forest, South Branch

Sanitary Landfills -

- Crawford County Environmental Office
- Crawford County Board of Commissioners

Ultimate Disposal Area Uses:

- Recreational uses

Local Responsibility for Plan Update Monitoring & Enforcement:

- Crawford County Environmental Office
- Crawford County Board of Commissioners

Educational and Informational Programs:

- Crawford County Environmental Office
- Crawford County Health Department
- MSU Extension
- Crawford County Municipalities
- Conservation District
- Environmental/Property Owner Groups

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:

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

This Plan incorporates and enforces the **Stipulated Order of Settlement – Case No. 95-6409 CK(D)**, which is included as attachment A.

This Plan incorporates **Grayling City Ordinance NO. 01-2**, which is included as attachment A-2

 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:

 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.

CAPACITY CERTIFICATIONS

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

X Crawford 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:

Crawford County has more than ten years of capacity available for solid waste disposal. The facilities listed for primary disposal are in accordance with the **Stipulated Order of Settlement**. The Waters Landfill, owned and operated by Waste Management, Inc., has a current capacity of 8.2 million yards³, and a lifetime of 20+ years. Other facilities which may be used on a primary basis are the Montmorency-Oscoda Landfill, and the Waste Management Dafter Facility in Chippewa County. The MOSL has a current capacity of 3,500,000 yards³, and an expected lifetime of 30+ years. The Dafter Landfill has a current capacity of 653,700 yards³, and an expected lifetime of 6.7 years. Crawford County also has contingency disposal at the Elk Run Landfill in Presque Isle County.

APPENDIX A

ADDITIONAL INFORMATION

REGARDING THE

SELECTED

SYSTEM

APPENDIX A

EVALUATION OF RECYCLING

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

Recycling and composting rate high in public acceptability. Volume reduction through recycling and composting is currently taking place in Crawford County. This program is constantly being improved and upgraded to make it as user friendly as possible. A multi-county approach to recycling is also being explored, with the counties along the I-75 corridor being the most logical and cost effective participants. To date, three meetings have been held to discuss this issue. It is understood by Crawford County Residents that the benefits of reducing the amount of landfilled waste, and the savings derived from the reuse and recycling of materials have direct social, environmental and economic benefits.

Impediments to recycling include the long distance required to transport goods to markets, the sometimes-unavailable markets, and the always-present shortage of capital. One of the major impediments to increasing recycling efforts is the lack of a financial incentive. The possibility of volume based pricing is being explored, and it is hoped that if such a program is implemented, it would increase the volume of materials collected.

On the positive side, the materials that are currently collected in the program are of high quality, and the end product, which is sent to market, is dependable. Hopefully, this will attract long term relationships with a variety of brokers, which will ensure the best possible price for our product.

The technical feasibility of recycling is well proven. Public health concerns in regards to groundwater contamination and methane gas production will be reduced with increased recycling, as fewer materials will be landfilled. Recycling reduces the dependency on landfills, the environmental impacts associated with landfilling, and the overall energy needed to produce products from raw materials.

Composting is a well-proven means of disposing of yard wastes. Composting is the least costly and least energy intensive method of disposing of solid waste, especially in a rural area. Composting provides a reusable resource with economic value, and can be implemented individually or on a countywide basis. Public health impacts are minimized due to a reduction in the amount of waste being landfilled. Due to the reduction in wastes being landfilled, environmental health impacts at the landfill, such as leachate formation and potential groundwater contamination, are minimized. Finally, composting reduces the amount of energy required to transport yard wastes.

APPENDIX A

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

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

Recyclable component of waste stream (1988 NEMCOG Solid Waste Stream Assessment)

Material	% of waste stream by weight	Amount of waste stream (tons/day)	Amount recycled 25% participation (tons/day)	Amount recycled 10% participation (tons/day)
Paper	44.8	8.3	2.07	.83
Plastic	9.2	.75	.19	.075
Metals	6.6	1.3	.33	.13
Glass	5.3	2.3	.58	.23

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:

Crawford County currently operates a recycling program through a joint effort with the municipalities. Slotted recycling trailers (4), are located at the transfer sites in Beaver Creek Township, Frederic Township, Lovells Township, and South Branch Township. There are also two large box trailers at South Branch and Beaver Creek Townships for cardboard collection. A one-ton pickup is used to haul the full trailers to the Grayling Township MRF for unloading. The system is operated on an on-call basis.

Proposed Programs:

The proposed program will be operated in much the same manner, with the exception that more equipment may be purchased if needed. The Crawford County Recycling Alliance meets on a monthly basis, and improvements are always being discussed. The proposed program may also require some equipment upgrades and/or additional manpower at the Grayling Township MRF.

APPENDIX A

Site Availability & Selection

Existing Programs:

Drop off sites for recyclable materials are at Beaver Creek Township, Frederic Township, Grayling Township, Lovells Township and South Branch Township. The MRF is based at the Grayling Township Transfer Station.

Proposed Programs:

The proposed program will utilize the same locations.

APPENDIX A

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:

<u>Program Name:</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
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*** The existing composting programs do not currently monitor for these parameters.**

Proposed Programs:

<u>Program Name</u>	<u>pH Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
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*** None at this time.**

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 Crawford County Board of Commissioners, with assistance from the Crawford County Environmental Monitor, is ultimately responsible for implementing the Solid Waste Management Plan, as part of their duties as general governance. The Board of Commissioners and the Environmental Monitor will coordinate the solid waste implementation activities with local municipalities, agencies, organizations and planning commissions. The Environmental Monitor is responsible for monitoring any pertinent restrictions or requirements contained in plans for air quality, water quality, or waste management which may be required to meet state or federal standards. Any county level decisions affecting current or anticipated programs for solid waste management, air quality, water quality or land use planning will be made only after thorough consultation with county and township planning commissions.

APPENDIX A

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	Estimated Costs	Potential Funding Sources
Resource Conservation Efforts	\$10,000	Impact Fees Community Foundations State Grants Federal Grants
Resource Recovery Programs	\$15,000/annually	Impact Fees Community Foundations State Grants Federal Grants
Volume Reduction Techniques	\$5000	Impact Fees Community Foundations State Grants Federal Grants
Collection Processes	None at this time	
Transportation	None at this time	
Disposal Areas	None at this time	
Future Disposal Areas	Unknown	
Management Arrangements	Unknown	
Education/Information	\$5000	Inkind Sources Community Foundations Impact Fees State Grants Federal grants

The above listed costs are only estimates, and are subject to change based on need, as well as the availability of funds through governmental sources.

EVALUATION SUMMARY OF THE SELECTED SYSTEM:

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

Selection of the solid waste management system was based on which system best met the needs of the residents of Crawford County. The county selected the best of the current system, and included this in the changes that were necessary. The selected system will initially use the Waters landfill as the primary facility, but also includes the use of the Montmorency-Oscoda Landfill, Cedar Ridge Landfill, Dafter Landfill and Wexford County Landfill as primary disposal sites. Private hauling companies will continue to provide residential, commercial, and industrial service pickup in Crawford County. Type B transfer stations are also available. Crawford County and its municipalities do reserve the right to haul residential waste through municipal programs if this becomes the most cost-effective method for disposal. Initially, recycling and composting programs currently in operation will continue at their present level. Improvements and expansion of the existing recycling programs will be implemented on an "as needed" basis. Backyard composting programs will be promoted for the more rural areas of the county. Educational efforts will involve utilizing existing agencies and organizations, as well as the Crawford county environmental department, for information dissemination. Crawford County will continue to meet with adjacent counties to discuss the possibility of expanding our highly successful recycling program into a regional operation. Household hazardous waste collections will continue on an annual basis, with the possibility that Crawford County will become a permanent collection site through State funding. Education efforts will increase and will be a key component of the program emphasizing reduce, reuse, and recycle.

Technical Feasibility: The technical feasibility of sanitary landfilling is well proven and the most utilized system of solid waste management is the U.S. The technical feasibility of recycling and composting is well proven. Because Crawford County already operates numerous programs, the development and expansion of programs is technically feasible.

Economic Feasibility: The economics of selecting this system are already in place. The Waters Landfill is privately owned by Waste Management, so no capital outlay will be required. The county will work with the municipalities to combine services and bidding on solid waste collection, so as to not only eliminate duplicate services, but also to reduce costs. The recycling and household hazardous waste programs will continue to be funded by impact fees received from the Waters Landfill (See Attachment A). These programs, as well as future programs, will be developed through a county-municipality partnership.

Access to Land: The Waters Landfill is situated on 252.20 acres, which is currently owned by Waste Management, Inc. Over 150 acres are still undeveloped, so the projection of 20+ years of capacity insures that the future disposal needs of Crawford County will be met. If a different primary disposal site is selected for use in the future, the County of Crawford and/or its municipalities will negotiate an agreement with the importing county.

Access to Transportation: The Waters landfill is located just east of I-75. Because of its central location, the landfill is extremely accessible from all directions.

Effects on Energy: Sanitary landfilling is an energy intensive system. The disposal of materials which required energy to produce, also require energy to transport to the site, and energy to mechanically cover the materials daily. Although utilizing transfer stations conserves some energy, the county wishes to combine numerous sites to further reduce energy requirements. Additionally, it is hoped that by-products (i.e.: methane) of decomposing materials will some day be used as an alternative energy source.

Environmental Impacts: In view of the fact that this alternative utilizes an existing site, initial environmental impacts have not been considered. This would also be the case if Crawford County selects an alternative primary site for disposal. It should be noted however, that the Waters Facility was previously contaminated, and a great deal of money has been spent on remediation. As with all sanitary landfill, future contamination of groundwater remains a primary concern. Although the site is constructed utilizing the latest technology, no one can be 100% certain that future problems will not arise. Methane gas produced through the decomposition of refuse is also a concern, but the technology does exist for utilizing this by-product in a constructive manner.

Recycling of materials will reduce the overall environmental impacts related to the manufacturing of products. Public health concerns in regards to groundwater contamination and methane gas production will be reduced with increased recycling, as less material will be landfilled.

Public Acceptability: This alternative will meet with wide acceptance from the public, as it simplifies the solid waste collection process, and emphasizes resource recovery. It also has the potential to reduce disposal costs through consolidation of services and recycling. The household hazardous waste and scrap tire programs have already been extremely successful.

Resource Conservation: Conservation of natural resources will occur through continuation and expansion of the current recycling and composting programs.

Waste Reduction: Waste reduction will be achieved through education, and by making recycling as user friendly as possible. Incentives for recycling, such as volume based pricing, will also be explored and implemented if feasible.

Pollution Prevention: This alternative will increase pollution prevention efforts through the continuation and expansion of existing programs. To date, the household hazardous waste program has been extremely successful. Year one of the program netted 5,400 pounds, while year two netted over 14,000 pounds of household hazardous waste. We expect this trend to continue, and are in the process of exploring the feasibility of becoming a permanent HHW disposal site.

Resource Recovery: With the continuation and expansion of the current county operated recycling program, the resource recovery efforts in Crawford County will only continue to increase. The general

public desires convenience in recycling, and it is the goal of the Crawford County Environmental Department to continue to make recycling as user friendly as possible. Crawford County is also committed to pursuing recycling on a regional level, which will increase volume making the marketing of the end product much more attractive to potential buyers.

Ultimate Disposal Area Uses: It is hoped that the Waters Landfill will ultimately be utilized for recreational purposes.

Institutional Arrangements: It is likely that aspects of the education program will be institutionalized by the various participating agencies.

Selection Process: The selected system was chosen by a majority vote of the Crawford County Solid Waste Planning Committee.

APPENDIX A

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:

- Provides for the continuation and expansion of the current county recycling program.
- Allows for the development of a multi-county recycling program.
- Allows for the continuation and expansion of the existing household hazardous waste and scrap tire disposal programs.
- Coordinates with existing agencies and organizations.
- Allows for optional disposal sites if this becomes necessary.
- Allows for municipal hauling is this becomes the most cost-effective method of solid waste hauling.

DISADVANTAGES:

- Lack of disposal options.
- The slow process of organizing a multi-county recycling program.

APPENDIX B

NON-SELECTED SYSTEMS

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

APPENDIX B

SYSTEM COMPONENTS: Non-Selected System Alternative 1

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

RESOURCE CONSERVATION EFFORTS: Recycling and composting operations currently in existence in Crawford County would continue at their present level of operation. Backyard composting programs will be promoted for the more rural portions of the county. Educational efforts will involve utilizing existing agencies and organizations for information dissemination.

VOLUME REDUCTION TECHNIQUES: Waste reduction would be encouraged through educational efforts and would include maintaining current recycling and composting at their present level of operation.

RESOURCE RECOVERY PROGRAMS: Recycling and composting operations currently in existence in Crawford County would continue at their current level of operation.

COLLECTION PROCESSES: Collection would be carried out by private haulers. Continue system of curbside collection and Type B Transfer Stations.

TRANSPORTATION: The Waters Landfill is located just east of I-75. Because of the central location, the landfill is extremely accessible from all directions.

DISPOSAL AREAS: This alternative utilizes the Waters Landfill for the next 20 year planning period. This alternative limits the disposal options that may help to keep costs down for Crawford County residents.

INSTITUTIONAL ARRANGEMENTS: None

EDUCATIONAL AND INFORMATIONAL PROGRAMS: Educational efforts would involve utilizing existing agencies and organizations for information dissemination.

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS: Costs associated with this alternative would be minimal, as it would keep existing programs at their current levels. Impact fees from the Waters Landfill would be utilized as a funding source.

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

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

ALTERNATIVE 1: USE OF THE WMI WATERS LANDFILL WITH LIMITED RESOURCE RECOVERY INITIATIVES

This alternative utilizes the WMI Waters Landfill for the next 20 year planning period. This alternative assumes that all solid waste generated within Crawford County will be disposed of at said landfill. Recycling, household hazardous waste and composting opportunities currently in operation in Crawford County will continue at their current level. Backyard composting programs will be promoted for the rest of the sparsely populated areas of the county. Educational efforts will involve utilizing existing agencies and organizations for information dissemination.

Technical Feasibility: The technical feasibility of sanitary landfilling is well proven and the most widely used system for solid waste disposal in the United States. Recycling and composting have also proven to be technically feasible when incentives are in place.

Economic Feasibility: This alternative is economically feasible, as it uses an existing regional landfill. Crawford County currently receives monies from the landfill (See Attachment A), which are used to fund various programs for county residents.

Access to Land: The landfill is situated on 252.20 acres, which is currently owned by Waste Management, Inc. Over 150 acres are still undeveloped, so the projection of 20+ years of capacity insures the future disposal needs of Crawford County will be met.

Access to Transportation: The Waters Landfill is located just east of I-75. Because of the central location, the landfill is extremely accessible from all directions.

Effects on Energy: Sanitary landfilling is an energy intensive system. The disposal of materials which required energy to produce, also require energy to transport to the site and energy to mechanically cover the materials daily. Although some energy is conserved by utilizing transfer stations, it is hoped that by-products (i.e.: methane) of decomposing materials will some day be used as an alternative energy source.

Environmental Impacts: In view of the fact that this alternative utilizes an existing site, initial environmental impacts have not been considered. It should be noted however, that this site was previously contaminated, and a great deal of money has been spent on remediation. As with all sanitary landfills, future contamination of the groundwater remains a primary concern. Although the site is constructed utilizing the latest technology, no one can be 100 % certain that future problems will not arise. Methane gas produced through the decomposition of refuse is also a concern, but the technology does exist for utilizing this by-product in a constructive manner.

Public Acceptability: Public acceptability will continue for this program, as the majority of the population does not wish to put a great deal of thought into solid waste disposal. There will however,

be concern over the limited opportunities for recycling.

Resource Conservation: Conservation of natural resources will occur through continuation of the recycling programs, and increasing the utilization of backyard composting programs.

Waste Reduction: Waste reduction will be achieved through education. As educational efforts will be limited, it is likely that this alternative will not result in significant waste reduction.

Pollution Prevention: This alternative will not increase pollution prevention efforts, but will maintain them at their present level. This alternative does provide a means to remove household hazardous waste from the waste stream, through the annual Crawford County program. The draw back is that the county can only fund the HHW program one time per calendar year.

Resource Recovery: Resource recovery efforts currently in operation in Crawford County will continue at their present level of operation. The program may be expanded by the county as needed and budget constraints allow.

Ultimate Disposal Area Uses: Although Waste Management privately owns the Waters Landfill, it is the hope of Crawford County that the area will ultimately be used for recreational purposes.

Institutional Arrangements: There will be no additional institutional arrangements with this alternative. Educational activities will continue at their present level through existing agencies programs.

Why this System Was Not Selected: This system was not selected because Crawford County wishes to increase our resource recovery efforts, as well as have some built in safeguards with regards to competitive bidding.

APPENDIX B

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

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

ADVANTAGES:

- Minimal cost.
- Minimal involvement in solid waste management.

DISADVANTAGES:

- Material recovery would remain at present levels.
- Expansion of programs would be unlikely.
- No disposal options.

APPENDIX C

**PUBLIC PARTICIPATION
AND APPROVAL**

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.

The process for establishing the Crawford County Solid Waste Planning Committee involved advertisement in the local newspaper, as well as postings in all of the municipal buildings in Crawford County. The Crawford County Environmental Office received responses from the advertisements, and then appointments to the various categories were carried out. Because not enough applications were received to fill some of the positions, some recruiting of members had to be done. Once the committee positions were filled, the Crawford County Board of Commissioners voted on and approved the committee.

Committee meetings were then held to obtain input into the overall plan. The following provides an overview of the meetings and accomplishments.

APPENDIX C PUBLIC PARTICIPATION

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. See Attachment F for documentation of the Public Involvement Process.

MEETING # 1 – April 15, 1998

- Election of chairperson.
- Procedures for meetings.
- Solid waste planning overview.
- Identification of issues/problems/deficiencies.
- Discussion of Goals and Objectives.

MEETING # 2 – May 20, 1998

- Finalization of Goals and Objectives.
- Discuss disposal options.

MEETING # 3 – September 24, 1998

- Discuss and vote on flow control. This remains consistent with the Stipulated Order of Settlement.

MEETING # 4 – April 13, 1999

- Vote on which Disposal Option will be utilized.
- Proposal by Waste Management.

MEETING #5 – February 20, 2001

- Approval of the draft Solid Waste Management Plan (to be put out for the 90-day public comment period).

PUBLIC COMMENT PERIOD - March 1, 2001 through May 29, 2001

PUBLIC HEARING HELD ON May 15, 2001 at 7:00pm

MEETING #6 – June 29, 2001

- Vote on final approval of the Updated Solid Waste Management Plan.

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

The process for establishing the Crawford County Solid Waste Planning Committee involved advertisement in the local newspaper, as well as postings in all of the municipal buildings in Crawford County. The Crawford County Environmental Office received responses from the advertisements, and then appointments to the various categories were carried out. Because not enough applications were received to fill some of the positions, some recruiting of members had to be done. Once the committee positions were filled, the Crawford County Board of Commissioners voted on and approved the committee.

APPENDIX C PUBLIC PARTICIPATION

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. Chad Crawford – Landfill Manager/Waste Management
2. Jerry Weiss – Sales/ Waste Management
3. Ken Paquette – Waste Management
4. SSG Walter Walsh – Environmental Specialist/Camp Grayling

One representative from an industrial waste generator:

1. Mark Huffman - Weyerhaeuser

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

1. Jim Golden – Au Sable River Property Owners Association
2. Shirley Schmook – Lake Margrethe Property Owners Association

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

1. Pat Merrill – Crawford County Environmental Monitor

One representative from township government:

1. Terry Wright – Grayling Township

One representative from city government:

1. Steve Doyle – City of Grayling

One representative from the regional solid waste planning agency:

1. Diane Rekowski - NEMCOG

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

1. Joe Myers – South Branch Township
2. Gaye Pizzi – City of Grayling/Beaver Creek Township
3. Kim McClain – City of Grayling

APPENDIX D

PLAN IMPLEMENTATION STRATEGY

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 Crawford County Board of Commissioners and the Crawford County Environmental Monitor are ultimately responsible for implementing the Solid Waste management Plan, as part of their duties of general governance. The Environmental Monitor will coordinate the solid waste implementation activities with local municipalities, agencies, organizations, and planning commissions. The Board of Commissioners will enter into all formal agreements.

Crawford County will work with the Solid Waste Planning Committee to implement the Solid Waste Plan. Because much of the Plan implementation is improvement on the existing system, funding for said implementation should remain available. The Crawford County Environmental Department will spearhead this process.

Subcommittees will remain a very important part of the implementation process. The county-municipality alliance will continue to meet on a monthly basis to discuss ways of improving the current system. Ways to improve recycling, composting, household hazardous waste collection, scrap tire disposal, resource conservation, education and other issues of importance will be discussed. The Environmental Monitor will be responsible for implementing change, and working with existing agencies on the Dissemination of information to the general public.

ATTACHMENTS

ATTACHMENT A

Resolutions

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

STIPULATED ORDER OF SETTLEMENT

Patrick Merrill

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF OTSEGO

CITY ENVIRONMENTAL SERVICES,
INC. OF WATERS, a Michigan Corp.,

Plaintiff,

v

THE COUNTY OF CRAWFORD, A
Michigan Municipal Corporation, and THE
COUNTY OF OTSEGO, a Michigan
Municipal Corporation, and THE
CRAWFORD-OTSEGO SOLID WASTE
MANAGEMENT AUTHORITY, a
Municipal Authority, jointly and severally,

Defendants.

Case No. 95-6409 CK(D)

Hon. Richard M. Pajtas

STIPULATED ORDER OF
SETTLEMENT

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This case was initiated by a Complaint For Rescission and Other Relief filed by City Environmental Services, Inc. of Waters ("CESW") seeking damages and rescission of a September 23, 1991, Offer to Purchase and December 18, 1991, Closing Agreement relating to the purchase by CESW of the landfill known as the Crawford-Otsego Landfill (the "Landfill"). The Complaint named the County of Crawford ("Crawford"), the County of Otsego ("Otsego") and The Crawford-Otsego Solid Waste Management Authority (the "Authority") as defendants. CESW alleged that Crawford, Otsego, and the Authority breached certain provisions in the Offer to Purchase and Closing Agreement by, in part, failing to adopt a proposed amendment to the Crawford County Solid Waste Management Plan (the "Plan") with respect to outside county waste importation. The defendants have each denied CESW's allegations, and Crawford County filed a Counterclaim against CESW, alleging that CESW has violated the Plan by knowingly accepting for disposal at the Landfill solid waste that was generated in counties not authorized by the Plan. CESW has denied the allegations of the Counterclaim. Otsego County filed a Crossclaim against Crawford for indemnification and/or contribution with respect to CESW's claims against Otsego. Crawford has denied the allegations of the Crossclaim. In addition, the Crawford County prosecutor filed criminal Complaints against CESW and an affiliate arising out of CESW's alleged violations of the Plan. CESW and the affiliate have denied the allegations in the Criminal Complaint as well.

The Court has been advised that a settlement has been reached between the parties; the parties have agreed, as reflected by the signatures of their attorneys appearing below, to the entry of this Stipulated Order of Settlement (the "Order") setting forth the terms of the settlement and providing for this Court's retention of jurisdiction for the purposes of enforcing the terms of the Order. The parties having so stipulated and the Court being fully advised in the premises,

IT IS HEREBY ORDERED as follows:

1. Crawford shall amend its previously adopted flow control ordinance in accordance with the amended and restated ordinance attached as Exhibit A to this Order.
2. Crawford shall take such action as is necessary to approve, and include within the Plan, the proposed amendment to the Plan attached as Exhibit B to this Order (the "Plan Amendment").
3. CESW shall, upon approval of the Plan Amendment by Crawford, execute a Solid Waste Planning Agreement (the "SWPA") in the form attached as Exhibit C to this Order with Crawford and each of the municipalities located within Crawford County, which SWPA shall become effective on the Effective Date.
4. Crawford shall present the Plan Amendment to, and endeavor to obtain formal approval of the Plan Amendment by, the local municipalities within Crawford County.

5. Otsego shall amend its previously adopted flow control ordinance in accordance with the amendment attached as Exhibit D to this Order, and shall take such action as is necessary to make the amended flow control ordinance effective. Otsego shall also provide CESW with an opinion from its legal counsel confirming that the amended ordinance is valid and enforceable.

6. Pending inclusion of the Amendment in the Plan under the requirements of Act 451 and its rules and for purposes of effectuating the settlement set forth in this Order, the parties to this Order shall not take any action, directly or indirectly, which is otherwise inconsistent with the terms of this Order, and Crawford shall interpret the Plan in a manner consistent with this Order and Exhibits.

7. CESW shall, immediately upon the Effective Date, and thereafter during the time period that the Landfill continues to accept waste, calculate and pay to Crawford an Annual Payment pursuant to the terms of this paragraph. The first Annual Payment shall be Seventy-five Thousand Dollars (\$75,000.00). The amount of the Annual Payment for each successive year shall be calculated according to the following formula:

$$\text{Annual Payment} = \$75,000 + \text{IVA}$$

$$\text{IVA (Increased Volume Amount)} = [\$75,000 / (800,000 - \text{BV})] \times (\text{PYV} - \text{BV})$$

PYV (Preceding Year Volume) = Cubic gate yards of solid waste received at the Landfill during the preceding year

BV (Base Volume) = Cubic gate yards of solid waste received at the Landfill during 1996

The Annual Payment for 1996 shall be paid as follows:

101084
217,314
220,000

\$25,000 immediately upon the Effective Date;
\$25,000 on July 15, 1996
\$25,000 on Oct. 15, 1996

The Annual Payment for each succeeding year shall be paid in equal quarterly installments on the following dates:

1st payment	January 15
2nd payment	April 15
3rd payment	July 15
4th payment	October 15

Except as provided herein, however, in no event shall the Annual Payment be less than \$75,000, nor more than \$150,000. The amount of the Annual Payment shall abate pro tanto by the amount of any future funding available from and granted by the State of Michigan to Crawford for recycling, and/or a monitoring official of the type contemplated by paragraphs 8 and 9 below, Crawford shall take reasonable steps to apply for such funding, if available. The Annual Payment shall be reduced by any amounts paid by CESW to Crawford for a monitoring official, recycling program or other solid waste management activities pursuant to or as a result of any existing or change in applicable law, court order or administrative decree.

8. The Annual Payment shall be used by Crawford to defray Crawford's expenses for a recycling program and a county monitoring official ("Monitoring Official") to oversee Crawford County Solid Waste Management issues, including compliance at the Landfill and otherwise with the Crawford County Solid Waste Management Plan and this Order. Crawford shall not use the Annual Payment for legal fees to prosecute or defend any claim or lawsuit with respect to CESW or its affiliated entities or with respect to any issue regarding the Landfill.

9. The Monitoring Official shall be one or more qualified person(s) with appropriate training or experience in solid waste management and landfill matters hired by Crawford in accordance with the description of qualifications attached as Exhibit E to this Order. The Monitoring Official shall not have enforcement authority but shall work through state and local agencies with authority to enforce laws and regulations pertaining to solid waste.

10. If Crawford, its municipalities or elected officials in the future should amend the Plan to eliminate any county added by the Amendment, or cancel any reciprocal agreement, or amend the flow control ordinance, or take any other action inconsistent with the Plan Amendment, so as to cause a reduction in the volume of waste presently or in the future available for disposal at the Landfill ("Crawford Inconsistent Actions"), the provisions of paragraph 3.A. of the Offer to Purchase, paragraph 6.B. of the Closing Agreement, and paragraph 3.A. of the SWPA shall be null and void as to Crawford and its municipalities. In such event, CESW shall be entitled to pursue all legal and equitable claims it may have against Crawford, including any claim for recovery of costs to investigate and remediate contamination at, in, or emanating from the Landfill, and Crawford shall be deemed to have waived any statute of limitations defense with respect to such matters. This paragraph 10 shall not apply, however, with respect to any future Plan Amendment, reciprocal agreement cancellation, or flow control ordinance amendment legally required as a result of a change in applicable law, by court order, or other circumstance not caused by a Crawford Inconsistent Action.

11. If Otsego, its municipalities or elected officials in the future should amend the Otsego County Solid Waste Management Plan (the "Otsego Plan") to eliminate any county

identified in the existing Otsego Plan, or cancel any reciprocal agreement, or amend the flow control ordinance, or take any other action inconsistent with the existing Otsego Plan, so as to cause a reduction in the volume of waste presently or in the future available for disposal at the Landfill ("Otsego Inconsistent Actions"), the provisions of paragraph 3.A. of the Offer to Purchase and paragraph 6.B. of the Closing Agreement shall be null and void as to Otsego. In such event, CESW shall be entitled to pursue all legal and equitable claims it may have against Otsego, including any claim for recovery of costs to investigate and remediate contamination at, in, or emanating from the Landfill, and Otsego shall be deemed to have waived any statute of limitations defense, with respect to such matters. This paragraph 11 shall not apply, however, with respect to any future Otsego Plan amendment, reciprocal agreement cancellation, or flow control ordinance amendment legally required as a result of a change in applicable law, by court order, or other circumstance not caused by an Otsego Inconsistent Action.

12. Upon the Effective Date, all claims, counterclaims, and crossclaims actually raised in this action shall be dismissed with prejudice and without costs, except that CESW's claim for contribution under Count III of the Amended Complaint shall be dismissed without prejudice.

13. Paragraphs 1 through 6 of this Order shall be effective immediately.

14. Paragraphs 7 through 12 of this Order shall become effective only upon the occurrence of all of the following (the "Effective Date"), and upon such occurrence, the

parties shall execute and file a notice in the form attached to this Order as Exhibit F confirming the Effective Date:

- a) the effective adoption of the Amendment as set forth in the applicable provisions of Act 451 and its rules;
- b) the adoption by Crawford and Otsego of the amended flow control ordinances;
- c) resolution, satisfactory to CESW, of the pending criminal charges brought in the Crawford County District Court, Case No. 95-381-1-SM and 95-383-1-SM.

15. Upon entry of this Order, all proceedings in this cause shall be stayed either until this Order is vacated pursuant to paragraph 16, or until the Effective Date.

16. In the event that the items identified in paragraph 14 do not occur within 180 days of this Order or such other date as the parties may mutually agree upon, this Order shall be vacated, and this case will proceed without prejudice, pursuant to a revised Scheduling Order to be determined at such time. If this Order is vacated, this Order, and any action taken to effectuate the terms of this Order shall not be admissible by any party in any subsequent proceeding in this lawsuit for any purpose whatsoever.

17. Except as provided herein, nothing in this Order shall be construed to alter or modify the rights or obligations of the parties under the September 23, 1991, Offer to Purchase, December 18, 1991, Closing Agreement or associated documents.

18. The provisions of this Order shall be binding upon, and shall inure to the benefit of, the parties hereto and their respective successors and assigns.

19. This Court hereby retains jurisdiction to enforce the terms and conditions of this Order including the Exhibits hereto, upon motion of a party. Nothing in this paragraph shall be construed to preempt or circumvent the normal regulatory or enforcement process established by Act 451 and its rules, and all parties agree to adhere to such process, it being the intent of this paragraph to provide a mechanism for enforcement of the settlement terms embodied in this Order, and not as means to enforce Act 451, its rules or the Crawford Plan.

Dated: _____, 1996

Hon. Richard M. Pajtas, Circuit Judge

CONSENT TO ENTRY:

Thomas M. Fallucca
Attorney for Plaintiff
City Environmental Services, Inc.
3400 East Lafayette
Detroit, Michigan 48207

Peter L. Gustafson
Warner Norcross & Judd LLP
Co-Counsel for Defendant
Crawford County
900 Old Kent Building
111 Lyon, NW
Grand Rapids, Michigan 49503

James C. Cotant (P12247)
Bensinger, Cotant, Menkes & Aardema
Co-Counsel for Defendant Otsego County
308 W. Main
P.O. Box 1000
Gaylord, Michigan 49735

J. Michael Smith (P24530)
Miller Johnson Snell & Cumiskey
Attorneys for Defendant
The Crawford-Otsego Solid Waste Management Authority
800 Calder Plaza Building
Grand Rapids, Michigan 49503

#68739v8

EXHIBIT A

AMENDED AND RESTATED ORDINANCE
PROVIDING FOR THE DISPOSAL OF SOLID WASTE
IN CRAWFORD COUNTY

AN ORDINANCE to restrict disposal of refuse generated within the County of Crawford:

WHEREAS, the State of Michigan has, through Part 115 of Act 451, Public Acts of Michigan, 1995, mandated that cities, townships, villages, and counties shall assure that all Solid Waste is delivered to licensed solid waste disposal areas or otherwise legally disposed of; and

WHEREAS, Crawford County has an approved solid waste management plan as required by Part 115; and

WHEREAS, the County, in order to comply with the mandate of Part 115 and the provisions of the Plan, and to secure the health, safety, and general welfare of citizens of the County, has joined with certain municipalities located outside the County to incorporate the Crawford-Otsego Solid Waste Management Authority for the purpose of, among other things, providing the landfill for the use of municipalities incorporating the Authority and their citizens; and

WHEREAS, the member local units of governments who have formed the Authority have by resolution agreed that a County Ordinance providing for the disposal of solid waste at the Crawford-Otsego Landfill is desirable; and

WHEREAS, on or about September 20, 1991, the County of Crawford entered into an agreement, along with the Authority and County of Otsego to sell the landfill and related assets to City Management Corporation or assigns; and

WHEREAS, it is the belief of the County that the operation and remediation of the Crawford-Otsego landfill and handling of wastes generated within the County by City Environmental Services, Inc. of Waters is in the best interests of the citizens of Crawford County.

NOW, THEREFORE, IT IS HEREBY ORDAINED BY THE PEOPLE OF THE COUNTY:

Section 1. Definitions:

"Authority" means the Crawford-Otsego Solid Waste Management Authority or its private successors.

"County" means the County of Crawford.

"Crawford-Otsego Landfill" means the solid waste processing facility/sanitary landfill located in the counties of Otsego and Crawford and owned and operated by City Environmental Services, Inc. of Waters.

"Department" means Michigan Department of Environmental Quality.

"Effective Date" means the effective date of this Ordinance.

"Hazardous Waste" means hazardous waste as defined in Act No. 64 of the Public Acts of Michigan, 1979, as amended from time to time, and as identified in administrative rules promulgated from time to time pursuant to said Act by the Director of the Department.

"Municipal Waste" means street cleaning, municipal sludges, demolished building material, trees, brush, leaves, stumps, asphalt, concrete, industrial ash from municipal facilities and other inert materials collected by employees or agents of a municipality.

"Person" means any individual, proprietorship, firm, public or private corporation, partnership, trust, public or private agency or any other entity, or group of such persons.

"Site-Separated Materials" means recyclable materials (including, but not limited to, bottles, cans, newspaper, corrugated containers, grass, leaves, brush, yard trimmings, and metals) that are separated from solid waste after collection from a site of generation by a waste hauler or by the operators of the Crawford-Otsego landfill to which it is delivered.

"Solid Waste" means garbage, rubbish, ashes, incinerator ash, incinerator residue, and industrial sludges, solid commercial and solid industrial waste, and animal waste generated in Crawford County provided, however, that this definition shall not include hazardous waste, municipal waste, non-acceptable landfill items, site-separate materials, source separated materials, human body waste, liquid or other waste regulated by statute, ferrous or nonferrous scrap directed to a scrap metal processor or to a reuser of ferrous or nonferrous products, and slag or slag products directed to a slag processor or to a reuser of slag or slag products.

"Source-Separated Materials" means recyclable materials (including, but not limited to, bottles, cans, newspapers, plastics, corrugated containers, metals, grass, leaves, brush, and yard trimmings) that are separated from solid waste prior to the collection of solid waste from a site of generation by a waste hauler.

"Unacceptable Landfill Items" means materials detrimental to the operation of the Landfill, including but not limited to burning or smoldering materials or ash, tires, batteries, and cars.

Section 2. All Solid Waste shall be disposed of frequently enough to protect the public health.

EXHIBIT B

PROPOSED AMENDMENT

Add new paragraph to Part B, introduction;

Where this Plan refers to the landfill as the Crawford/Otsego Landfill Authority (COLA); it is understood that City Environmental Services, Inc. of Waters (CESW) is intended by such reference. In the event of a conflict between the original Plan and an amended provision, an amended provision shall be incorporated as though it were part of the original Plan and shall receive the highest priority in interpreting the Plan.

Amend Part B, item 4 to delete the existing language and replace it with the following:

Outside counties which may dispose of waste at the City Environmental Services, Inc. of Waters landfill for the 5 and 10 year planning periods include Alcona, Alpena, Antrim, Arenac, Charlevoix, Cheboygan, Chippewa, Emmet, Grand Traverse, Iosco, Kalkaska, Luce, Mackinac, Missaukee, Montmorency, Ogemaw, Ossoda, Otsego, Presque Isle, Roscommon and Wexford. Areas outside Crawford and Otsego counties may dispose up to 951,008 cubic gate yards per calendar year at the CESW facility. The inter-county transfer of solid waste into Crawford County from any of the above counties is specifically authorized in the Crawford County Plan.

CESW will provide an annual calendar year report to Crawford County which specifies (a) the monthly and annual total cubic gate yards of waste accepted at the landfill during the calendar year; and (b) the areas of origin from which waste has been received at the landfill. The report shall be submitted to the County Board of Commissioners and the designated Crawford County Solid Waste Planning Agency not later than March 1 following the calendar year reported on.

Outside counties which Crawford county may export waste to for disposal, for the 5 and 10 year planning periods, include Montmorency/Oscoda, ~~WEXFORD~~, Chippewa and Charlevoix. In order to be specifically authorized in the Crawford County Plan, the receiving county's respective County Plan shall provide for reciprocity by authorizing Crawford county for both export and import on a primary or contingency basis.

Amend Part B, item 5 to delete the existing language and replace it with the following:

Crawford County may enter into reciprocal agreements with any of the following counties for the purpose of disposal of Type II solid waste on an emergency basis: Alcona, Alpena, Antrim, Arenac, Cheboygan, Emmet, Grand Traverse, Iosco, Kalkaska, Luce, Mackinac, Missaukee, Ogemaw, Otsego, Presque Isle and Roscommon. Emergency basis shall only be when Charlevoix, Chippewa, Montmorency/Oscoda and Wexford, the primary sites listed above in Part B, item 4 cannot dispose of Type II solid waste.

Amend Part B, item 3 to delete the existing language and replace it with the following:

There are currently Type B solid waste transfer sites serving county residents. Type B waste transfer facilities may be constructed and operated, as needed, to accommodate the management of Crawford County's waste. A Waste Processing Facility / Type A transfer station may also be constructed and operated at the CESW site to service the recycling needs of the landfill's customers and serve as a transfer station.

Amend Part B Item 2 by adding the following:

In that regard, this Plan incorporates and includes as if set forth herein the Amended and Restated Ordinance Providing for the Disposal of Solid Waste in Crawford County.

EXHIBIT C

SOLID WASTE PLANNING AGREEMENT

THIS AGREEMENT, made this 21st day of October, 1996, by and among CITY ENVIRONMENTAL SERVICES, INC. OF WATERS, a Michigan corporation (hereinafter "CESW"), whose business address is 11375 Sherman Road, Frederic, Michigan 49733, and Crawford County (hereinafter "the County"), Beaver Creek Township, Frederic Township, Grayling Township, Lovells Township, Maple Forest Township, South Branch Township and the City of Grayling (hereinafter collectively the "Municipalities").

RECITALS

- A. On or about September 20, 1991, CESW purchased the Crawford-Otsego Landfill; and
- B. CESW currently owns and operates the fully licensed sanitary landfill at 11735 Sherman Road, Frederic, Michigan, and is pursuing a remedial action plan in response to the contamination which existed prior to such purchase;
- C. CESW and Crawford County have executed a Stipulated Order of Settlement (the "Settlement Order") with the intent that a settlement of the claims-brought by CESW and Crawford in the lawsuit entitled CESW v. County of Crawford, et al, Case No. 95-6409 C.(D) shall be resolved; the Settlement Order is attached hereto and incorporated herein by reference;
- D. Crawford County, pursuant to the Settlement Order has approved the amendment to the Crawford County Solid Waste Management Plan ("Plan") attached as Exhibit A to this Agreement, and the Municipalities have agreed to approve the Amendment and, thereby, amend the Plan, subject to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the promises and the mutual undertakings and benefits to accrue to all parties, CESW, the County, and the Municipalities hereby agree as follows:

1. Definitions. It is understood that for purposes of this Agreement, cubic gate yard means a cubic yard of solid waste as it arrives at the gate of CESW as opposed to the same volume of waste when compacted and disposed in the landfill.

2. County and Municipalities' Obligations. The County and the Municipalities shall take all actions, individually and collectively, necessary to and shall amend the Plan, in accordance with the procedure for amending the Plan as set forth in Act 451, to include the language attached hereto as Exhibit A within the time period provided in paragraph 16 of the Settlement Order.

3. CESW's Obligations:

A. Indemnification

Subject to the terms and conditions of the Settlement Order, CESW agrees to indemnify Beaver Creek Township, Frederic Township, Grayling Township, Lovells Township, Maple Forest Township, South Branch Township and the City of Grayling, and their respective officers and directors, from and against all claims, liability (other than criminal liability), cost and expenses, whether now or hereafter imposed, arising out of environmental contamination existing as of September 20, 1991, on, in, or emanating from the CESW landfill (including any and all

remediation thereof imposed by final orders issued by appropriate regulatory agencies or courts of competent jurisdiction) and shall defend and protect each of the above parties from any and all costs during the period CESW contests any order issued by any regulatory agency; provided, however, that no act or omission of any of the above parties shall increase CESW's liabilities under this Paragraph, and provided, further that the foregoing indemnification shall not be deemed to create any rights or benefits in, or obligation to, third parties.

B. Capacity Guarantee.

CESW will guaranty sufficient disposal capacity to Crawford County at the CESW landfill or other landfill to meet the 20 year disposal needs of Crawford County as identified in the Plan.

C. Disposal Agreement.

CESW agrees to enter into contracts for waste disposal with any of the Municipalities so desiring, on reasonable terms mutually acceptable to the Municipalities and CESW.

D. Reporting.

- (i) On a monthly basis, CESW shall report to Maple Forest Township and the Monitoring Official designated by Crawford County pursuant to the Settlement Order: (a) the monthly total cubic gate yards of waste accepted at the

landfill for disposal during the preceding month; and (b) the counties, states, or countries of origin from which waste has been received at the landfill. CESW shall provide this report to any Municipality upon request of that Municipality for any individual month.

- (ii) CESW shall also provide an annual calendar year report to Crawford County which specifies (a) the monthly and annual total cubic gate yards of waste accepted at the landfill during the calendar year; and (b) the counties, states or countries of origin from which waste has been received at the landfill. CESW shall provide this report to any Municipality upon request of that Municipality for any individual year. CESW shall further provide to the Monitoring Official, upon written request, copies of reports or other documentation provided to the State of Michigan or MDEQ that CESW may have, which verifies the volumes of waste received at the Landfill. CESW shall permit the Monitoring Official, upon written request and at the County's sole expense, to conduct a reasonable audit of CESW's annual calendar year report provided under this paragraph. Any such audit shall take place during normal business hours and shall be scheduled and conducted so as not to interfere with CESW's ongoing business operation. The results of any such audit shall be provided to CESW.

E. Inspection.

CESW shall permit the Monitoring Official or professional engineering consultants designated by the County, to enter and inspect the Landfill Facility for compliance with Act 451 and the terms of the Settlement Order. This inspection shall not include access to files, records, customer lists, rates, fees or other proprietary business information reasonably deemed confidential by CESW but shall include the operating record for the Landfill maintained by CESW under Part 115 of Act 451. The Monitoring Official shall execute the indemnification/waiver agreement drafted by CESW's counsel for any on-site injury, damages or liability that may occur when the Monitoring Official is present at the landfill.

Prior to entering the site for inspection, the Monitoring Official shall contact the site manager and make arrangements to meet the site manager or his designee at the CESW offices. CESW shall have the right to accompany the Monitoring Official on any inspection. The Monitoring Official shall not in any regard interfere with CESW's ongoing business operation, and shall specifically have no authority to draw samples from, or in any way tamper, touch or interfere with monitoring wells.

F. Environmental Monitoring.

CESW shall provide remediation monitoring well report results to the Monitoring Official upon written request for any individual sampling event required by the Remedial Action Plan ("RAP"). CESW shall permit the Monitoring Official to witness monitoring well sampling events required by CESW's RAP upon advance written request. The Monitoring Official may request that a split sample of any individual sampling event required by the RAP be analyzed by an accredited lab of their choice, upon advance written request. CESW shall not be liable for any cost or other fees associated with split samples or analyticals resulting from any such request.

G. Plan Amendments.

In the event that CESW proposes a Plan Amendment for export of solid waste from Montmorency/Oscoda, Wexford, Chippewa or Charlevoix County to Crawford County, CESW shall include Crawford County as an authorized county for import on a primary basis in such a proposed Amendment. CESW shall notify the Municipalities prior to proposing such an amendment and shall support each Amendment to authorize the import of waste from Crawford County in the respective county plan.

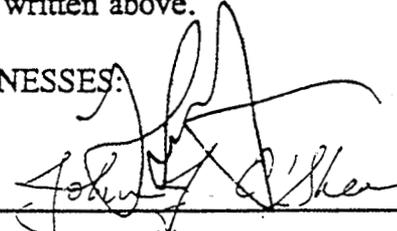
4. Term. This Agreement shall become effective upon the Effective Date set forth in the Settlement Order, and shall remain in effect during the time period that the Landfill continues to accept waste, unless terminated sooner as provided therein.

5. General Provisions. If any provision of this Agreement is inconsistent or contrary to any provision of the Settlement Order, the provision of the Settlement Order shall control.

6. Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

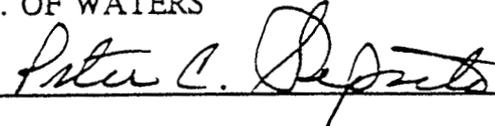
IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year written above.

WITNESSES:



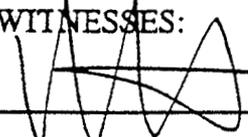
#BORNEYA

CITY ENVIRONMENTAL SERVICES,
INC. OF WATERS

By: 

Its: Authorized Representative

WITNESSES:



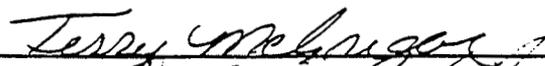
Its attorney

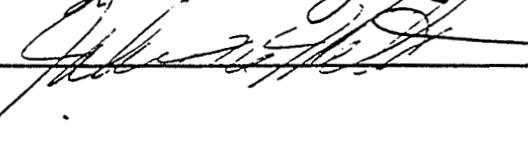
CRAWFORD COUNTY

By: 

Its: Authorized Representative

WITNESSES:





BEAVER CREEK TOWNSHIP

By: 

Its: Authorized Representative

4. Term. This Agreement shall become effective upon the Effective Date set forth in the Settlement Order, and shall remain in effect during the time period that the Landfill continues to accept waste, unless terminated sooner as provided therein.

5. General Provisions. If any provision of this Agreement is inconsistent or contrary to any provision of the Settlement Order, the provision of the Settlement Order shall control.

6. Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year written above.

WITNESSES:

CITY ENVIRONMENTAL SERVICES,
INC. OF WATERS

By: Peter C. Depinto

Its: Authorized Representative

WITNESSES:

[Signature]

Its attorney

CRAWFORD COUNTY

By: [Signature]

Its: Authorized Representative

WITNESSES:

Terry Melnyak

[Signature]

BEAVER CREEK TOWNSHIP

By: Shawn K. Hartman

Its: Authorized Representative

WITNESSES:

Barbara J. Jurside
Kathy L. Boudreau

WITNESSES:

FREDERIC TOWNSHIP

By: Brian Hulbert

Its: Authorized Representative

GRAYLING TOWNSHIP

By: _____

Its: Authorized Representative

LOVELLS TOWNSHIP

By: _____

Its: Authorized Representative

MAPLE FOREST TOWNSHIP

By: _____

Its: Authorized Representative

SOUTH BRANCH TOWNSHIP

By: _____

Its: Authorized Representative

CITY OF GRAYLING

By: _____

Its: Authorized Representative

WITNESSES:

FREDERIC TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

[Handwritten Signature]
[Handwritten Signature]

GRAYLING TOWNSHIP

By: *[Handwritten Signature]*

Its: Authorized Representative

WITNESSES:

LOVELLS TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

MAPLE FOREST TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

SOUTH BRANCH TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

CITY OF GRAYLING

By: _____

Its: Authorized Representative

WITNESSES:

FREDERIC TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

GRAYLING TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

Arvin Deby
Walter H. Juch

LOVELLS TOWNSHIP

By: *Frederick Schaefer*

Its: Authorized Representative

WITNESSES:

MAPLE FOREST TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

SOUTH BRANCH TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

CITY OF GRAYLING

By: _____

Its: Authorized Representative

WITNESSES:

FREDERIC TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

GRAYLING TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

LOVELLS TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

Edward M. Smith
Bernard H. Hansen

MAPLE FOREST TOWNSHIP

By: Mark D. Kous

Its: Authorized Representative

WITNESSES:

SOUTH BRANCH TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

CITY OF GRAYLING

By: _____

Its: Authorized Representative

WITNESSES:

WITNESSES:

WITNESSES:

WITNESSES:

WITNESSES:

Mary M. Mallon
Denise M. McGillivray

WITNESSES:

FREDERIC TOWNSHIP

By: _____

Its: Authorized Representative

GRAYLING TOWNSHIP

By: _____

Its: Authorized Representative

LOVELLS TOWNSHIP

By: _____

Its: Authorized Representative

MAPLE FOREST TOWNSHIP

By: _____

Its: Authorized Representative

SOUTH BRANCH TOWNSHIP

By: Allen Huffman

Its: Authorized Representative

CITY OF GRAYLING

By: _____

Its: Authorized Representative

WITNESSES:

FREDERIC TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

GRAYLING TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

LOVELLS TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

MAPLE FOREST TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

SOUTH BRANCH TOWNSHIP

By: _____

Its: Authorized Representative

WITNESSES:

Kay Ellen King

CITY OF GRAYLING

By: *Jerzy W. Moford*

Its: Authorized Representative

EXHIBIT E

DESCRIPTION OF QUALIFICATIONS FOR COUNTY MONITORING OFFICIAL

The Monitoring Official referenced in paragraphs 8 and 9 shall be a person with a career interest in natural resources management, environmental sciences, or solid waste management and related issues with the following minimum qualifications:

- a. A bachelors degree with a course study emphasis in solid waste management and/or environmental engineering or regulation; or
- b. A bachelors degree in science or engineering coupled with appropriate training (via classes, seminars, or the like) or experience in solid waste management and Act 451 issues and compliance.

EXHIBIT F

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF OTSEGO

CITY ENVIRONMENTAL SERVICES,
INC. OF WATERS, a Michigan Corp.,

Plaintiff,

v

THE COUNTY OF CRAWFORD, A
Michigan Municipal Corporation, and THE
COUNTY OF OTSEGO, a Michigan
Municipal Corporation, and THE
CRAWFORD-OTSEGO SOLID WASTE
MANAGEMENT AUTHORITY, a
Municipal Authority, jointly and severally,

Defendants.

Thomas M. Fallucca (P33805)
Attorney for Plaintiff
City Environmental Services, Inc.
3400 East Lafayette
Detroit, Michigan 48207
313-567-4700

John B. Huss (P15297)
Crawford County Prosecuting Attorney
Counsel for Defendant Crawford County
Crawford County Courthouse
Grayling, Michigan 49738
517-348-2841

Case No. 95-6409 CK(D)

Hon. Richard M. Pajtas

CONFIRMATION OF EFFECTIVE
DATE OF STIPULATED ORDER

Mark S. Lorence (P43561)
Co-Counsel for Plaintiff
City Environmental Services, Inc.
521 W. Main
Gaylord, Michigan 49735-1860
517-732-5150

Peter L. Gustafson (P24621)
Warner Norcross & Judd LLP
Co-Counsel for Defendant
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Grand Rapids, Michigan 49503
616-752-2000

James C. Cotant (P12247)
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Gaylord, Michigan 49735
517-732-7536

J. Michael Smith (P24530)
Miller Johnson Snell & Cummiskey
Attorneys for Defendant The Crawford-
Otsego Solid Waste Management Authority
800 Calder Plaza Building
Grand Rapids, Michigan 49503
616-459-8311

Kevin L. Hesselink (P39922)
Otsego County Prosecuting Attorney
Attorney for Defendant Otsego County
100 Livingston Blvd.
P.O. Box 367
Gaylord, Michigan 49735
517-731-0276

The parties herein, by their respective attorneys, file this notice confirming that the Effective Date Under the Stipulated Order of Settlement dated _____, 1996, in this cause, is _____, 1996.

Thomas M. Fallucca (P33805)
Attorney for Plaintiff
City Environmental Services, Inc.
3400 East Lafayette
Detroit, Michigan 48207

Peter L. Gustafson (P24621)
Warner Norcross & Judd LLP
Co-Counsel for Defendant Crawford County
900 Old Kent Building
111 Lyon, NW
Grand Rapids, Michigan 49503

James C. Cotant (P12247)
Bensinger, Cotant, Menkes & Aardema
Co-Counsel for Defendant Otsego County
308 W. Main
P.O. Box 1000
Gaylord, Michigan 49735

J. Michael Smith (P24530)
Miller Johnson Snell & Cumiskey
Attorneys for Defendant , The Crawford-Otsego Solid
Waste Management Authority
800 Calder Plaza Building
Grand Rapids, Michigan 49503

WARNER NORCROSS & JUDD LLP

ATTORNEYS AT LAW

900 OLD KENT BUILDING
111 LYON STREET, N.W.
GRAND RAPIDS, MICHIGAN 49503-2489

TELEPHONE (616) 752-2000
FAX (616) 752-2500

PETER L. GUSTAFSON

DIRECT DIAL NUMBER
(616) 752-2121

April 25, 1996

Mr. Jerry Morford
City Manager
City of Grayling
103 S. James Street
Grayling, Michigan 49738

Mr. Brian Hulbert
Supervisor, Frederic Township
Frederic Township Hall
P.O. Box 78
Frederic, Michigan 49733

Mr. Mark Knies
Supervisor, Maple Forest Township
7416 N. Sherman Road
Frederic, Michigan 49733

Mr. Arlen Huffman
Supervisor, South Branch Township
South Branch Township Hall
P.O. Box 606
Roscommon, Michigan 48653

Ms. Irene Schultes
Supervisor, Beaver Creek Township
Beaver Creek Township Hall
8994 S. Oak Road
Grayling, Michigan 49738

Mr. Fred Shaibly
Supervisor, Lovells Township
Lovells Township Hall
8405 Twin Bridge Road
Grayling, Michigan 49738

Mr. Arnold T. Stancil
Supervisor, Grayling Township
Grayling Township Office
P.O. Box 521
Grayling, Michigan 49738

Re: Settlement of Landfill Litigation

Dear City Manager and Township Supervisors:

As you know, Crawford County has approved a settlement of the pending litigation with CESW, as has the Landfill Authority. The Otsego County Board of Commissioners is expected to approve the settlement in the near future. CESW has approved the settlement as well. I am enclosing a set of the settlement documents, consisting of a Stipulated Order of Settlement and attached exhibits. Please note that Exhibit D is not included in the enclosed package. Exhibit D will address Otsego County's flow control ordinance, and is not directly related to Crawford County and its municipalities. This exhibit is being prepared by the attorneys for Otsego County and CESW, and is expected to be completed shortly.

Mr. Jerry Morford
Ms. Irene Schultes
Mr. Brian Hulbert
Mr. Fred Shaibly
Mr. Mark Knies
Mr. Arnold T. Stancil
Mr. Arlen Huffman
April 25, 1996
Page 2

The Stipulated Order of Settlement is being circulated among the attorneys for signature and will then be presented to Circuit Judge Pajtas, with the request that he enter the settlement order in the court file. Judge Pajtas is presiding over the pending litigation.

As we have previously discussed, the settlement contemplates, in general, that Crawford County will adopt the amended and restated ordinance (flow control) attached as Exhibit A to the Stipulated Order of Settlement and will approve the amendment to its solid waste management plan attached as Exhibit B. The amended and restated ordinance revises the flow control ordinance previously adopted by Crawford County in December 1991 to permit solid waste from Crawford County to be exported to the counties of Montmorency / Oscoda, Wexford, Chippewa, or Charlevoix, so that the flow control ordinance will comport with the proposed amendment to the Solid Waste Management Plan. The amended and restated ordinance is otherwise virtually identical to the flow control ordinance adopted in 1991. The plan amendment is in substantially the same form as the amendment reviewed by the townships and the City of Grayling in 1995, except that it has been revised to include a provision approving the modified flow control ordinance as part of the county plan.

For its part, CESW has agreed to pay an annual fee to the county to fund a monitoring official and recycling, and also has agreed to enter into the Solid Waste Planning Agreement attached as Exhibit C. The Solid Waste Planning Agreement contains the indemnity protection sought by the municipalities, as well as other provisions relating to the monitoring of landfill operations. There have been revisions to the Solid Waste Planning Agreement to comport with the settlement. The detailed provisions of the Stipulated Order of Settlement and the Exhibits are set forth in the documents, and I encourage you to review these documents carefully.

In order for the settlement to become effective, it is necessary that the proposed amendment to Crawford's plan be approved by the county and by the requisite number of municipalities (67 percent) within the county. On behalf of the county, I ask that you include consideration of the amendment, as part of this settlement process, on the agenda for your May meetings. If possible, the county would like to have action on the amendment at your May meetings, so that the settlement process can move forward.

As I have mentioned to you on prior occasions, I stand ready to respond to any questions you may have about the settlement terms or the settlement process. It may be possible for me to attend one or more of your meetings when the plan amendment is considered, if you

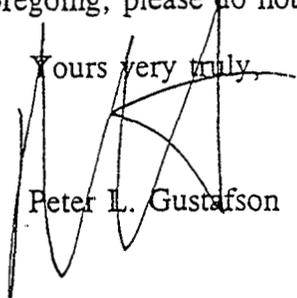
Mr. Jerry Morford
Ms. Irene Schultes
Mr. Brian Hulbert
Mr. Fred Shaibly
Mr. Mark Knies
Mr. Arnold T. Stancil
Mr. Arlen Huffman
April 25, 1996
Page 3

think this would be helpful or appropriate. It may be difficult, of course, to attend all of the meetings, but I would make every effort to be of assistance.

I have appreciated your cooperation during the litigation and the protracted settlement negotiations that have brought the parties to the point of settlement. While no compromise settlement of a complicated dispute provides a perfect solution, it is my considered opinion that the settlement that has been reached with CESW is one that will serve the best interests of the citizens of Crawford County given the circumstances presented by the litigation. Accordingly, I am hopeful that you and your respective boards (and the City Commission) will act favorably upon the proposed plan amendment and the Solid Waste Planning Agreement, as part of the settlement process.

If you have questions about the foregoing, please do not hesitate to contact me.

Yours very truly,


Peter L. Gustafson

vb

Enclosure

cc: Mr. Bruce Bretzke, Chairman,
Crawford County Board of Commissioners

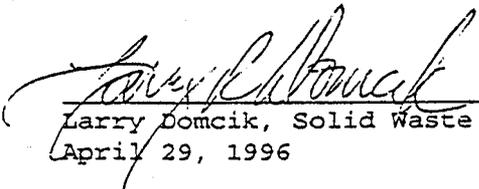
Mr. John Huss

RESOLUTION

#96-0429-A

On Motion duly moved and seconded that Paragraph 3I of the Solid Waste Planning Agreement shall be incorporated into the final version of the Solid Waste Planning Agreement.

ADOPTED APRIL 29, 1996 VOTES: YES 7 NO 1


Larry Domcik, Solid Waste Planning Committee
April 29, 1996

WARNER NORCROSS & JUDD LLP

ATTORNEYS AT LAW

900 OLD KENT BUILDING
111 LYON STREET, N.W.
GRAND RAPIDS, MICHIGAN 49503-2489

TELEPHONE (616) 752-2000
FAX (616) 752-2500

RECEIVED

AUG 8 1996

GRAYLING TOWNSHIP

PETER L. GUSTAFSON

DIRECT DIAL NUMBER
(616) 752-2121

August 6, 1996

Mr. Jerry Morford
City Manager
City of Grayling
103 S. James Street
Grayling, Michigan 49738

Ms. Irene Schultes
Supervisor, Beaver Creek Township
Beaver Creek Township Hall
8994 S. Oak Road
Grayling, Michigan 49738

Mr. Brian Hulbert
Supervisor, Frederic Township
Frederic Township Hall
P.O. Box 78
Frederic, Michigan 49733

Mr. Fred Schaibly
Supervisor, Lovells Township
Lovells Township Hall
8405 Twin Bridge Road
Grayling, Michigan 49738

Mr. Mark Kniss
Supervisor, Maple Forest Township
7416 N. Sherman Road
Frederic, Michigan 49733

Mr. Arnold T. Stancil
Supervisor, Grayling Township
Grayling Township Office
P.O. Box 521
Grayling, Michigan 49738

Mr. Arlen Huffman
Supervisor, South Branch Township
South Branch Township Hall
P.O. Box 606
Roscommon, Michigan 48653

Re: Settlement of Landfill Litigation

Dear City Manager and Township Supervisors:

In accordance with your instructions at the conclusion of our July 19, 1996, meeting, I communicated to CESW's attorney that the Plan Amendment and Solid Waste Planning Agreement were not likely to be approved unless the original 1995 Plan Amendment

Mr. Jerry Morford
Ms. Irene Schultes
Mr. Brian Hulbert
Mr. Fred Shaibly
Mr. Mark Kniss
Mr. Arnold T. Stancil
Mr. Arlen Huffman
August 6, 1996
Page 2

language was included in the Agreement, but that if this change were made, the Plan Amendment and Agreement would probably be approved by all of the municipalities. I am pleased to report that following further discussion, CESW has agreed to accept this final change. Accordingly, the Plan Amendment and Solid Waste Planning Agreement are now ready to be submitted to the municipalities for approval.

As requested at the June 14 and July 19 supervisors' meetings, I am providing for each of you:

1. A proposed resolution regarding the amendment to the Crawford County Solid Waste Management Plan in accordance with the Stipulated Order of Settlement resolving the CESW v. Crawford County litigation, with the proposed Plan Amendment attached to the resolution.

2. A proposed resolution approving the revised Solid Waste Planning Agreement, with four duplicate originals of the Solid Waste Planning Agreement attached. Per your request, the Agreement has been modified at Paragraph 3.G. to include the original language that was proposed in 1995 (the "3I" language). You will note that the agreement has been signed by representatives of CESW and Crawford County. The effectiveness of the Agreement is contingent upon approval of the Plan Amendment by the Crawford County municipalities and the Michigan Department of Environmental Quality under Part 115 of Act 451 and its rules.

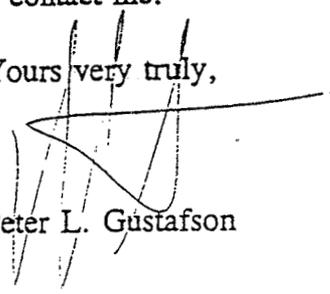
On behalf of Crawford County, I am asking that you take action on the two enclosed resolutions and thereafter inform me of the action taken.

If your governing body approves the Resolutions, please return to me a signed and dated copy of both resolutions, along with three executed copies of the Solid Waste Planning Agreement. You may retain one signed copy for your files. When action is completed by the other municipalities, and if the Plan Amendment is approved under Part 115 of Act 451 and its rules, I will advise each of you and will furnish you with copies of the additional signature pages

Mr. Jerry Morford
Ms. Irene Schultes
Mr. Brian Hulbert
Mr. Fred Shaibly
Mr. Mark Kniss
Mr. Arnold T. Stancil
Mr. Arlen Huffman
August 6, 1996
Page 3

of the Solid Waste Planning Agreement for your records. If the Plan Amendment is not approved, I will advise you in writing, and the Agreement will have no force or effect. Should you have questions about the foregoing, feel free to contact me.

Yours very truly,



Peter L. Gustafson

vb

Enclosures

cc: Mr. Bruce Bretzke
Mr. John Hartman
Mr. John Huss
Mr. Tom Fallucca
Mr. James Cotant
Mr. J. Michael Smith

COMPILED ORDINANCES OF THE
CITY OF GRAYLING, MICHIGAN
TRASH ORDINANCE
ORDINANCE NO. 01-2

Effective July 1, 2001

An ordinance to set limits on the time that dumpsters can be emptied in the City of Grayling.

The City of Grayling Ordains:

SHORT TITLE: This ordinance shall be known and may be cited as the "Trash Collection Ordinance."

The City of Grayling Ordains:

SECTION 1: **Dumpster** means any container of more than one (1) cubic yard capacity, whether covered or not, used for the depositing and/or temporary storage of rubbish for the collection and disposal by a motor vehicle.

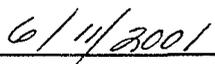
SECTION 2: No dumpster located within five hundred (500) feet of any structure intended for use as a residential dwelling shall be emptied between the hours of 9:00 p.m. and 7:00 a.m.

SECTION 3: Violation of this Ordinance is a Civil Infraction punishable by a One Hundred Dollar (\$100.00) fine for each occurrence.

EFFECTIVE DATE: Ordinance declared adopted, with effective date to be July 1, 2001, which is in accordance with the City Charter.



Kay Ellen King, City Clerk



Date

ATTACHMENT B

Listed Capacity

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



WASTE MANAGEMENT

11375 Sherman Rd
Frederic, MI 49733
(517) 832-3543
(517) 832-1398 Fax

June 21, 2001

Mr. Pat Merrill
Crawford County
200 W. Michigan Avenue
Grayling, Michigan 49738

RE: Disposal Capacity
City Environmental Services, Inc of Waters

Dear Mr. Merrill:

The purpose of this letter is to certify that Waters Landfill, located in Crawford County, has sufficient disposal capacity to service the needs of Crawford County. It is projected the facility has approximately 14 years of life remaining of the current permitted volume.

Therefore, Crawford County can continue to rely on Waters Landfill for its future disposal needs. Please feel free to contact me if I can provide any further information.

Sincerely,

Debora L. Johnston
District Engineer

c: Chad Crawford
Jim Palmer

ROGER D. FRYE, CHAIRMAN
DENNIS KAUFFMAN, VICE- CHAIRMAN
RAYMOND WEGMEYER, SEC./TREAS.
RICHARD E. HERMANSON
MICHAEL HUNT
TOM MULLANEY
SANDY CUNNINGHAM, EXEC. SECRETARY



P. O. Box 789, Atlanta, MI 49709

(517) 785-2066 Phone
(517) 785-4183 Fax

December 6, 2000

Mr. Patrick Merrill
Environmental Monitoring Official
Crawford County
200 West Michigan Avenue
Grayling, MI 49738

Dear Mr. Merrill:

Please be advised that it is the intention of the Montmorency-Oscoda-Alpena Solid Waste Management Authority Board to accept waste generated in the County's as listed with export authorization in the Montmorency-Oscoda Solid Waste Management Plan, which includes Crawford County.

However, on 6/16/00, the Board directed that all County's with export authorization be advised that we are not in a position to guarantee disposal capacity to any County with the exception of Montmorency, Oscoda and Alpena County's, as Member-County's of the Montmorency-Oscoda-Alpena Solid Waste Management Authority Board.

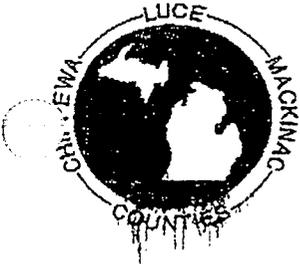
We will continue to accept refuse from the County's with export authorization, however, we must reserve the right to limit the quantity accepted.

If you require additional information, please contact this office.

Sincerely,

Sandy Cunningham
Executive Secretary

cc: Landfill Authority Board



EASTERN U.P. REGIONAL
PLANNING & DEVELOPMENT
COMMISSION

524 ASHMUN STREET • P.O. BOX 520
SAULT STE. MARIE, MICHIGAN 49783
906-635-1581

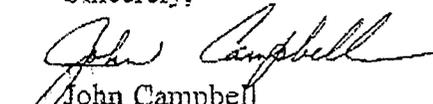
Pat Marrow
Crawford County Solid Waste Planning Committee
Crawford County Courthouse
Grayling, MI 49738

Dear Mr. Marrow:

This letter is being sent to confirm that the Eastern Upper Peninsula Solid Waste Plan authorizes importation of Solid Waste from Crawford County on a primary basis, with no restrictions on the annual quantity of waste to be imported, to any certified landfill in Chippewa, Luce or Mackinac County. (At this time, there is one certified landfill in operation; the Dafter Landfill, in Chippewa County, which is owned and operated by Waste Management, Inc..)

The authorization is provided to Crawford County with the understanding it will be a reciprocal arrangement whereby Crawford County will allow importation of solid waste from Chippewa, Luce and Mackinac Counties on a primary basis for disposal in the Waters Landfill.

Sincerely,



John Campbell
Eastern U.P. Solid Waste Committee



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

December 5, 2000

Mr. Patrick Merrill, Environmental Monitoring Official
Crawford County
200 Michigan Avenue
Grayling, Michigan 49738

Dear Mr. Merrill:

I am writing in response to your phone message of December 1, 2000, in which you requested that Crawford County be authorized as an importing county on a contingency basis in the Presque Isle Solid Waste Management Plan Update (Plan) being prepared by the Department of Environmental Quality (DEQ).

Table 1-A of the Draft Plan authorizes Presque Isle County (County) to accept imports of solid waste from Crawford County on a primary disposal basis. Under this condition, the County may also accept imports of solid waste from Crawford County on a contingency basis.

At this time the Plan has been forwarded to DEQ Director Russell J. Harding (Director) for his review. Therefore, we cannot provide any specific assurances as to which counties will be authorized to import solid waste into Presque Isle County until the Director issues the Plan to the County.

If you have any questions regarding this matter, please contact me at the telephone number below, or by e-mail, at idziaks@state.mi.us.

Sincerely,

A handwritten signature in cursive script that reads "Stan Idziak".

Stan Idziak
Solid Waste Management Unit
Waste Management Division
517-373-4740

cc: Presque Isle County Solid Waste Management File
Crawford County Solid Waste Management File

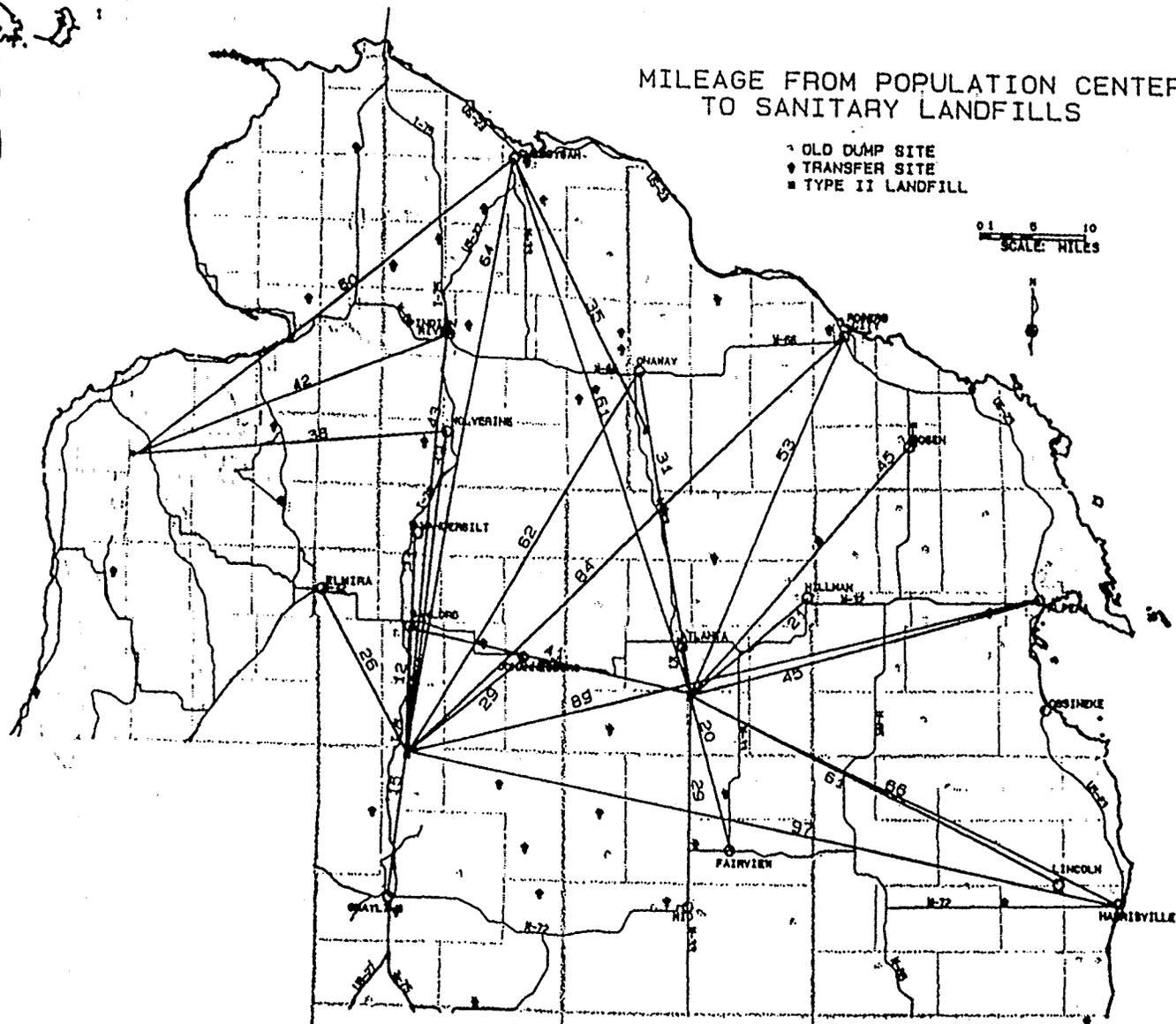
ATTACHMENT C

Maps

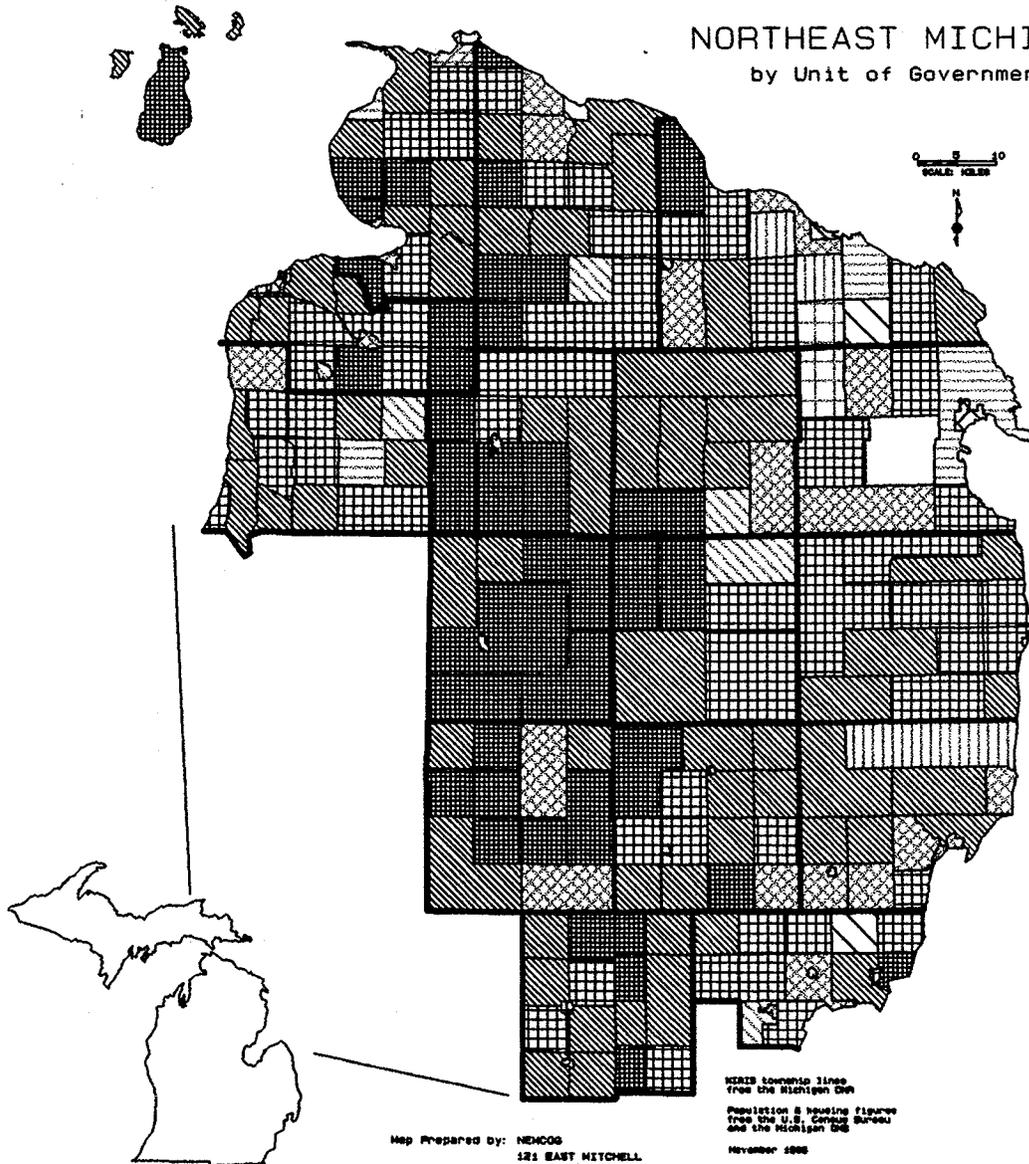
MILEAGE FROM POPULATION CENTERS TO SANITARY LANDFILLS

- OLD DUMP SITE
- TRANSFER SITE
- TYPE II LANDFILL

0 5 10
SCALE: MILES



NORTHEAST MICHIGAN
by Unit of Government



% Change 1970 - 1990

Population Density

Legend

- ☒ -16.01% & Less
- ▤ -9.01% to -16.00%
- ▥ -6.01% to -9.00%
- ▧ -4.01% to -6.00%
- ▨ -1.01% to -4.00%
- ▩ -1.00% to 1.00%
- 1.01% to 4.00%
- 4.01% to 6.00%
- ▬ 6.01% to 9.00%
- ▭ 9.01% to 16.00%
- ▮ 16.01% to 25.00%
- ▯ 25.01% to 75.00%
- ▰ 50.01% to 100.0%
- ▱ 100.01% & Greater

Change in Persons
Per Square Mile

NEMCOG GIS Program

Map Prepared by: NEMCOG
121 EAST MITCHELL
GAYLORD, MICHIGAN

NEEDS township lines
from the Michigan DOP
Population & housing figures
from the U.S. Census Bureau
and the Michigan DOP
November 2000

Population Density

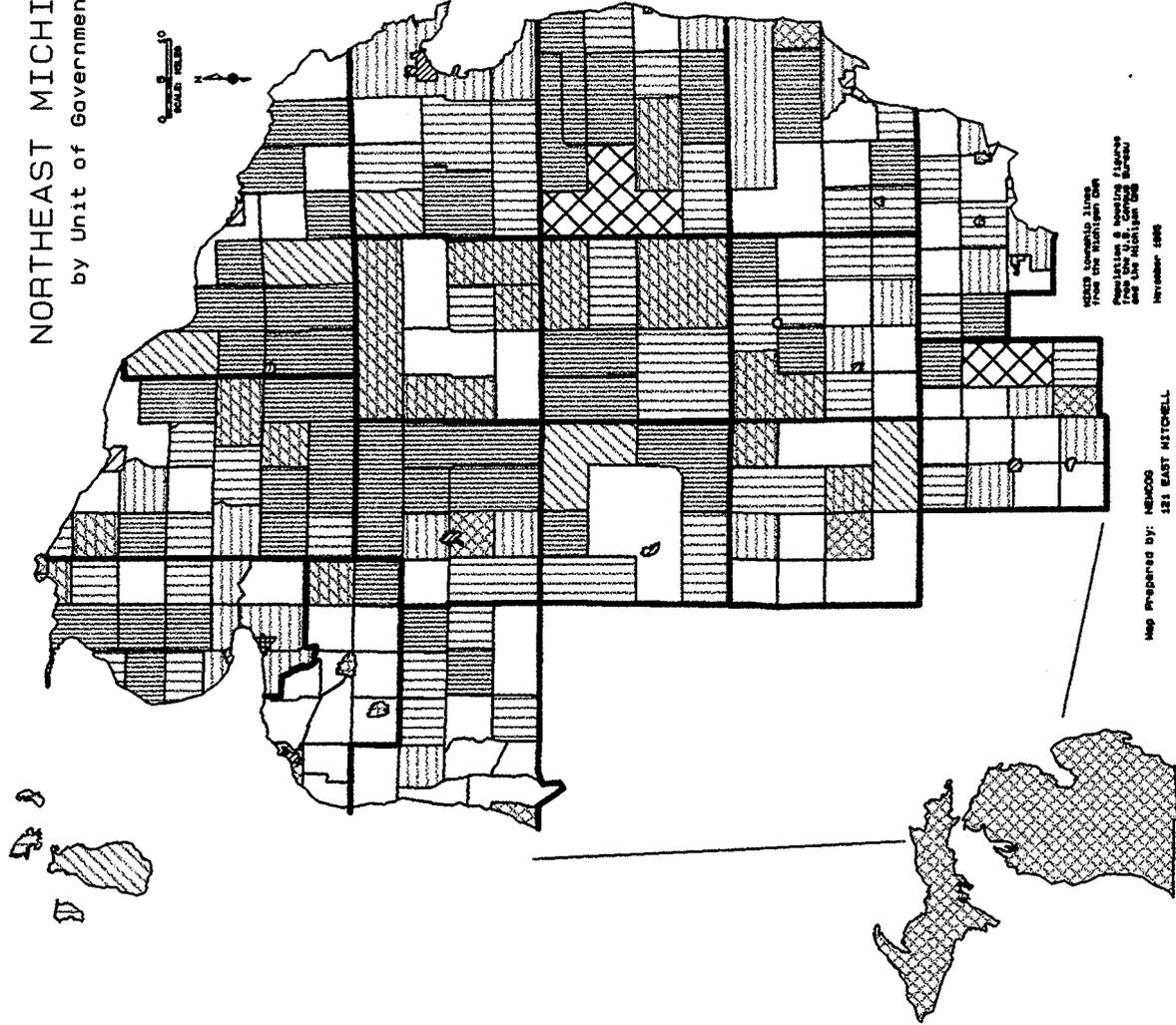
Persons Per Sq. Mile

Legend

- 0.5 - 1.0/Sq.Mi.
- 1.1 - 2.0
- 2.1 - 5.0
- 5.1 - 8.0
- 8.1 - 15.0
- 15.1 - 25.0
- 25.1 - 50.0
- 50.1 - 100.0
- 100.1 - 300.0
- 300.1 - 700.0
- 700.1 - 1200.0
- 1200.1 - 1600.0
- 1600.1 - 2000.0

Northeast Michigan
 16 Counties - 1990
 NEMCOG GIS Program

NORTHEAST MICHIGAN
 by Unit of Government



DATA SOURCED FROM THE MICHIGAN DEPARTMENT OF STATISTICS AND LIAISON SERVICES, NOVEMBER 1990

Map Prepared by: NEMCOG, 121 EAST MITCHELL, GAYLORD, MICHIGAN

ATTACHMENT D

Letters of Support

Letters from groups who will assist with the implementation of the Plan Update.

MICHIGAN STATE
UNIVERSITY
EXTENSION

June 15, 2001

Pat Merrill
200 W. Michigan Avenue
Grayling, MI 49738

Dear Pat:

Congratulations on the very well written Crawford County Proposed Solid Waste Plan. It appears to be a very inclusive document.

The Crawford County MSU Extension office will certainly do whatever we can to assist in this project. I agree with your assessment of Extension's educational roll, particularly in recycling, composting, and resource management. We do have materials in these areas and there are probably materials that we are not aware of at this time.

Please contact me if you have questions or need further information.

Sincerely,



Roy V. Spangler
Crawford County Extension Director

RVS/gp



**Crawford
County**

**MSU
Extension Service**

200 Michigan Avenue
Grayling, Michigan
49738

(989) 344-3264

FAX: (989) 344-3265

Michigan State University Extension
programs and materials are open to all
without regard to race, color, national
origin, sex, disability, age or religion.

Michigan State University
U.S. Department of Agriculture and
counties cooperating. MSU is an
affirmative-action equal opportunity
institution.



WASTE MANAGEMENT

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

DATE: 06/15/01
TO: PAT MERRILL, CRAWFORD COUNTY
CC:
FROM: WMI
RE: COMPOST

The Waters Landfill does accept compost on a daily basis. The compost must be loose or bagged in biodegradable bags. Compost consists of leaves, grass and brush less than 4" in diameter. Currently the landfill is using the end product on site for topsoiling of intermediate slopes.

Chad Crawford

A handwritten signature in black ink, appearing to read 'Chad Crawford', is written over a faint, larger version of the same name. The signature is fluid and cursive.

Site manager waters Landfill

06/15/01



Crawford - Roscommon Conservation District

CRAF Center in Village Square at 606 Lake Street
P.O. Box 156, Roscommon, MI 48653
(517) 275-5231

June 15, 2001

Crawford County
200 Michigan Avenue
Grayling MI 49738

To Whom It May Concern:

The Crawford-Roscommon Conservation District will be happy to work with you on the County Solid Waste Plan.

Our office can provide information and dissemination as needed.

Sincerely,

Barb Stauffer
District Administrator

District Health Department #10



Crawford County Office

202 Meadows Drive

Grayling, MI 49738

517-348-7800

fax: 517-348-5346

CRAWFORD COUNTY
ENVIRONMENTAL DEPARTMENT
ATTEN: MR. PAT MERRILL
200 W. MICHIGAN AVENUE
GRAYLING, MI 49738
6-25-01

DEAR MR. PAT MERRILL:

THE CRAWFORD COUNTY SOLID WASTE MANAGEMENT PLAN IS A SERVICE TO THE COUNTY THAT THE HEALTH DEPARTMENT GRATELY SUPPORTS. THE PROGRAM WILL ENHANCE THE PUBLIC DROP-OFF AND COLLECTIONS CONVENIENCE ISSUES AND IMPROVE PARTICIPATION. THE HAZARDOUS WASTE MANAGEMENT COMPONENT HAS BEEN A GROWING YEARLY SUCCESS AND WITH THE POSSIBILITY OF A DEDICATED PERMINANT HAZARDOUS DROP-OFF AND HANDLING FACILITY WILL TRUELY SERVE TO MAINTAIN THE NATURAL ENVIRONMENTAL QUALITY OF OUR AREA.

THE HEALTH DEPARTMENT WILL LOOK FORWARD TO ASSIST IN THE PROGRAM BY DISSIMENATING PUBLIC NEWS AND INFORMATION ABOUT THE ON GOING EVENTS AND ACTIVITIES, THE BENEFITS TO THE COUNTY ENVIRONMENT, AND TO ENCOURAGE THE SUPPORT ON THE PART OF THE CITIZENS.

SINCERELY YOURS

George Hall

GEORGE HALL, SANITARIAN



ATTACHMENT E

Special Conditions

Special conditions affecting import or export of solid waste.



ATTACHMENT F

Public Involvement Process

Documentation of the Public Involvement Process.

This documentation consists of:

- Advertisement for members for the Solid Waste Planning Committee.
- Meeting Notices and Minutes of the Crawford County Solid Waste Planning Committee.
- Public Hearing Information.
- Approval by the Crawford County Board of Commissioners.
- Approval by the Crawford County Municipalities.

Grayling, Michigan, is hereby offered for sale as described as:

Lots One (1) and Two (2), Block Twenty (20) Roffee's Addition to the Village of Grayling, a subdivision of part of the N 1/2 of the NE 1/4 of Sec. 7, T26N, R3W, according to the plat thereof recorded in Liber 1 page 11, Plats, Crawford County Records.

The redemption period shall be 12 month(s) from the date of such sale, unless determined abandoned in accordance with 1948CL600.3241a, in which case the redemption period shall be 30 days from the date of such sale.

Dated: October 2, 1997
BANKERS TRUST AS TRUSTEE
FOR INFORMATION, PLEASE CALL:
(248) 642-4202
Trott & Trott, P.C.
Attorneys for BANKERS TRUST AS TRUSTEE,
30150 Telegraph
Suite 100
Bingham Farms, Michigan 48026
File #97097384

-2-9-16-23-30

LAKE ESTATES.

The period of redemption shall be six months from the date of sale.

This Notice is being reissued to correct a typographical error on the Notice of Sale of Real Estate on Foreclosure which was issued on July 31, 1997 in this matter.

Dated: August 18, 1997
Sandra Moore
County Clerk
Crawford County,
Michigan

4-11-18-25-2-9-16

AVALANCHE

For Your Local Sports Action



City of Grayling

REGISTRATION NOTICE

QUALIFIED ELECTORS OF THE CITY OF GRAYLING

Clerk will be open from 8:30 am to 4:30 pm each day for applications for registration for the regular City

Day, November 4, 1997

And From

8:30 am to 4:30 pm on

as a problem both summer and winter. Millikin's may be contacted to discuss if these specific concerns can be handled.

1. Motion by Ashton, support by Medler, to close Shangri-la public hearing and open scheduled PUBLIC HEARING for S. Horseshoe Trail maintenance renewal. All ayes, motion carried.

Supervisor explained that S. Horseshoe Trail (N. of E. M-72), was formerly known as N. Horseshoe Trail Private Road Special Assessment District for Road Maintenance. The road name has changed due to the 911 numbering system. The road is located between Sections 9, 10, 15 & 16 of T26N, R2W.

The purpose of the hearing is to receive and

finance. All ayes, motion carried (7:35 p.m.)

The purpose of the Public Hearing is to receive and review public comment regarding the necessity for renewal of Diamond Drive Private Road Special Assessment District for Maintenance. The road is located in Sections 22 & 23 of T26N, R2W off Chase Bridge Road.

The estimate from Jack Millikin, Inc., current contractor, is \$2,400.00 for the next five years, which is no change from current assessment. Twenty-two parcels are assessed at \$109.09 per year.

Correspondence & Comments:

Eldore Klender: Millikin's built a very good road, also doing an excellent job of maintaining it

PUBLIC PARTICIPATION PLANNING COMMITTEE

Crawford County is accepting applications for the Solid Waste Planning Committee. Interested parties should contact Pat Merrill at 348-2841, ext. 258. The following persons are needed:

1. Four representatives of the solid waste management industry.
2. One representative from an industrial waste generator.
3. Two representatives from environmental interest groups from organizations that are active within the county.
4. One representative from county government. All government representatives shall be elected officials or a designee of an elected official.
5. One representative from township government.
6. One representative from city government.
7. One representative from the regional solid waste planning agency.
8. Three representatives from the general public who reside within the county.

LOVELLS TOWNSHIP NOTICE SNOWPLOWING BID

LOVELLS TOWNSHIP will receive bids for the snowplowing of Lovells Township Hall, Fire Hall and Dump sites #1 and #2 for the 1997-1998 season until 3:00 p.m. Tuesday, October 14, 1997 at the Township Hall offices.

Evidence of insurance must accompany all bids.

Snowplowing specifications can be obtained at the Township Hall between the hours of 9:00 a.m. and 3:00 p.m. on Tuesdays, Wednesdays and Thursdays.

The township board reserves the right to reject any or all bids, to award the bid to the lowest bidder, and in general to make the award in any manner deemed by it, in its sole discretion, to be in the best interest of

trict for Maintenance of (previously Pine Ridge Road), and Supervisor to draft the tentative schedule a public hearing for Tuesday, October 14, 1997. All ayes, motion carried.

8. Melvin Nunn explained the Scholarship Program at Grayling High School rewards students for perfect or near perfect grades with discounts on local businesses. Motion by Medler, that the Grayling Board support the concept of the program in the Crawford County District. All ayes, motion carried.

9. Paul Olson, representing the Township Participating Plan, discussed various insurance coverage and renewal of policy for 97-98. Motion by Nunn, support by Olson, to upgrade to include re-zoning with Michigan Participating Plan with the addition of a tractor purchased in August. Motion carried.

10. Pete Potterpin, representing Planning & Management, briefed the multi-family housing project (N. of Upper Lakes Tire). Motion by Nunn, support by Potterpin, to petition for a re-zoning (from Conditional Use Permit for 40 units). Negotiations have begun with the utility for sewer and water hookups. Motion by Nunn, support by Potterpin, that they will be required.

11. Motion by Nunn support by Potterpin, to re-appoint Walter Walsh as a representative on the Grayling Township Board. All ayes, motion carried. Walsh reported the purchase of a groomer, mapping and wide area seeding of the ball field.

12. Supervisor's Report: Motion by Nunn, support by Potterpin, to request from Level II Assessor, Curt Johnson, that temporary seasonal assessing department, Irene Johnson, be considered for permanent part-time position three days a week (21 hr.), in the assessing department. Subsequent to discussion was made by Nunn, support by Potterpin, to continue the temporary position through October 1997. Motion carried. Supervisor reported that he has proposed permanent position assistant job description and salary. Discussion at the October 3, 1997 meeting.

13. Supervisor's Report: Motion by Nunn, support by Potterpin, that four Grayling Township streets scheduled for resurfacing in 1998 are: McIntyre's Landing, Danville Drive and Point. Motion by Nunn, support by Potterpin, to request for Crawford County allocation of SB 225 funds to complete the road at no cost to Grayling Township.

CRAWFORD AUSABLE SCHOOL DISTRICT ASSISTANT SUPERINTENDENT

There will be three positions open for the Crawford AuSable School Board of Education at the regular school election. Positions are for one 1 year term and two 4 year terms. The deadline for filing is 4:00 p.m. April 6, 1998. Petitions may be obtained at 403 E. Michigan Avenue, Grayling.

-26-2

CRAWFORD COUNTY HOUSING & REHABILITATION COMMISSION NOTICE

The Crawford County Board of Commissioners will be accepting applications for an opening on the Crawford County Housing & Rehabilitation Commission through Wednesday, April 8, 1998 @ 4:00 pm. Interested applicants must be residents of Crawford County. Applications may be obtained from Sandra Moore, County Clerk/Register of Deeds, 200 W. Michigan Ave., Grayling, MI 49738.

-2

MEETING NOTICE

To: Crawford County Solid Waste Planning Committee Members and all interested parties.

From: Patrick Merrill, Crawford County Solid Waste Coordinator.

There will be a meeting of the Crawford County Solid Waste Planning Committee on April 15, 1998 at the Crawford County Building. The meeting will be held in the basement, and will begin at approximately 6:30 p.m.. Please contact me at (517) 348-2841 x-258 if you have any questions.

-2

NOTICE CRAWFORD COUNTY COMMISSION ON AGING VACANCY

The Crawford County Board of Commissioners will be accepting applications for an opening on the Crawford County Commission on Aging through Wednesday, April 8, 1998 @ 4:00 P.M. Applicants are required to be county residents and must have a genuine interest in the lives of all seniors within Crawford County. Applications can be obtained and submitted to County Clerk Sandra Moore at the Crawford County Courthouse 200 W. Michigan Avenue, Grayling, MI 49738.

Sandra Moore
County Clerk /Register of Deeds

-19-26-2

CRAWFORD COUNTY PARK COMMISSION SEEKING 1998 COUNTY PARK BIDS

The Crawford County Park Commission will accept bids for the maintenance of :

- Wakeley Bridge Canoe Landing
- Whitepine Campground

The Department of Natural Resources has resumed control of Canoe Campground causing a change in the original bidding process. We apologize for any inconvenience this change may have caused.

BIDS ARE TO INCLUDE: Paper products and trash bags. Grayling Township will continue to allow disposal of all refuse at the compactor for which advance arrangements will be made. Minimum of twice weekly (Monday and Friday) DUTIES INCLUDE: Cleaning, disinfection and replacement of paper products within restrooms; empty garbage/trash containers and dispose of same; and to police area for litter and trash.

Please submit bids by April 15, 1998 to the Executive Confidential Secretary to The Crawford County Board of Commissioners, Crawford County Building, 200 W. Michigan Ave., Grayling, MI 49738

-2-9

Solid Waste Planning Committee
Organizational Meeting
April 15,1998 - Crawford County Building

The initial meeting of the SWPC was held on April 15, 1998, in the Crawford County Governmental Office Building in Grayling Present were: Jerry Weiss, Ken Paquette, SSG Walter Walsh, Leanne Tingstad, Pat Merrill, Terry Wright, Jerry Morford, Shirley Schmoock, and guest -- Kathy Mobarak.

Pat Merrill was unanimously selected as chair of the SWPC. Shirley Schmoock was asked to take notes as acting secretary.

Merrill explained why the SWPC was necessary. The State has requested that each of Michigan's 83 counties prepare an updated solid waste plan. These are to be revised every 5-years thereafter. To date, 78 of 83 counties have filed their intent to prepare their plans with the proper authorities.

He then gave an overview of what the committee must do to complete the plan for Crawford County. Based upon the county's legal settlement with the former City Environmental Services of Waters -- now USA Waste, what they need from the community and what the community needs from them must be reduced to a plan.

City Manager, Jerry Morford, stated that the City of Grayling has a long-term contract with them, and handling solid waste in the future will be priority with the city.

Certain dollars are generated at the landfill, and these dollars have been turned back to the townships for recycling efforts. Recycling has been a problem locally, and much of the junk ends up in the forestlands or along the roadsides. People are not quick to change, and teaching them to recycle will be a big educational job -- which was discussed, in further detail.

Merrill explained how a Household Hazardous Day works, and the committee gave input into the matter. Public education requirements are going to include:

What to do with -----

Tires, brush & leaves, appliances, hazardous household waste, motor oil, batteries, fuel tanks, concrete, building materials, acids, chemicals and more.

"Operation Clean Sweep" was discussed; it's a program through the U S Department of Ag handled by Randy Smith of Grand Traverse County. Merrill said he would explore a collection program, possibly in a combined effort with Roscommon County. Items handled in this program are unwanted and/or unused pesticides.

Alpena County operates a household hazardous waste program, and barrels are set up to accommodate different items. Merrill thought the program cost about \$18,000, but he would check. Also he was looking into Earth Tech promotions. Goals and objectives were discussed, and the main item is to accomplish is waste reduction. The City of Grayling has issued a "point of view" model and it does a good job identifying what the landfill can and cannot take.

04/30/98

MEETING NOTICE

To: Crawford County Solid Waste Planning Committee Members and all interested parties.

From: Pat Merrill, Chairperson, Crawford County Solid Waste Planning Committee.

A meeting of the Crawford County Solid Waste Planning Committee will be held on Wednesday, May 20th, 1998 at 1:00pm at the **City Of Grayling Building**. This is an open meeting, and anyone who wishes to attend may do so.

Please call me at 517/344-3258 if you have any questions.

Pat Merrill

Solid Waste Planning Committee
Regular Meeting
May 20, 1998

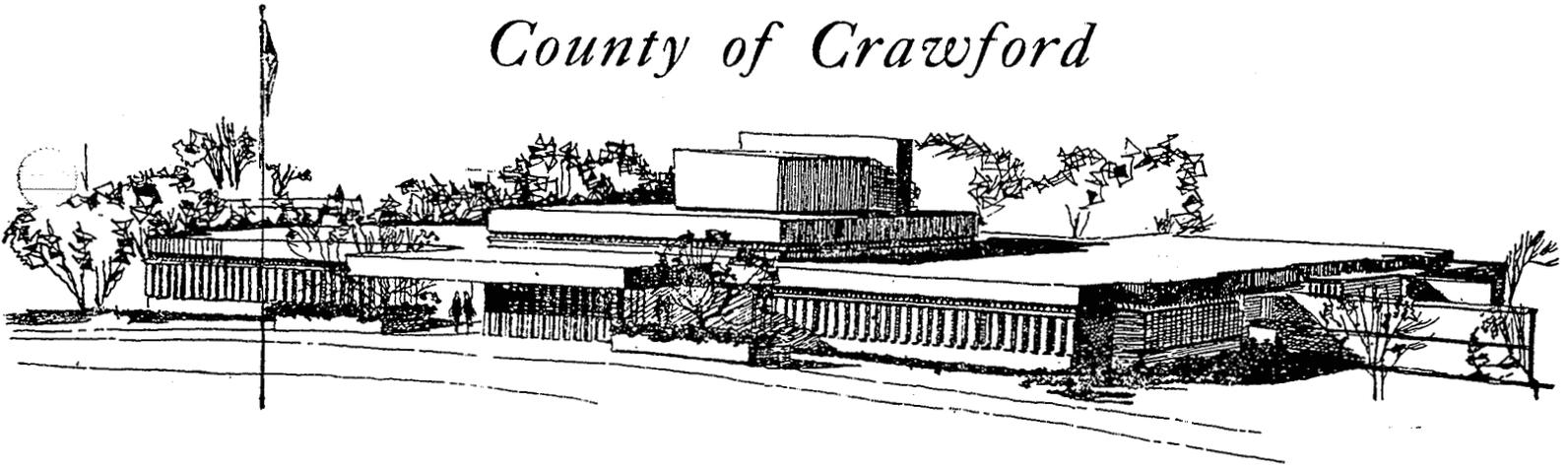
Present: Pat Merrill, Kim McClain, Terry Wright, Leanne Tingstad, Walter Walsh, Ken Paquette, Jim Golden, Shirley Schmoock, Jerry Morford (could not stay).

Absent: Dick Dowland, Jerry Weiss, Mark Huffman and Alan Bean.

- 1) Meeting was called to order at 1:00 PM by chairperson, Pat Merrill. The regular meeting of the SWPC was held at the City of Grayling offices.
- 2) Minutes of the May 13 meeting were approved by consensus of the Committee.
- 3) The various disposal options for Crawford County under the Stipulated Order of Settlement were discussed in detail. The updated Solid Waste Plan must remain in accordance with this document, which will be Attachment A of the Plan.
- 4) Where to take old tires was discussed. Hillman Power will take them downstate to be shredded and later burned for power. SSG Walsh spoke of the Adopt a Forest program currently being featured by the DNR, and how Camp Grayling has been participating in that program to clean up the public forestlands in Crawford County.
- 5) Discussion regarding the creation of a system to utilize and track the "recycling funds" generated through the Stipulated Order of Settlement took place. Currently, the Board of Commissioners is splitting the money and giving it to the townships to use for recycling programs (there is no tracking currently taking place).
With a plan in place, some of these funds could be directed into a countywide program, especially for the disposal of a household hazardous waste -- which is rather expensive.
- 6) Discussion was had regarding the need to track these funds. How each township spends them must be accounted for in some way.
- 7) Ken Paquette said that more volume has been coming into the Waters facility, now owned and operated by USA Waste. This will generate even more dollars for Crawford County under the court settlement.
- 8) Household Hazardous Waste Day -- discussion -- can run \$15 - 25,000. Professional companies who put them on for local or area units of government generally operate these. Pat is researching this.

Adjourned: 3:20 PM

County of Crawford



MEETING NOTICE

September 14, 1998

A meeting of the Crawford County Solid Waste Planning Committee will be held on September 24, 1998 at 1:30pm. It will take place at the Crawford County Environmental Office, which is in the basement of the Crawford County Building.

Public participation is encouraged, so please feel free to attend. If you have any questions, or require any additional information, please call (517) 348-2841 x-258.

Pat Merrill 
Crawford County Environmental Monitor

CRAWFORD COUNTY SOLID WASTE PLANNING COMMITTEE
Minutes Of September 24, 1998

Meeting called to order at approximately 1:40pm by Chairperson Merrill.

Members Present: Morford, Wright, Meyer, Golden, Tingstad, Weiss, Walsh, Merrill and Crawford.

Guests Present: Lee Riley, Beaver Creek Township Supervisor.

- 1) Discussion of reciprocity regarding import/export authorization of the 21 approved counties in Stipulated Order of Settlement.

Motion by Walsh, second by Meyer, to include the 21 counties in the Stipulated Order of Settlement in the new Crawford County Solid Waste Management Plan, on both a primary import and export basis. Roll call vote- All ayes, motion carried.

** Meeting adjourned at 2:45pm.

MEETING NOTICE

March 11, 1999

To: Crawford County Solid Waste Planning Committee Members and all interested parties.

From: Patrick Merrill, Crawford County Solid Waste Coordinator 

There will be a meeting of the Crawford County Solid Waste Planning Committee on **April 13, 1999** at the Crawford County Building. The meeting will be held in the basement, and will begin at approximately 2:00 p.m.

I was anticipating having the Plan completed by now, but some new issues have arisen that require our attention. Please feel free to call me at 517/344-3258 if you have any questions.

SOLID WASTE PLANNING COMMITTEE
Minutes of April 13, 1999

Chairperson Merrill called the meeting to order at approximately 2:25 p.m.

Members in Attendance: Kim McClain, Shirley Schmooock, Jerry Weiss, Joe Myers, Pat Merrill, Chad Crawford and Leanne Tingstad.

Guests Present: Gaye Pizzi, Wayne Follenius and Lee Riley.

Update by the Chair: Pat Merrill distributed copies of the "Michigan Waste Industries Associations General Concerns on County Solid Waste Management Plan Updates".

At this time, the solid waste planning process has been placed on hold by the MDEQ. The waste industry has alleged that portions of the current plan outline provided by the State of Michigan are in violation of Part 115 of the Natural Resources and Environmental Protection Act, and the administrative rules promulgated under Part 115. The Attorney General's Office is reviewing the list of concerns, and will issue a formal opinion in the near future.

Recycling Issues: Wayne Follenius of Waste Management, Inc., has agreed to return the recycling containers to South Branch Township. This was included in their new waste contract, and cannot simply be eliminated by Waste Management.

Flow Control: Under the current Crawford County Solid Waste Management Plan (and the Stipulated Order of Settlement), there are 21 counties approved to dispose of waste at the Waters Landfill. In addition, there are 5 counties that Crawford County may use to dispose of solid waste generated in Crawford County. Because Waste Management has recently moved its hauling operation from Waters to Harrison in Clare County, they wish us to consider a proposal.

Under the Waste Management proposal, we would amend the Crawford County Solid Waste Management Plan to include Clare County on a primary disposal basis. Clare County would also include Crawford County on a reciprocal arrangement. Waste Management feels that this process is necessary, in order to allow them to operate more efficiently, which may reduce future price increases. Mr. Follenius estimates that they will export no more than 2000 yards³ per month.

If passed, this would reduce the amount of income for Crawford County and Maple Forest Township. Maple Forest receives 10 cents per cubic yard, while Crawford County receives \$75,000.00 per year, with an increase based on volume (maximum of \$150,000.00). Because all of the municipalities will get to review and vote on the updated Solid Waste Management Plan, this may not have a chance of getting through.

Discussion continued on the issue, and the main point made was that we are being asked to give, but receive nothing in return. As there is not a quorum present, this matter should be tabled. During the time between now and the next meeting, this should also be reviewed by council. Consensus of the board was to table the matter and leave the previously approved 21 counties in place.

Selected Solid Waste Management System: It was a unanimous decision by the SWPC members in attendance to approve Alternative 2 as the disposal option to be selected for the updated Solid Waste Management Plan. Pat Merrill's secretary, Gaye Pizzi, will conduct a phone vote to record all members votes (was unanimous).

Other Topics/Issues: Pat Merrill is working with the local municipalities in forming a Crawford County Recycling Alliance.

Next Meeting: As another meeting may not be required, one was not set. Pat Merrill will send out notices if an additional meeting(s) is necessary.

Adjournment: Motion by McClain, second by Crawford to adjourn the meeting. All ayes, meeting was adjourned at 2:55pm.

to the highest bidder, at the front door entrance of the County Building in Grayling, Michigan (that being the building where the Circuit Court for the County of Crawford is held), of the premises described in said mortgage, or so much thereof as may be necessary to pay the amount due, as aforesaid, on said mortgage, with interest thereon at 13.750% per annum and all legal costs, charges, and expenses, including the attorney fees allowed by law, and also any sum or sums which may be paid by the undersigned, necessary to protect its interest in the premises. Which said premises are described as follows: All that certain piece of parcel of land situated in the Township of South Branch, County of Crawford and State of Michigan, and described as follows, to wit:

Situated in the State of Michigan, County of Crawford and in the Township of South Branch

Being Lot 69, and part of Lot's 60,61 and 62 of the recorded plat of River Forest, being part of the Southwest 1/4 of the Southwest 1/4, of Section 21, part of the Northwest 1/4 of the Northwest 1/4 of Section 28, and part of the North 1/2 of section 29, all in T25N, R2W, South Branch Township, Crawford

THIS FIRM IS A DEBT COLLECTOR ATTEMPTING TO COLLECT A DEBT. ANY INFORMATION OBTAINED WILL BE USED FOR THAT PURPOSE.

MORTGAGE SALE - Default has been made in the conditions of a mortgage made by Paul W. Smith, a married man and Bonnie Smith a/k/a Bonnie M. Smith, a married woman (original mortgagors) to Huntington National Bank f/k/a Empire National Bank, Mortgagee, dated December 16, 1996, and recorded on January 13, 1997 in Liber 423, on Page 620, Crawford County Records, Michigan, on which mortgage there is claimed to be due at the date hereof the sum of TEN THOUSAND SEVEN HUNDRED FORTY-THREE AND 31/100 dollars (\$10,743.31), including interest at 10.000% per annum.

Under the power of sale contained in said mortgage and the statute in such case made and provided, notice is hereby given that said mortgage will be foreclosed by a sale of the mortgaged premises, or some part of them, at public venue at the front door of the County Building in Grayling, Michigan at 10:00 AM,

and Denise Kohut, husband and wife of Crawford County, Michigan, Mortgagors, to Pines Mortgage Corporation, Mortgagee, dated September 22, 1997, and recorded on September 25, 1997 in Liber 438; on page 480, Crawford County Records, Michigan, which said mortgage was thereafter assigned to Edward A. Rush Trust by assignment dated September 22, 1997 and recorded on October 27, 1997 in the office of the Register of Deeds for said County of Crawford in Liber 440 Crawford County Records, on page 397, on which mortgage there is claimed to be due at the date hereof the sum of \$36,411.01 plus \$14.20 interest per day after 2/17/01.

NOTICE BEAVER CREEK BOARD OF

The Beaver Creek Township Board of meeting March 6, 2001 at 1:00 p.m. for the purpose of reviewing the 200 Review will meet with taxpayers Mon 12:00 noon and 1:00 p.m. to 4:00 p.m. 2:00 p.m. to 5:00 p.m. and 6:00 p.m. Township Hall; 8888 S. Grayling Rd.,

The following are tentative ratios and Beaver Creek Township:

CLASS	TENTATIVE RATIO
Agriculture	40.21
Commercial	42.12
Industrial	49.10
Residential	44.74

Lee Riley
Township Supervisor

CRAWFORD COUNTY COMMISSION ON AGING VACANCY NOTICE

The Crawford County Board of Commissioners are presently accepting applications for a position on the Crawford County Commission on Aging through Wednesday, March 14th, 2001 at 4:00 P.M. Applicants are required to be county residents and requested to have a genuine interest in the lives of all seniors within Crawford County. Applications can be obtained and submitted to County Clerk Sandra Moore at the Crawford County Courthouse 200 W. Michigan Avenue, Grayling, MI 49738.

Sandra Moore
County Clerk/Register of Deeds
February 20, 2001

PUBLIC NOTICE

Crawford County Solid Waste Management Plan

The new Crawford County Solid Waste Management Plan will be available for public comment at the following locations:

- Crawford County Clerks Office
- Crawford County Environmental Office
- All Township Halls
- Grayling City Hall

The public comment period will run for 90 days from the publication of this notice, during which time a public hearing will be held. The hearing date and time will be run in the legal section of the Crawford County Avalanche.

Pat Merrill
Crawford County Environmental Monitor

FREDERIC T NOTICE OF PUB

To Consider Amendment to the Township Section of County Recreation P

The Frederic Township Board will hold a meeting on March 13, 2001, during their regular meeting starts at 7:00P.M. At the Township Hall, 49733. 517-348-8778

Please take notice that the purpose of this notice is to provide an opportunity for public input for the amendment to the Capitol Improvement Schedule in the Crawford County Recreation Plan.

Please take further notice that the Recreation Plan may be examined at the office of the township clerk until and including the date of the public hearing. The plan will be examined at such public hearing.

Nancy Bindschatel,
Clerk

LEGAL ACTION

NOTICE OF MORTGAGE FORECLOSURE SALE

THIS FIRM IS A DEBT COLLECTOR ATTEMPTING TO COLLECT A DEBT. ANY INFORMATION OBTAINED WILL BE USED FOR THAT PURPOSE.

MORTGAGE SALE - Default has been made in the conditions of a mortgage made by Adam B. Baxendale and Jennifer A. Baxendale, husband and wife (original mortgagors), to Old Kent Bank, Mortgagee, dated January 7, 1999, and recorded on January 22, 1999 in Liber 472, on page 490, Crawford County Records, Michigan, and was assigned by said mortgagee to the Old Kent Mortgage Company, as assignee by an assignment dated January 12, 1999, which was recorded on January 22, 1999, in Liber 472, on Page 497, Crawford County Records, on which mortgage there is claimed to be due at the date hereof the sum of FIFTY-ONE THOUSAND FOUR HUNDRED THIRTY-THREE AND 13/100 dollars (\$51,433.13), including interest at 7.000% per annum.

Under the power of sale contained in said mortgage and the statute in such case made and provided, notice is hereby given that said mortgage will be foreclosed by a sale of the mortgaged premises, or some part of them, at public venue, at the front door of the County Building in Grayling, Michigan at 10:00 AM,

on May 23, 2001.

Said premises are situated in TOWNSHIP OF GRAYLING, Crawford County, Michigan, and are described as:

Lot 10 and South 1/2 of Lot 11, Clough's Highland Acres, Township of Grayling, Crawford County, Michigan, according to the recorded plat thereof, as recorded in Liber 1 of Plats, Page 65, Crawford County Records. Subject to all conditions, restrictions, easements and limitations of record.

The redemption period shall be 1 month(s) from the date of such sale, unless an affidavit of occupancy or intent to occupy is recorded in accordance with 1948CL 600 3241(d) and given to the mortgagee, in which case the redemption period shall be 6 month(s) from the date of such sale.

Dated: April 12, 2001

FOR INFORMATION, PLEASE CALL:

248-593-1303

Trott & Trott, P.C.

Attorneys and Counselors

30150 Telegraph Road, Suite 100

Bingham Farms, MI 48025

File #200112550

-12-19-26-3-10

STATE OF MICHIGAN IN THE CIRCUIT COURT FOR THE COUNTY OF CRAWFORD

Carpenters Pension Trust Fund - Detroit and Vicinity,
Plaintiff,

v
Forest Dunes, L.L.C., et al.
Defendants.

Case No. 00-5132-CZ

Notice Of Foreclosure Sale

In Pursuance and by virtue of a the Circuit Court for the County of Crawford, State of Michigan, made and entered on the 12th day of January, 2001 (Case 5132-CZ), notice is hereby given that there shall be a public sale to the highest bidder at the Courthouse in the City of Grayling, Michigan, the place for holding the Circuit Court for the County of Crawford, on the Courthouse steps, Wednesday, June 20, 2001 at 10 a.m. the following described premises, viz: all the pieces or parcel of land situate in the Township of South Branch, Crawford County, Michigan, commonly known as 6349 Forest Dunes, Roscommon, Michigan 48653, more fully described as follows:

Parcel 1

Sections 2 and 3, T25N-R2W, South Branch Township, Crawford County, EXCEPT the plats of South Branch Farm No. 1 and South Branch Ranch Unit Chandra Village.

Parcel 2

South Branch Ranch Unit No. 1 located on the West 1/2 of the Southwest 1/4 of Section 2, and part of the East 1/2 of Section 2, recorded in Liber 3 of Plats EXCEPT the following lots: 9 through 14 inclusive; 51 through 77 inclusive; 79 through 84 inclusive; 99 through 111 inclusive through 118 inclusive.

Parcel 3

South Branch Ranch Unit No. 2 located on the Southeast 1/4 of the East 1/2 of the Southwest 1/4, Southeast 1/4 of the East 1/2 of the Southwest 1/4 of the North 1/2 of Section 3, T25N-R2W, recorded in Plats, page 40, EXCEPT the following lots: 154, and 238 through 245.

Parcel 4

Chandra Village, being part of the Southeast 1/4 of the Northwest 1/4 of the Southwest 1/4 of the North 1/2 of the Southwest 1/4 of the South 1/2 of Section 3, T25N-R2W, recorded in Plats, page 16.

EXCEPTING THE PHASE I (AS DESCRIBED)

The sale of the Mortgaged Property shall be as a single parcel free and clear of all

PUBLIC HEARING

The Crawford County Solid Waste Planning Committee will be holding a Public Hearing in order to take public comments on the revised Crawford County Solid Waste Management Plan. The Hearing will be held on May 15, 2001 at 7:00 pm at the Crawford County Building.

Copies of the Plan may be reviewed at your municipal office. They may also be obtained at the Crawford County Clerk's Office, or the Crawford County Environmental Office.

Pat Merrill
Crawford County Environmental Monitor

TO: PROPERTY OWNERS WITHIN 300 FEET RE: NOTICE OF PUBLIC HEARING

A Public Hearing of the Crawford County Zoning Board of Appeals will be held on Thursday, May 17, 2001 at 7:00 PM in the Circuit Court Room of the County Building.

The purpose of the Public Hearing is to hear comments on:

PU

The Northern Michigan County following openings for bo

Interested parties residing in Crawford or Cheboygan Counties should contact the following persons:

AGENDA

May 15, 2001

Crawford County Solid Waste Planning Committee

- 1. Call to Order**
- 2. Opening Statements / Brief Overview**
- 3. Open Public Hearing**
- 4. Close Public Hearing**
- 5. Adjourn**

MEETING NOTICE

February 16, 2001

A meeting of the Crawford County Solid Waste Planning Committee will be held on Tuesday, February 20, 2001 at the Crawford County Building. The meeting will begin at 1:30pm, and will be held in the Environmental Office. The office is located in the basement.

The purpose of the meeting is to approve the Draft Solid Waste Plan for a 90-day public comment period. Please feel free to attend the meeting, or contact Pat Merrill at (517) 344-3258 for further information.

**Pat Merrill
Crawford County Environmental Monitor**

Crawford County Solid Waste Planning Committee
Minutes from February 20, 2001

Members Present: Joe Myers, Terry Wright, Jerry Weiss, Steve Doyle, Patrick Merrill, Shirley Schmook and Gaye Pizzi.

Phone: Chad Crawford.

CALL TO ORDER

Meeting was called to order by Chairperson Patrick Merrill at 1:40 p.m.

SOLID WASTE PLAN

Merrill went over typing errors that were made, there were items inverted on page 32.

MOTION by Schmook, second by Wright to have the Solid Waste Plan put out for the mandatory 90 day public comment period. Merrill-aye, Pizzi-aye, Myers-aye, Wright-aye, Weiss-aye, Doyle-aye, Schmook-aye, Crawford (by phone)-aye. All ayes, non-opposed, MOTION carried.

1. Solid Waste Plan goes out for 90-day public comment period.
2. During the 90-day period, a public hearing must be held.
3. After 90 days, corrections are made.
4. Approved by Commissioners.
5. Approved by Municipalities.
6. Approved by State of Michigan.

Merrill will distribute copies for Municipalities for public review.

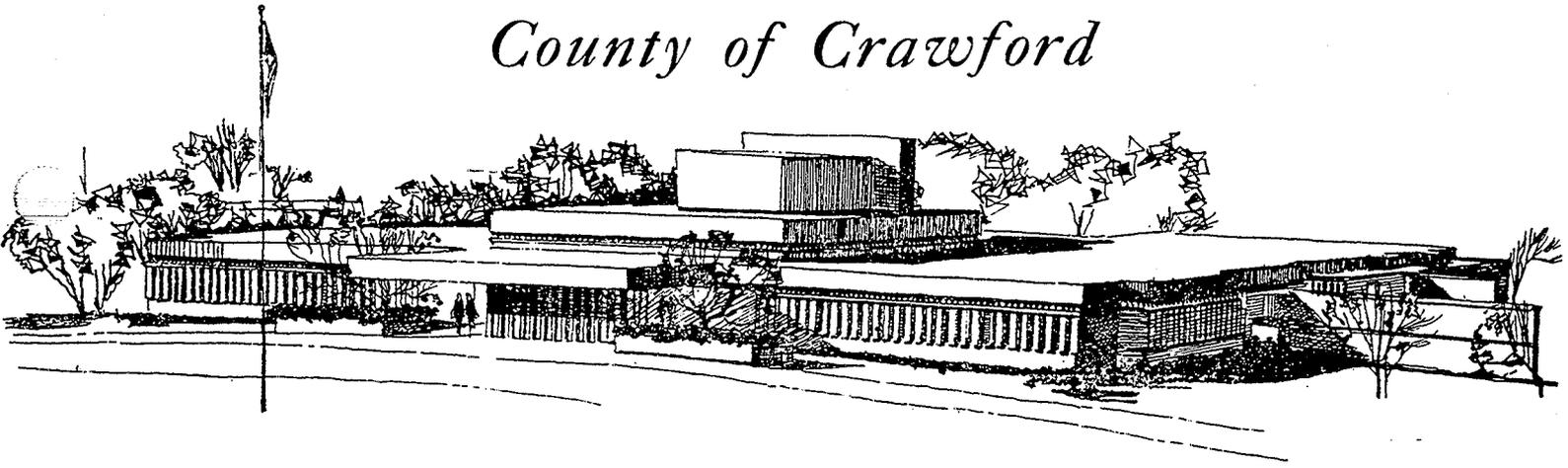
OTHER BUSINESS

Public Meeting regarding the disposal of construction demolition from Big Rock Nuclear Power Plant will be held at the AuSable Primary School Cafeteria in Grayling on March 14th at 7:00 p.m.

MEETING ADJOURNED

Meeting was adjourned at 2:10 p.m.

County of Crawford



PUBLIC NOTICE

June 15, 2001

The Crawford County Solid Waste Planning Committee will be holding a meeting on Friday, June 29, 2001 at 10:00am in order to vote on final approval of the new Crawford County Solid Waste Management Plan.

The meeting will be held at the Crawford County Building, and is open to the public.



Pat Merrill

Crawford County Environmental Monitor

CRAWFORD COUNTY SOLID WASTE PLANNING COMMITTEE
Minutes of June 29, 2001

Members Present: Pat Merrill, Gaye Pizzi, Jerry Weiss, Steve Doyle, Terry Wright, Ken Paquette, Kim McClain and Joe Myers.

Members Absent: Shirley Schmoock, Chad Crawford, SSG Walter Walsh, Diane Rekowski and Mark Huffinan.

CALL TO ORDER

Chairperson, Pat Merrill called meeting to order at 10:15 a.m.

SOLID WASTE PLAN

- A. P. Merrill made changes suggested by the Michigan Department of Environmental Quality.
- B. The Public Hearing was held on May 15, 2001 at 7:00 p.m. There was no public comment on the Plan (also no one in attendance).
- C. Chairperson Merrill requested consensus on allowing the aye vote of Shirley Schmoock to be allowed (received via e-mail). The Committee members agreed to allow the vote.
- D. MOTION by T. Wright, second by S. Doyle to accept the Solid Waste Plan as written, and to allow the aye vote by proxy of S. Schmoock. Roll call, Wright-aye, Weiss-aye, Doyle-aye, Pizzi-aye, Paquette-aye, Merrill-aye, McClain-aye, Myers-aye and Schmoock-aye by proxy. Motion carried.

ADJOURNED

MOTION by Doyle, second by Weiss to adjourn meeting. All in favor, motion carried. Meeting adjourned at 10:30am.

Crawford County Board of Commissioners

Regular Board Meeting of July 18, 2001

The Regular Meeting of the Crawford County Board of Commissioners was called to order by Chairman Scott Hanson at 9:40 a.m. in the Crawford County Building, Grayling, Michigan the 18th day of July, 2001.

Invocation by Commissioner Beardslee.

Pledge of Allegiance led by Commissioner Golnick.

Roll Call: Hanson, Golnick, Pinkelman, Corlew, Wieland and Beardslee.

Absent – None.

Sandra Moore County Clerk-Register of Deeds - Present.

Paul Compo County Controller - Present.

Others present at various times: Deanne Whiteside, Allen Lowe, Gary Davis, Mark Kniss, Pat Merrill, Tony Warren, Ed Holtcamp, Jay Stephan, Dixie Lobsinger, Bob Clark, Barb Clark, Hank Feldhauser, Todd Gabriel, Kary Gabriel, Mike West, Jake Helsel, Luther Helsel, George Warren, Joe Porter, Ed Holtcamp, and David Niederer.

Approval of the June 20, 2001 Regular Board Minutes

Motion by Wieland, second by Pinkelman, to approve the Board Minutes for the June 20, 2001 Regular Board Meeting as presented. Ayes (6) six, nays (0) none, absent (0) none, Motion Carried.

Approval of Agenda

Motion by Corlew, second by Beardslee, to approve the agenda as presented. Ayes (6) six, nays (0) none, absent (0) none, Motion Carried.

Brief Public Comment

Dixie Lobsinger appeared and requested the County consider implementing a policy for the procedure of handling dead animals. Ms. Lobsinger referenced the recent incident along M-72 where two dogs were placed in the trash dumpster.

Chairman Hanson thanked Ms. Lobsinger for her comments and indicated the County will pursue a resolution.

Ways and Means Committee Report

Ways and Means Chairperson Wieland gave a presentation on Board recommendations.

2000/2001 Budget Amendments

Motion by Wieland, second by Corlew, to approve the following 2000/2001 Budget Amendments: General Fund Revenues: Probate Court performance agreement state reimbursement -\$13,750.00, reimbursement -\$27,500.00, Election reimbursement -\$1,000.00, Clerk revenue stamps -\$7,000.00, sale of copies -\$2,000.00, Gang Grant state reimbursement +\$6,500.00, Operating Transfers In +\$6,000.00. General Fund Expenses: Unified Trial Court equipment -\$2,000.00, Elections per diem +\$1,200.00, printing +\$6,500.00, Corporate Council legal fees +\$10,000.00, Equalization hospitalization -\$1,500.00, retirement -\$4,000.00, Building & Grounds fuel/heating +\$4,000.00, equipment repair +\$7,000.00, Sheriff retirement -\$10,458.00, Central Dispatch wages +\$6,100.00, Snowmobile wages -\$4,000.00, hospitalization -\$1,910.00, retirement -\$1,258.00, equipment

Manistee-Benzie and North Central Michigan Community Mental Health Authority Meeting on June 21, 2001; The North Central Community Mental Health Authority Meeting on June 21, 2001; The Northeast Michigan Consortium on June 25, 2001; The Michigan Northern Counties Association Meeting on July 16, 2001; and the County Finance Committee Meeting on July 12, 2001.

Commissioner Beardslee – The Commissioner had no report this month.

Commissioner Pinkelman – The Commissioner reported the Personnel and Labor Committee Recommendations.

Part Time Register of Deeds Deputy

Motion by Pinkelman, second by Corlew, to authorize the Clerk/Register of Deeds to change the Part Time 21 hours per week for 12 weeks Register of Deeds position to a temporary full time (35 hours per week) position until the end of August, 2001, and prepare a Letter of Understanding with the AFSCME Union Chairperson. Roll Call: Hanson – aye, Pinkelman – aye, Wieland – aye, Beardsee – aye, Corlew – aye, Golnick – aye, Motion Carried.

Policy Changes

Motion by Pinkelman, second by Corlew, to approve the amendments drafted by the Controller for the Employee Dispute Resolution Policy, Personnel Manual, and Progressive Discipline policy. Ayes (6) six, nays (0) none, absent (0) none, Motion Carried.

Commissioner Hanson - The Commissioner had no report this month.

EMO Report

Environmental Control Monitor Pat Merrill appeared and advised 8,071 lbs of waste was collected on the Household Hazardous Waste Day June 23, 2001. The Solid Waste Planning Committee has approved the plan and are awaiting County acceptance.

Motion by Corlew, second by Beardslee, to approve the five (5) year Solid Waste Plan as submitted. Roll Call: Pinkelman – aye, Wieland – aye, Beardslee – aye, Corlew – aye, Golnick – aye, Hanson – aye, Motion Carried.

EMO Merrill advised the DEQ is accepting comments on tire derived fuel and the Public Hearing Phase is forthcoming. Mr. Merrill remarked the Fish Hatchery Committee has made great strides and permits have been approved in Lansing.

Chairman Hanson excused at 12:34 p.m. and Vice Chairman Beardslee conducted the remainder of the meeting.

EMO Merrill circulated a map of county property off of Wakeley Bridge Road in Section 12, T26N, R2W, part of the SW1/4 of the SW1/4. The County property is used as a canoe landing site and park, however, a grant for improvements to the area and possible camp sites may be pursued. The Recreation Plan will have to be amended to include this in the plan.

Extended Public Comment – None.

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLANT

Upon motion duly made and seconded, it is RESOLVED that Beaver Creek Township hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Resolution (passed) (~~failed~~) by a vote of 4 "ayes" and 0 "nays" at a regular meeting of the Township Board held on August 29, 2001.



Sharon K. Hartman
Township Clerk

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLANT

Upon motion duly made and seconded, it is RESOLVED that Grayling Township hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Resolution (passed) (failed) by a vote of 4 "ayes" and 0 "nay" at a regular meeting of the Township Board held on 8-08, 2001.



Township Clerk

01-113
RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLAN

Upon motion duly made and seconded, it is RESOLVED that the City of Grayling hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Resolution passed by a vote of 4 Ayes (Palmer, Hayes, Brown, Banda), 0 Nays, 1 Absent (Wyman) at a regular meeting of the Grayling City Council held on July 30, 2001.


Kay Ellen King, City Clerk

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLANT

Upon motion duly made and seconded, it is RESOLVED that Lovells Township hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

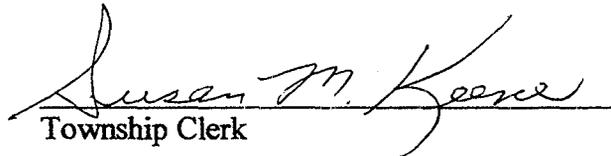
Resolution (passed) (failed) by a vote of 5 "ayes" and 0 "nay" at a regular meeting of the Township Board held on August 14, 2001.

Cheryl L. Hopp
Township Clerk

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLANT

Upon motion duly made and seconded, it is RESOLVED that Maple Forest Township hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Resolution ~~(passed)~~ (failed) by a vote of 5 "ayes" and 0 "nay" at a regular meeting of the Township Board held on Aug. 14, 2001.


Township Clerk

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLAN

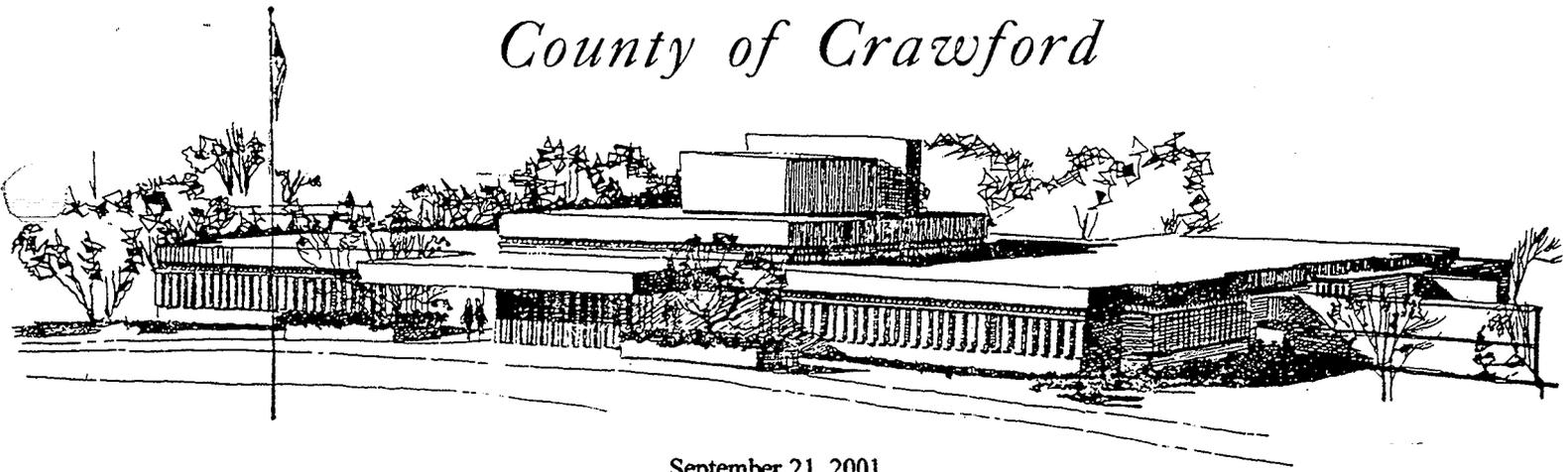
Upon motion duly made and seconded, it is RESOLVED that South Branch Township hereby approves that Crawford County Solid Waste Management Plan attached To this Resolution by Crawford County. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Motion passed by a vote of 5 "ayes" and 0 "nay" at a regular meeting of the Township Board held on August 14,2001.



Township Clerk

County of Crawford



September 21, 2001

Stan Idziak
MDNR -- Waste Management Division
P.O. Box 30473
Lansing, MI. 48909-7973

Dear Stan,

Enclosed with this correspondence you will find the Frederic Township Resolution that was not submitted with the Crawford County Solid Waste Management Plan. I only received it in the mail this morning, so I am now forwarding it to you.

I presume that the balance of our plan was satisfactory? If not, please let me know what we can do to rectify any missteps.

Sincerely,

Pat Merrill
Crawford County Environmental Monitor

RESOLUTION REGARDING CRAWFORD COUNTY
SOLID WASTE MANAGEMENT PLANT

Upon motion duly made and seconded, it is RESOLVED that Frederic Township hereby approves the Crawford County Solid Waste Management Plan attached to this Resolution. The Plan has been approved by the Solid Waste Planning Committee, the Crawford County Board of Commissioners and is now before the Crawford County municipalities for approval pursuant to Part 115 of Act 451.

Resolution (passed) (failed) by a vote of 5 "ayes" and 0 "nay" at a regular meeting of the Township Board held on Sept. 18, , 2001.

Nancy L. Budschatel
Township Clerk (FREDERIC)