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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



RUSSELL J. HARDING  
DIRECTOR

July 25, 2002

Mr. Richard Curtiss, Chairperson  
Isabella County Board of Commissioners  
200 North Main Street  
Mt. Pleasant, Michigan 48858

Dear Mr. Curtiss:

The Department of Environmental Quality (DEQ) received the locally approved update to the Isabella County Solid Waste Management Plan (Plan) on March 29, 2002. Except for the items indicated below, the Plan is approvable. As outlined in the April 29, 2002 letter to you from Ms. Lynn Dumroese, DEQ, Waste Management Division (WMD), and as transmitted by Mr. Vincent Pastue, Isabella County Administrator, in a May 10, 2002 letter, the Isabella County Board of Commissioners agreed with the DEQ's suggested modifications; therefore, the DEQ makes the following modifications to the Plan:

On page 63, the Plan states, "This plan does not authorize the siting of any landfill disposal areas. If in the future, Isabella County [County] chooses to pursue the siting of an in-County landfill facility, this Plan may be amended or revised to include proper siting procedures." By stating "landfill disposal areas" and "an in-County landfill facility," it is unclear whether the County intended for this paragraph to apply to all disposal areas or landfills only. The County is aware that all disposal areas must be sited according to the siting mechanism; however, the County did not intend for any disposal areas to be sited during this planning period because ten years of disposal capacity is available. In order to alleviate any discrepancy, the phrase "landfill disposal areas" is changed to "disposal areas," and the phrase "an in-County landfill facility" is changed to "a disposal area."

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, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, 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

Mr. Richard Curtiss

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

Sincerely,



Russell J. Harding  
Director  
517-373-7917

cc: Senator Joanne G. Emmons  
Representative Sandy Caul  
Mr. Arthur R. Nash Jr., Deputy Director, DEQ  
Mr. Thomas M. Hickson, Legislative Liaison, DEQ  
Mr. Jim Sygo, DEQ  
Ms. Joan Peck, DEQ  
Mr. Edwin Haapala, DEQ – Saginaw Bay  
Ms. Rhonda Oyer Zimmerman, DEQ  
Ms. Lynn Dumroese, DEQ  
Isabella County File

## 1997 PLAN UPDATE COVER PAGE

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

DATE SUBMITTED TO THE DEQ: 29 March 2002

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

N/A

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

Municipality

Original Planning County

New Planning County

N/A

### DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Isabella County Solid Waste System Advisory Committee

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

**Table 1-1 Overall View of The County**

Township or Municipality Name	Population	% Land Use			% of Economic Base			
		Rural	Urban	Ag	For	Ind	Com	Other
Broomfield Twp.	1,620	NA	NA	NA	NA	NA	NA	NA
Chippewa Twp.	4,617	NA	NA	NA	NA	NA	NA	NA
Clare City	33	NA	NA	NA	NA	NA	NA	NA
Coe Twp.	2,993	NA	NA	NA	NA	NA	NA	NA
Coldwater Twp.	737	NA	NA	NA	NA	NA	NA	NA
Deerfield Twp.	3,081	NA	NA	NA	NA	NA	NA	NA
Denver Twp.	1,147	NA	NA	NA	NA	NA	NA	NA
Fremont Twp.	1,358	NA	NA	NA	NA	NA	NA	NA
Gilmore Twp.	1,376	NA	NA	NA	NA	NA	NA	NA
Isabella Twp.	2,145	NA	NA	NA	NA	NA	NA	NA
Lincoln Twp.	1,936	NA	NA	NA	NA	NA	NA	NA
Mount Pleasant City	25,946	NA	NA	NA	NA	NA	NA	NA
Nottawa Twp.	2,278	NA	NA	NA	NA	NA	NA	NA
Rolland Twp.	1,210	NA	NA	NA	NA	NA	NA	NA
Sherman Twp.	2,616	NA	NA	NA	NA	NA	NA	NA
Union Charter Twp.	7,615	NA	NA	NA	NA	NA	NA	NA
Vernon Twp.	1,342	NA	NA	NA	NA	NA	NA	NA
Wise Twp.	1,301	NA	NA	NA	NA	NA	NA	NA
Isabella County	63,351							

Source: U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary Files, Tables PL1

Ag = Agriculture

For = Forestry

Ind = Industrial

Com = Commerical

Oth = All Other Economic Bases

Additional listings, if necessary, are listed on an attached page.

NOTE: NA= Information not currently available at a Township level.



**CONCLUSIONS**

The goals and objectives of this Solid Waste Management Plan, hereafter "the Plan," are:

- provide a responsible solid waste management system;
- select an approved solid waste management system which provides several options for waste reduction, recycling, collection, transportation, processing, and disposal within the county;
- satisfy the short term solid waste management needs of the County as well as providing flexibility to meet the ever-changing needs of the future;
- select the management system that is technically feasible, economically affordable, and best protects the environment; and
- allow both public and private participation in the County's solid waste management program.

There are several components in a complete solid waste management system:

- Generation/Source Reduction (includes resource conservation)
- Precollection (includes resource recovery; recycling; source separation; materials recovery; composting)
- Collection
- Transportation
- Processing (includes physical methods i.e., tire shredding)
- Disposal (landfilling)
- Institutional/Administrative Arrangements

These components of the selected system are briefly summarized in the following section.

#### *Generation/Source Reduction*

In brief summary, source reduction consists of reducing the amount of waste that enters the waste stream at the generation source. This method of solid waste management only reduces the volume of waste to be disposed of and is not a disposal method. Source reduction is not a simple implementable alternative for the County because this alternative is a measure generally implemented on the State or Federal level. The County will, however, continue to support measures proposed by the State or Federal government, such as the Bottle Bill, which are meant to reduce the volume of waste generated from use of consumer goods; and will encourage, through education, material re-use and source reduction at the waste generator level.

#### *Precollection*

Economic benefits from recycling are possible from the sale of recovered materials thereby offsetting a portion of solid waste management costs. Furthermore, with the reduction in the total waste load, other waste processing facilities may be downsized, resulting in lower costs. Isabella County has a recycling program utilizing recycling drop off center(s) within the County. In addition the County operates a Material Recovery Facility (MRF).

Composting is another method of material reuse. There are basically two types of composting methods: large scale, where organic refuse is composted in bulk at a large parcel; and small scale composting methods, where individual generators or small groups of generators have small

compost piles for either the organic content of their refuse or for yard waste, or both. Composting provides an end product which may have a marketable value in Isabella County for use as soil conditioner. Since the nutrient value is generally quite low, its value as a fertilizer is limited.

### *Collection*

The selected system utilizes two methods for waste collection—a free market system, and a residential delivery system.

#### *Free Market*

The county does not desire to enter the public “door-to-door” refuse collection business. Several haulers currently contract individually with residents for “curb side” or “door-to-door” pick up of solid waste. Due to the low population density in certain locations, collection in these areas is not cost effective for the private haulers. This system of collection, however, has been operational within the County for several years with good success.

#### *Residential Delivery:*

Until the Spring of 1987, most County residents hauled their refuse to the Isabella County landfill located in Deerfield Township. Currently, these residents haul solid waste to the landfills in Montcalm, Clare and Saginaw Counties. With implementation of this Plan Update, development of small waste collection facilities will be allowed within the County. This system would provide facilities convenient to the majority of the rural residents to reduce the cost of transport to a remote facility. Isabella County encourages local units of government in establishing collection centers.

### *Transportation*

The choice of transportation method is dependent upon the location of the processing facility and/or the disposal site. The goal of this Plan is to minimize the travel distances in order to maximize the collection time and minimize the costs for collection and transport and reduce the air quality impacts associated with greater trucking distances. There are basically three transport alternatives—direct haul, transfer station, and collection centers.

#### *Direct Haul*

This method involves each individual collection vehicle hauling its load separately to the processing/disposal facility.

#### *Transfer Station*

If an out of county waste to energy facility or disposal facility is implemented for disposal of Isabella County waste, it may be advantageous to construct a centrally located transfer facility to minimize the transport distance of the collection vehicles.

If an in-county processing/disposal facility is developed, independent transfer stations owned and operated by private haulers for their own use would reduce their cost for hauling refuse to processing and/or disposal facilities and would reduce the air pollution impacts associated with exhaust from the waste collection vehicles transporting each of their loads to the final processing/disposal facility.

### *Collection Centers*

If the County implements the use of an out of county waste to energy or disposal facility, it may be advantageous to provide small collection centers throughout the rural sections of the County to minimize the incidents of illegal dumping of refuse and to keep the costs and environmental impacts of residential delivery of refuse to a minimum. This method may also be advantageous in conjunction with an "in county" disposal facility in order to reduce the transportation impacts on the residents in the more remote areas of the County.

### *Processing*

Physical processing involves methods such as baling, tire shredding, and compacting. Baling of waste is a volume reducing measure but is not a total waste quantity reducing measure. Baling is a front end process, that compacts either a mixed, heterogeneous waste stream or a homogeneous waste stream, such as recovered paper, into uniform blocks more dense than normal compacted refuse. Baling is typically used in the recycling industry:

Tire shredding provides a means to reduce the volume tires consume within landfills and allow simple burial; reduces the health impacts associated with tire stockpiles; and creates a product which can potential be either further processed by a recycler, used within certain paving mixtures, or utilized as a drainage media.

### *Disposal*

Regardless of the method of waste reduction, resource recovery, or other solid waste processing method utilized, a final disposal facility will be required for the non-processed, and non-recycled materials; and residues from the processing facilities.

There are currently no operating licensed landfills in the County. A landfill located within the County would potentially reduce the transportation costs for disposal, provide a short term solution for disposal of the County's solid waste, and maintain the environmental and disposal responsibility for that disposal within the County. However, these potential advantages are offset by the high cost of developing a new small scale environmentally sound landfill when large regional landfills exist and currently accept the counties waste. Therefore, the County does not desire to develop Type II or III landfills within the County.

Disposal at an out-of-county facility is the preferred option. The counties of Allegan, Clare, Clinton, Gratiot, Ionia, Montcalm, Oceola, Ottawa, St. Joseph, Washtenaw, and Van Buren currently authorize primary imports of Isabella County's waste stream in their County Solid Waste Management Plans. These Counties will be updating their plans this coming year and it is not know at this time whether Isabella County will continue to be listed in these plans. However it is unlikely, based on the waste disposal market, that all of these accepting counties would decline waste from Isabella County in their future plans.

#### *Institutional/Administrative Arrangements*

Currently, the disposal of solid waste within Isabella County is managed through the administration of the Board of Public Works and the offices of the County Engineer. This method was determined as the most applicable during development of the original Solid Waste Management Plan. It is the desire of the County to continue with this method of management. However, it is also desired to provide for development of facilities within the private sector as needs dictate. For this purpose, the County Board of Commissioners proposes to appoint a Solid Waste Management Committee to review proposals from the private and public sector if development of such facilities is proposed.

## **2.1        *SELECTED SHORT TERM ALTERNATIVE (NEXT 5 YEARS)***

### *Generation/Source Reduction*

Isabella County will continue to support collection of returnable bottles and cans under the State of Michigan Bottle Bill. In addition, the County will support federal and state legislation that provides sound, economical, technically feasible, source reduction. Furthermore, in the County's recycling education program (discussed later), the County will provide education information to the County residents demonstrating how each household can reduce the amount of waste it generates, and encourage source separation and reuse within the home.

### ***Precollection***

Isabella County has instituted a resolution requiring all licensed waste haulers to provide recycling services to all customers within the County and will continue support of the recycling program; and will encourage development and operation of independent recycling centers. A permanent site for collection of separated recyclables has been developed by the County and publicized.

The County will continue to support the yard waste and brush collection and compost program; and will allow other municipalities and/or local interest groups to conduct yard waste collection and composting programs.

The County will continue with the recycling education program which concentrates on promoting recycling through circulation of educational information and program incentives, the schools, local businesses and supermarkets, through the newspapers, and through public access television and radio. The County will continue to investigate markets for recycled materials.

This system will allow development and implementation of economic and/or legal incentives to promote recycling and waste volume reduction in the County.

### ***Collection***

Waste collection within Isabella County will continue as it has in the past, utilizing a free market system allowing private haulers to contract with individual residents and/or municipalities. The County Solid Waste Plan will continue to allow the City of Mount Pleasant and the Village of Shepherd to contract with private haulers for the collection of waste generated within their corporate limits. This Plan recognizes that other municipalities may desire to contract out waste hauling services for their residents in the future and approves of this method of collection as part of the County Solid Waste Management Plan. Individual residents will continue to have the choice whether to contract with a hauler or to haul their refuse themselves to the designated disposal facility.

### ***Transportation***

This Plan will allow three methods of transporting waste to the processing and/or disposal facility:

- Direct haul by private hauler or individual resident;

- Drop off of refuse by individual residents at small collection centers, either owned by a private hauler or the local municipality, to be located in rural areas of the County for pick up by private haulers; or
- Drop off of refuse by private haulers at transfer stations, owned by the private hauler or a municipality, for consolidated transport of refuse to the processing/disposal facility.

Any or all of these methods can be used within the County as part of this selected management system.

The transportation component of this short term system allows for construction of transfer stations for collection and consolidation of county refuse prior to transfer to an "out-of-county" facility.

### *Processing*

This short term plan identifies three potential methods of processing prior to disposal—baling of mixed refuse; shredding of tires; or truck compaction. Any or all of these methods can be used within the County as part of this selected management program.

Any waste to energy processing facilities will be reviewed during the short term for technical and economical feasibility as part of the overall County Solid Waste Plan. If a feasible facility becomes available during the short term, the County Board of Public Works and the Solid Waste Management Committee will consider a plan for implementation. The County recognizes that a feasible waste to energy facility may become available during the short term plan period. It is the County's intent to investigate and implement a waste to energy program—whether in the short term, or in the long term as planned—when such a proposed facility becomes technically, economically, environmentally, and politically feasible.

### *Disposal*

As part of the short term management solid waste system, as the first preferred priority for disposal, the County will transport their waste out of the County. It will be required of Isabella County, as part of implementation of this Plan, to contact the Counties of Allegan, Clinton, Clare, Bay, Ionia, Clinton, Montcalm, and Shiawassee, and other counties if necessary, and request identification of Isabella County in their solid waste management plans to provide for this activity.

Currently, landfilling, as the sole method of solid waste disposal, is viewed as a short term alternative for Isabella County solid waste management. However, the County desires to reduce the dependency on landfilling as the sole disposal method in the future.

It is the Plan's objective to minimize the amount of waste to be disposed. Therefore, for the short term, Isabella County will encourage and support recycling and waste reduction at the waste generator level.

### ***Institutional/Administrative Arrangements***

The Isabella County Board of Public Works will continue to manage this short term management plan, overseeing the recycling program, and determining whether solid waste management proposals are consistent with the Plan. As part of implementation of the short term plan, operation and maintenance of the recycling program and MRF will be carried out by the Board of Public Works.

Although the County will manage the Plan, private enterprise will be encouraged to participate in all components.

## **2.2**

### ***SELECTED LONG TERM ALTERNATIVE (NEXT 10 YEARS)***

The long term alternative is a plan for the future. It is the desire of Isabella County to keep the management components general yet focused on a goal of resource recovery. It is the County's understanding that the long term management plan can be implemented at any time during the next ten years and, as an example, if a feasible waste to energy facility becomes available to the County in the next three years, the County has the option to consider participation in this facility.

### ***Generation/Source Reduction***

The County will continue to support the Bottle Bill and State or Federal legislation that provides a sound, economical, technically feasible method for source reduction. As part of the County wide education program on solid waste management, the County will encourage source separation and reuse at the residential level.

### ***Precollection***

As part of the long term management plan, the County will continue support and development of recycling centers and yard waste collection within the County through actual involvement and through education programs. Both public and private involvement in ownership, operation, and maintenance of the recycling programs will be encouraged. In addition to separation of recyclables at the generator level, front-end mechanical separation will be allowed as part of the operations of a processing or



disposal facility. Economic and/or legal incentives to promote recycling and waste volume reduction will also be allowed.

### ***Collection***

It is possible that in the long term, the County will participate in a waste to energy program where a guaranteed quantity of waste will be required. Under this long term system the following collection methods will be allowed – municipal contracts with private haulers, a user fee system instituted by a municipality to encourage waste reduction and separation of recyclables; and/or curbside collection of recyclables. The development of the municipal contract collection system, under the direction of the Board of Public Works, will coincide with development of a waste to energy facility.

### ***Transportation***

Under the long term management system the following transportation methods will be allowed.

- Direct haul of refuse by a private hauler or the individual resident to the collection center, processing, and/or disposal facility;
- Collection of refuse at small collection centers in rural section of Isabella County with either private or public ownership. Only individual residents may use these facilities for drop off of refuse that otherwise would have to be transported greater distances to the collection, processing, and/or disposal facility; and/or
- Private or public transfer station for collection of refuse either transported to the station by private haulers or individual residents.

Any or all of these methods can be used within the County at one time.

### ***Processing***

For long term management, two distinct methods of processing are proposed. Physical processing will continue as it has for the short term, with baling, tire shredding, and truck compaction as acceptable methods for processing of waste.

The second method of processing possible for implementation within the County as part of the long term management system is "waste-to-energy." The County prefers to implement a waste to energy facility within the boundaries of the County. However, if an "in-county" facility is not technically or economically feasible, the County has the option of participating in an "out-of-county" facility.

It is recognized that waste from other Counties will most likely be required to efficiently operate a waste to energy facility. Therefore, for the long term, Isabella County will accept out of county waste at the in-county waste to energy facility. In order to provide for the future, Isabella County will request that the counties of Bay, Gladwin, Clinton, Midland, Montcalm, Saginaw, and Shiawassee, and other counties if necessary, list that they will accept waste from Isabella County in their solid waste management plans. In turn, Isabella County will ammend this Plan to accept waste from these Counties if an "in county" waste to energy facility is constructed.

### *Disposal*

This long term system allows the continued transport of County waste to an out-of-county facility. To provide for this, Isabella County will request the counties of Bay, Gladwin, Clare, Clinton, Midland, Montcalm, Saginaw, and Shiawassee, and other counties if necessary, list acceptance of refuse and ash from Isabella County in their solid waste management plans.

### *Institutional/Administrative Arrangements*

The County Board of Public Works will continue to manage the long term solid waste management system and will encourage private enterprise involvement in all components.

**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 Rule 711(b)(i) and (ii). At 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 recovery and;
- (2) To prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

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

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

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

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

**GOAL 2:** To actively promote pollution prevention, waste reduction, hazardous waste management, recycling, reuse, and composting through a collaborative with private sector businesses, County residents, and local units of government.

Objective 2a: Promote the protection of public health and natural resources by reducing the amount of hazardous substances in the solid waste stream.

*Action 1:* Encourage County residents to minimize the volume of hazardous substances placed in the solid waste stream.

*Action 2:* Serve as a liaison and point of contact for County residents and local units of government for information on public health, technical and educational programs related to solid waste management.

Objective 2b: Promote the protection of public health and natural resources through recycling, reuse and composting.

*Action 1:* Continue recycling and composting programs. Serve as liaison and point of contact for information about opportunities for recycling and composting available to local units of government, County residents, and the private sector.

## **4.0**

## **DATABASE**

### **4.1**

### **IDENTIFICATION OF WASTE SOURCES**

Identification of sources of waste generation within the county, total quantity of solid waste generated to be disposed, and sources of the information.

#### **TYPE II LANDFILL DISPOSAL**

Data provided by Landfill operators and compiled by the MDEQ- Solid Waste Program Section was used to provide the following figures:

Isabella County Type II Landfill Disposal (2000): 161,818 cubic yards

Data provided by Isabella County Materials Recovery Facility was used to provide the following figure:

Isabella County Waste Diverted from Type II Landfill Disposal (2000):  
11,177.53 tons

Total Quantity of Solid Waste Needing Disposal: approximately  
161,818 cubic yards

### **4.2**

### **INVENTORY OF DISPOSAL AREAS**

This section provides an 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.

#### **Isabella County**

There are currently no disposal facilities within Isabella County

#### **Outside Isabella County**

##### ***Type II Landfill:***

- Northern Oaks Recycling and Disposal Facility (RDF) (Clare County)
- White Feather Landfill (Bay County)
- Pitsch Sanitary Landfill (Ionia County)
- Central Sanitary Landfill (Montcalm County)

*Type A Transfer Facility, Type B Transfer Facility, Type III Landfill, Processing Plant, Incenerator, Waste Piles, Waste-to-Energy Facility: NA*

# FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill  
 Facility Name: Central Sanitary Landfill  
 County: Montcalm Location: Town: 11N Range: 10W Section(s): 21  
 Map identifying location included in Attachment Section: Yes ☒ No ☐

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

☐ Public ☒ Private Owner: Central Sanitary Landfill, Inc.

## Operating Status (check)

- ☒ open
- ☐ closed
- ☒ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but 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:	<u>480</u>	acres
Total area sited for use:	<u>300</u>	acres
Total area permitted:	<u>116</u>	acres
Operating:	<u>39</u>	acres
Not excavated:	<u>77</u>	acres

Current capacity:	<u>12.9 mil</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yards <sup>3</sup>
Estimated lifetime:	<u>40</u>	years
Estimated days open per year:	<u>260</u>	days
Estimated yearly disposal volume:	<u>200,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yards <sup>3</sup>

(if applicable)

## Annual energy production:

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

# FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill  
 Facility Name: Northern Oaks RDF  
 County: Clare Location: Town: 19N Range: 4W Section(s): 32  
 Map identifying location included in Attachment Section: Yes ☒ No ☐

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

☐ Public ☒ Private Owner: Waste Management, Inc.

## Operating Status (check)

- ☒ open
- ☐ closed
- ☒ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but 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:  
asbestos, fuel waste (solid)

## Site Size:

Total area of facility property: 480 acres  
 Total area sited for use: 76 acres  
 Total area permitted: 76 acres  
     Operating: 19 acres  
     Not excavated: 57 acres

Current capacity: 17 mil ☐ tons or ☒ yards<sup>3</sup>  
 Estimated lifetime: 37 years  
 Estimated days open per year: 260 days  
 Estimated yearly disposal volume: 409,000 ☐ tons or ☒ yards<sup>3</sup>

(if applicable)

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

# FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Pitsch Sanitary Landfill

County: Ionia Location: Town: 8 Range: 7 Section(s): 7

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

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

☐ Public ☒ Private Owner: Pitsch Companies

## Operating Status (check)

- ☒ open
- ☐ closed
- ☒ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but 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:  
asbestos

## Site Size:

Total area of facility property: 300 acres

Total area sited for use: 140 acres

Total area permitted: 40 acres

Operating: 10 acres

Not excavated: 30 acres

Current capacity: 4 mil ☒ tons or ☐ yards<sup>3</sup>

Estimated lifetime: 20 years

Estimated days open per year: 280 days

Estimated yearly disposal volume: 100,000 ☒ tons or ☐ yards<sup>3</sup>

(if applicable)

Annual energy production:

Landfill gas recovery projects: N/A megawatts

Waste-to-energy incinerators: N/A megawatts



# FACILITY DESCRIPTIONS

Facility Type: Type II Sanitary Landfill

Facility Name: Whitefeather Landfill

County: Bay Location: Town: 17N Range: 4E Section(s): 2

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

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

☐ Public ☒ Private Owner: Republic Services, Inc.

## Operating Status (check)

- ☒ open
- ☐ closed
- ☒ licensed
- ☐ unlicensed
- ☐ construction permit
- ☐ open, but 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:  
asbestos, non-hazardous industrial wastes

## Site Size:

Total area of facility property:	<u>105</u>	acres
Total area sited for use:	<u>56.5</u>	acres
Total area permitted:	<u>56.5</u>	acres
Operating:	<u>30.99</u>	acres
Not excavated:	<u>26.25</u>	acres

Current capacity:	<u>3.46 mil</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yards <sup>3</sup>
Estimated lifetime:	<u>24.7</u>	years
Estimated days open per year:	<u>270</u>	days
Estimated yearly disposal volume:	<u>252,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yards <sup>3</sup>

(if applicable)

## Annual energy production:

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

### ***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.

Certain sections of the data base have been excerpted in full or in part from the "Isabella County Comprehensive Plan, 1986." The complete document is incorporated into the Plan by reference and the interested reader is encouraged to review the Comprehensive Plan in full.

#### ***Collection***

Waste collection within Isabella County continues to utilize a free market system allowing private haulers to contract with individual residents and/or municipalities. The County Solid Waste Plan allows the City of Mount Pleasant and the Village of Shepherd to contract with private haulers for the collection of waste generated within their corporate limits. Individual residents have the choice whether to contract with a hauler or to haul their refuse themselves to a disposal facility.

#### ***Transportation***

The transportation infrastructure utilized by waste haulers collecting and disposing of waste generated by the County consists of interstate, state, county, and local roadways. This roadway system is capable of meeting the County's transportation infrastructure needs for the planning period.

### ***EVALUATION OF DEFICIENCIES AND PROBLEMS***

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

No significant problems or deficiencies were identified in the existing solid waste management system. However, the County is depending on other Counties to maintain its policy of accepting waste from Isabella County, the transportation costs for disposal will be higher, the County has no control of the tipping fee, and the County is, in essence, transferring its responsibility to provide for management of its solid waste to another county. By the County's use of an out of county landfill, the County waives its responsibility and control over proper design, construction, operations, and maintenance of the facility.

The following presents the current and projected population densities and centers for five and ten year periods, identification of current and projected centers of solid waste generation including industrial solid waste for five and ten year periods as related to the Selected Solid Waste Management System for the next five and ten year periods.

Certain sections of the data base have been excerpted in full or in part from the "Isabella County Comprehensive Plan, 1986."

### *Current and Projected Population*

According to the findings presented in the "Isabella County 1986 Comprehensive Plan," Isabella County is influenced by a number of emerging national trends that will have short and long-term impacts on the population growth within the County. These trends are:

- Continuing decline in family size over the next decades. Average family size dropped by  $\frac{1}{2}$  a person over the past ten years and will approach the same figure over the next decade. This reduced size is due to fewer children in traditional families, more married couples deciding against having children, a greater number of single person households, and an increased proportion of elderly households.
- Median age will continue to rise substantially as the post World War II baby boom ages and as children decline as a proportion of the population while senior citizens increase. Along with this, the median years of schooling will most likely continue to increase.
- Economic growth will focus principally on the service and high-technology areas rather than on traditional heavy industry.
- Most growth will probably continue to shift to rural areas where people will either commute into urban areas (like Mount Pleasant) or into smaller rural towns (like Shepherd).

Table 4-1 presents population counts results as recorded by the U.S. Census. Historical population data for Isabella County and its political subdivisions indicate that the population more than doubled during 1940 to 1990. From 1990 to 2000, the county population increased about 16%. However, many of the townships experienced a much higher growth rate. Most notable, Union and Sherman Townships each increased by about 50%, and Broomfield and Gilmore Township grew by about 30%.

**Table 4-1      Population Projection Data**

Isabella County Population Data							
Local Units	U.S. Census Data			Pop. Change 1990-2000 as a Percent	Projected Population		
	1980	1990	2000		2005	2010	2020
Broomfield Twp.	1246	1266	1620	27.96%	1846	2363	3024
Chippewa Twp.	3784	4130	4617	11.79%	4889	5466	6110
Coe Twp.	3141	2967	2993	0.88%	3006	3032	3059
Coldwater Twp.	714	732	737	0.68%	740	745	750
Deerfield Twp.	2160	2598	3018	16.17%	3262	3789	4402
Denver Twp.	1059	1019	1147	12.56%	1219	1372	1545
Freemont Twp.	1215	1217	1358	11.59%	1437	1603	1789
Gilmore Twp.	966	1072	1376	28.36%	1571	2017	2589
Isabella Twp.	1916	2025	2145	5.93%	2209	2339	2478
Lincoln Twp.	1698	1798	1936	7.68%	2010	2165	2331
Mt. Pleasant City	23746	23285	25946	11.43%	27429	30563	34056
Nottawa Twp.	2042	1968	2278	15.75%	2457	2845	3293
Rolland Twp.	1105	1138	1210	6.33%	1248	1327	1411
Sherman Twp.	1405	1725	2616	51.65%	3292	4992	7570
Union Twp.	5306	5139	7615	48.18%	9449	14002	20749
Vernon Twp.	1389	1308	1342	2.60%	1359	1395	1431
Wise Twp.	1218	1233	1301	5.52%	1337	1411	1488
Isabella County	54110	54624	63351	15.98%	68412	79341	92017

**NOTE:**

Projected population based on percentage increases from 1990 to 2000.

U.S. census data from U.S. Census Bureau

Current population counts for Isabella County are estimated at 63,351 with concentrations centered in the City of Mount Pleasant, Central Michigan University, and Chippewa, Deerfield, and Union Townships. Using the 1986 Isabella County Comprehensive Plan's estimate of 369,800 acres as the area of Isabella County, this corresponds to approximately 580 square miles. The average population density per square mile in Isabella County is approximately 109.2, however Mt. Pleasant is the most densely populated area of the County with approximately 41% of the County's population residing there.

The "Solid Waste Stream Assessment for Isabella County" prepared for the Michigan Department of Natural Resources, dated March 1987, analyzed the quantity and composition of waste generated within Isabella County. This Plan incorporates by reference the full content of this report as a contribution to the data base for development of a solid waste management system.

The report found that Isabella County generates approximately 2.1 pounds of solid waste per person per day, 365 days per year; or a total of 24,279 tons of waste generated within the County annually based on a population of 63,351. The waste generation rate fluctuates substantially

during the year with almost twice the waste generated in July than in February.

The report also found that the waste composition is similar to that generated across the country and fluctuates slightly with the season. Approximately 51.7% of the waste stream is organic material (newsprint, corrugated cardboard, office paper, yard waste, textiles, plastics and other organics), and 16.6% of the waste stream is non-organic (glass, ferrous and non-ferrous metals, and other inorganics). There were negligible portions of returnable glass, aluminum, and plastic materials found during the waste survey events reported in the waste stream assessment.

The average energy content of four random samples of waste was 4,474 BTUs per pound, consistent with the nationwide average for residential and commercial waste.

Waste generation and composition is expected to continue at the generation rate per person of 2.12 pounds of refuse per person per day and per the composition identified in the report. On the basis of the aforementioned population estimates, the present annual solid waste generation of 24,279 tons would be expected to rise to 26,218 tons in five years and 35,266 tons in twenty years. Changes in source reduction, such as additional "returnable packaging" legislation, will affect the composition and generation in the future but cannot be predicted at this time. These figures represent only residential waste generation. Total waste disposed of by Isabella County including commercial, industrial, and other wastes is estimated at approximately 161,818 cubic yards (roughly 120,000 tons depending on compaction methods).

#### 4.6

#### **LAND DEVELOPMENT**

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

The "Isabella County Comprehensive Master Plan" reports that with the exception of the Mount Pleasant urbanized area and the Villages of Shepherd and Rosebush, Isabella County is largely rural with agriculture as its primary land use. Residential development is concentrated in the City of Mount Pleasant, in adjacent Union and Chippewa Townships, and in the smaller incorporated communities of Shepherd and Rosebush. Currently the Comprehensive Plan is being updated to reflect current conditions more accurately, however, it is unlikely that the contents of this section will vary significantly from the previous edition.

Commercial development, as reported in the Master Plan, exists mainly in the Mount Pleasant area, and along the US-27 business route and the M-20 corridor. Industry is concentrated in industrial park areas in Mount Pleasant and adjacent Union and Chippewa Townships. Some additional scattered industrial development exists near the unincorporated places of Blanchard and Winn, in Broomfield Township, and in Shepherd. Central Michigan University and the Regional Center for Developmental Disabilities, both in the Mount Pleasant area, are the two major state-owned public institutions within the County.

Significant residential development has taken place in Sherman and Broomfield Townships in the vicinity of Lake Isabella. This represents a trend of attracting both year-round and seasonal residents to these areas.

Additional concentrations of residential development are found in the unincorporated communities of Millbrook, Blanchard, Winn, Loomis, Beal City, and Weidman. The unincorporated Vernon City area, at the north county line, is strongly associated with the City of Clare in Clare County. Residential expansion has also occurred in Deerfield and Coldwater Townships, and in the Coldwater and Littlefield Lake areas.

Isabella County possesses abundant lakes, streams, and wooded lands in addition to its developed and cultivated areas.

Table 4-2 list various land uses within the County.

**Table 4-2**     *Isabella County General Land Cover/Use – 1985*

Land Cover/Use	Acres	Percent of Total
Agriculture	238,200	64.4
Forest Land	85,400	23.1
Water Areas	3,300	1.0
Urban and Built-Up	7,600	2.1
Transportation	11,900	3.2
Minor Cover/Uses	23,400	6.2
Total	369,800	100.0

### ***Future Land Use Patterns***

The "Isabella County Comprehensive Plan" does not delineate rigid boundaries for every type of land use, but rather focuses on a much more policy-oriented approach. The plan incorporates the concept that concentrated housing, commercial activities, and industries should be located in established trade centers.

The land use plan has identified only the major land uses expected by the county and proposed locations for these uses. Portions of the county not otherwise classified include additional farmlands, wooded area, wetlands, and area of dispersed residential development. Future uses of these areas may be expected to include farming operations, limited rural residential development, neighborhood-scale retail businesses, and small-scale manufacturing activities.

As stated in the "Isabella County Comprehensive Plan," "the general concepts of the Isabella County land Use Plan are outlined as follows:

- It is desirable to preserve the county's best farmlands for agricultural production. This requires identification of the best farmlands based on a set of reasonable criteria.
- The Chippewa River is a dominant natural feature and recreational resource. However, there is no coherent plan to provide for the management of this resource. Therefore, it is desirable to identify the Chippewa River system as a potential river management corridor that will enhance the county's recreation planning efforts.
- The primary residential area will continue to be the City of Mount Pleasant, with additional development occurring in adjacent Union, Chippewa, and Deerfield Townships.
- Secondary residential concentration will be found in the Villages of Shepherd and Rosebush, and the unincorporated communities of Beal City, Weidman, Winn, Blanchard, and Loomis.
- The county's major inland lakes will continue to be attractive for the development of both seasonal and year round residences. Because of their unique character and the problems associated with intensive development, special management techniques and land use controls are desirable for these lake resort areas.
- Locations for additional residential development in the out-county areas should be considered in terms of existing land use, major road access, and demands for public services.
- The primary commercial trade center will continue to be Mount Pleasant. Secondary commercial centers will be located in Shepherd and Rosebush. Additional small-scale commercial centers to serve the out-county areas would be appropriate in Beal City, Weidman, Winn, Blanchard, and Loomis.
- The primary center of industrial activity will continue to be Mount Pleasant and the immediate vicinity. In this activity center, the sites available for industrial use are concentrated in the organized industrial parks found in Mount Pleasant, Union Township, and Chippewa Township.

- Additional industrial development might be appropriate near existing industry in Shepherd, the Lake Isabella area (Broomfield Township), and the Blanchard area (Rolland Township).
- In all cases, potential locations for industry should be considered in terms of the capacities of transportation systems, availability of adequate public services, and overall compatibility with existing land uses.

The Isabella County Comprehensive Plan is incorporated into this Plan by reference. Currently the Comprehensive Plan is being updated to reflect current conditions more accurately, however, it is unlikely that the contents of this section will vary significantly from the previous edition.



The following briefly describes the solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation of each alternative is also described. The alternatives have not changed considerably from those discussed in the original Plan. However, to update the Plan, additional information regarding existing and proposed waste recycling and disposal systems and programs has been added.

**4.7.1*****Resource Conservation: Source Reduction***

Source reduction consists of reducing the amount of waste that enters the waste stream at the generation source. This method of solid waste management only reduces the volume of waste to be disposed of and is not a disposal method. A method of final disposal is still required with this alternative.

As described in the original Plan, source reduction requires voluntary action by manufacturers and/or consumers such as changing product packaging and disposal habits. An example of source reduction is the returnable containers. The Michigan's Bottle Law has required manufacturers to recycle pop and beer containers, and consumers to pay a ten cent deposit for each container to provide incentive to the consumer to return the container to the store for a refund of the deposit. This law has encouraged recycling, reduced litter, and has substantially reduced the quantity of waste to be disposed of.

Source reduction requires educating the public on how to reduce the amount of waste generated, and legal and monetary incentives to motivate industry and consumers to take part in the program.

**4.7.2*****Resource Recovery***

Resource recovery consists of extracting economically usable materials from a processable waste stream for reuse in the production of new products. Key elements in a resource recovery program are:

- An available market for the recovered materials or energy near to the source of generation; and
- Generation of sufficient quantities of waste materials.

There are various types of resource recovery programs ranging from recycling to energy recovery from incineration. Final disposal is still required with resource recovery, however, the volume of waste to be

disposed of is greatly reduced. Sales of the recovered materials or energy can offset the costs of the resource recovery program.

### *Source Separation*

Source separation is applicable to materials such as newsprint, corrugated cardboard, office paper, yard waste, certain plastics, glass, ferrous metal, certain non-ferrous metals such as aluminum, used oil, and tires. These materials can be separated, collected, sold for recycling, or reused in a modified form.

The State of Michigan Department of Environmental Quality encourages rural counties such as Isabella County to work with other adjacent counties to develop a regional recycling program. A regional program provides a mechanism to collect large quantities of recyclables to minimize the cost of transport of collected materials to near or more distant markets.

Generally, a source separation program is operated as follows: prior to curbside pickup, or individual drop-off of solid waste at the disposal facility, the generator separates and collects recyclable materials from the main waste stream. The generator then takes these separated materials (or a municipality or private hauler collects these separated materials at the curbside for transport) to a collection center. At the center, these materials are mass collected and then transported to the individual markets for recycling or reuse.

The sales of these collected materials can potentially offset the costs of operating a source separation/collection recycling program.

The most common method of collecting separated materials is a municipal or county sponsored recycling drop off center. Isabella County currently operates a recycling center [Materials Recovery Facility (MRF)] in Mt. Pleasant. The State of Michigan promotes recycling efforts by providing Clean Michigan Fund grant money that can be used for a variety of efforts including educational programs, construction of a collection building, and operating equipment. The State also recommends rural counties, that do not generate large quantities of recyclable materials, join with adjacent counties in their recycling efforts to make recycling more cost effective. Isabella County encourages other Counties to utilize the Isabella County MRF.

### *Materials Recovery*

This process differs from source separation in that separation of the recyclable products occurs from the mixed refuse at a common disposal area. The most common material recovery process is magnetic separation

of ferrous metals. This method is commonly used prior to processing of refuse for burning in a refuse derived fuel (RDF) production. Nationwide experience with recovery of other materials from the mixed waste stream indicates that separation prior to mixing is the most effective recovery method.

### *Composting*

Composting consists of the bio-chemical decomposition of organic materials into a humus substance. This method is primarily used as a volume reduction method prior to landfilling or incineration. However, the end product can potentially be used as soil conditioner. Compost can contribute to improved water retention, water filtration, permeability to water, soil porosity, soil aeration, decreased soil crusting, and enhanced soil aggregation to soils applied.

The waste stream must be separated into organic substances and inorganic substances. To promote a high level of microbial activity, the nutrient content in the waste must be high.

Reviewing the composition of Isabella County Waste, approximately 84% of the waste stream is compostable, organic materials. For large scale composting, the waste stream must either be separated by the generator into organic and inorganic waste streams or the mixed refuse must be separated mechanically and magnetically at a common point.

Composting requires large storage areas for fresh refuse and end products. Two composting processes have been used for composting municipal waste: the mechanical composting oven method or the windrow method. The mechanical composting oven requires the greatest capital expenditure. The windrow method requires a large land area for the berms of composting refuse. The composting materials are periodically mechanically turned to maintain the proper composting temperatures inside the berms. Considerable odors can be associated with an outdoor composting facility. Outdoor composting also generates leachate that must be collected and disposed of.

On a smaller scale, composting of grass clippings and leaves has been proven to be a simple and economical volume reducing method. Approximately 5.4% of the County waste stream is composed of yard waste. Individual residents can also compost mixed organic waste utilizing a very small area in an environmentally controlled unit to reduce the volume of waste material, which must be disposed of.

Currently, Isabella County accepts yard waste and brush for composting at the Isabella County Materials Recovery Facility.

## *Energy Recovery*

Proven waste to energy technologies in the United States and in Michigan include mass burn incineration, air controlled incineration, and refuse derived fuel incineration. Developing technologies used in other countries but, as of yet unproven in the United States, include various pyrolysis processes.

Steam generated from the heat of the incinerators can be sold to a commercial or industrial customer or can be directed through steam turbines to generate electricity that can be sold to a commercial or industrial consumer or to a public utility.

The principal factors involved in the utilization of a waste to energy facility are:

- Adequate supplies of fuel (refuse) in both quality and quantity secured by contracts or local ordinance; and
- A dedicated user of sufficient need, secured through ownership or long term contracts for the steam or electricity.

The Isabella County Waste Survey determined that the heat value of the County's waste is 4,474 BTUs per pound of refuse. This is comparable to the nationwide average of 4,500 BTUs per pound of municipal waste; and is acceptable for effective burning in a waste to energy facility.

Generally, the costs of constructing and operating a waste to energy facility can be somewhat offset by the sale of the steam or electricity. However, these end products are in direct competition with the current energy producers.

A final disposal and backup (in case of energy recovery facility shut down) facility must be provided for the ash and other by-product of the waste to energy facility. The most common facility used for by-product disposal and back up is a Type II sanitary landfill.

However, because of the composition of municipal refuse, the bottom ash, fly ash, and any other waste to energy by-products must be analyzed to determine whether it is a hazardous waste. If the by-products are determined to be hazardous, they must be disposed of in a licensed hazardous waste disposal facility.

#### 4.7.3

### **SANITARY LANDFILLING**

A sanitary landfill is defined as a land disposal site employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume, and applying and compacting cover material at the end of each operating day.

There are three regulated forms of landfills: Type I for disposal of hazardous materials, Type II for the disposal of general refuse, and Type III for wastes having minimum potential for contamination of groundwater, such as broken concrete and building demolition materials. This Plan will consider only Type II and III landfills for management of solid waste within the County.

#### *Type II Sanitary Landfill*

There are no operating Type II landfills within Isabella County.

Type II landfills in Clare, Ionia, Montcalm, and Bay Counties currently accept waste from Isabella County.

#### *Type III Sanitary Landfill*

There are no licensed Type III landfills within Isabella County. Currently, all demolition materials are landfilled at operating Type II landfills.

#### 4.7.4

### ***Transfer to Out of County Facility***

Currently, Isabella County is allowed to dispose of solid waste in Allegan, Clare, Clinton, Gratiot, Ionia, Montcalm, Ocea, Ottawa, St. Joseph, Washtenaw, and Van Buren Counties.

Generally, if a facility outside of the County is chosen for the long term disposal of solid waste generated within Isabella County, a transfer station or series of transfer stations may be desired in the County to minimize the transport of small loads of refuse to a distant out of county facility.

A transfer station provides an intermediate drop off point for commercial waste haulers and individual residents' loads where the waste is consolidated into large packer vehicles for transport to the remote facility.

#### 4.7.5

### ***Collection Component of Management***

Currently, a few of the municipalities within the County provide for "curb-side" waste pick up services. The City of Mount Pleasant and the

Village of Shepherd provide collection for residents, small commercial establishments, and light industries. Large commercial establishments and industries contract with private haulers.

Most township residents currently haul garbage to the landfills in Montcalm and Clare Counties, or contract individually with a private hauler for "curb-side" pickup. Central Michigan University and refuse generated by municipal services for the City of Mount Pleasant are handled by the University's and City's own staff and equipment. There are currently four licensed haulers in operation within the County: Martin Disposal, Waste Management, Metro Sanitation, and Dent Refuse.

Several alternatives exist for the type of collection method used in the County in the future.

- Compulsory collection in all governmental units with franchised public or private haulers;
- Collection in all governmental units performed by a public or private hauler;
- Individual house-holders hauling their own waste materials to the disposal site; and/or
- Individual house-holders hauling their own waste to a transfer station to then be hauled to a disposal site by public or private haulers.

The first two methods are best adapted to densely populated areas, while the last two are best adapted to low density, rural areas.

#### 4.7.6

##### *Others*

Baling and tire shredding are proven physical processing technologies that reduce the volume of the waste prior to landfilling; or that prepare the waste material for further processing or recycling. Baling can be used with a heterogeneous mixed refuse stream or a homogeneous, separated waste stream such as newsprint or corrugated cardboard. Baling is typically utilized by the recycling industry.

Tire shredding, as discussed earlier under recycling, also reduces the huge volume tire waste consumes, as well as prepares the tires for recycling if available. Shredded tires have been suggested for use as a replacement for daily cover, for use as drainage media for surface or subsurface use, and for use in certain road improvement applications.

This Plan would be short sighted to limit the alternatives discussed to current technologies, current facilities, or current proposed facilities. Proper disposal of solid waste is an ever increasing problem, which is receiving great research and development attention. During the next five

years, specific waste to energy, landfilling, or recycling technology not discussed above may be available for implementation in Isabella County. Isabella County will review new alternative disposal methods and will incorporate them into a Plan addendum or attachment if they meet the goals of this Plan.

This section evaluates the alternatives presented in the previous section. Technical feasibility, economic feasibility, availability of site, access to transportation networks, energy use, potential energy generation, waste supply considerations, environmental impacts, public acceptability, public health impacts, legal considerations, and institutional constraints will be evaluated for each alternative.

**DESCRIPTION OF AVAILABLE ALTERNATIVES**

Of the alternatives discussed, only one alternative, "Source Reduction" under the "Resource Recovery" heading is not a simply implemented alternative for the County because this alternative is a volume reducing measure generally implemented on the State or Federal level. This alternative will not be analyzed in detail as a potential practical alternative for the County. The County will continue to support measures proposed by the State or Federal government, such as the Bottle Bill, that are meant to reduce the volume of waste generated from use of consumer goods.

The solid waste management alternatives to be evaluated in this section are listed below:

1. Pre-collection
  - Materials recovery – recycling
2. Collection
  - a. Free market system
  - b. Municipal contracts
  - c. Residential Delivery
3. Transportation
  - a. Direct haul
  - b. Transfer station
  - c. Collection centers
4. Processing
  - a. Physical
    - i. Baling
    - ii. Tire Shredding
  - b. Waste to Energy
    - i. Incineration



## 5. Disposal

- a. In County Sanitary Landfill – Type II and/or Type III
- b. Out of County Sanitary Landfill

## 6. Institutional/Administrative Arrangements

### *Pre-collection – Recycling/Reuse*

The following net environmental benefits can be achieved through recycling and materials recovery:

- Material is kept out of the waste stream and therefore out of a disposal facility.
- Drain on natural resources is reduced and supply of raw materials is extended.
- Manufacturing of products from recycled materials is less polluting and requires less energy than manufacturing that relies on virgin materials.

Economic benefits are derived from recycling in that income is derived from the sale of recovered materials, thereby offsetting a portion of solid waste management costs. Furthermore, with the reduction in the total waste load, other waste processing facilities may be downsized resulting in lower costs.

Recycling involves all sectors of the community, including industry, commercial, institutional, and residential contributions.

Isabella County has implemented a County Recycling Ordinance requiring recycling activities throughout the County. In addition, the County also operates a materials recovery facility (MRF). The County currently has eight (8) drop off sites located throughout the county.

The drop off center concept relies on the generator to voluntarily bring in and "drop off" his recyclable materials. The advantages to this system are that minimum labor and equipment are required in that there is no "door to door" or "curb side" pick up of materials; and the drop off center method eliminates the double handling of materials. The disadvantages to the "drop off" center method of recycling is the lack of incentive for the individual waste generators to drop off recyclables at the center; and that the center requires purchase or lease of a site for the collection, storage, and processing of materials.

Composting is another method of material reuse. As discussed in previous sections, there are basically two types of composting methods:

large scale, where organic refuse is composted in bulk at a large parcel; and small scale composting methods, where individual generators or small groups of generators have small compost piles for either the organic content of their refuse or for yard waste, or both.

Composting provides an end product that may have a marketable value in Isabella County for use as a soil conditioner. Since the nutrient value is generally quite low, its value as a fertilizer is limited.

The potential environmental impacts of composting are malodors from the raw refuse collection facility and/or from poor composting operations. Generally, a well run composting facility will have minimum odors. The positive impacts include enhancement of farm and garden soils by the application of the compost as a soil conditioner, which acts similar to peat or other humus like materials.

Municipal yard waste composting can be conducted fairly inexpensively. Isabella County currently accepts yard waste and brush at the County Materials Recovery Facility for land application by a private party.

### *Collection*

#### *Free Market*

The County does not desire to enter the public "door-to-door" refuse collection business. Several haulers currently contract individually with residents for "curb side" or "door to door" pick up of solid waste. The free market system has worked well within the county where municipalities do not contract out or provide their own collection services.

The advantages to this system are cost competitiveness between the haulers, which tends to keep the costs down; and provision of collection services to a large section of the County by several haulers, which provides for continuity of service in the event any single hauling firm goes out of business.

The disadvantages to this system are possible short term interruptions in service in the event a hauler does go out of business; and lack of administrative control by the County to insure waste collection services are provided to every generator in the County.

This system of collection has been operational within the County for several years with good success.

## *Municipal Contracts*

This system has not been tried by Isabella County. The Village of Shepherd and the City of Mount Pleasant contract with private haulers on a competitive basis for waste collection for residents, small commercial establishments, and small industries. It is possible that with implementation of a waste to energy facility, where a certain amount of waste supply must be guaranteed for the proper and economical operation of the facility, municipal contracts with local haulers may be a method of managing the disposal of the waste at the specified location. A publicly published request for proposals would allow cost competition between the haulers, thereby keeping the costs for collection at the lowest possible level. In the request for proposals, if necessary, the municipality could identify the disposal or processing facility the waste must be delivered to.

An advantage of municipal contracts is the provision of collection services to the more rural, less populated sections of the County.

The disadvantage to this method of collection is that the Townships, Cities, and Villages within the County are not currently set up to provide collection contracts. Ordinances, as well as financial backing for management of this collection system would be necessary.

For the short term, the County does not desire to require municipal contracting of collection services. However, for the long term, if the county participates in implementing a waste to energy facility, this method of collection will need to be considered, to determine how to best guarantee the waste supply to the facility.

## *Residential Delivery*

Until the Spring of 1987, most County residents hauled their refuse to the Isabella County landfill located in Deerfield Township. During operation of the County landfill, this system appeared to work quite well, keeping the incidences of roadside or illegal dumping to a minimum. However, since the closing of the landfill, the incidences of illegal dumping throughout the county have increased due to the extended haul distances to the out of county disposal facilities.

With the rural nature of this County, it is expected that for at least the short term, residential delivery will continue to be a prime waste collection system. If illegal dumping increases or a waste to energy facility is implemented in the future, it may become necessary to provide localized transfer stations or small collection centers scattered throughout the rural sections of the County.

## *Transportation*

The choice of transportation method is dependent upon the location of the processing facility and/or the disposal site. The goal of this Plan is to minimize the travel distances in order to maximize the collection time and minimize the costs for collection and transport and reduce the air quality impacts associated with greater trucking distances.

### *Direct Haul*

Until the Spring of 1987, nearly all the solid waste collectors in Isabella County hauled their waste to the Isabella County landfill located in Deerfield Township. Since the closing of this facility, they now haul their waste directly to the landfills in Montcalm, Ionia, Bay, and Clare Counties. Currently, all of the solid waste generated in Isabella County is being hauled out-of-county.

It may be advantageous to construct a transfer facility, to minimize the transport distance of the collection vehicles.

Private waste haulers within the County have indicated that at some time in the future they may wish to reduce their transportation costs within the county and desire to construct a small transfer facility for their own use. It is the purpose of this Plan to encourage private enterprise and reduce the economical and environmental impacts of collection and the transportation components of solid waste management. Independent transfer stations owned and operated by private haulers for their own use would reduce their cost for hauling refuse to processing and/or disposal facilities and would reduce the air pollution impacts associated with exhaust from the waste collection vehicles transporting each of their loads to the final waste processing/disposal facility.

## *Processing*

### *Physical – Baling*

Baling of waste is a volume reducing measure but not total waste quantity reducing measure. Baling is a front end process, which compacts either a mixed, heterogeneous waste stream or a homogeneous waste stream, such as recovered paper, into uniform blocks more dense than normal compacted refuse. Used primarily in recycling, baling provides a method for reducing transportation costs by increasing the amount of recovered materials transported per cubic foot.

### *Physical – Tire Shredding*

Tires present an unusual waste disposal problem. When landfilled, the tires are "buoyant" and tend to rise within the landfill. When stockpiled, the water that collects within tires provides an excellent breeding ground for mosquitoes and other vectors creating a localized health hazard. Tire shredding provides a means to reduce the volume tires consume within landfills and allow simple burial; reduces the health impacts associated with tire stockpiles; and creates a product which can potentially be further processed by a recycler, used within certain paving mixtures, or utilized as a drainage media. The steel belts in tires present the greatest draw back to re-use of shredded material. Sharp steel edges in the shredded product can puncture tires or cut skin and must be removed prior to use in an area where this may be safety or operational problem. Also, the steel belts and other non-rubber components of modern tires present difficulties and added expense during recycling.

### *Waste to Energy – Incineration*

The following evaluation relies in part on the "Feasibility Study: Waste to Energy in the East Central Region of Michigan" reports prepared for the Michigan Department of Natural Resources by Gershman, Brickner, and Bratton, Inc. The study area included four counties: Isabella, Midland, Bay, and Gladwin Counties.

The advantages to waste to energy incineration are summarized below:

- The reduction of refuse to be disposed of, thus extending the life of the final disposal facility and the transportation costs to the final disposal facility;
- Siting an incineration facility may be easier due to better public acceptance of an incinerator than a landfill;
- The recovery of steam for generation and sale of electricity or for direct use;
- Future prospects favor economic justification for energy recovery due to escalating costs for fossil fuels and increasing environmental constraints being placed on other solid waste disposal alternatives; and
- The minimization of certain potential environmental problems at the final disposal facility, such as groundwater contamination and malodors.

The disadvantages and risks are summarized below:

- The increased cost for disposal of solid waste due to the high capital expenditures and operating costs
- An adequate waste stream must be assured over time;
- A long term contract must be acquired for the steam, heat and/or electricity produced;
- Not all materials can be incinerated, and the incineration facility does not constitute final disposal facility due to the residues generated. A landfill will be required in conjunction with incineration;
- Skilled labor is required to properly operate and maintain the facility;
- Increasing environmental protection requirements and resultant capital and operating expenditures for the air discharges, and water, and solid by-products of the system;
- The potential for severe environmental impacts due to poor design, construction, or operations causing of air, land, and/or water pollution control devices; and
- the need for guaranteed waste supply.

### *Disposal*

Regardless of the method of waste reduction, resource recovery, or other solid waste processing method utilized, a final disposal facility will be required for the non-processed, non-recycled, and/or non-burnable materials, and/or residues from the processing facilities; for disposal of refuse until a processing facility can be constructed; and as a backup method of disposal. This final disposal facility is most often a landfill.

### *In-County Landfilling – Type II and Type III*

There are no operating licensed landfills within the County of Isabella.

A landfill located within the County will reduce the transportation costs for disposal, will provide for disposal of incineration ash if a waste to energy facility is implemented, will provide a short term solution for disposal of the County's solid waste, and will maintain the environmental and disposal responsibility for that disposal within the County. The major advantages of a well-planned and well-operated sanitary landfill are:

- Sanitary landfilling can be economical if located near the major waste generation area;
- Upon completion of sanitary landfilling, the actual site can be put to numerous uses, such as parkland, recreation area, or as simple as open space;

- Methane gas generated during the decomposition of the waste within the landfill can be collected to generate electricity for sale to a public utility, private user, and/or for operation of landfill maintenance facilities;
- When properly constructed and operated, landfills meet all public health requirements for refuse disposal, and air and water pollution can be avoided;
- Nearly all waste except hazardous can be accommodated, thereby eliminating separation practices;
- Requires the lowest capital investment of the waste processing and disposal options;
- Daily variation in the quantity and quality of refuse will have no significant effect on the operation of the facility; and
- Equipment used on the landfill can be used for other municipal purposes as well.

The major disadvantages are:

- Large areas of land are required;
- Operational problems can occur during winter operations or during inclement weather;
- If not properly designed, constructed, operated, and closed the potential for environmental impacts such as groundwater contamination and malodors can be great;
- It is difficult to site landfills due to lack of public acceptability;
- Siting must consider hydrogeological conditions as well as socio-economic siting factors;
- Tipping fees at a small landfill for county waste are higher than those at a large regional landfill due to the large regional landfills construction and operating efficiencies; and
- Inadequate cover during daily operations can cause vector problems, fire hazards, and malodors.

The primary disadvantage of the County owning and operating a landfill is the long-term liability for environmental impacts, and the large "up-front" financial burden. The advantage of the County owning and operating a landfill is assuring a method of disposal for the residents of the County, and maintaining the control of design, construction, operation, and maintenance to ensure that all possible measure are taken to mitigate the impact on the surrounding environment.

The primary disadvantage of private ownership is the potential for higher tipping fees and the potential for "inheriting" environmental problems due to poor operation.

### *Out of County Landfills – Type II and Type III*

Currently, Isabella County is exporting its waste out of county. It is necessary, if a landfill is not developed within the County, to continue exporting solid waste out of county.

The counties of Montcalm, Ionia, Clare, and Bay currently accept waste from Isabella County. Allegan, Gratiot, Montcalm, Ottawa, Van Buren, Clinton, Osceola, St Joseph, Washtenaw, Oakland and Wayne Counties' Solid Waste Management Plans currently identify waste from Isabella County as acceptable for disposal in their counties .

The advantage of this alternative is that the liability of environmental problems lies largely outside of the County lines and the environment within the County remains without impact. The disadvantages are that the County is depending on the other County to maintain its policy of accepting waste from Isabella County, that the transportation costs for disposal will be higher, that the County has no control of the tipping fee, and that the County is, in essence, transferring its responsibility to provide for management of its solid waste to another county. By the County's use of an out of county landfill, the County waives its responsibility and control over proper design, construction, operations, and maintenance of the facility.

Basically, the same advantages and disadvantages as listed for an "In County Landfill" hold true for an "Out of County Landfill."

### *Institutional/Administrative Arrangements*

Currently, the disposal of solid waste within Isabella County is managed through the administration of the Board of Public Works and the offices of the County Engineer. This method was determined as the most applicable during development of the original Solid Waste Management Plan. It is the desire of the County to continue with this method of management.



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

## 6.1

**SHORT TERM - NEXT FIVE YEARS**

For the short term and into the long term, emphasis will be placed on attempting to reduce the volume of refuse that must be disposed of. Educational programs aimed at public awareness, how and what to separate from the waste stream for recycling, and where to take separated recyclables will be supported by the County.

The selected short term alternative is described in more detail as follows.

***Generation/Source Reduction***

Isabella County will continue to support collection of returnable bottles and cans under the State of Michigan Bottle Bill. In addition, the County will support federal and state legislation that provides sound, economical, technically feasible, source reduction. Furthermore, in the County's recycling education program, the County will provide education information to the County residents demonstrating how each household can reduce the amount of waste it generates, and encourage source separation and reuse within the home.

***Precollection***

Isabella County will continue support of the recycling program and household hazardous waste program.

The County will continue with the yard waste and brush collection/composting program; and will allow other municipalities and/or local interest groups to conduct yard waste collection and composting programs.

The County will continue with the recycling education program that concentrates on promoting recycling through circulation of educational information and program incentives to the schools, local businesses and supermarkets, through the newspapers, and through public access television and radio. The County will continue to investigate markets for recycled materials, and encourage other Counties to utilize the Isabella County MRF.

This system will allow development and implementation of economic and/or legal incentives to promote recycling and waste volume reduction in the County. However, At this time, no new programs are planned.

### *Collection*

Waste collection within Isabella County will continue as it has in the past utilizing a free market system allowing private haulers to contract with individual residents and/or municipalities. The County Solid Waste Plan will continue to allow the City of Mount Pleasant and the Village of Shepherd to contract with private haulers for the collection of waste generated within their corporate limits. This Plan recognizes that other municipalities may desire to contract out waste hauling services for their residents in the future and approves of this method of collection as part of the County Solid Waste Management Plan. Individual residents will continue to have the choice whether to contract with a hauler or haul their refuse themselves to a disposal facility.

### *Transportation*

This Plan will allow three methods of transporting waste to the processing and/or disposal facility:

- Direct haul by private hauler or individual resident;
- Drop off of refuse by individual residents at small collection centers, either owned by a private hauler or the local municipality, to be located in rural areas of the County for pick up by private haulers; or
- Drop off of refuse by private haulers at transfer stations, owned by the private hauler or a municipality, for consolidated transport of refuse to the processing/disposal facility.

Any or all of these methods can be used within the County as part of this selected management system.

The transportation component of this short term system allows for construction of transfer stations for collection and consolidations of county refuse prior to transfer to an "out-of-county" facility.

### *Processing*

This short term plan identifies three potential methods of processing prior to disposal: baling, shredding of tires; or truck compaction. These methods can be used within the County as part of this selected management program. The County recognizes that other processing or compaction methods may become commercially available. It is the County's intent to allow implementation of these methods if they becomes technically, economically, environmentally, and politically feasible.

The County recognizes that a feasible waste to energy facility may become available during the short term plan period. It is the County's intent to investigate and implement a waste to energy program – whether in the short term, or in the long term as planned – when such a proposed facility becomes technically, economically, environmentally, and politically feasible.

### *Disposal*

As part of the short term management solid waste system the County will continue to utilize out-of-County landfill facilities to meet the disposal needs of the County, and will not pursue development of an "in-county" landfill.

It will be required of Isabella County, as part of implementation of this Plan, to contact the Counties of Allegan, Bay, Ionia, Clare, Gladwin, Clinton, Midland, Montcalm, Ottawa, St. Joseph, Washtenaw, and Van Buren, and other counties if necessary, and request continued identification of Isabella County in their solid waste management plans to provide for this disposal alternative.

Landfilling, as the sole method of solid waste disposal, is viewed as a short term alternative for Isabella County solid waste management.

It is the Plan's objective to minimize the amount of waste to be disposed of at the County landfill. Therefore, for the short term, Isabella County will encourage and support recycling and waste reduction at the waste generator level.

### *Institutional/Administrative Arrangements*

The Isabella County Board of Public Works will continue to manage this short term management plan, and determining whether solid waste management proposals are consistent with the Plan. The Board of Public Works will be allowed to initiate further feasibility studies as may become necessary to evaluate solid waste management proposals.

The MRF Board will continue to be responsible for the operation of the recycling program and the MRF.

Although the County will manage the Plan, private enterprise will be encouraged to participate in all components.

### *Short Term Plan Evaluation*

The selected short term management system will provide a positive solution to the immediate solid waste needs in Isabella County. Steps toward implementation of this system can begin immediately.

Overall public acceptability of this short term system is expected to be good. The system provides a solution to the short term disposal needs and minimizes the gross socio-political and environmental impacts of siting of a landfill facility

In summary, the selected short term system:

- Provides a technically and economically feasible solution to the immediate solid waste management need within the County;
- Incorporates proven, sanitary waste management methods;
- Provides a recycling awareness education programs and an operating recycling center;
- Provides for development and implementation of economic and/or legal incentives to promote recycling and waste volume reducing;
- Does not radically change the solid waste management system from what most residents are accustomed, thereby assuring a favorable participation rate by County waste generators; and
- Provides development of the waste reduction and resource recovery in the long term.

## **6.2**

### **LONG TERM – NEXT TEN YEARS**

The long term alternative is a plan for the future. It is the desire of Isabella County to keep the management components general yet focused on a goal of resource recovery. It is the County's understanding that the long term management plan can be implemented at any time during the next ten years and, as an example, if a feasible waste to energy facility becomes available to the County during the Plan period, the County has the option to consider participation in this facility.

### ***Generation/Source Reduction***

The County will continue to support the Bottle Bill and State or Federal legislation that provides a sound, economical, technically feasible method for source reduction. As part of the County wide education program on solid waste management, the County will encourage source separation and reuse at the residential level.

### ***Precollection***

As part of the long term management plan, the County will continue support and development of recycling centers and yard waste collection within the County through actual involvement and through education programs. Both public and private involvement in ownership, operation, and maintenance of the recycling programs will be encouraged. In addition to separation of recyclables at the generator level, front-end mechanical separation will be allowed as part of the operations of a processing (MRF) facility. Economic and/or legal incentives to promote recycling and waste volume reduction will also be allowed. However, at this time, no new programs are planned.

### ***Collection***

Collection to continue as described in the short term unless it is possible that in the long term the County will participate in a waste to energy facility where a guaranteed quantity of waste will be required. Under this long-term system the following collection methods will be allowed: municipal contracts with private haulers; a user fee system instituted by a municipality to encourage waste reduction and separation of recyclables; and/or curbside collection of recyclables. The development of the municipal contract collection system will coincide with development of a waste to energy facility under the direction of the Board of Public Works.

### ***Transportation***

Under the long-term management system the following transportation methods will be allowed:

- Direct haul of refuse by a private hauler or the individual resident to the collection center, processing and/or disposal facility;
- Collection of refuse at small collection centers in rural section of Isabella County with either private or public ownership. Only individual residents may use these facilities for drop off of refuse that otherwise would have to be transported greater distances to the collection, processing, and/or disposal facility; and/or

- Private or public transfer station for collection of refuse either transported to the station by private haulers or individual residents.

Any or all of these methods can be used within the County at one time.

### *Processing*

For long term management, two distinct methods of processing are proposed. Physical processing will continue as it has for the short term, with baling, tire shredding, and truck compaction as acceptable methods for processing of waste.

The second method of processing possible for implementation within the County as part of the long-term management system is "waste-to-energy." The County prefers to implement a waste to energy facility within the boundaries of the County. However, if an "in-county" facility is not technically or economically feasible, the County has the option of participating in an "out-of-county" facility.

### *Disposal*

This long-term system allows continued utilization of out-of-county landfill facilities. To provide for this management alternative, Isabella County will request the counties of Allegan, Bay, Clare, Clinton, Gratiot, Ionia, Midland, Montcalm, Ottawa, Saginaw, and Shiawassee, and other counties if necessary, list acceptance of refuse from Isabella County in their solid waste management plans.

### *Institutional/Administrative Arrangements*

The County Board of Public Works will continue to manage the long-term management system and will encourage private enterprise involvement in all components. The Board will be allowed to initiate or participate in a waste-to-energy feasibility study.

### *Long Term Plan Evaluation*

The selected long-term management system will support the state-wide solid waste management goal of reducing the future dependency on landfilling and increasing the use of resource recovery via recycling and waste to energy facilities. The greatest impact on the County will most likely be the increased cost per ton of refuse for processing and disposal.

In summary, the long-term solid waste management system will provide for the potential development of a waste to energy facility within the county but does not eliminate the potential of the County participating in

an "out-of-county" waste to energy facility if the proposed facility proves to be technically and economically feasible. The long term system supports the state wide goal of reducing the dependency on landfilling as the sole source for solid waste disposal by incorporating measures for recycling and waste to energy processing.

**IMPORT AUTHORIZATION**

Currently there are no licensed solid waste disposal areas operating within the County. Therefore, the County does not authorize the import of solid waste from any other County. In the event a facility is constructed in Isabella County in the future, Import Authorizations will be re-evaluated and incorporated into a Plan update or addendum.

Isabella County encourages other Counties to use the Isabella County Material Recovery Facility's recycling services.



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 8-1 if authorized for import in the approved Solid Waste Management Plan of the receiving County. Isabella County authorizes the export of solid waste to ALL Counties that authorize import of Isabella County solid waste in the future, and to ALL licensed facilities within those Counties.

**Table 8-1** *Current Export Authorization Of Solid Waste*

Importing counties listed currently authorize import of Isabella County solid waste.

Exporting County	Importing County	Facility Name <sup>1</sup>	Authorized Quantity		Authorized Conditions <sup>2</sup>
			Daily	Annual	
Isabella	Allegan		100%	100%	P*
	Clinton		100%	100% <sup>3</sup>	P <sup>3</sup>
	Gratiot		100%	100%	P
	Ionia		100%	100%	P
	Montcalm		100%	100%	P
	Osceola		100%	100%	P
	Ottawa		100%	100%	P**
	St. Joseph		100%	100%	P
	Van Buren		100%	100%	P
	Clare		100%	100%	P
	Washtenaw		100%	100%	P***
	Bay		100%	100%	P
	Oakland		100%	100%	P##
	Wayne		100%	100%	P

<sup>1</sup> Facilities are only listed if the exporting County is restricted to using specific facilities within the importing County.

<sup>2</sup> Authorization indicated by P= Primary Disposal, C= Contingency Disposal

<sup>3</sup> All wastes disposed of in Clinton County may not exceed 2,500,000 cubic yards per year

\* Allegan County only authorizes reciprocal import/export of waste

\*\* Ottawa County authorizes a combined total of 1,500,000 tons from all exporting Counties

\*\*\* Washtenaw County authorizes a combined total of 500,000 cu yds from all exporting Counties

## Oakland County only authorizes reciprocal import and export of waste

Import Authorization data was provided to Isabella County by the MDEQ-Solid Waste Management Unit on 3/26/01.

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 Planning period. Section 4.2 contains 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.

At this time the Alma transfer station in Gratiot County is not operating. However, if the facility re-opens, this Plan authorizes its use by authorizing the export of solid waste from Isabella County to Gratiot County (see Section 8.0).

### **Isabella County**

There are currently no disposal facilities within Isabella County

### **Outside Isabella County**

#### *Type II Landfill*

- Northern Oaks RDF (Clare County)
- White Feather Landfill (Bay County)
- Pitsch Sanitary Landfill (Ionia County)
- Central Sanitary Landfill (Montcalm County)

*Type A Transfer Facility, Type B Transfer Facility, Type III Landfill, Processing Plant, Incenerator, Waste Piles, Waste-to-Energy Facility*

- NA

The solid waste collection services and transportation infrastructure that will be utilized under the selected system are the same that are used currently and described in preceding Database sections.

The following describes the selected system's 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 are 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'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 that will reduce the amount of materials requiring disposal.

Effort Description	Est. Diversion Tons/Yr		
	Current	5 <sup>th</sup> Yr	10 <sup>th</sup> Yr
Isabella County Recycling Ordinance, Resolution #92—76	NA	NA	NA
Isabella County Materials Recovery Facility (MRF)	11,177.5	NA	NA

The following describes the selected system's proposed conservation efforts to reduce the amount of 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.

Not Applicable.

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 may exist in the future are listed, followed by a discussion regarding reducing or eliminating such impediments.

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

- ☒ Recycling programs in the County are feasible. Details and planned programs are included in the following pages.
- ☐ Recycling programs in 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 in the County are feasible. Details and planned programs are included in the following pages.
- ☐ Composting programs in 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. Details and planned programs are included in the following pages.
- ☐ Programs for source separation of potentially hazardous materials in the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

**RECYCLING AND COMPOSTING**

The following tables offer a brief description of the recycling and composting program selected by the County for this Plan. Although this plan identifies Isabella County's composting program, collected compostable materials are distributed to a private party and land applied.

<b>RECYCLING</b>	
• Program Name	Isabella County Recycling Program
• Service Area <sup>1</sup>	Isabella County
• Public or Private	Public
• Collection Point <sup>3</sup>	c, d, o
• Collection Frequency	d
• Materials Collected <sup>5</sup>	a, b, c, d, e, f
<b>PROGRAM MANAGEMENT RESPONSIBILITIES<sup>2</sup></b>	
• Development	2, 3
• Operation <sup>6</sup>	6
• Evaluation <sup>6</sup>	6

<sup>1</sup> Identified by where the program will be offered.

<sup>2</sup> Identified by 1=Planning Agency, 2=County Board of Commissioners, 3=Dept. of Public Works, 4=Environmental Group, 5=Private Owner/Operator, 6=Other

<sup>3</sup> Identified by c=curbside, d=drop-off, o=on-site

<sup>4</sup> Identified by d=daily, w=weekly, b=biweekly, m=monthly

<sup>5</sup> Identified by materials collected. A=plastics, b=newspaper, c=corrugated containers, d=other paper, e=glass, f=metals, p=pallets, j=construction, k=tires

<sup>6</sup> Operation oversight and evaluation of the MRF is currently conducted by a seven member MRF Board.

<b>COMPOSTING</b>	
• Program Name	Isabella County Composting Program
• Service Area <sup>1</sup>	Isabella County
• Public or Private	Public
• Collection Point <sup>3</sup>	o
• Collection Frequency	d
• Materials Collected <sup>5</sup>	g, l, w
<b>PROGRAM MANAGEMENT RESPONSIBILITIES<sup>2</sup></b>	
• Development	2, 3
• Operation <sup>6</sup>	6
• Evaluation <sup>6</sup>	6

<sup>1</sup> Identified by where the program will be offered.

<sup>2</sup> Identified by 1=Planning Agency, 2=County Board of Commissioners, 3=Dept. of Public Works, 4=Environmental Group, 5=Private Owner/Operator, 6=Other

<sup>3</sup> Identified by c=curbside, d=drop-off, o=on-site

<sup>4</sup> Identified by d=daily, w=weekly, b=biweekly, m=monthly

<sup>5</sup> Identified by materials collected. g=grass clippings, l=leaves, f=food, w=wood, p=paper

<sup>6</sup> Operation oversight and evaluation of the MRF is currently conducted by a seven member MRF Board.

**SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS**

• Program Name	Isabella County Household Waste	MDA Clean Sweep Program
• Service Area <sup>1</sup>	Isabella County	Isabella, Osceola County
• Public or Private	Public	Public
• Collection Point <sup>3</sup>	o	o
• Collection Frequency		
• Materials Collected <sup>5</sup>	f, a, ab, c, n, p, r, m	Pesticides

**PROGRAM MANAGEMENT RESPONSIBILITIES<sup>2</sup>**

• Development	2, 3	6
• Operation <sup>6</sup>	6	6
• Evaluation <sup>6</sup>	6	6

<sup>1</sup> Identified by where the program will be offered.

<sup>2</sup> Identified by 1=Planning Agency, 2=County Board of Commissioners, 3=Dept. of Public Works, 4=Environmental Group, 5=Private Owner/Operator, 6=Other

<sup>3</sup> Identified by c=curbside, d=drop-off, o=on-site

<sup>4</sup> County established periodic drop off dates, and schedules individual drop-offs

<sup>5</sup> Identified by materials collected. f=flamable liquid, a=aerosols, ab=acid/bases, c=corrosives, n=non-regulated, p=propane cylinders, r=reactives, m=mercury

<sup>6</sup> Operation oversight and evaluation of the MRF is currently conducted by a seven member MRF Board.



**IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT  
ENTITIES**

Isabella County Materials Recovery Facility is managed by a seven (7) member MRF Board.

No environmental groups have management responsibilities under the Selected System.

**PROJECTED DIVERSION RATES**

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

<b>COLLECTED MATERIAL</b>	<b>PROJECTED ANNUAL TONS DIVERTED</b>		
	<b>CURRENT (year 2000 data)</b>	<b>5<sup>th</sup> YEAR</b>	<b>10<sup>th</sup> YEAR</b>
Total Plastics	109.15	NA	NA
Newspaper	1758.46	NA	NA
Cardboard	3879.59	NA	NA
Office Paper	202.60	NA	NA
Steel Cans	151.00	NA	NA
Glass	264.62	NA	NA
Aluminum	6.60	NA	NA
Motor Oil (gallons)	3323.16	NA	NA
Brush	171.50	NA	NA
Yard Waste	4634.00	NA	NA

The market for Isabella County recycleable material is as follows:

COLLECTED MATERIAL	In-State Markets (%)	Out-of-State Markets (%)
Total Plastics	100	0
Newspaper	100	0
Cardboard	100	0
Office Paper	100	0
Steel Cans	100	0
Glass	100	0
Aluminum	100	0
Motor Oil (gallons)	100	0
Brush	100	0
Yard Waste	100	0

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. Materials Recovery Facility staff conduct educational programs.

Because the nature of this Plan Update is essentially reinforcing current ongoing methods and processes, implementation of the Plan can be immediate. However, according to the Plan, the County must contact neighboring Counties and any additional Counties requesting these Counties consider acceptance of Isabella County waste in their Solid Waste Management Plans to fulfill the potential future disposal needs of Isabella County.

RETURN TO  
APPROVAL  
LETTER

This Plan specifies more than 10 years of capacity available to Isabella County at out-of-County facilities (see Appendix E). Therefore, no siting criteria have been included in this plan. This plan does not authorize the siting of any landfill disposal areas. If in the future, the County chooses to pursue the siting of an in-County landfill facility, this Plan may be amended or revised to include proper siting procedures.



Although the County collects compost materials, the actual process is contracted to private parties. Compostable materials are land-applied by a private party.

Solid Waste Management Plans need to be developed and implemented with due regard for both local conditions and the State and Federal regulatory framework for protecting public health and the quality of air, water, and land. The following states the ways in which coordination will be achieved to minimize potential conflicts with their 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 system. Arrangements may exist between two or more private parties that are not public knowledge. In addition, it may be necessary to cancel or enter into new arrangements as conditions change throughout the planning period.



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

MRF Operations	\$698,915
Rural Cleanup Program	\$ 8,000
Drop-Off Depots	\$ 52,802
Education Program	\$ 22,675
Household Hazardous Waste Program	\$ 57,860
Solid Waste Systems Advisory Committee	\$ 1,500

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 that would occur as a result of implementing the selected system. In addition, the selected system was evaluated to determine if it would be technically and economically feasible, whether the public would accept the 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 that 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 the system:

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

Only two alternatives (i.e. the existing system, and the existing system plus siting of a landfill facility, or waste-to-energy facility) were evaluated. As a result, a formal ranking procedure was not necessary. No significant problems or deficiencies were identified in the existing solid waste management system. The following summarizes the evaluation of the Selected System.

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

***Advantages:***

1. Continued public participation in the household hazardous waste program as well as the County recycling program.
2. Flexibility in responding to markets for waste disposal and recyclable materials.
3. Reduced environmental liability (compared to County ownership of a disposal facility).
4. Anticipated high public support for the Selected System.

***Disadvantages:***

1. Lack of price control for waste collection and disposal services.
2. Dependence on other Counties cooperation in allowing Isabella County waste disposal in out-of-County disposal facilities.

The non-selected solid waste management system has been evaluated for anticipated 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 the selected system. In addition, the selected system was evaluated to determine if it would be technically and economically feasible, whether the public would accept the selected system, and the effectiveness of the educational and informational programs. The following summarizes the findings of this evaluation and the basis for selecting the system:

The non-selected system described in this Plan is essentially the existing solid waste management system with the addition of siting a disposal facility or a waste-to-energy facility and its potential construction.

No significant problems or deficiencies were identified in the existing solid waste management system. The following summarizes the evaluation of the non-selected system. This system was not chosen due to the inclusion of siting criteria and potential facility construction within Isabella County.

CRITERIA	COMMENTS
Technical Feasibility	The future use of new technologies by facility owner/operators will be dependent upon many factors including the owner/operator's needs, cost, and terms of licenses and permits.
Economic Feasibility	The economics of the Selected System are driven by private sector markets. In addition, construction of a facility by the County would be a large economic burden
Land/ Transportation	The selected system is adequately served by the existing transportation system.
Energy Consumption and Production	Energy conservation is the responsibility of the owner/operator of the equipment and/or facility.
Environmental Impacts and Public Acceptability	New facilities will be sited within the Plan period. The public accepts the existing program and is likely not to accept the non-selected system, due to siting and construction of a new disposal facility.

*Appendix A*  
*Public Participation and Approval*

## ***Appendix A Public Participation and Approval***

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.

### **Isabella County SWMP Approval**

Local Units	PLAN APPROVAL		
	YES	NO	VOTE PENDING
Broomfield Twp.			X
Chippewa Twp.	X		
Coe Twp.	X		
Coldwater Twp.			X
Deerfield Twp.	X		
Denver Twp.	X		
Freemont Twp.			X
Gilmore Twp.	X		
Isabella Twp.	X		
Lincoln Twp.	X		
Nottawa Twp.	X		
Rolland Twp.	X		
Sherman Twp.			X
Union Twp.	X		
Vernon Twp.	X		
Wise Twp.	X		
Mt. Pleasant City	X		
Village Of Lake Isabella			X
Village of Rosebush			X
Village of Shepard	X		
TOTAL	14		6
APPROVAL %	70		30

### ***Solid Waste System Advisory Committee Meeting Dates***

MEETING	DATE	TIME	LOCATION
#1	28 June 2001	5:30 pm	Isabella County Building
#2	30 August 2001	4:45 pm	Isabella County Building
#3/ Public Hearing	8 November 2001	6:30 pm	Isabella County Building

NOTE: All meetings were posted in the Isabella County building and open to the public. The Public Hearing was both posted in the Isabella County Building and in the *Central Michigan Newspaper* on 15 October 2001.

## APPENDIX C - PUBLIC PARTICIPATION

### ■ Page C-1 PUBLIC PARTICIPATION PROCESS

Identify which agency or person who will be the contact for information regarding host community negotiations.

Identify which agency or person who will be responsible for publishing the public notices.

### ■ Page C-2 PUBLIC PARTICIPATION

#### PUBLIC INVOLVEMENT PROCESS

Public participation is a vital element in the preparation of a Plan which will be acceptable to the county and provide the best selection of a waste management system.

Sec. 11535

Sec. 11538(1)(e) Complete the following checklist to ensure compliance with the Act/Rules.  
Rules 706, 707, 711(g) Provide documentation in Appendix C as necessary.

☒ Yes No Opportunities for public participation were provided as required per act/rules

☒ Yes No The DPA conducted a public participation program to encourage public and municipal participation and involvement in the development and implementation of the Plan. [Rule 706(1)]

☒ Yes No The DPA maintained a mailing list of all municipalities, affected public agencies, private sector, and all interested persons who requested information regarding the Plan. [Rule 706(2)]

☒ Yes No The DPA notified by letter, each chief elected official of each municipality and any other person so requesting within the county at least ten days before planning committee's public meeting. [SEC. 11535(c)]

☒ Yes No Public meetings had time for questions and comments from the general public. [Rule 706(3)]

☒ Yes No Public meetings were scheduled at convenient times for public. [Rule 706(4)]

☒ Yes No The DPA held public meetings with planning committee at least quarterly during Plan preparation. [Rule 706(5)] (Meetings of the planning committee with DPA staff support fulfill this requirement.)

☒ Yes ☐ No

The DPA maintained at least one central repository where all documents related to the Plan could be inspected by the public. [Rule 706(7)]

The DPA allowed a period of at least three months for review and comment on the proposed Plan following authorization by the planning committee for public review. A copy of the proposed Plan was sent to the Director, to each municipality, to adjacent counties and municipalities that may be affected by the Plan or which have requested the opportunity to review the Plan, and the designated regional solid waste management planning agency for that county. [Sec. 11535(d) Rule 707(3)]

☒ Yes ☐ No

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

A notice was published at the time the Plan was submitted for review under Sec. 11535(d) as to the availability of the Plan for inspection or copying. [Sec. 11535(e)]

☒ Yes ☐ No

The DPA held a public hearing on the proposed Plan during the public comment period. [Sec. 11535(f), Rule 707(3)]

☒ Yes ☐ No

The DPA published notice in a paper with major circulation in the county not less than 30 days before such hearing, which included a location where the public could inspect copies of the Plan and the time and place of the public hearing. [Sec. 11535(f)]

☒ Yes ☐ No

The DPA prepared a transcript, recording, or other complete record of the public hearing proceedings, and this record could be copied or inspected by the general public upon request after the public hearing. [Rule 707(3)]

☒ Yes ☐ No

If necessary, the DPA revised the Plan in response to public hearing comments and then submitted the Plan to the planning committee. [Rule 707(4)]

☒ Yes ☐ No

A listing of the meeting locations and dates, along with a copy of the dated notice as published in the newspaper is included in Appendix C.

☒ Yes ☐ No

Record of attendance at public meetings included in Appendix C.



☒ Yes No

[Rule 711(g)(i)]

☒ Yes No

Record of citizen concerns and questions included in Appendix C.

[Rule 711(g)(ii)] N/A

■ Page C-3 PUBLIC PARTICIPATION

PLANNING COMMITTEE'S APPOINTMENT PROCEDURE

Sec. 11534 State the county's procedure to be followed for appointments of individuals to serve  
Rule 703 on the Solid Waste Planning Committee.

**Isabella County  
Board of Public Works/  
Solid Waste System Advisory Committee**

**Joint Meeting  
28 June 2001**

A joint meeting of the Isabella County Board of Public Works (BPW) and the Solid Waste System Advisory Committee (SWSAC) was held on 28 June 2001 at 5:30 p.m. in Room 221 of the Isabella County Building, 200 North Main Street, Mt. Pleasant, Michigan, to discuss the Solid Waste Management Plan Update (Plan).

*ERM, INC., Representatives:*

Blaine Litteral, Donovan Thomas

*BPW Members Present:*

Gary McBride, Joe Pedjac , Rex Foster, Ray Zimmerman

*SWSAC Members Present:*

George Green, Duane Ellis, Joe Pedjac, Bruce Rohrer, Jeff Woodbury, Ken Schaeffer, Dennis Clare, Terry Lynch, Tim Warner, Richard Curtiss

*SWSAC Members Absent:*

Mary Kushion, John Olson

The meeting was called to order at 5:30 p.m.

A short introduction by each person present followed by request from Bruce Rohrer.

**ELECTION OF SWSAC OFFICERS**

Blaine Litteral suggested that the SWSAC have a Chairman. Nominations for SWSAC Chairman were opened.

A motion was made by George Green and supported by Bruce Rohrer to nominate Joseph Pedjac for SWSAC Chairman. Motion carried and Joseph Pedjac was declared SWSAC Chairman.

**DISCUSSION OF PURPOSE FOR UPDATING THE PLAN**

Upon request from George Green, Blaine Litteral defined solid waste as it applies to the Plan update and explained the reasons for updating the Plan.

Bruce Rohrer informed the SWSAC that ERM, Inc. (ERM) was the County's chosen professional consultant in this matter and has been completing the environmental engineering services at the closed landfill for the County.

Discussion followed regarding the remediation costs of the closed landfill, and County alternatives to siting a new landfill.

ERM discussed the basic contents of the Plan as required by the MDEQ. In addition ERM will follow the MDEQ Plan outline as provided by the MDEQ.

The Plan Database was discussed. Isabella County is in the process of updating the County's comprehensive plan but the data is not currently available. Therefore, it was decided by the SWSAC to use the available information from the 1990 census and 1986 County Comprehensive Plan unless the new data is completed in due time.

ERM informed the SWSAC that they have the power to include in the plan issues or programs they determine as needed, such as educational efforts and recycling.

A short discussion ensued regarding the County's recycling program and the feeling that recycling should continue to be included in the Plan.

ERM offered to provide copies of both the Plan outline and old Plan for those who wanted them as references.

ERM informed the SWSAC that they are responsible for determining the direction the County moves regarding management of solid waste with this plan, and need to develop management strategies for a 5 and 20 year window.

Discussion Followed.

ERM discussed the basic process in updating and approving the Plan and the time schedule. ERM distributed a draft schedule (attached).

The next meeting was tentatively scheduled for 30 August 2001. ERM will contact the SWSAC to finalize the next meeting time.

A motion was made by Ken Schaeffer and supported by Gary McBride to adjourn. Motion carried.

**Isabella County  
Board of Public Works/  
Solid Waste System Advisory Committee**

Joint Meeting  
30 August 2001

A joint meeting of the Isabella County Board of Public Works (BPW) and the Solid Waste System Advisory Committee (SWSAC) was held on 30 August 2001 at 4:45 p.m. in Room 221 of the Isabella County Building, 200 North Main Street, Mt. Pleasant, Michigan, to discuss the Solid Waste Management Plan Update (Plan).

*ERM, INC., Representatives:*

Blaine Litteral, Donovan Thomas

*BPW Members Present:*

Gary McBride, Max Berry, Joe Pedjac, Rex Foster,  
Ray Zimmerman, Randy Bierschbach, Russ  
Alwood

*SWSAC Members Present:*

George Green, John Olson, Duane Ellis, Joe Pedjac,  
Bruce Rohrer, Jeff Woodbury, Terry Lynch, Richard  
Curtiss

*SWSAC Members Absent:*

Mary Kushion, Ken Schaeffer, Dennis Clare, Tim  
Warner

The meeting was called to order at 4:50 p.m.

MINUTES FROM PREVIOUS MEETING

A motion was made by Jeff Woodbury and supported by John Olson to accept the minutes from the 28 June 2001 SWSAC meeting. Motion carried.

John Olson voiced concern over the use of dated information in assembling the Plan Update. Blaine Litteral and Bruce Rohrer explained that the new County Comprehensive Plan was in the process of being updated and the information was currently unavailable, although the solid waste information required for the update was available. A short discussion followed.

DISCUSSION OF ACCELERATED SCHEDULE

Blaine Litteral explained the reasons for the accelerated schedule for releasing a draft Plan to the public. He stated that the reasons for the schedule change were based upon a request/demand from the MDEQ.

## SOLID WASTE MANAGEMENT PLAN OVERVIEW

Draft copies of the Solid Waste Management Plan draft were distributed by ERM.

Donovan Thomas began an overview of the Plan

ERM informed the committee that the selected Plan would not include siting criteria and that out-of-county landfills would be utilized for all waste disposal under the Plan update. They also explained risks and benefits of the Plan with the committee regarding waste disposal.

The committee voiced a need to continue to include recycling and composting in the Plan. Donovan Thomas informed them that both were included into the Plan.

Several committee members asked how changes from the old plan were noted (if they were noted). Donovan Thomas informed them that much of the overall data was taken from the old plan, however the new plan is significantly different in format (MDEQ format), and new solid waste information was incorporated into the plan. In addition, much of the information from the old plan, although dated, should still be reasonably accurate. A short discussion followed.

Donovan Thomas asked the committee to decide on a contact person and central repository locations required by the Plan. After a short discussion, the committee decided that Bruce Rohrer would be the contact person for the Plan, and that copies of the plan would be kept at the Drain Commissioners Office, and Public Library.

Donovan Thomas continued a section by section overview of the draft plan.

A short discussion followed the overview of many sections.

Bruce Rohrer informed ERM that the materials recovery facility was governed by a seven member MRF governing board. Bruce Rohrer also explained the committee selection process for inclusion into the Plan.

Donovan Thomas discussed the current landfill facilities. He also informed the committee that he has been in contact with the facilities to acquire the proper waste volume certifications.

A short discussion followed.

## COMMITTEE VOTE TO RELEASE PLAN FOR PUBLIC REVIEW

ERM advised that the MDEQ required the committee to release the plan for public review by 1 September 2001 or the MDEQ would potentially assume responsibility for the Plan. Donovan Thomas reassured the committee that all committee comments could be incorporated into the plan along with the public comments (this would be necessary

due to the accelerated schedule), prior to presenting the Plan to the Board of Commissioners. A short discussion followed.

A motion was made by Dick Curtis and supported by Jeff Woodbury to approve the draft Plan for public review and comment. Motion carried (none dissenting).

It was decided in committee that all committee comments be forwarded to Bruce Rohrer. Bruce Rohrer would collect the comments and forward them to ERM for inclusion into the Plan.

ERM would make revisions based upon the 30 August 2001 meeting and provide updated copies of the draft Plan to Bruce Rohrer for public review.

A public meeting was tentatively scheduled for the first week of November. ERM will contact the SWSAC to finalize the next meeting time.

A short discussion followed regarding the proposed schedule and potential time conflicts.

A motion was made by Bruce Rohrer and supported by Dick Curtis to adjourn. Motion carried.

**Isabella County  
Board of Public Works/  
Solid Waste System Advisory Committee**

**Public Hearing/Joint Meeting  
8 November 2001**

A Public Hearing and a joint meeting of the Isabella County Board of Public Works (BPW) and the Solid Waste System Advisory Committee (SWSAC) was held on 8 November 2001 at 6:30 p.m. in Room 210 of the Isabella County Building, 200 North Main Street, Mt. Pleasant, Michigan, to discuss the Solid Waste Management Plan Update (Plan).

*ERM, INC., Representatives:*

Blaine Litteral, Donovan Thomas

*BPW Members Present:*

Gary McBride, Max Berry, Joe Pedjac , Rex Foster,  
Ray Zimmerman, Randy Bierschbach

*County Administrator*

Vince Pastue

*SWSAC Members Present:*

George Green, John Olson, Ken Schaeffer , Joe  
Pedjac, Bruce Rohrer, Jeff Woodbury, Tim Warner,  
Richard Curtiss, Dennis Clare, Mike Kowaleski for  
Mary Kushion

*SWSAC Members Absent:*

Duane Ellis, Terry Lynch

The meeting was called to order at 6:30 p.m. and opened to public comments on the Plan Update. There were no public representatives in attendance. Therefore, the public comment period was closed.

**MINUTES FROM PREVIOUS MEETING**

A motion was made by George Green and supported by Ken Schaeffer to accept the minutes from the 30 August 2001 SWSAC meeting. Motion carried.

ERM discussed the schedule for releasing the Plan to the County Board of Commissioners and also discussed the options available to the Commissioners following their review. A short discussion followed.

**DISCUSSION OF SUBMITTED COMMENTS**

Donovan Thomas discussed the comments submitted by Duane Ellis. Changes completed to the Plan in response to Mr. Ellis's comments were explained. The SWSAC agreed to keep a reference to the Alma transfer station in the Plan in the event the

transfer station re-opens. A discussion developed regarding the possibility of a waste to energy facility in the future, Page 40 was changed to read, "...if a feasible waste to energy facility becomes available to the County during the Plan period, the County has the option to consider participation in this facility."

Donovan Thomas discussed the comments submitted by Lynn Dumroese of the MDEQ, and detailed how changes to the Plan were made based on Ms. Dumroese's comments. A short discussion followed the description of the changes.

#### COMMITTEE VOTE TO RELEASE PLAN FOR BOARD OF COMMISSIONERS REVIEW

ERM advised that the committee release the plan for review by the County Board of Commissioners following the inclusion of the committee comments into the Plan. Vince Pastue noted that if ERM could provide the revised Plan to the County Board of Commissioners before November 20<sup>th</sup>, the Board may be able to vote on acceptance of the Plan. ERM informed the committee that they would make every effort to submit the Plan to the Board prior to the 20<sup>th</sup> of November.

A motion was made by Bruce Rohrer and supported by Dick Curtiss to approve the draft Plan for review by the County Board of Commissioners following the inclusion of the committee's comments into the Plan. Motion carried (none dissenting).

A motion was made by Jeff Woodbury and supported by George Green to adjourn. Motion carried.



Liber 69  
December 4, 2001

CRIMINAL JUSTICE AND COUNTY AFFAIRS COMMITTEE: (Continued)

3. TAX REVERSION BUDGET AMENDMENT:

It was moved by Commissioner Green, seconded by Commissioner Ling to approve Budget Amendment #2002-05B which moved \$33,018 in personnel expenses from the County Treasurer's General Fund budget to the Tax Reversion activity in the Revolving Delinquent Tax Fund for the purpose of monitoring all expenses and revenues associated with the Tax Reversion Process in one budget activity.

Motion carried.

See a copy of Budget Amendment #2002-05B on Page 233A of the Official Minutes.

HUMAN RESOURCES AND PUBLIC WORKS COMMITTEE:

1. RESOLUTION ADOPTING SOLID WASTE MANAGEMENT PLAN:

It was moved by Commissioner Tilmann, seconded by Commissioner Alwood to adopt Resolution #2001-59 approving the Isabella County Solid Waste Management Plan.

Commissioner Tilmann thanked the Solid Waste Advisory Committee for their efforts in the completion of the Plan.

Aye and Nay vote called for by Chairperson Curtiss for the adoption of Resolution #2001-59 is as follows:

Aye votes: Districts: #1-Green, #2-Curtiss, #3-Huber, #4-Alwood,  
#5-Tilmann, #6-Ling, and #7-Moffit.

Nay votes: Districts: None.

Whole number of votes cast was 7 of which the Ayes received 7 and the Nays received 0. The Ayes receiving a Majority of all votes cast the proposition was declared carried.

See a copy of Resolution #2001-59 on Page 233B of the Official Minutes.

Resolution #2001-59**A RESOLUTION OF THE ISABELLA COUNTY BOARD OF COMMISSIONERS  
ADOPTING THE SOLID WASTE MANAGEMENT PLAN AS RECOMMENDED BY  
THE SOLID WASTE ADVISORY COMMITTEE.**

WHEREAS, Isabella County elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and


WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

NOW, THEREFORE BE IT RESOLVED that the Isabella County Board of Commissioners hereby adopt the Isabella County Solid Waste Management Plan.

STATE OF MICHIGAN )  
COUNTY OF ISABELLA)

I Joyce A. Swan, Clerk of the County of Isabella, do hereby certify that the foregoing Resolution is a true and correct copy of the Resolution adopted by an unanimous vote of the Isabella County Board of Commissioners present on December 4, 2001.

  
Joyce A. Swan, Clerk of the Isabella County  
Board of Commissioners



RECEIVED

OCT 11 2001

ERM

ISABELLA COUNTY DRAIN COMMISSIONER

Gary J. McBride  
200 North Main, Mt. Pleasant, MI 48858

Phone 772-0911 Ext. 247

October 10, 2001

Environmental Resources Management  
Attn: Mr. Donovan Thomas  
3352 128<sup>th</sup> Avenue  
Holland, MI 49424-9263

Dear Donovan,

Per your request by fax, this front Public Hearing notice went to each chief elected official of each municipality in Isabella County, all Solid Waste Systems Advisory Committee members, and will be in the legal section of the Central Michigan Newspaper on Monday, October 15, 2001.

The second page went to all of the Board of Public Works members. If you have any questions regarding these notices or if you need a listing, please feel free to contact me at 989-772-0911 Ext. 322.

Very truly yours,

Cindy Clevenger  
Isabella County Chief Deputy  
Drain Commissioner

## **PUBLIC HEARING**

The Isabella County Solid Waste Systems Advisory Committee will conduct a public hearing regarding the **Isabella County Solid Waste Management Plan** on November 8, 2001, at 6:30 p.m. in the Isabella County Building, Room 210, second floor meeting room. The purpose of this hearing is to allow the public to comment on the proposed **Solid Waste Management Plan**. The **Isabella County Solid Waste Management Plan** is available for review in the office of the Isabella County Drain Commissioner, Room 140, of the Isabella County Building, and at the Veterans Memorial Library, 301 South University Street, Mt. Pleasant, MI.

## **PUBLIC HEARING**

The Isabella County Solid Waste Systems Advisory Committee will conduct a public hearing regarding the **Isabella County Solid Waste Management Plan** on November 8, 2001, at 6:30 p.m. in the Isabella County Building, Room 210, second floor meeting room. The purpose of this hearing is to allow the public to comment on the proposed **Solid Waste Management Plan**. The **Isabella County Solid Waste Management Plan** is available for review in the office of the Isabella County Drain Commissioner, Room 140, of the Isabella County Building, and at the Veterans Memorial Library, 301 South University Street, Mt. Pleasant, MI.

Also, **Board of Public Works Members**, please be advised that our October meeting has been cancelled and our November meeting will be held on this date, at 5:45 p.m. in the same room of the County Building.

**PUBLIC NOTICE  
ISABELLA COUNTY  
BOARD OF PUBLIC WORKS**

The **Isabella County Solid Waste Management Plan** is available for the public to review and comment upon, from the date of notice in the newspaper for 90 consecutive days, in the office of the Isabella County Drain Commissioner, Room 140, of the Isabella County Building, and at the Veterans Memorial Library, 301 South University Street, Mt. Pleasant, MI .

Please send any written comments to the attention of Bruce E. Rohrer, at the Isabella County Drain Commissioner's Office, County Building, 200 N. Main Street, Mt. Pleasant, MI 48858

Randy Bierschbach, Secretary

03/14/2002 10:52

19898285311

COE TOWNSHIP HALL

PAGE 01

**A RESOLUTION OF THE COE TOWNSHIP BOARD OF TRUSTEES APPROVING  
THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Coe Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Coe Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

The following resolution was offered by Commissioner Moreno and supported by Commissioner Roby:

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

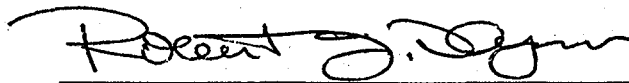
WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

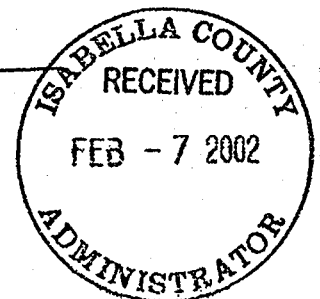
WHEREAS, the Isabella County Solid Waste Management Plan was presented to the City of Mt. Pleasant City Commission.

NOW, THEREFORE, BE IT RESOLVED, that the City of Mt. Pleasant Commission hereby approves the Isabella County Solid Waste Management Plan, as presented.

Resolution unanimously adopted.

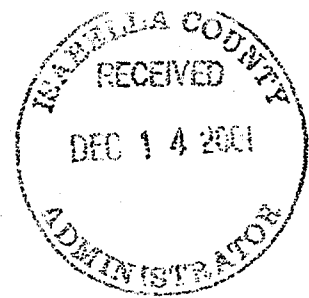
I, Robert J. Flynn, Clerk for the City of Mt. Pleasant, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Commission at a regular meeting held January 28, 2002.

  
Robert J. Flynn, City Clerk



Dated: February 7, 2002





**A RESOLUTION OF THE ROLLAND TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

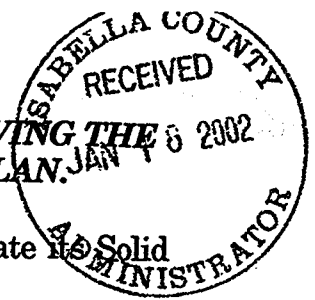
WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Rolland Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Rolland Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Kathy Burdick  
Rolland Township Clerk  
December 11, 2001*

**A RESOLUTION OF THE VILLAGE OF SHEPHERD APPROVING THE  
ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**



WHEREAS, the Isabella County Board of Commissioners elected to update the Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the solid Waste Advisory committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75 % of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management Plan was presented to the Village of Shepherd Council.

NOW, THEREFORE BE IT RESOLVED that the Village of Shepherd Council hereby approves the Isabella County Solid Waste Management Plan, as presented.

A vote on the foregoing resolution was taken and was as follows:

YES: Baxter, Burch, Foote, Roth,

Salisbury, Swenson, Coaghlin

NO: None

ABSTAIN: None

THE RESOLUTION WAS DECLARED APPROVED.

**A RESOLUTION OF THE DENVER TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Denver Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Denver Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

**A RESOLUTION OF THE DEERFIELD TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Deerfield Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Deerfield Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Walter Nelson*  
*Deerfield Township Clerk*

**A RESOLUTION OF THE CHIPPEWA TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

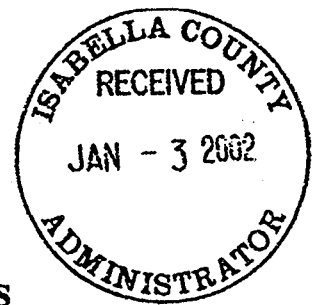
WHEREAS, the Isabella County Solid Waste Management plan was presented to the Chippewa Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Chippewa Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Lea E. Smith*  
*Michelle Quakenbush - Trustee*

*Bahl Billy*  
*Jon Hill Treasurer*  
*Barbara N. K. M. M. M.*

1-7-12



**A RESOLUTION OF THE GILMORE TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

- WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and
- WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and
- WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and
- WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.
- WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and
- WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and
- WHEREAS, the Isabella County Solid Waste Management plan was presented to the Gilmore Township Board of Trustees.

**NOW, THEREFORE BE IT RESOLVED** that the Gilmore Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

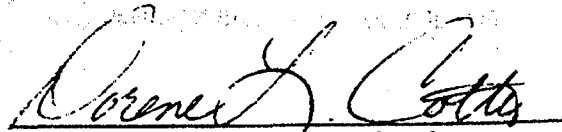
**Vote on the Resolution:**

Yeas 5

Nays 0

ABSENT 0

December 12, 2001

  
Dorene L. Cotter, Clerk

Resolution: Resolution 2002-1 Isabella County Solid Waste Management Plan

**A RESOLUTION OF THE VERNON TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

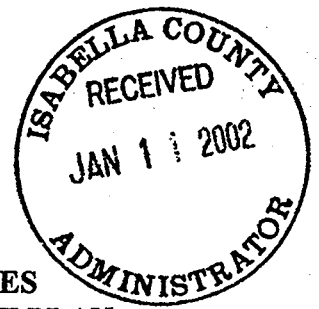
WHEREAS, the Isabella County Solid Waste Management plan was presented to the Vernon Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Vernon Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

I hereby certify that I am the qualified Clerk of Vernon Township and the keeper of the records and that the foregoing is a true and complete copy of the resolution duly adopted by the Legislative Body of Vernon Township, County of Isabella, Michigan at the regular meeting held on the 7<sup>th</sup> day of January 2002.

*Elvis Denton*

Elvis Denton  
Clerk, Vernon Township



01-02

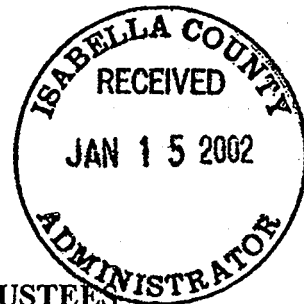
**A RESOLUTION OF THE NOTTAWA TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

- WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and
- WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and
- WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and
- WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.
- WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and
- WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and
- WHEREAS, the Isabella County Solid Waste Management plan was presented to the Nottawa Township Board of Trustees.
- NOW, THEREFORE BE IT RESOLVED that the Nottawa Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Sean M. Latta - Clerk 1-7-02*  
*James W. Feltz - Supervisor 1-7-02*

*5 - Ayes*





**A RESOLUTION OF THE ISABELLA TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

- WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and
- WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and
- WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and
- WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and
- WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.
- WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and
- WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and
- WHEREAS, the Isabella County Solid Waste Management plan was presented to the Isabella Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Isabella Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Robert J Honey Seymour*  
*1/7/02*

*Robert Neel* clerk  
*1-7-02*

**A RESOLUTION OF THE LINCOLN TOWNSHIP BOARD OF TRUSTEES  
APPROVING THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Lincoln Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Lincoln Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*Tom Ramon - Supervisor -*  
*Stan Miller Trustee*  
*Joe Willoughby Trustee*

*Billie Jo Willoughby - Clerk*  
*Sally Belinger Treasurer*

*January 8..*



**A RESOLUTION OF THE WISE TOWNSHIP BOARD OF TRUSTEES APPROVING  
THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Wise Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Wise Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

*DE McVerney*  
*Nois Methun, Clerk*

*Approved 12-13-01*

**A RESOLUTION OF THE UNION TOWNSHIP BOARD OF TRUSTEES APPROVING  
THE ISABELLA COUNTY SOLID WASTE MANAGEMENT PLAN.**

WHEREAS, the Isabella County Board of Commissioners elected to update its Solid Waste Management Plan; and

WHEREAS, the Isabella County Board of Commissioners appointed members of the community to serve on the Solid Waste Advisory Committee pursuant to state statutes; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held four meetings to review and update the Isabella County Solid Waste Plan; and

WHEREAS, the Isabella County Solid Waste Advisory Committee held a public hearing on November 8, 2001 to accept comments, questions, and concerns from the public, state agencies, and other local units of government regarding the proposed plan; and

WHEREAS, the Solid Waste Advisory Committee recommended that the Board of Commissioners adopt the Plan; and

WHEREAS, the Materials Recovery Facilities Board (MRF) passed a motion indicating they have the ability, resources, and expertise to execute the recycling goals associated with the Solid Waste Management Plan.

WHEREAS, the Isabella County Board of Commissioners adopted the Solid Waste Management Plan as recommended by the Solid Waste Advisory Committee; and

WHEREAS, final adoption of the Solid Waste Management Plan requires approval from 75% of the local units of government within the County; and

WHEREAS, the Isabella County Solid Waste Management plan was presented to the Union Township Board of Trustees.

NOW, THEREFORE BE IT RESOLVED that the Union Township Board of Trustees hereby approve the Isabella County Solid Waste Management Plan, as presented.

The forgoing resolution was offered by Gilpin and supported by Alwood.

Ayes: all

Nays: None

Abstentions: None

I Susan Gilpin, the duly appointed Clerk of the Charter Township of Union, hereby certify that this is a true copy of the Resolution adopted by the Board of Trustees of the Charter Township of Union, Isabella County, Michigan, on the ninth day of January 2002.

Date:

*January 9, 2002*

*Susan Gilpin*  
Susan Gilpin, Clerk

*Appendix B*  
*Planning Committee Appointment*  
*Procedure*

## ***Appendix B Planning Committee Appointment Procedure***

The Isabella County Board of Commissioners advertised for interested committee candidates. In some instances, individuals were asked to fill a particular seat on the committee based on their occupational experience or current position in the County government. The County Board of Commissioners then appointed the Solid Waste Systems Advisory Committee from the assembled candidates.

*Appendix C*  
*Planning Committee*

## ***Appendix C Planning Committee***

### **County Environmental Interest Group Seat**

Mary Kushion  
Seat #2

Central Michigan District Health Department  
Vacant

### **County Government Seat**

George Green

District #1 Commissioner

### **City Government Seat**

Duane Ellis

City of Mt. Pleasant Public Works Director

### **Township Government Seat**

Joe Pedjac (Chairperson) Denver Twp. Supervisor

### **Regional Solid Waste Planning Agency Seat**

Bruce Rohrer

ECMRPDC Representative

### **General Public Seat**

Jeff Woodbury  
John C. Olson  
Ken Schaeffer

### **Solid Waste Industry**

Dennis Clare  
Terry Lynch  
Richard Curtiss  
Tim Warner

Waste Hauler  
User Solid Waste Services  
Industrial Waste Generator  
Isabella County



*Appendix D*  
*Local Ordinances and Regulations*  
*Affecting Solid Waste Disposal*

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## ***Appendix D Local Ordinances and Regulations Affecting Solid Waste Disposal***

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.

Isabella County currently contains no solid waste disposal areas.

*Appendix E*  
*Capacity Certifications and Map of*  
*Out-Of-County Disposal Facilities*

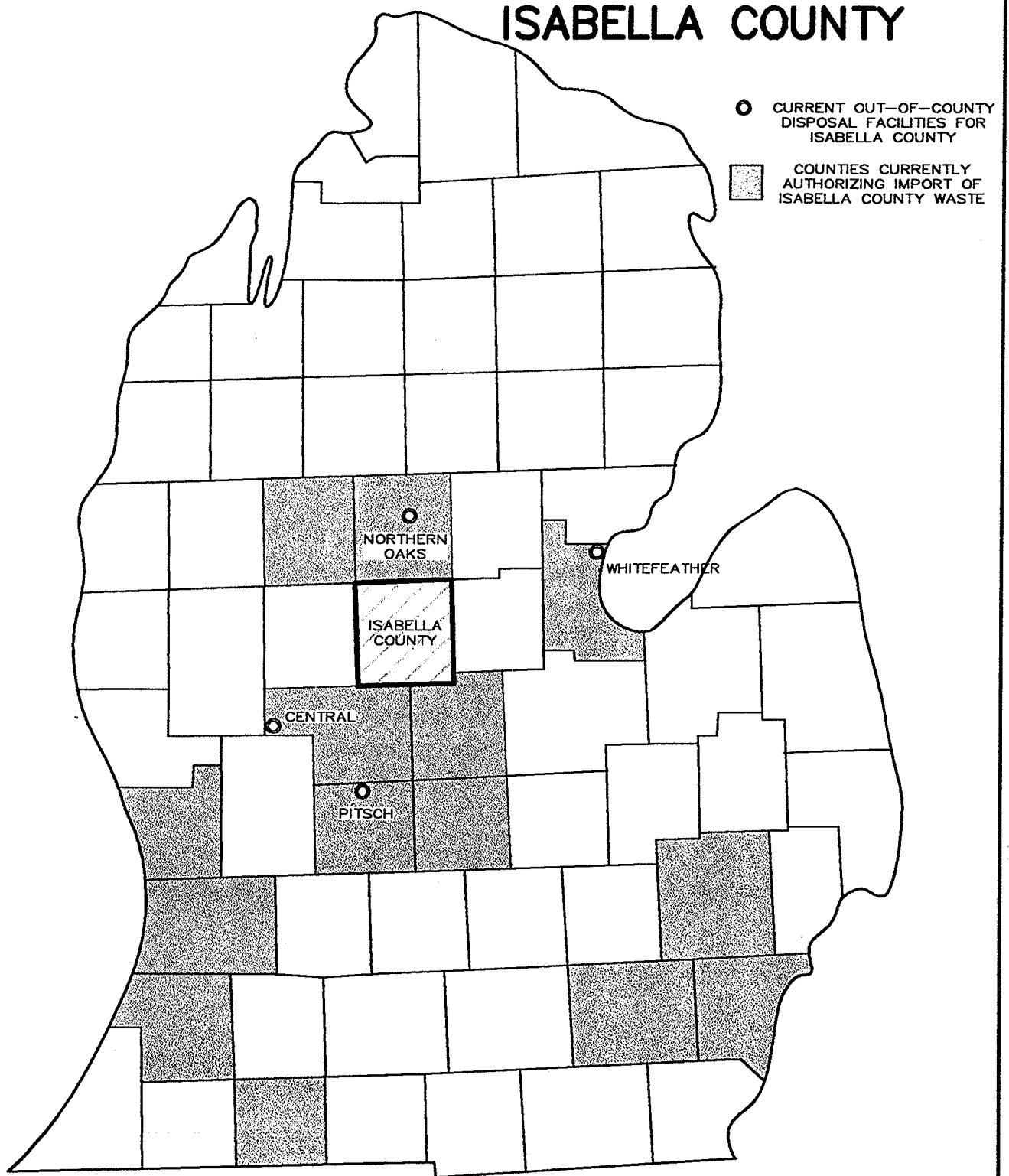
## ***Appendix E Capacity Certifications and Map of Out-Of-County Disposal Facilities***

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 validity available to the County. This certification is required to be prepared and approved by the County Board of Commissioners.

As shown on the Facility Description pages (pages 14-17), facilities currently accepting Isabella County solid waste have estimated lifetimes exceeding 10 years. In addition, each of these facilities has certified that they can provide landfill capacity for all of Isabella County's estimated solid waste volume for the next ten years. Appendix F contains written capacity certification provided by the landfill facilities.

- ☒ This County has more than ten (10) years capacity identified in this Plan and an annual certification process is not included in this Plan.
- ☐ Ten (10) years capacity has not been identified in this Plan. The County will annually submit capacity certifications to the DEQ by June 30 of each year on the form provided by the DEQ. The County's process for determination of capacity and submission of the County's capacity certifications is as follows:

# OUT-OF-COUNTY DISPOSAL FACILITIES: ISABELLA COUNTY



G:\Cintl-L\Isabella County Landfill\AP302.00.01\AP302-01.dwg, Model, 08/21/01 09:38:28 AM, 1:1, GML

GML 8/21/01



**ERM.**

**ISABELLA COUNTY**

ADDRESS

ISABELLA COUNTY, MICHIGAN

**Environmental Resources Management**

CADD Review  
FAK

CHK'D *DBT*

AP302.00.01

FIGURE 1

*Appendix F*  
*Listed Capacity*

## ***Appendix F Listed Capacity***

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

- Demolition Engineers
- Asbestos Abatement
- Salvaged Building Materials
- Excavating & Underground Services
- Concrete Recycling



**Companies**

- Landfill Operation
- Dumpster Service
- Commercial & Residential Waste Service
- Portable Toilet Service
- Land Development

**RECEIVED**

**NOV 02 2001**

**ERM**

**October 31, 2001**

**Mr. Donovan Thomas  
ERM  
3352 128<sup>th</sup> Avenue  
Holland, MI 49424-3500**

**Re: Isabella County solid Waste Management Plan Update**

**Dear Mr. Thomas;**

**In response to your letter dated August 27, 2001, we are writing to express our interest to provide disposal services for Isabella County.**

**Our landfill is located at 7905 Johnson Road, Orleans, Ionia County. We have a construction permit for 2,500,000 tons of disposal capacity, which will be constructed progressively, as needed, over the next 20 years. Presently we are finishing construction on a eight acre cell which will be open for receiving waste in the spring. Our annual volumn of receiving waste has been approximately 75,000 tons per year, of which approximately 3,000 tons are derived from Isabella County.**

**For the purposes of updating Isabella County's solid Waste Plan, we would like to be listed as a receiving disposal facility in amounts of up to 50,000 tons per year. Our goal is to increase our annual volumn over the next five years from the various counties which we now serve.**

**Sincerely,**

**Gary Pitsch  
President**

**HOME OFFICE:**

**675 Richmond, N.W., Grand Rapids, MI 49504  
Telephone: (616) 363-4895  
FAX: (616) 363-5585**

**SANITARY DIVISION:**

**7905 Johnson Rd., Belding, MI 48809  
Telephone: (616) 794-3050  
FAX: (616) 794-1769**





**NORTHERN OAKS RECYCLING AND DISPOSAL FACILITY**  
A WASTE MANAGEMENT COMPANY

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

Mr. Donovan Thomas  
Environmental Resources Management  
3352 128 th Avenue  
Holland, Michigan 49424-9263

Dear Mr. Thomas;

Per your request, let this letter serve as certification that based on the 76 acres approved by the MDEQ, Northern Oaks RDF has more than ten (10) years of disposal capacity for Isabella County.

If you require additional information, please feel free to contact me.

Sincerely,

Richard Leszcz  
District Manager



RECEIVED

SEP 7 2001

ERM

September 6, 2001

Mr. Donovan Thomas  
Environmental Resources Management  
3352 128<sup>th</sup> Avenue  
Holland, Michigan 49426

RE: Isabella County Solid Waste Management Plan

Dear Mr. Thomas:

Allied Waste Industries, Inc. is pleased to provide you with the following information intended to meet the requirements of your August 27, 2001, request. More specifically, this information pertains to the disposal capacity of the Central Sanitary Landfill, Inc. (CSL) located in Pierson, Michigan.

CSL is licensed under the provisions of Part 115, Solid Waste Management of the Natural Resources and Environmental Protection Act, 1194 PA 4512, as amended, (Part 115), which authorizes the operation of a solid waste disposal facility in the state of Michigan. CSL is currently operating under Operating License #8765. The areas licensed for waste disposal are Phases III through VI-B. However, the current active areas are Phases V and VI-B. Phases VI-A and Phases VII through Phases XII are approved for construction but have yet to be built.

Based upon the most recent aerial survey conducted at the site and the current and projected tonnages for year 2001, the projected remaining airspace volume of the landfill as of January 1, 2002, is 12,958,000 cubic yards. At an annual disposal rate of 265,000 cubic yards, the projected site life is 49 years. Therefore, the Central Sanitary Landfill shall and will be able to provide the disposal capacity for Type II solid waste generated in Isabella County for the specified period of at least 10 years.

If you have any questions or require more information, please call me at 616-837-7316, ext. 1011.

Sincerely,

Debbie Nurmi  
Environmental Manager

cc: Brent Goodsell – Central Sanitary Landfill  
file

*WHITEFEATHER DEVELOPMENT CO.  
2401 E. WHITEFEATHER RD.  
PINCONNING, MI 48650*

10/30/01

Mr. Donovan Thomas  
Environmental Resources Management  
3352 128<sup>th</sup> Avenue  
Holland, MI 49424-9263

RE: Isabella County Solid Waste Management Plan Update

Dear Mr. Thomas,

Based upon the recent airspace calculation of our permitted 56.5 acres Whitefeather Landfill shall be able to provide disposal capacity for Isabella County. Whitefeather has the ability to meet the 10 year required time frame for the disposal needs of Isabella County.

Sincerely,

  
Tim Johnston  
Republic Services.

*Appendix G*  
*Inter-County Agreements*

*Appendix H*  
*Identification of Responsible Parties*

## ***Appendix H Identification of Responsible Parties***

Document which entities within the County will have management responsibilities over the following areas of the Plan and written acceptance of the responsibilities (attached).

The Isabella County Board of Commissioners (ICBOC) will oversee all areas of the Solid Waste Management System, except for the Resource Recovery Program, which is overseen by a seven (7) member MRF Board (MRF).

By approving this plan the Isabella County Board of Commissioners accepts the responsibilities contained within the plan and this section.

### **Resource Conservation:**

- Source or Waste Reduction - ICBOC
- Product Reuse - ICBOC
- Reduced Material Volume - ICBOC
- Increased Product Lifetime - ICBOC
- Decreased Consumption - ICBOC

### **Resource Recovery Programs:**

- Composting- MRF
- Recycling- MRF
- Energy Production- MRF

### **Volume Reduction Techniques: ICBOC**

### **Collection Processes: ICBOC**

### **Transportation: ICBOC**

### **Disposal Areas:**

- Processing Plants - ICBOC
- Incineration - ICBOC
- Transfer Stations - ICBOC
- Sanitary Landfills - ICBOC

### **Ultimate Disposal Area Uses: ICBOC**

### **Local Responsibility for Plan Update Monitoring and Enforcement: ICBOC**

### **Educational and Informational Programs: ICBOC and MRF (dependant on the above subject areas)**

## *Appendix I*

### *References*

## *Appendix I References*

"Clean Michigan Fund: Solid Waste Stream Assessment for Isabella County," SCS Engineers, April 1987.

"Isabella County Comprehensive Plan, 1986," East Central Michigan Planning and Development Region; Isabella County Planning Commission; and Isabella County Department of Resource Management, October, 1986.

"Isabella County Solid Waste Management Plan," Isabella County Board of Public Works, February 1988.

"Report of Solid Waste Landfilled in Michigan October 1, 1999 to September 30, 2000". MDEQ-WMD, Solid Waste Program Section, April 2001.

U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary Files