STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

April 9, 2008

Mr. Thomas M. Posma, Chairman
Mason County Board of Commissioners
304 East Ludington Avenue
Ludington, Michigan 49431

Dear Mr. Posma:

The locally-approved amendment to the Mason County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on January 14, 2008, is hereby approved.

The Plan Amendment authorizes Type A transfer and material recovery facilities to be exempt from the all-season road requirement if a surety bond is given to the Mason County Road Commission to cover any necessary repairs caused by the operator's use of a county road adjacent to its facility. The DEQ has determined that the Plan Amendment complies with the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules.

The DEQ would like to thank Mason County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Rhonda Oyer Zimmerman, Chief, Solid Waste Management Unit, Storage Tank and Solid Waste Section, Waste and Hazardous Materials Division, at 517-373-4750.

Sincerely,

Steven E. Chester
Director
517-373-7917

cc: Senator Gerald Van Woerkom
Representative David Palsrok
Mr. Fabian L. Knizacky, Mason County Administrator
Mr. Jim Sygo, Deputy Director, DEQ
Ms. JoAnn Merrick, Chief of Staff, DEQ
Ms. Carol Linteau, Legislative Director, DEQ
Mr. George W. Bruchmann, DEQ
Mr. Steven Sliver, DEQ
Mr. Philip Roycraft, DEQ
Ms. Rhonda Oyer Zimmerman, DEQ
Ms. Christina Miller, DEQ
Mason County File

2007 Amendment to the 1998 Solid Waste Management Plan

Pages 76-78

The current text on Page 76, second to the last paragraph in the Plan, will be replaced with the following, all new language has been underlined:

Transfer facilities

The transfer facility building(s) shall not be located within 300 feet of adjacent property lines, road right-of- way, or lakes and perennial streams. All facilities shall be screened with a suitable barrier at least 8 feet high and with 75% screening to reduce the visibility of the operation.

The transfer facility building(s) shall not be located closer than 300 feet to domiciles existing at the time of permit application, unless the affected property owner had provided a written waiver consenting to activities closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

The transfer facility shall not be located within the 100-year flood plain as identified on DEQ prepared maps as defined in Part 31 of Act 451 Administrative rules.

The transfer facility shall not be located within 300 feet of a wetland as defined and regulated under Part 303 of Act 451.

The transfer facility shall not be located within 300 feet of any existing public park or recreation area.

A potential Type A transfer facility site must have direct access to an all-weather ''class A'' road to accommodate heavy truck traffic generated at the site. If a proposal for a transfer facility includes or assumes year-round traffic to off-site sources of cover material, the proposal must include all-season road access provisions for this function. However, the transfer facility site shall be exempt from these all-season road requirements if the operator of the transfer station provides a surety bond to the Mason County Road Commission to cover any necessary repairs caused by the operator's use of a county road adjacent to its facility. If a transfer facility proposal includes upgrading a road to all-season status, the design and construction must conform to the current standards of the American Association of State Highways and Transportation Officials (AASHTO), as set forth in Design Guidelines, ASHTO Interim Structural Pavement Design Procedure, Adopted for All Season Roads (revision of January 1989, or a later revision if issued). A proposal will be found consistent with the road access requirement of the Plan if it contains a written statement agreeing to upgrade direct access roads to all-season ''class A'' standards based on AASHTO specifications as cited here, at no direct charge to county, road commission or local governments. A 66-foot easement recorded on the deed of a land-locked parcel qualifies as having road frontage, but does not negate the necessity for the access road to be of all-season construction. Said upgrade to all-

Minutes of a meeting of the Mason County Solid Waste Management Planning Committee held on Thursday, October 4, 2007 at the offices of the Mason County Department of Public Works located at 102 E. Fifth Street, Scottville, Michigan beginning at 1:00 p.m.

Members Present:	Laude E. Hartrum Sr., Edward S. Jabrocki, Gilbert C. Larsen, Bob Genson, Eugene Jorissen, Dave Hasenbank, John Shay and Jerome E. Rybicki
Members Absent:	Todd Harland, James Beal, Julia Chambers and Larry Powers
Others Present:	Fabian L. Knizacky - Mason County Administrator/ Fiscal Officer, Belinda Jabrocki and Susan Jabrocki

The meeting was called to order by Chairman Jorissen at 1:00 p.m.

Moved by Mr. Genson, supported by Mr. Rybicki and carried to accept the agenda as prepared.

The minutes of the June 28, 2007 were accepted by common consent.

Mr. Jorissen read a letter dated September 18, 2007 from Christina Miller of MDEQ into the record. Mr. Knizacky reported that the Summit Township supervisor had questioned if the proposed amendment would affect his township transfer station. It would not.

No public comments were received during the September 20, 2007 public hearing nor during this meeting. Mr. Knizacky reported that the proposed amendment was sent to MDEQ via fax with no comment being received to date.

Moved by Mr. Genson, supported by Mr. Larsen and carried on a roll call vote with all members present voting in the affirmative to adopt the attached amendment to the Mason County Solid Waste Management Plan and to forward same to the Mason County Board of Commissioners and the appropriate local units of government for consideration.

The meeting was adjourned at 1:12 p.m.

Dave Hasenbank draft

David Hasenbank
Secretary
Solid Waste Mgmt. Planning Committee

Motion by R. Genson and seconded by R. Erickson to approve the following resolution:

HONORABLE COMMISSIONER

GENTLEMEN:

WHEREAS, the Mason County Drain Commissioner David Hasenbank has reviewed the 2007 Special Assessment Levy Report for the various special assessment districts for the Board.

THEREFORE BE IT RESOLVED, that the Board of Commissioners of the County of Mason approves the attached Special Assessment Levy Report for the various special assessment districts under the jurisdiction of the Mason County Drain Commissioner and the Mason County Board of Public Works; and

BE IT FURTHER RESOLVED, that the supporting special assessment tax rolls be levied and collected on the 2007 winter tax bills as provided by Michigan law.

Moved for your approval.

Motion carried. (Signed) R. Genson, L. Squires

Motion by R. Genson seconded by M. Schneider to approve the following resolution:

HONORABLE COMMISSIONERS

GENTLEMEN

WHEREAS the Mason County Board of Commissioners designated the Mason County Administrator's office to be the Designated Planning Agency to prepare the Mason County Solid Waste Management Plan update and subsequent amendments thereto under the provisions of the Michigan Solid Waste Management Act of 1978, as amended, now the Natural Resources and Environmental Protection Act (updated through Public Act No. 451 of 1994); and

WHEREAS, the Mason County Administrator's office and the Mason County Solid Waste Management Planning Committee held the necessary public comment period and public hearing as required by the Act; and

WHEREAS, the Mason County Solid Waste Management Planning Committee did approve Plan Amendment 2007-1 at a meeting held on October 4, 2007.

THEREFORE BE IT RESOLVED, that the Board of Commissioners of the County of Mason approves the Mason County Solid Waste Management Plan Amendment 2007-1 as prepared by the Mason County Administrator's office and the Mason County Solid Waste Management Planning Committee and that the Amendment be forwarded by the County Administrator to the various municipalities within the County for their approval.

Moved for your approval.

Motion carried. (Signed) R. Genson, L. Squires

Motion by Public Safety Committee Chairman L. Squires and seconded by M. Schneider to approve the following resolution:

HONORABLE COMMISSIONERS

GENTLEMEN

WHEREAS, The following application for Farmland (Act 116 of the Public Acts of 1974) has been filed with the County Clerk.

Number	Name	Township	Section
01-07	Bradley Brown	Sherman	34

THEREFORE BE IT RESOLVED, that the Board of Commissioners of the County of Mason approves this application for Farmland (Act 116 of the Public Acts of 1974), in the County of Mason.

Moved for your approval.

Motion carried. (Signed) L. Squires, R. Erickson, J. Pinkerton, R. Pedersen, R. Genson

Motion by L. Squires and seconded by M. Schneider to approve the following resolution:

HONORABLE COMMISSIONERS

GENTLEMEN

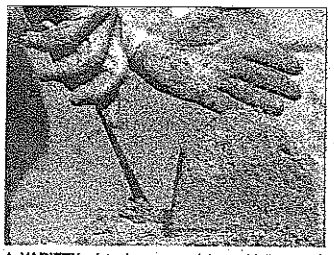
WHEREAS, Mason County Equalization Director Roger Chappel has given the Town Tax Report and it is in order.

THEREFORE, we, your Buildings, Grounds, Airport, Zoning, Planning, Agriculture, Equalization-Town Tax, and Liaison to Fairgrounds Committee, recommend the acceptance of the Town Tax Report.

Moved for your approval.

Motion carried. (Signed) L. Squires, J. Pinkerton, R. Pedersen, R. Sanders, R. Genson

STLES MADE OF SAND



A VARIETY of tools are used to mold the sand and create different textures during the Pentwater Homecoming Sand Castle Building Contest Thursday.

58 teams compete n 2007 sand ulpture contest

/ KRISTIN MORIN
ily News Staff Writer

PENTWATER — The waves were more like ripples as ey washed up on the shore of Charles Mears State Park iday morning, but for an erosion-prone house only six ches high, the conditions were threatening.

Many mini-structures and villages were protected by anulated barriers, moats, or careful placement.

Such were the precautions taken by the 191 participants in the 2007 Sand Sculpture Contest that turned the entwater beach into an expanse of hand-packed exhibits carefully created that they put the old upside-down-ucket castles to shame.

This year's sculpture theme was History of Pentwater, nd 58 teams of locals and vacationers dug right in with eplicas of the Nickerson Inn, logging villages, historic otels, lighthouses, and even a "Grandpa Whitey," a man known for spending time with family in Pentwater, complete with swim trunks.

Jessica Willard, 16, from Mears, crafted a log to represent Pentwater's logging history.

"It's pretty historic," Willard said.

Willard used a straw to get more detail in her sculpture and has been practicing on the beach for fun.

The competition has become a staple for many families. Deanna Maikey has been shaping sandcastles for over 35 years and her husband, Gary Maikey, for 20 years.

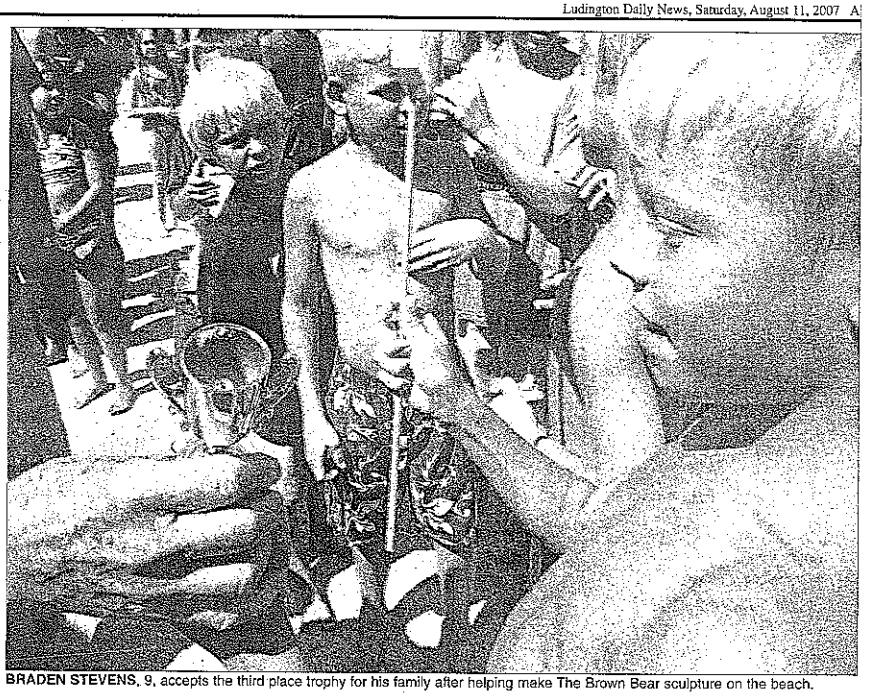
"e've got five children, and they're all involved," ana said.

At the end of the competition the sculptures which were so lovingly created don't last long.

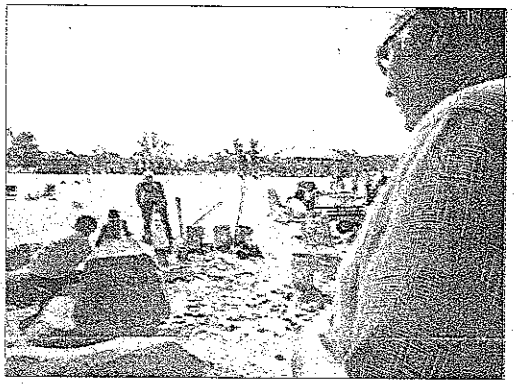
One group jumped on their version of a lighthouse as soon as the judges passed.

"Now it's mashed potatoes," Hannah Uhnavy said.

kmorin@ludingtondailynews.com
843-1122, ext. 328



BRADEN STEVENS, 9, accepts the third place trophy for his family after helping make The Brown Bear sculpture on the beach.



Daily News/KRISTIN MOR

INVERTED CASTLE — Twins Mary Grace and An Lengemann, 4, from Imlay City decide to dig a hole o the beach instead of a castle. Sand sculpture judg Ron Hollis, at right, looks over one of his division exhibits to decide the winners of the competition.

WANNA SEE MORE?

Log on to www.ludingtondailynews.com and click on Multimedia for a slideshow from the sand sculpture contest.

MASON COUNTY SOLID WASTE MANAGEMENT PLANNING COMMITTEE TO HOLD APUBLIC HEARING for the proposed amendment of the MASON COUNTY SOLID WASTE MANAGEMENT PLAN

The Mason County Solid Waste Management Planning Committee will hold a Public Hearing for the purpose of receiving comments on the proposed amendment to the approved Mason County Solid Waste Management Plan on Thursday, September 20, 2007 at the City of Ludington Municipal Building, 400 S. Harrison Street, Ludington, Michigan beginning at 7:00 p.m. The Public Hearing will be held pursuant to Part 115 of the Natural Resources and Environmental Protection Act, being Act 451 of 1994.

The proposed amendment will continue to be available for copying and/or review and comment through October 4, 2007 at the office of the Mason County Administrator located at 304 E. Ludington Avenue, Ludington, Michigan weekdays during normal business hours. Written comments concerning the proposed amendment may be submitted to Fabian L. Knizacky, Mason County Administrator, 304 E. Ludington Avenue, Ludington, Michigan, 49431.

MASON COUNTY SOLID WASTE MANAGEMENT PLANNING COMMITTEE

14 Member Committee
Two Year Terms

Member s

1.	Larry Powers	General Public
2.	Laude Hartrum II	Industrial Waste Generators
3.	Julia Chambers	Environmental Interest Groups
4.	Bob Genson	Regional Solid Waste Planning Agency
5.	John Shay	Solid Waste Management Industry
6.	Edward Jabrocki	Solid Waste Management Industry
7.	Dave Hasenbank	Solid Waste Management Industry
8.	Todd Harland	Solid Waste Management Industry
9.	Gilbert Larsen	City Governments
10.	Jerome Rybicki	County Government
11.	Eugene Jorissen	Township Governments
12.	James Beal	General Public
13.	_____	General Public
14.	_____	Environmental Interest Groups

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Township of Amber
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Brenda Krizochy, Clerk
Appropriate Local Representative

Larry P. Donovan
Witnessed by

November 19, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of BRANCH Twp. Board
(City/Township/Village)

It is hereby resolved that we approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Shirley Brayton BRANCH Twp. Clerk
Appropriate Local Representative
Shirley Brayton, BRANCH Twp. Clerk

Lou Holmes
Witnessed by

Nov. 8, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Custer Township
(City/Township/Village)

It is hereby resolved that we APPROVE Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Larry Cooper Custer twp Supervisor
Appropriate Local Representative

Susan Hansen Custer Twp. Clerk
Witnessed by

12-3-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Eden
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Victor Baker
Appropriate Local Representative

Joann L Bomkodt
Witnessed by

Nov. 13. 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Freesoil
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Appropriate Local Representative

Witnessed by

11-19-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Grant
(City/Township/Village)

It is hereby resolved that we Approved Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Mary J Janowiak
Appropriate Local Representative

Witnessed by

11-7-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Hamlin Township
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Nancy Dreggowski
Appropriate Local Representative

Catherine Lewis
Witnessed by

12/13/07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Township of Logan
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Bruce Benke
Appropriate Local Representative

Kathleen Van Donkelaar
Witnessed by

Nov. 12, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Meade
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Sue Hasenbal
Appropriate Local Representative

Witnessed by

11-13-2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/~~Commission/Council~~ of Pere Marquette Charter Township
(City/Township/Village)

It is hereby resolved that we approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Joanne Kelly, Clerk
Appropriate Local Representative

Sara L Sully, Treasurer
Witnessed by

November 13, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Riverton
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Rita A Johnson
Appropriate Local Representative

Kathleen M. Andersen
Witnessed by

11-5-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Sheridan Township
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Marlynn L. Gulembo, Clerk
Appropriate Local Representative

Barbara Wilson
Witnessed by

12/18/2007
Dated

Sherman Township Board Resolution

Resolution # 2007-1 Date: 16 September, 2007

WHEREAS, The Mason County Solid Waste Management Plan has been amended (Amendment 2007-1),

WHEREAS, All city commissions, township boards and village councils in Mason County must consider the updated plan,

NOW, THERFORE, BE IT RESOLVED that the Sherman Township Board approves Amendment 2007-1 to the Mason County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

The foregoing resolution offered by Board Member

Second offered by Board Member

Upon roll call vote the following voted "aye"
Supervisor Jensen
Treasurer Randle
Trustee Mickevich
Trustee Saya
Clerk Lubben

"nay"

The Supervisor declared the resolution adopted.

Clerk

Certificate

I, Kurt D. Lubben, the duly elected and acting Clerk of Sherman Township, hereby certify that the foregoing resolution was adopted by the Township Board of said Township at the regular meeting of said Board held on 16 September, 2007, at which meeting a quorum was present, by a roll call vote said members as hereinbefore set forth; that said resolution was ordered to take immediate effect.

Clerk

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Summit Township
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Edward S. Iteen
Appropriate Local Representative
Edward S Iteen Supervisor

Mary Acker
Witnessed by
Mary Acker Clerk

December 3, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of TOWNSHIP OF VICTORY
(City/Township/Village)

It is hereby resolved that we APPROVE Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Barbara J. Egelen, Clerk
Appropriate Local Representative

Russell N. Pedersen
Witnessed by

NOVEMBER 5, 2007
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Village of Custer
(City/Township/Village)

It is hereby resolved that we Approve Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

John Mahan
Appropriate Local Representative

Margaret Gressewold
Witnessed by

11-13-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Village of Free Soil
(City/Township/Village)

It is hereby resolved that we approved Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Sandra McDougal
Appropriate Local Representative

Michael J. Haslak
Witnessed by

11-12-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of Fountain
(City/Township/Village)

It is hereby resolved that we Approved Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

Kenneth Budzynski
Appropriate Local Representative

Sue Mezynski
Witnessed by

11-5-07
Dated

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

By action of the Board/Commission/Council of LUDINGTON
(City/Township/Village)

It is hereby resolved that we APPROVE Amendment 2007-1 to the Mason
(Approve/Disapprove)

County Solid Waste Management Plan, prepared pursuant to the natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

John Sn
Appropriate Local Representative

Deborah L. Lusk
Witnessed by

10-22-2007
Dated

CITY OF SCOTTVILLE, MICHIGAN

RESOLUTION FOR THE APPROVAL OF AMENDMENT 2007-1 TO THE MASON COUNTY SOLID WASTE MANAGEMENT PLAN

RESOLUTION NO. 07- 142

By action of the Scottville City Commission at its 1174th Regular Meeting held on November 19, 2007 it is hereby resolved that the Scottville City Commission approves Amendment 2007-1 to the Mason County Solid Waste Management Plan, prepared pursuant to the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules.

The above resolution was moved for adoption by Commissioner Peterson and seconded by Commissioner Merrill.

The motion for adoption received the following vote:

YES: Begue, Pfefferle, Gilchrist, Peterson, Maki, Merrill

NO: None

ABSENT: Baxter

I certify that the forgoing is a true and complete copy of a Resolution adopted by the City Commission of the City of Scottville at its 1174th Regular Meeting held Monday, November 19, 2007.

Amy S. Hansen
City Manager/Clerk

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

August 7, 2000

Mr. Ronald E. Sanders, Chairman
Mason County Board of Commissioners
Court House
304 East Ludington Avenue
Ludington, Michigan 49431

Dear Mr. Sanders:

The Department of Environmental Quality (DEQ) received the locally approved update to the Mason County Solid Waste Management Plan (Plan) on April 20, 2000. Except for the items indicated below, the Plan is approvable. As outlined in the June 1, 2000 letter to Mr. Fabian L. Knizacky, Mason County Administrator, from Mr. Stan Idziak, DEQ, Waste Management Division, and as confirmed in your letter of June 13, 2000, to Mr. Idziak, the DEQ makes certain modifications to the Plan as discussed below.

On page 64, A., Siting Criteria for New Solid Waste Disposal Facilities in Mason County (County), 1. "Long-range (10-year) disposal capacity has not been documented to be available at specific sites." This statement conflicts with the Plan's capacity certification on page 84, which certifies that the County has more than 10 years capacity. In order to avoid confusion, this sentence is modified to read: "Long-range (10-year) disposal capacity has been documented to be available at specific sites."

On page 67, 8., Proposed Disposal Capacity, this item reads: "A potential site shall provide sufficient capacity to meet the disposal needs of the county for the next 20 years. The proposed site will be located on a minimum of 320-acre parcel to be consistent with the Plan. If a decision is made to accept waste from several counties, the required disposal area will increase accordingly." The determination of 20 years capacity and the decision to increase the size of the disposal area, if waste is accepted from other counties in order to maintain 20 years of capacity for Mason County, is a discretionary, subjective judgement. Siting criteria must be objective, specific, and measurable. Therefore, this item is revised to read: "The proposed site shall be located, at a minimum, on a 320-acre parcel to be consistent with the Plan."

On page 67, 9., Local Ordinances, this statement reads: "A potential site shall conform with county and/or local zoning ordinances to the extent they are provided for in this Plan on page 83. A proposed site must be located in an area that is zoned for agricultural or industrial uses." The local zoning ordinances referenced on page 83 concern the daily operations of the disposal area and, as such, are not siting criteria.

This statement is revised to read: "The applicant shall submit a statement indicating that the potential site shall conform with county and/or local zoning ordinances to the extent they are provided for on page 83 of this Plan. A proposed site must be located in an area that is zoned for agricultural or industrial uses."

On page 68, 13., Importation Authorization, this item reads, "Solid waste disposal facilities shall be authorized to import waste from counties specifically mentioned on pages 32 and 33. Solid waste disposal facilities shall not be authorized to import waste from Michigan counties that are not specifically mentioned on pages 32 and 33." This item is not a siting criterion; it is simply a statement of fact and already addressed on pages 32 and 33. Therefore, item 13. is deleted from this section of the Plan.

On page 76, under Transfer facilities, paragraph 7, "The developer must provide a written noise and abatement plan for the proposed transfer facility site." It is not clear whether this statement is a siting requirement and, if so, how it will be evaluated relative to siting the facility. In order to clarify this situation, the statement has been changed to read: "The developer must provide a written noise and abatement plan for the proposed transfer facility site. The noise and abatement plan is for informational purposes only and will not be used to determine consistency with the Plan."

On page 78, paragraph 1 states: "Noise effects on adjacent properties shall be minimized by the utilization of adequately sound proofed equipment and facilities designed to effect such minimization, and by the use of berms, walls, and natural planting screens. The developer must provide a written abatement plan." It is not clear whether this statement is a siting requirement and, if so, how it will be evaluated relative to siting the facility. This paragraph has been revised to read: "Noise effects on adjacent properties shall be minimized by the utilization of adequately sound-proofed equipment and facilities designed to effect such minimization and by the use of berms, walls, and natural planting screens. The developer must provide a written abatement plan for informational purposes only which will not be used to determine consistency with the Plan."

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

By approving the Plan with modifications, the DEQ has determined that it complies with the provisions of Part 115, 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 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 the DEQ approval of the Plan neither restricts nor expands the 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 Mason County. If you have any questions, please contact Mr. Seth Phillips, Chief, Solid Waste Management Unit, at 517-373-4750.

Sincerely,

Arthur R Nash
ACTING

Russell J. Harding
Director
517-373-7917

cc: Senator Bill Schuette
Representative David C. Mead
Mr. Fabian L. Knizacky, Mason County Administrator
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Mr. Timothy R. Sowton, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Philip Roycraft, DEQ - Cadillac
Mr. Seth Phillips, DEQ
Mr. Stan Idziak, DEQ
Mason County File

MASON COUNTY

SOLID WASTE MANAGEMENT PLAN

1998 UPDATE

MASON COUNTY ADMINISTRATOR'S OFFICE
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This Plan assembled December 28, 1999

ACKNOWLEDGMENTS

The completion of the 1998 Updated Mason County Solid Waste Plan is the result of the cooperative effort of many boards, commissions and departments in Mason County. The Designated Planning Agency would like to thank the following parties for their dedicated work that assisted us in the completion of the 1998 Updated Mason County Solid Waste Plan.

MASON COUNTY BOARD OF COMMISSIONERS

Mr. Harold E. Madden, District 1
Mr. Michael G. Schneider, District 2
Mr. John E. Henderson, District 3
Mr. James L. Pinkerton, District 4
Mr. Jerome Rybicki, District 5
Mr. Thomas M. Posma, District 6 - Chairman
Mr. Charles Eberbach, District 7
Mr. Ronald E. Sanders, District 8 - Vice Chairman
Mr. Robert A. Genson, District 9

MASON COUNTY SOLID WASTE PLANNING COMMITTEE

Member	Representing
Mr. Ralph Hendrick	General Public
Mr. Laude E. Hartrum, II	General Public
Mr. Steven E. McVicker	General Public
Mr. Charles Eberbach	Regional Solid Waste Planning Agency
Mr. Wesley Hasenbank	Solid Waste Management Industry
Mr. Todd M. Harland	Solid Waste Management Industry
Mr. Edward Jabrocki	Solid Waste Management Industry
Mr. John Kreinbrink	Solid Waste Management Industry
Mr. Larry Kivela	Environmental Interest Groups
Mr. Norman Letsinger	Environmental Interest Groups
Mr. Gilbert Larsen	City Governments
Mr. Tom Merchant	Industrial Waste Generators
Mr. James Riffle	Township Government
Mr. Jerome Rybicki	County Government

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
OVERALL VIEW OF THE COUNTY	3-8
CONCLUSIONS	
SELECTED ALTERNATIVES	
INTRODUCTION	
GOALS AND OBJECTIVES	9
DATA BASE	11
SOLID WASTE DISPOSAL AREAS	12
SOLID WASTE FACILITY DESCRIPTIONS	13-21
SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE	22
EVALUATION OF DEFICIENCIES AND PROBLEMS	23
DEMOGRAPHICS	24
LAND DEVELOPMENT	25
SOLID WASTE MANAGEMENT ALTERNATIVES	26-29
SELECTED SOLID WASTE MANAGEMENT SYSTEM	30
IMPORT/EXPORT AUTHORIZATIONS	31-35
SOLID WASTE DISPOSAL AREAS	36
FACILITY DESCRIPTIONS	37-45
SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE	46
RESOURCE CONSERVATION EFFORTS	47
WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS	48-61
EDUCATIONAL AND INFORMATIONAL PROGRAMS	62
TIMETABLE	63
SITING PROCEDURE	64-78
MANAGEMENT COMPONENT	79-82
LOCAL ORDINANCES AND REGULATIONS	83
CAPACITY CERTIFICATION PROCESS	84
APPENDIX A - ADDITIONAL INFORMATION REGARDING THE SELECTED SYSTEM EVALUATION OF RECYCLING	85-86
DETAILED FEATURES OF RECYCLING & COMPOSTING PROGRAMS	87-89
COORDINATION EFFORTS	90
COSTS & FUNDING	91
EVALUATION SUMMARY	92-93
ADVANTAGES AND DISADVANTAGES	94
APPENDIX B - NON SELECTED SYSTEMS	
NON SELECTED SYSTEMS	95-99
APPENDIX C - PUBLIC PARTICIPATION	
PUBLIC PARTICIPATION AND APPROVAL	100-176
APPENDIX D - ATTACHMENTS	
ATTACHMENTS	177-229
LOCAL UNITS OF GOVERNMENT RESOLUTIONS OF SUPPORT	231-253

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: April 6, 2000
If this Plan includes more than a single County, list all counties participating in this Plan.

This Plan includes only the County of Mason.

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

There are no municipalities from outside the County included in the Plan. Additionally there are no municipalities within the County that have been approved to be included in the Plan of another County.

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

The Mason County Administrator's Office is the Designated Planning Agency preparing this plan update.
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CENTRAL REPOSITORY LOCATION(S): Mason County Administrator's office is the central repository location. The Mason County Administrator's office is open Monday through Friday 8:00 am to noon and 1:00 p.m. to 5:00 p.m.

EXECUTIVE SUMMARY

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

OVERALL VIEW OF THE COUNTY

Township or		% Land Use**		% of Economic Base***				
Municipality Name	Population*	Rural	Urban	Ag	For	Ind	Com	Other
Amber Township	1,684	100%	0%	7%	0%	6%	57%	30%
Branch Township	973	100%	0%	24%	0%	0%	44%	31%
Custer Township	1,176	100%	0%	55%	0%	0%	21%	24%
Eden Township	491	100%	0%	88%	0%	0%	0%	12%
Free Soil Township	860	100%	0%	77%	0%	0%	8%	15%
Grant Township	749	100%	0%	18%	0%	19%	10%	53%
Hamlin Township	2,597	100%	0%	18%	0%	3%	57%	22%
Logan Township	203	100%	0%	67%	0%	0%	20%	13%
Meade Township	142	100%	0%	59%	0%	0%	0%	41%
Charter Township of Pere Marquette	2,065	100%	0%	1%	0%	86%	6%	7%
Riverton Township	1,115	100%	0%	70%	0%	12%	0%	18%
Sheridan Township	837	100%	0%	80%	0%	0%	0%	20%
Sherman Township	952	100%	0%	53%	0%	18%	8%	21%
Summit Township	815	100%	0%	5%	0%	92%	0%	3%
Victory Township	1,084	100%	0%	61%	0%	0%	9%	30%
City of Ludington	8,507	0%	100%	0%	0%	30%	31%	39%
City of Scottville	1,287	0%	100%	0%	0%	22%	34%	44%
Village of Custer	312	0%	100%	NA	NA	NA	NA	NA
Village of Fountain	165	0%	100%	NA	NA	NA	NA	NA
Village of Free Soil	148	0%	100%	NA	NA	NA	NA	NA
Total Population	25,537	98.4%	1.6%	7%	0%	66%	13%	14%

'Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases
*Source - 1990 Census
**Source - Mason County Equalization Department
***Source - 1998 Mason County Equalization Report

OVERVIEW OF MASON COUNTY

The County of Mason, Michigan, having over 25 miles of Lake Michigan shoreline, encompasses approximately 540 square miles of flat gently rolling topography with approximately a quarter of its land being devoted to agricultural purposes. The county seat is located in the City of Ludington.

The County operates under a nine member elected Board of Commissioners who are elected from single member districts determined by population on a partisan basis for two year terms. The Board annually elects, from within its ranks, a Chairman and Vice Chairman by majority vote. The Chairman serves as the chief executive of the County. The County provides services to its more than 28,000 residents in areas including law enforcement, administration of justice, community enrichment and development, and human services. The County is divided into fifteen (15) townships and two incorporated cities, Ludington and Scottville. Three incorporated villages, Custer, Fountain and Free Soil also operate as political units.

In 1970, the County had a population of 22,612 residents, with over 9,000 of these living in the City of Ludington. By 1980, the County had a total of 26,365 people, an increase of nearly 17%, which was very strong population growth for the 1970's. However, by 1990 the county's population had declined somewhat, to 25,537 people, a decrease of slightly over 3%. According to population projections published by the West Michigan Shoreline Regional Development Commission, this slight decline was an aberration in a historical trend of upward population growth and increasing suburbanization. The Commission has projected, in the 1995 Mason County Comprehensive Plan, that the population of the County will grow to 27,127 by 2000, 27,922 by 2005, 28,717 by 2010, 29,512 by 2015, 30,307 by 2020 and 31,102 by 2025. These forecasts are based on Census Bureau historical information, as well as data on births and deaths provided by the US Department of Health and Human Services, and other information on migration provided by the US Internal Revenue Service. The County ranked 50th out of 83 Michigan counties for population in 1996.

These figures can then be used to predict other elements which are often associated with population growth, such as the need for additional housing units. For instance, at the 1990 incidence of persons per dwelling unit (1.808, a fairly low figure), by the year 2010 Mason County, with its additional 2,455 persons, will need at least 1,358 dwelling units to be constructed. At least, because according to national figures, the average number of persons per dwelling unit is steadily decreasing, and the proportion of dwelling units used for seasonal occupation only may be on the increase.

Population growth has been the greatest in the more remote rural sections of the County. This growth has been fueled by former urban residents retiring and moving to the County to enjoy a more rural way of life. This presents a future challenge to refuse collection and disposal. While these residents are accustomed to the curb side service provided in their former urban homes, the sparse population does not make it economically viable for private enterprise to provide this service.

There were 9,993 households in the County in 1989, according to the 1990 US Census, which had a median household income of $21,701. A breakdown of the income for the County's households is as follows:

Income of Households	Number of Households
Less than $5,000	546
$5,000 to $9,999	1,511
$10,000 to $14,999	1,252
$15,000 to $24,999	2,322
$25,000 to $34,999	1,656
$35,000 to $49,999	1,583
$50,000 to $74,999	820
$75,000 to $99,000	151
$100,000 to $149,999	112
$150,000 or more	40

The per capita income for the County in 1989 was $10,848.

Age groups for the County's residents, according to the 1990 US Census, are as follows:

	Percentage
Under 5 Years	6.99%
5 to 17 Years	19.29%
18 to 24 Years	7.93%
25 to 44 Years	28.31%
45 to 64 Years	20.36%
Over 65 Years	17.12%

The primary and secondary educational needs of the residents are provided by the seven school districts which serve the County. Higher educational opportunities are available to County residents at West Shore Community College, which offers Associate degrees in Arts, Sciences and Applied Arts & Sciences. Additionally, the College grants certificates in 16 one and two-year occupational programs. The College's Tech Center, through a joint partnership with the Mason County Intermediate School District and Public School Districts, provides a single vocational learning center to County residents. The College also operates approximately 8 satellite facilities throughout the County. There were approximately 1,444 full and part-time students enrolled at the College for the 1997 Fall semester.

In addition, higher educational opportunities are available at the following institutions, which are located within driving distance of the County residents:

Baker College of Muskegon (Curriculum available through WSCC)
Davenport College (Curriculum available through WSCC)
Muskegon Community College
Ferris State University

According to the 1990 US Census, the educational characteristics for the County of Mason are as follows:

Years of School Completed	Persons 25 and Over
Less than 9th grade	9.06%
9th to 12th grade, no diploma	14.81%
High school graduate	39.94%
Some college, no degree	17.65%
Associate degree	6.70%
Bachelor's degree	7.77%
Graduate or professional degree	4.07%

Mason County enjoys a healthy, diversified economic mix of tourism, industrial, commercial and agricultural uses within its borders. The major employers in the County are as follows:

Firm Name	Product/Service	Approximate Number of Employees
Brill Manufacturing Co.	Furniture, Household Wood	90
City of Ludington	Government	278*
County of Mason	Government	175
Dow Chemical Company	Industrial Chemicals	292
Floracraft Corp.	Plastic Foam Products	140
Great Lakes Casting Co.	Gray Iron Castings	242
Harbison-Walker Refractories	Dead Burned Magnesite	95
Harrell Management Corporation	Eating Places	70
Harrington Tool	Industrial Tungsten Carbide Tooling	39
House of Flavors	Restaurant & Ice Cream producer	54
Kaines West Michigan Wire	Wire Products, Fabricated - Misc.	70
Kmart Corporation	Department Store	120
LDI, Inc.	Automotive components	83
Ludington Area Schools	School/Education	367*
Ludington Components	Office Furniture	220
Ludington Daily News Inc.	Newspapers: Publishing, Printing	60
Mason/Lake Intermediate School	School/Education	75
Mason County Fruit Packers	Cherry & Apple Products	175
Mason County Eastern School	School/Education	70
Mason County Central School	School/Education	180*
McCormick Sawmill, Inc.	Saw & Planning Mills	65
Memorial Medical Center	Health Care	500*
Merdel Game Mfg. Co.	Games, Toys, Children's Vehicles	60
Metalworks, Inc.	Office Furniture	236
Oakview Medical Care Facility	Health Care	107
Pandrol Jackson Inc.	Railroad Maintenance Eqpt.	305
Prevos Family Market, Inc.	Grocery Stores	90*
Stokely, USA	Canned Green Beans	415*
Straits Steel & Wire Company	Fabricated Wire Products	200
Wal-Mart	Department Store	150
West Shore Community College	Education	164*
Whitehall Industries Inc.	Aluminum Extruded Products	140*

*Includes full and part-time employees

In addition, the County has the following employer and employee relationships:

Number of Employers	Number of Employees
28	1 - 25
4	26 - 50

The 1990 US Census of Population lists the labor force characteristics for the County of Mason, for employed persons 16 years and over, as follows:

BY OCCUPATION:	Number of Employees
Executive, administrative and managerial occupations	893
Professional specialty occupations	1,169
Technicians and related support occupations	230
Sales occupations	1,149
Administrative support occupations, including clerical	1,398
Private household occupations	53
Protective service occupations	138
Service occupations, except protective and household	1,307
Farming, forestry and fishing occupations	432
Precision production, craft and repair occupations	1,453
Machine operators, assemblers, and inspectors	883
Transportation and material moving occupations	561
Handlers, equipment cleaners, helpers, and laborers	578
TOTAL	**10,244**

BY INDUSTRY:	Number of Employees
Agriculture, forestry and fisheries	517
Mining	42
Construction	788
Manufacturing, nondurable goods	799
Manufacturing, durable goods	1,477
Transportation	430
Communications and other public utilities	207
Wholesale trade	332
Retail trade	1,930
Finance, insurance, and real estate	381
Business and repair services	306
Personal services	343
Entertainment and recreation services	84
Health services	906
Education services	822
Other professional and related services	515
Public administration	365
TOTAL	**10,244**

Retail sales are mainly convenience in nature and are concentrated in the incorporated Cities of Ludington and Scottville, and the Villages of Custer, Fountain and Free Soil. Regional shopping is provided in the Ludington area. An estimate of retail sales for the County of

Mason and the City of Ludington for 1998 as shown by the "Editor and Publisher Market Guide'' is as follows:

	Number of Stores		(Shown in thousands) Estimate of Sales	
	County of Mason	City of Ludington	County of Mason	City of Ludington
Lumber & Hardware	13	7	$25,893	$15,311
General Merchandise	4	3	42,013	24,842
Food	26	11	55,643	26,556
Auto	14	3	39,568	2,863
Gasoline	15	8	28,606	17,183
Apparel	18	13	7,900	7,551
Furniture	12	7	10,530	5,619
Eat, Drink	52	27	25,706	16,972
Drugs	7	5	11,551	6,830

Mason County is easily accessible via US Route 31 which runs North and South through the middle of the County and US Route 10 running East and West through the County. The US Routes connect County residents to the major highway network. Ludington Mass Transportation provides bus service in the Ludington area and the City of Scottville.

Mason County Airport provides accessibility to general aviation of small and intermediate aircraft. The airport also provides charter service to various points throughout the Midwest. During the months May through October, the Lake Michigan CarFerry Service connects Ludington and Manitowoc, Wisconsin. CSX provides railroad transportation to the county industrial base. Currently, two trains per day operate between Grand Rapids and Ludington.

According to the Michigan Employment Security Commission, Research and Statistical Division, the unemployment statistics for the County of Mason during the last three calendar years, and the most recent data available for 1998, are as follows:

	1998	1997	1996	1995
January	9.4%	12.1%	12.8%	14.1%
February	9.4	10.8	12.2	13.7
March	8.3	10.8	10.4	12.5
April	5.6	8.6	10.0	10.6
May	5.5	6.3	8.9	9.5
June	5.5	6.2	8.7	10.1
July	3.8	4.7	6.5	7.3
August	3.9	4.8	6.0	7.3
September	4.3	5.0	6.5	7,3
October	4.5	5.2	6.7	7.7
November	6.2	7.4	9.0	10.2
December	6.7	6.9	8.9	10.7
Annual Average	6.0%	7.3%	8.8%	10.0%

According to the 1992 U. S. Census of Agriculture, Mason County had 402 farms in 1992 compared to 426 in 1987, encompassing approximately 73,437 acres. The average farm was approximately 183 acres in size compared to 179 acres in size in 1987.

The value of agricultural products sold in 1992 for Mason County farms amounted to $20,373,000 compared to $15,715,000 in 1987 and the average value per farm amounted to $50,679 in 1992 compared to $36,889 in 1987.

Farm size (harvested) is as follows:

Under 49 acres	27.86%
50 to 179 acres	40.04%
180 to 499 acres	23.88%
500 acres and over	8.22%

64.68% of the farms in the County are owner-operated; 31.09% are operated by part-time owners; and 4.23% by tenants. Of the above, 51.00% devote full time to farming and 49.00% devote part-time to farming. The average age for the farm operator in the County in 1992 was 52.3 years, up from the 51.4 years average in 1987.

There are 14,119 housing units located within the County according to the 1990 US Census of Population and Housing, of which 78.43% are year-round homes; 53.66% are owner-occupied. A breakdown of the dwelling units is as follows:

Single Family	74.90%
Multi Family	11.92%
Mobile Homes	13.18%

According to the 1990 US Census of Population and Housing, the median value of an owner-occupied residence in the County is $43,300.

County topography was determined by glacial action. Approximately 70% of the county is a broad and smooth plain with well-drained, sandy soils. Numerous lakes and streams are found throughout the county. A second type of topographic feature found in the county is the moraines. These large rolling hills can exceed 150 feet and cover approximately 25% of the county. The moraines create variation in the landscape and are especially concentrated in northern Summit and Riverton Townships. Due to the elevation above the lakeshore, the moraines provide scenic views and also exhibit capabilities for winter sports activities such as skiing and sledding.

Approximately 5% of the county is covered by dunes. They occur in a narrow band trending along the Lake Michigan shore and range for 1/4 mile wide to over three miles wide north of the City of Ludington. The dunes rise 50 to 100 feet above the lake level and consist of a series of parallel ridges and valleys. The frontal dunes are composed of open, loose sand and back dunes are stabilized with grasses and forest. The dunes are popular recreation areas.

INTRODUCTION

GOALS AND OBJECTIVES

To comply with Part 115 and its requirements, each Plan must be directed toward goals and objectives based on the purposes stated in Part 115, Sections 11538.(I)(a), 11541.(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 71 l(b)(i) and (ii). At a minimum, the goals must reflect two major purposes of Solid Waste Management Plans:

> (1) To utilize to the maximum extent possible the resources available in Michigan's solid waste stream through source reduction, source separation, and other means of resource recovery and;
>
> (2) to prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

This Solid Waste Management Plan works toward the following goals through actions designed to meet the objectives described under the respective goals which they support. This project is assuming funding is available. This Plan does not require government (municipal and county) funding. If funding is not available, that will not be in conflict with this Plan and not pursuing a particular project will not be in conflict with this Plan:

The purpose of this plan is to accomplish the following goals and objectives.:

Goal 1: The primary goal of the Solid Waste Management Plan for the County of Mason is to establish a solid waste system for the entire county that will address the solid waste disposal needs of the general public.

- Objective la: Identify and collaborate with the potential private, public and non-profit agencies that have a vested interest in the proper management of the solid waste stream.

Goal 2: Develop and promote a plan that protects the natural beauty and resources of Mason County.

- Objective 2a: Enforce laws that prohibit the dumping of solid waste in unauthorized areas
- Objective 2b: Establish and enforce landfill siting criteria that protect the environmental features of Mason County and avoid conflicts with adjacent uses.
- Objective 2c: Establish and enforce rules overseeing the appearance, odor and noise aspects of solid waste disposal facilities.

INTRODUCTION

Goal 3: Support recycling, compost and reuse programs provided to the public.

Objective 3a: Encourage citizens to participate in recycling, compost and reuse programs.

Objective 3b: Encourage developers of privately owned solid waste disposal facilities to provide recycling and composting programs.

Objective 3c: Encourage the state legislature to expand the bottle and can deposit laws.

Objective 3d: Promote the purchasing of products made with recycled products.

Goal 4: Develop a solid waste management plan that is fiscally responsible.

Objective 4a: Encourage the development of privately owned solid waste disposal facilities.

Objective 4b: Identify potential revenues when considering government participation in additional programs.

Objective 4c: Explore and coordinate regional and multiple jurisdictional solutions to solid waste needs.

Objective 4d: Establish siting criteria that encourages the proper development of infrastructure during the construction stage of privately owned solid waste disposal facilities.

Objective 4e: Encourage the State of Michigan to resume its policy of providing funding for solid waste ventures.

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

DATA BASE

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

COUNTY	WASTE TYPE	CURRENT ANNUAL VOLUME (cubic yards)	FIVE YEAR ANNUAL VOLUME (cubic yards)	TEN YEAR ANNUAL VOLUME (cubic yards)
Mason	Industrial	21,523	22,169	22,834
	Commercial	32,426	33,399	34,401
	Residential	26,352	27,957	27,956
	Compostibles	13,747	14,160	14,584
	Construction/Demolition	4,146	4,271	4,399
	Total	98,194	101,141	104,174

The landfills that have agreed to accept waste from Mason County have ample capacity to meet the county's solid waste disposal needs for the next ten years. Total volumes were compiled from information provided by waste haulers operating in the county. The rate of 14% of total waste generated was used to calculate compostible materials. This is consistent with rates used by the U.S. Environmental Protection Agency (EPA) in their reports characterizing municipal solid waste in the United States.

Listed below are the total quantity of solid waste generated and the total quantity needing disposal. Composting and recycling make up the difference between the two quantities.

TOTAL QUANTITY OF SOLID WASTE GENERATED:
98,194 Cubic Yards in 1999 (identify unit of time)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:
72,965 Cubic Yards in 1999 (identify unit of time)

DATA BASE

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

Type II Landfills to be utilized by the County of Mason.

Landfill	Location
Manistee County Landfill Inc.	Manistee County
Pitsch Sanitary Landfill	Ionia County
Ottawa County Farms Landfill	Ottawa County
Autumn Hills Recycling & Disposal Facility	Ottawa County
Arbor Hills Landfill	Washtenaw County
Central Sanitary Landfill	Montcalm County

Type B Transfer Stations to be utilized by the residents of the County of Mason.

Transfer Stations	Location
Hamlin Township Transfer Facility	Mason County
Summit Township Transfer Facility	Mason County
Waste Reduction System (The Transfer Station)	Mason County

Facility descriptions are on the following pages.

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Manistee County Landfill, Inc., owned by Allied

County: Manistee Location: Town: 21 N. Range: 16 W. Section(s): Stronach Municipal Township

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

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

___ Public X Private Owner: Allied, Inc.

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

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

Asbestos, Foundry Sand

Site Size:

Total area of facility property:	336	acres
Total area sited for use:	160	acres
Total area permitted:	40	acres
Operating:	5	acres
Not excavated:	25	acres
Current capacity:	1,700,000	tons or yds^3
Estimated lifetime:	14	years
Estimated days open per year:	250	days
Estimated yearly disposal volume:	200,000	tons or yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	0	megawatts
Waste-to-energy incinerators:	0	megawatts

FACILITY DESCRIPTIONS

Facility Type: Landfill Type II

Facility Name: Pitsch Sanitary Landfill

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

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

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

___ Public X Private Owner: Pitsch Companies

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

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

Street Sweepings, Asbestos

Site Size:			Proposed Expansion* 1998
Total area of facility property:	143.5	acres	
Total area sited for use:	28.36	acres	41.28 acres
Total area permitted:	78.44	acres	
Operating:	9.87	acres	
Not excavated:	70	acres	
Current capacity:	415,000	(tons) or yds^3	4,500,000 yds^3
Estimated lifetime:	5	years	22 years
Estimated days open per year:	307	days	
Estimated yearly disposal volume:	83,000	(tons) or yds^3	

(if applicable)
Annual energy production:

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

*Year of planned expansion

FACILITY DESCRIPTIONS

Facility Type: Type II Solid Waste Landfill/Processing Plant

Facility Name: Autumn Hills Recycling & Disposal Facility

County: Ottawa Location: Town: 5N Range: 14W Section(s): 36

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

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

___ Public X Private Owner: Autumn Hills RFD - A Division or Waste Management of Michigan, Inc.

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

* Explanation of special wastes, including a specific list and/or conditions: exhausted oak wood trays, minor first aid waste, contaminated pharmaceuticals manufacture, paint booth filters, dewatered waste water treatment sludge, out of spec/out of date food supplements, spent epoxy powder coatings, sand blasting sand, woodchips/dust from production, shot blast, construction and demolition materials, foundry sand, filter press cake, incinerator ash, saw dust, contaminated soils, auto fluff, asbestos, grinding sludge, carwash sand pit/traps, and food materials.

Site Size:

Total area of facility property:	314	acres
Total area sited for use:	197	acres
Total area permitted:	99.3	acres
Operating:	35.1	acres
Not excavated:	64.2	acres
Current capacity:	20.75 mil	(tons) or yds^3
Estimated lifetime:	30.2	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	500,000	tons or yds^3

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Ottawa County Farms Landfill

County: Ottawa Location: Town: 8N Range: 14W Section(s): 26 & 27

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

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

___ Public X Private Owner: ____

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

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

Site Size:

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

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill, Type II

Facility Name: Arbor Hills Landfill

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

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

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

X Public ____ Private Owner: BFI Waste Systems of North America, Inc.

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

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

Non-Hazardous Solid and Semi-Solid Wastes, No Hazardous or Liquid Wastes

Site Size:

Total area of facility property:	936	acres
Total area sited for use:	356	acres
Total area permitted:	217	acres
Operating:	113	acres
Not excavated:	104	acres
Current capacity:	30,500,000	tons or yds³ Airspace or 61.5 Million cubic yds. of capacity
Estimated lifetime:	17.6	years
Estimated days open per year:	265	days
Estimated yearly disposal volume:	3,500,000	tons or yds³

(if applicable)
Annual energy production:

Landfill gas recovery projects:	18	megawatts
Waste-to-energy incinerators:		megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Hamlin Township Transfer Facility

County: Mason Location: Town: 18-19N Range: 18W Section(s): 27

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

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

X Public ____ Private Owner: ____

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:		acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Current capacity:	60	tons or yds^3
Estimated lifetime:		years
Estimated days open per year:	130	days
Estimated yearly disposal volume:	1600	tons or yds^3

(if applicable)
Annual energy production:

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

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Summit Township Transfer Site

County: Mason Location: Town: 17N Range: 18-17W Section(s): 26

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

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

X Public ____ Private Owner: Summit Township

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

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

Site Size:

Total area of facility property:	2	acres
Total area sited for use:	2	acres
Total area permitted:	NA	acres
Operating:	NA	acres
Not excavated:	NA	acres
Current capacity:	52	tons or yds³
Estimated lifetime:		years
Estimated days open per year:	144	days
Estimated yearly disposal volume:	2900	tons or yds³

(if applicable)
Annual energy production:

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

II-7(b)

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Waste Reduction System (The Transfer Station)

County: Mason Location: Town: 19N Range: 17W Section(s): 10

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

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

___ Public X Private Owner: Ed Jabrocki

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:	NA	acres
Total area permitted:	NA	acres
Operating:	NA	acres
Not excavated:	NA	acres
Current capacity:	200	tons or yds^3 per day
Estimated lifetime:	NA	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:		tons or yds^3

(if applicable)
Annual energy production:

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

II-7(c)

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Landfill

Facility Name: Central Sanitary Landfill

County: Montcalm Location: Town: 11 Range: 10 Section(s): 21

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

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

___ Public X Private Owner: Allied Waste

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

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

foundry sand, asbestos

Site Size:

Total area of facility property:	315	acres
Total area sited for use:	40.32	acres
Total area permitted:	18.45	acres
Operating:	18.45	acres
Not excavated:	5.76	acres
Current capacity:	373,428	tons or yds^3
Estimated lifetime:	2	years
Estimated days open per year:	306	days
Estimated yearly disposal volume:	100,000	tons or yds^3

(if applicable)
Annual energy production:

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

II-7(d)

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

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

The county has two companies that provide adequate collection services throughout the county. The City of Ludington, Pere Marquette Charter Township and the City of Scottville contract with a licensed solid waste hauler for curbside pickup, including recycling materials and composting materials, within their municipal jurisdictions for residential solid waste.

Hamlin and Summit Townships provide their residents with transfer facilities for solid waste and recycling materials. These facilities are serviced by one of the licensed solid waste haulers. Residents in the remaining units of government have the option of contracting individually with waste haulers for the pickup of solid waste at their residence, taking their solid waste to the one privately owned transfer facility or to the landfill facilities.

Businesses and industry have the option of contracting with private enterprise for solid waste pickup including recycling materials.

The State Highways in Mason County are designated M-116, US 10 and US 31. There are 214.88 miles of county primary roads. There are 730.43 miles of county local roads that serve as a secondary collection system that feeds the primary and arterial networks. Over 351 miles of the county's primary and secondary system is paved. Most of the secondary system is two lane gravel- surfaced roadway. The state highways within the county are all-season routes. County roads are subject to seasonal load restrictions.

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

A. Lack of sufficient landfill facilities and solid waste haulers to foster a competitive market among private solid waste service providers.
B. Lack of sufficient volume and market discipline to financially sustain government owned solid waste facilities.
C. Lack of opportunities for rural segments of the county to recycle materials.
D. Lack of a landfill facility within the county boundaries.
E. Lack of a local market for recycled materials.

DATA BASE

DEMOGRAPHICS

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

Mason County	Year	Population
	1995	26,332
	2000	27,127
	2005	27,922
	2010	28,717
	2015	29,512
	2020	30,307
	2025	31,102

The City of Ludington, City of Scottville, Hamlin Township, Pere Marquette Charter Township and Amber Township are the population centers of the county. These areas represent the major areas of solid waste generation. The majority of the industrial generation is confined to the City of Ludington and industrial parks in both the City of Ludington and Pere Marquette Charter Township. It is projected that this trend will continue during both the five and ten year projections.

Population forecast source: West Michigan Regional Shoreline Development Commission, Mason County Comprehensive Plan

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.

Current and projected residential development show the majority of growth occurring in Hamlin, Amber, Pere Marquette and Branch Townships. Commercial growth is occurring primarily in the City of Ludington, along the waterfront, and along the US 10 corridor in Amber and Pere Marquette Townships. Industrial growth is situated in the industrial parks in both the City of Ludington and Pere Marquette Charter Township. It is projected that this trend will continue during both the five and ten year projections.

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES (attach additional pages as necessary)

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

Waste Reduction, pollution prevention

Alternative #1 is to continue the current system in which private industry makes decisions on the manufacturing or other processes that best serve their companies needs. The Solid Waste Planning Committee believes that local industry can best develop the functions that reduce the amount of waste created by their manufacturing and other processes. Increasing costs of solid waste disposal, including hazardous materials, will be their incentive to develop these functions.

Hazardous materials generated by general public would continue to be addressed by the Mason County Household Hazardous Materials Collection Day coordinated by AFFEW (A Few Friends for the Environment of the World and their Children) along with Dow Chemical Company, District Health Department No. 10, Mason County Department of Public Works and Michigan State University Extension.

Alternative #2 is to continue the current system in which private industry makes decisions on the manufacturing or other processes that best serve their companies needs. The Solid Waste Planning Committee believes that local industry can best develop the functions that reduce the amount of waste created by their manufacturing and other processes. Increasing costs of solid waste disposal, including hazardous materials, will be their incentive to develop these functions.

Hazardous materials generated by general public would be addressed by providing more frequent collection days for the citizens by contracting with private enterprises.

Alternatives #3 & #4 for Waste Reduction, pollution prevention are the same as Alternative #1.

Resource conservation

Alternative #1 is to request the County Board of Commissioners to spearhead lobbying efforts that would propose state and federal legislation that would decrease the amount of packaging used by private enterprises and to expand the current bottle and can deposit laws to include more items. In addition, educational programs would be implemented that would encourage the public to select products that require less packaging, to reduce the use of items that can't be recycled or reused and to recycle or reuse items whenever possible.

Alternative #2 would be to continue the current system of not addressing these issues directly with the public or state and federal legislators.

Alternatives #3 & #4 for Resource conservation are the same as Alternative #1.

Resource recovery

Alternative #1 would be to continue the current system of source separation of recycling, composting and solid waste materials. These separated materials are then transported to recycling and composting areas by a variety of methods. In more urban parts of the county, private haulers can be used to pick-up the materials at curbside and transport them to recycling and composting areas. In the more rural parts of the county, residents can bring the materials to a centralized location and the materials are then transported to recycling and composting areas, in bulk, by private haulers. Finally, county residents can take the materials directly to the recycling and composting areas.

Alternative #2 would be to develop a multi-county material recovery facility or MRF. The facility would separate the recycling, composting and solid waste materials on site. Processing of the mixed waste stream would include hand sorting, screening, gravity and magnetic separation. This would increase the amount of recycled materials recovered from the solid waste stream.

Alternatives #3 & #4 for Resource recovery are the same as Alternative #1.

Volume reduction

Alternative #1 would be to continue the current system where private haulers and landfill operators use compacting, baling and shredding equipment to reduce the amount of volume going into the landfill. This equipment is also used by private enterprise to decrease their volume of waste going into the waste stream.

Alternative #2 would be centralized the compacting and baling operations at a multi-county material recovery facility or MRF.

Alternative #3 is the same as Alternative #1.

Alternative #4 would be to develop a multi-county incinerator to reduce the volume of materials that would require landfilling.

Sanitary landfill

Alternative #1 would be to allow private operators to haul the counties solid waste to existing operating landfills in other counties that would agree to import waste from Mason County.

Alternative #2 would be to encourage private enterprise to develop, construct and operate a private landfill in Mason County.

Alternative #3 would be for the County of Mason to develop, construct and operate a public landfill in Mason County either by itself or in conjunction with neighboring counties.

Alternative #4 is the same as Alternative #1.

Collection processes and transportation

Alternative #1 would be to continue the current system of local units of governments contracting with private haulers to collect and transport solid waste, composting materials

and recycling materials. Various collection sites are also available for individuals to drop off these materials.

Alternative #2 would be for local units of government to directly provide the collection and transportation process.

Alternative #3 would be for local units of government to allow individuals to directly contract with various private haulers for the collection and transportation of solid waste, composting materials and recycling materials.

Alternative #4 is the same as Alternative #1.

Ultimate disposal area uses

Alternative #1 would be to allow limited access to current county disposal facilities that have been properly closed and maintained. Future private landfills would be encouraged to develop their facilities to the highest and best use that they determine as appropriate.

Alternative #2 would be to develop recreational or other potential uses at all disposal facilities once they have been properly closed and maintained.

Alternatives #3 & #4 are the same as Alternative #1.

Institutional arrangements

Alternative #1 would be to continue the current system of local units of government arranging the necessary agreements and organizational arrangements and structures which provide for public and/or private operation of solid waste collection, processing and disposal within their jurisdictions. The County of Mason would continue to arrange the inter county agreements that allow solid waste material to be imported and exported into and out of Mason County.

Alternative # 2 would be for local units of government to authorize the County of Mason to assume the authority to arrange the necessary agreements and organizational arrangements and structures which provide for public and/or private operation of solid waste collection, processing and disposal within their jurisdictions thereby centralizing solid waste jurisdiction at the county level.

Alternatives #3 & #4 are the same as Alternative #1.

Recycling and composting programs

Alternative #1 would be to continue the current system of local units of government and non profit organizations providing recycling and composting programs to the citizens within their jurisdictions. The County of Mason would encourage programs that provide incentives for recycling. Currently, Lakeshore Enterprises provides a Trash to Cash program in Manistee and Benzie Counties. This program provides an opportunity for student and community groups to conduct paper drives as a community service and to earn money. Teachers are encouraged to integrate the program into their environmental curriculum. The program heightens public and student knowledge about the benefits of recycling. The County will support Lakeshore Enterprises' goal of expanding their program into Mason County. This support will include assisting Lakeshore in bringing the necessary

partners to the table to evaluate the interest in the program and to provide public education assistance.

Alternative #2 would be for the County of Mason to provide recycling and composting programs to the citizens of townships not currently providing these services.

Alternative #3 would be for local units of government to authorize the County of Mason to assume the authority of providing recycling and composting programs to the citizens within their jurisdictions thereby centralizing recycling and composting jurisdiction at the county level.

Alternatives #3 & #4 are the same as Alternative #1

Evaluation and selection of selected system

The Mason County Solid Waste Management Planning Committee discussed the disposal methods currently being employed in Mason County. In developing the solid waste management alternatives, the following areas were considered: waste reduction, pollution prevention, resource conservation, resource recovery, volume reduction, sanitary landfills, collection processes and transportation, ultimate disposal are uses, institutional arrangements, recycling and composting programs. Alternatives were developed for each area considered above essentially, the following general alternatives were developed:

Alternative #1 is the selected system and reflects the use of private landfills and much of the current system. It was selected because the committee felt that the free enterprise system was the most cost effective way to manage the solid waste generated by the residents and businesses of Mason County.

Alternative #2 is a system that would have primarily relied on a multiple county approach with a solid waste material recovery facility to manage the solid waste generated by the residents and businesses of Mason County.

Alternative #3 is a system that would have primarily relied on a county owned landfill to manage the solid waste generated by the residents and businesses of Mason County.

Alternative #4 is a system that would employ an incinerator and/or a waste-to-energy facility to manage the solid waste generated by the residents and businesses of Mason County.

The Mason County Solid Waste Management Planning Committee evaluated the alternatives on the basis of cost impact to the residents of Mason County, the political acceptability of the alternatives and practical considerations.

Based on this evaluation, the Mason County Solid Waste Management Planning Committee chose Alternative #1 as the selected system, with Alternative #3 ranked next, Alternative #2 ranked third and Alternative #4 as the least desired alternative to manage the solid waste generated by the residents and businesses of Mason County.

THE SELECTED SOLID WASTE

MANAGEMENT SYSTEM

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

The Selected System for Solid Waste Management in Mason County addresses the proper collection and disposal of solid waste generated by residences , commercial and industrial establishments and agricultural uses. This system uses a combination of public and private initiatives to reduce the risks to public health and to educate the public on the benefits of proper disposal of solid waste, composting, reuse, recycling and reducing waste by selecting items that use minimum packaging. Collection of the solid wastes will be managed by licensed private waste haulers contracted by a combination of local units of government, owners of businesses and industry and on an individual basis by homeowners. These collections will include both curbside collections and drop off sites. Public health, MDEQ, state and county laws and Michigan Department of Transportation regulations will prescribe law enforcement mechanisms for Mason County.

Solid waste will be transported by private licensed solid waste haulers to an approved licensed landfills willing to accept waste from Mason County. Michigan Department of Transportation rules related to the proper maintenance of equipment and correct handling of solid waste on highways will be followed. Primary roads serving any future landfills in Mason County will be paved all-weather, class A roads. Mason County Road Commission will determine the criteria for these roads.

For the near term, these approved licensed landfills will be located outside of the county. The county will establish landfill siting criteria that will encourage the private construction of approved licensed landfills while maintaining public health and environmental integrity. Private investors in solid waste facilities will be encouraged to include recycling, composting and hazardous material collection programs at their facilities.

The continuation of current recycling, composting and hazardous material collection programs will be encouraged and new programs will be explored. Additional education programs will be implemented. MSU Extension and the Mason Lake Conservation District provides county residents with informational pamphlets concerning individual composting and recycling. Thus, Alternative #1 has been selected as the selected system for Mason County.

IMPORT AUTHORIZATION

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

Table 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Presently no licensed solid waste disposal area is operating within the County.					

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

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

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

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

Table 1-B

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

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Mason	Ionia	Any Future Site	100%	100%	P
Mason	Lake	Any Future Site	100%	100%	P
Mason	Manistee	Any Future Site	100%	100%	P
Mason	Newaygo	Any Future Site	100%	100%	P
Mason	Oceana	Any Future Site	100%	100%	P
Mason	Ottawa	Any Future Site	350 yds.^{3}	125,000 yds.^{3}	P
Mason	Washtenaw	Any Future Site	350 yds.^{3}	125,000 yds.^{3}	C

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

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

[2] **Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.** Primary Disposal refers to those facilities within Counties that are authorized to import or export waste with Mason County. Contingency Disposal refers to those facilities within Counties that are authorized to import or export waste with Mason County only when primary disposal facilities do not provide adequate capacity to meet the 66 month capacity requirements.

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

Table 1-B

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

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Mason	Benzie	Any Future Site	100%	100%	P
Mason	Osceola	Any Future Site	100%	100%	P
Mason	Montcalm	Any Future Site	360 yds.	125,000 yds.	P

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

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

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section. See page 32 for the definition of Primary Disposal and Contingency Disposal.

EXPORT AUTHORIZATION

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

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Mason	Ionia	Pitsch Sanitary Landfill	100%	100%	P
Mason	Manistee	Manistee Co. Landfill	100%	100%	P
Mason	Ottawa	Autumn Hills Recycling & Disposal Facility	350 yds.	125,000 yds.^{3}	P
Mason	Ottawa	Ottawa Co. Farms Landfill	350 yds.	125,000 yds.^{3}	P
Mason	Washtenaw	Arbor Hills Landfill	350 yds.	125,000 yds.^{3}	C
Mason	Montcalm	Central Sanitary	350 yds.	125,000 yds.^{3}	P

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

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

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section. See page 32 for the definition of Primary Disposal and Contingency Disposal.

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

Table 2-B

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

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Mason	Lake	Any Future Site	100%	100%	P
Mason	Newaygo	Any Future Site	100%	100%	P
Mason	Oceana	Any Future Site	100%	100%	P
Mason	Benzie	Any Future Site	100%	100%	P
Mason	Osceola	Any Future Site	100%	100%	P

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

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

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section. See page 32 for the definition of Primary Disposal and Contingency Disposal.

SOLID WASTE DISPOSAL AREAS

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the next five years and, if possible, the next ten years. Pages 37 through 45 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:

Central Sanitary Landfill in Montcalm County

Manistee County Landfill in Manistee County

Pitsch Sanitary Landfill in Ionia County

Autumn Hills Recycling & Disposal Facility in Ottawa County

Ottawa County Farms Landfill in Ottawa County

Arbor Hills Landfill in Washtenaw County

Type III Landfill:

None

Incinerator:

None

Waste-to-Energy Incinerator:

None

Type A Transfer Facility:

None

Type B Transfer Facility:

Waste Reduction System

Hamlin Township, Summit Township

Processing Plant:

None

Waste Piles:

None

Other:

None

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Manistee County Landfill, Inc., owned by Allied

County: Manistee Location: Town: 21N Range: 16W Section(s): Stronach Municipa Township

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

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

___ Public X Private Owner: Allied Inc.

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

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

Asbestos, Foundry Sand

X Site Size:

Total area of facility property:	336	acres
Total area sited for use:	160	acres
Total area permitted:	40	acres
Operating:	5	acres
Not excavated:	25	acres
Current capacity:	1,700,000	tons or yds^3
Estimated lifetime:	14	years
Estimated days open per year:	250	days
Estimated yearly disposal volume:	200,000	tons or yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	0	megawatts
Waste-to-energy incinerators:	0	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Landfill Type II

Facility Name: Pitsch Sanitary Landfill

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

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

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

___ Public X Private Owner: Pitsch Companies

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

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

Street Sweepings, Asbestos

Site Size:			Proposed Expansion* 1
Total area of facility property:	143.5	acres	
Total area sited for use:	28.36	acres	41.28 acres
Total area permitted:	78.44	acres	
Operating:	9.87	acres	
Not excavated:	70	acres	
Current capacity:	415,000	tons or yds^3	4,500,000 yds
Estimated lifetime:	5	years	22 years
Estimated days open per year:	307	days	
Estimated yearly disposal volume:	83,000	tons or yds^3	

(if applicable)
Annual energy production:

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

*Year of planned expansion

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Solid Waste Landfill/Processing Plant

Facility Name: Autumn Hills Recycling & Disposal Facility

County: Ottawa Location: Town: 5N Range: 14W Section(s): 36

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

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

___ Public X Private Owner: Autumn Hills RFD - A Division or Waste Management of Michigan, Inc.

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

* Explanation of special wastes, including a specific list and/or conditions: exhausted oak wood trays, minor first aid waste, contaminated pharmaceuticals manufacture, paint booth filters, dewatered waste water treatment sludge, out of spec/out of date food supplements, spent epoxy powder coatings, sand blasting sand, woodchips/dust from production, shot blast, construction and demolition materials, foundry sand, filter press cake, incinerator ash, saw dust, contaminated soils, auto fluff, asbestos, grinding sludge, carwash sand pit/traps, and food materials.

Site Size:

Total area of facility property:	314	acres
Total area sited for use:	197	acres
Total area permitted:	99.3	acres
Operating:	35.1	acres
Not excavated:	64.2	acres
Current capacity:	20.75 mil	tons or yds^3
Estimated lifetime:	30.2	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	500,000	tons or yds^3

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Ottawa County Farms Landfill

County: Ottawa Location: Town: 8N Range: 14W Section(s): 26 & 27

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

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

___ Public X Private Owner: Allied Waste Systems

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

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

Site Size:

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

(if applicable)
Annual energy production:

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

III-10

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Sanitary Landfill, Type II

Facility Name: Arbor Hills Landfill

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

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

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

X Public ____ Private Owner: BFI Waste Systems of North America, Inc.

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

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

Non-Hazardous Solid and Semi-Solid Wastes, No Hazardous or Liquid Wastes

Site Size:

Total area of facility property:	936	acres
Total area sited for use:	356	acres
Total area permitted:	217	acres
Operating:	113	acres
Not excavated:	104	acres
Current capacity:	30,500,000	tons or yds³ Airspace or 61.5 Million cubic yds. of capacity
Estimated lifetime:	17.6	years
Estimated days open per year:	265	days
Estimated yearly disposal volume:	3,500,000	tons or yds³

(if applicable)
Annual energy production:

Landfill gas recovery projects:	18	megawatts
Waste-to-energy incinerators:		megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Hamlin Township Transfer Facility

County: Mason Location: Town: 18-19N Range: 18W Section(s): 27

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

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

X Public ____ Private Owner: Hamlin Township

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:		acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Current capacity:	60	tons or yds^3
Estimated lifetime:		years
Estimated days open per year:	130	days
Estimated yearly disposal volume:	1600	tons or yds^3

(if applicable)
Annual energy production:

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

III-11(A)

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Summit Township Transfer Site

County: Mason Location: Town: 17N Range: 18-17W Section(s): 26

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

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

X Public ____ Private Owner: Summit Township

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

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

Site Size:

Total area of facility property:	2	acres
Total area sited for use:	2	acres
Total area permitted:	NA	acres
Operating:	NA	acres
Not excavated:	NA	acres
Current capacity:	52	tons or yds^3
Estimated lifetime:		years
Estimated days open per year:	144	days
Estimated yearly disposal volume:	2900	tons or yds^3

(if applicable)
Annual energy production:

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

III-11 (b)

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Station

Facility Name: Waste Reduction System (The Transfer Station)

County: Mason Location: Town: 19N Range: 17W Section(s): 10

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

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

___ Public X Private Owner: Ed Jabrocki

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

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

Site Size:

Total area of facility property:	10	acres
Total area sited for use:	NA	acres
Total area permitted:	NA	acres
Operating:	NA	acres
Not excavated:	NA	acres
Current capacity:	200	tons or yds^3 per day
Estimated lifetime:	NA	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:		tons or yds^3

(if applicable)
Annual energy production:

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

III-11 (c)

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Landfill

Facility Name: Central Sanitary Landfill

County: Montcalm Location: Town: 11 Range: 10 Section(s): 21

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

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

___ Public X Private Owner: Allied Waste

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

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

foundry sand, asbestos

Site Size:

Total area of facility property:	315	acres
Total area sited for use:	40.32	acres
Total area permitted:	18.45	acres
Operating:	18.45	acres
Not excavated:	5.76	acres
Current capacity:	373,428	tons or yds³
Estimated lifetime:	2	years
Estimated days open per year:	306	days
Estimated yearly disposal volume:	100,000	tons or yds³

(if applicable)
Annual energy production:

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

III-11 (d)

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

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

The county has two companies that provide adequate collection services throughout the county. The City of Ludington, Pere Marquette Charter Township and the City of Scottville contract with a licensed solid waste hauler for curbside pickup, including recycling materials and composting materials, within their municipal jurisdictions for residential solid waste.

Hamlin and Summit Townships provide their residents with transfer facilities for solid waste and recycling materials. These facilities are serviced by one of the licensed solid waste haulers. Residents in the remaining units of government have the option of contracting individually with waste haulers for the pickup of solid waste at their residence, taking their solid waste to the one privately owned transfer facility or to the landfill facilities.

Businesses and industry have the option of contracting with private enterprise for solid waste pickup including recycling materials.

The State Highways in Mason County are designated M-116, US 10 and US 31. There are 214.88 miles of county primary roads. There are 730.43 miles of county local roads that serve as a secondary collection system that feeds the primary and arterial networks. Over 351 miles of the county's primary and secondary system is paved. Most of the secondary system is two lane gravel- surfaced roadway. The state highways within the county are all-season routes. County roads are subject to seasonal load restrictions.

RESOURCE CONSERVATION EFFORTS:

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

Effort Description	Est. Diversion Tons/Yr		
	Current	5th yr	10th yr
Promote the Reuse of Products	*	*	*
Promote the Reduction of Materials used for Packaging	*	*	*
Promote the use of Recycled Products	*	*	*
Promote the Expansion of Container Deposit Laws	*	*	*
Commercial, Drop-off and Curbside Recycling	1,776	1,864	1,957
Yard Waste Collection	500	525	550
Hazardous Waste Collection	2.5	2.5	2.5
* No Data			

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

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

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

Technique Description	Est. Air Space Conserved Yds^3/Yr		
	Current	5th yr	10th yr
Promote City and Township Composting Programs	1,000	1,050	1,100
Continue Commercial & Industrial Compaction of Solid Waste	*	*	*
* No Data			

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

Overview of Resource Recovery Programs:

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

An estimate of total waste generated in Mason County was calculated using pounds per person per day (residential) and pounds per employee per day (commercial and industrial) models. This estimate was compared to actual waste generation numbers to arrive at a final generation figure. Projected waste generation was then calculated using population projections for the ten year planning period. The Solid Waste Planning Committee evaluated actual recovery rates for the current system against targeted state recovery goals (15 percent for 2003 and 25 percent for 2008). The Committee then identified recycling and composting programs that private and public entities in Mason County could implement to reach the targeted state recovery goals.

- ☒ Recycling programs within the County are feasible. Details of existing and planned programs are included on the following pages.
- ☐ Recycling programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

Residential Curbside Recycling Collection

Current curbside recycling programs provided by the City of Ludington, Pere Marquette Charter Township and the City of Scottville would be continued. The more densely populated areas of the remaining townships and villages would be encouraged to evaluate the effectiveness and efficiency of adding curbside recycling programs. In municipalities that do not provide government sponsored curbside recycling programs, subscription curbside recycling would be available to residents that were willing to purchase the service directly from area haulers.

Government Sponsored Residential Drop off Recycling Collection

Current residential drop off recycling programs provided by Summit and Hamlin Townships would be continued. Other townships would be encouraged to evaluate the effectiveness and efficiency of adding residential drop off recycling sites in their individual townships or jointly on a multiple entity basis.

Private Recycling Drop-off Collection

The development of privately owned recycling drop-off collection sites will be encouraged. The success of the current network of private recycling enterprises will provide the groundwork for expanded recycling opportunities for Mason County residents in the future.

Commercial Recycling Collection

Businesses will be encouraged to continue their commercial recycling programs. Coordination of collection will be encouraged to promote efficiency and maximize marketing opportunities. Businesses using recycling materials as part of their operations will be encouraged to expand these efforts and to share their successes with other businesses through various advocacy groups within the county. Recycling materials and using materials in their operations that replace virgin raw materials present an opportunity for businesses to reduce costs and reinforce their standings as good stewards of the environment.

Recycling Incentives

The Committee would encourage programs that provide incentives for recycling. Currently, Lakeshore Enterprises provides a Trash to Cash program in Manistee and Benzie Counties. This program provides an opportunity for student and community groups to conduct paper drives as a community service and to earn money. Teachers are encouraged to integrate the program into their environmental curriculum. The program heightens public and student knowledge about the benefits of recycling. The Committee will support Lakeshore Enterprises' goal of expanding their program into Mason County. This support will include assisting Lakeshore in bringing the necessary partners to the table to evaluate the interest in the program and to provide public education assistance.

Marketing of Recyclables

The marketing of recyclables in Mason County will continue to be performed by the private waste haulers.

Waste Oil Recycling

Waste oil recycling and the patronage of establishments that change and recycle oil will be encouraged.

Governmental Funding Opportunities

The county will provide lobbying leadership to encourage the state government to resume funding of their solid waste planning initiatives. Funding of innovative recycling, composting and waste reduction programs must be restored to provide the seed money to create programs that allow for the targeted state recovery goals to be realized. Both local units of government and private businesses should be eligible for funding. The restoration of funding incentives will reestablish the state's commitment to reducing the volume of waste going to landfills. Local units of government will follow the state's renewed commitment and provide local match funding.

Support of Legislation

The county will provide lobbying leadership to encourage the state government to expand the current bottle and can deposit laws to include a larger population of containers. The county will also support legislation that encourages the reduction of excessive packaging materials.

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

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

Residential Yard Waste Composting

Continuation of current fall leaf collection will be encouraged. The continuation of current drop off sites will be encouraged. The establishment of fall leaf collection programs and drop off sites will be encouraged in all densely populated villages/townships/cities. Backyard composting would be encouraged through a program providing backyard composting bins at a discounted rate. Plans for the construction of backyard composting bins would be made available. An education program about the benefits of mulching mowers would encourage grass recycling.

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

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

Household Hazardous Waste Collection Services

Current annual household hazardous waste collection services will be continued. The creation of a collection service for small quantities of agricultural pesticides and herbicides will be encouraged.

Recycling and Composting

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis, the tables on pages 53, 54, & 55 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages 56, 57, & 58 list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

The Solid Waste Management Planning Committee has determined that it is feasible for all items, discussed in sections III-15 & III-16, to be implemented.

SELECTED SYSTEM

TABLE III-1

RECYCLING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
City of Ludington	City of Ludington	Public	C	W	ABCDEF	City Government		
Pere Marquette Charter Township	Pere Marquette Charter Township	Public	C	W	ABCDEF	Township Government		
City of Scottville	City of Scottville	Public	C	B	ABCDEF	City Government		
Summit Township	Summit Township	Public	D	W	ABCDEF	Township Government		
Hamlin Township	Hamlin Township	Public	D	W	ABCDEF	Township Government		

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

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

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

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

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

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

TABLE III-2

COMPOSTING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
City of Ludington Dropoff	City of Ludington	Public	D	D	GLW	City	Government	
Annual Christmas Tree Collection	Mason County	4	D	WI	W	4	4	4
City of Ludington Leaf Pick Up	City of Ludington	Public	C	D, FA	L	City Government		
City of Scottville Leaf Pick Up	City of Scottville	Public	C	D, FA	L	City Government		

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

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

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

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

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

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

TABLE III-3

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

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

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
Mason County Household Hazardous Materials Collection Day	Mason County	3,4,6	D	Su	AE,A,AN C,P,PS	3,4,6	3,4,6	3,4,6
Mason County District Library	Mason County	6	D	D	B2, OT	6	6	6
Padnos Iron & Metal	Mason County	5	D	D	B1	5	5	5
Qualify Farm & Fleet	Mason County	5	D	D	B1	5	5	5
Briggs True Value	Mason County	5	D	D	B2, OT	5	5	5
Wal-Mart	Mason County	5	D	D	AN,BI,U	5	5	5
Nichols Drug Store	Mason County	5	D	D	B2,OT	5	5	5

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

OT=Empty Printer Cartridges

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

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

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

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

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

TABLE III-4

PROPOSED RECYCLING:

Program Name (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
Trash to Cash	Mason County	1	D	M	B	6	6	6

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

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

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

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

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

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

TABLE III-5

PROPOSED COMPOSTING:

Program Name, (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
No Future Proposed Additional Composting At This Time.								

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

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

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

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

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

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

TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Program Name, (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
No Future Proposed Additional Programs At This Time.								

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

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

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

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

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

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

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

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

Environmental Groups:

AFFEW (A Few Friends for the Environment of the World and their Children) is the only environmental group in Mason County actively involved with recovery or recycling. AFFEW holds an annual tree recycling program for the residents of the Cities of Ludington and Scottville. They also coordinate the Mason County Household Hazardous Materials Collection Day along with Dow Chemical Company, District Health Department No. 10, Mason County Department of Public Works and Michigan State University Extension. AFFEW would continue to provide information in local media about recycling and reuse opportunities.

Other:

City of Ludington contracts with private waste haulers to provide curbside recycling service to city residents.

City of Scottville contracts with private waste haulers to provide curbside recycling service to city residents.

Pere Marquette Charter Township contracts with private waste haulers to provide curbside recycling service to township residents.

Hamlin Township contracts with private waste haulers to provide drop off site recycling service to township residents.

Summit Township contracts with private waste haulers to provide drop off site recycling service to township residents.

Independent haulers are offering curbside recycling throughout the county.

Lakeshore Enterprises will be encouraged to expand their newspaper collection recycling program into Mason County. They will also provide educational programs to county school districts.

MSU Extension and the Mason Lake Conservation District provides county residents with informational pamphlets concerning individual composting and recycling.

Mason County District Library provides a location for the recycling of empty printer cartridges and the collection of household batteries.

COMPOSTING:

The City of Ludington provides a compost area for city residents to use. In addition, the Cities of Ludington and Scottville and Pere Marquette Charter Township pick up compostible materials curbside.

Commercial Groups:

Great Lakes Castings - Internal waste reduction, use of external waste materials in manufacturing process, (scrap steel and used oil), privately owned

Dow Chemical Company - Internal waste reduction, hazardous material program, privately owned

Padnos Iron & Metal - recycling of metals and the collection of lead acid batteries, privately owned

Towns Brothers Construction - reuse of concrete, brick or cement materials

Pallet Recycle, Inc. - recycling of wood pallets, privately owned

Nichols Drug Store - recycling empty printer cartridges and the collection of household batteries, privately owned

Quality Farm & Fleet - collection of lead acid batteries, privately owned

Briggs True Value - recycling empty printer cartridges and the collection of household batteries, privately owned

Wal-Mart - the collection of used oil, antifreeze and lead acid batteries, privately owned

PROJECTED DIVERSION RATES:

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

Collected Material	Current	5th Year	10th Year
Residential Plastic, Tin, Glass	168 Tons	176 Tons	185 Tons
Residential Mixed Paper\OCC	540 Tons	567 Tons	595 Tons
Commercial Mixed Paper\OCC	1,068 Tons	1,121 Tons	1,177 Tons
Other Materials	1,450 Tons	1,520 Tons	1,600 Tons
Total Wood Waste	660 Tons	690 Tons	725 Tons
Food & Food Processing	1,300 Tons	1,370 Tons	1,440 Tons
Grass and Leaves	500 Tons	525 Tons	550 Tons
Tires	260 Tons	270 Tons	280 Tons
Total Metals	1,100 Tons	1,160 Tons	1,210 Tons

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

Collected Material	In-State Markets	Out-of-State Markets
Residential Plastic, Tin, Glass	100%	
Residential Mixed Paper\OCC	100%	
Commercial Mixed Paper\OCC	100%	
Other Materials	100%	
Total Wood Waste	100%	
Food & Food Processing	100%	
Grass and Leaves	100%	
Tires	100%	
Total Metals	100%	

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

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

Program Topic[1]	Delivery Medium[2]	Targeted Audience[3]	Program Provider[4]
1,2,3	N	P	A Few Friends For The Environment of the World and Their Children
1	W	S	Lakeshore Enterprises
1,2	F	P	MSU Extension
1,2	F	P	Mason Lake Conservation District

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

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

[3] Identified by p = general public; b = business; i = industry; s = students with grade levels listed. In addition if the program is limited to a geographic area, then that county, city, village, etc. is listed.

[4] Identified by EX = MSU Extension; EG = Environmental Group (Identify name); OO = Private Owner/Operator (Identify name); HD = Health Department (Identify name); DPA = Designated Planning Agency; CU = College/University (Identify name); LS = Local School (Identify name); ISD = Intermediate School District (Identify name); O = Other which is explained.

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

METABLE FOR SELECTED SYSTEM IMPLEMENTATION

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

TABLE III-7

Management Components	Timeline
Waste Reduction, pollution prevention	On-Going
Resource Conservation	On-Going
Resource Recovery	On-Going
Volume Reduction	On-Going
Sanitary Landfill	On-Going
Collection processes and transportation	On-Going
Ultimate disposal area uses	On-Going
Institutional Arrangements	On-Going
Recycling and Composting programs - Current	On-Going
Recycling and Composting programs - Additional	2000 - 2001
Educational and Informational Programs - Current	On-Going
Educational and Informational Programs - Additional	2000 - 2001

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

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

SITING CRITERIA AND PROCESS

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

A. SITING CRITERIA FOR NEW SOLID WASTE DISPOSAL FACILITIES IN MASON COUNTY

This section presents Mason County's siting criteria for solid waste disposal facilities and explains the process for evaluating proposed sites for consistency with the Solid Waste Management Plan. The criteria are designed to ensure that County solid waste management goals and objectives are achieved. In developing these criteria, several major factors have been considered:

1. Long-range (10-year) disposal capacity has not been documented to be available at specific sites. To meet the long-range planning requirements of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), these criteria are to be used to determine suitable sites for needed disposal facilities, whether publicly or privately owned and operated.

2. The criteria are intended to provide a reasonable, objective basis of evaluating potential sites so that needed facilities can be developed in a manner which will minimize negative environmental impacts and community disruptions.

3. The criteria are intended to avoid arbitrary or discriminatory actions which would prevent the establishment of needed facilities. Instead, the siting process has been designed to ensure that valid local concerns and special local resources are adequately considered.

4. The criteria do not eliminate the need for site-specific investigations and the preparation of detailed hydrogeological studies and engineering plans which must be approved by the Michigan Department of Environmental Quality in issuing construction permits.

5. Relationship to 66 months disposal capacity requirement: The standards specified in this plan update must be strictly applied to any proposed facility if

the County does not already have 66 months documented disposal capacity. In this case, any proposed facility offering needed capacity must be found consistent with the Plan if it meets the criteria. On the other hand, if the County has 66 months of disposal capacity available for all waste in the County as demonstrated by this Plan when the service area authorized by the Plan is taken into account, then this Plan does not require the construction of any solid waste disposal facility.

If 66 months capacity is already adequately documented, the County may refuse to utilize its siting mechanism until the County is no longer able to demonstrate 66 months of capacity.

Some of Mason County's siting criteria are specified in Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Other criteria relate to local concerns and special resources of Mason County. The criteria are divided into two categories: primary criteria and secondary criteria.

Primary criteria represent minimum requirements and cannot be compromised. Secondary criteria require a technical review process before a recommendation on a particular site can be made. The review process is explained later, following descriptions of the intent and nature of the criteria used.

Primary Landfill Siting Criteria

1. Minimum Isolation Distances

   a. The active work area for new sanitary landfills or expansions to existing sanitary landfills shall not be located closer than 500 feet to adjacent road rights-of-way, adjacent property lines, lakes of 5 acres or more, navigable rivers or streams, or existing domiciles.

   b. A sanitary landfill shall not be constructed within 10,000 feet of a runway of an airport licensed by the Michigan Aeronautics commission.

   c. The active fill area shall not be located within 2,000 feet upgradient of any public or private water supply well, or within 1,000 feet downgradient or lateral to a public water supply well, as regulated under 1976 PA 399, the Safe Drinking Water Act; or within 800 feet downgradient or lateral to a private water supply well.

2. Floodplains, Wetlands, Shorelands and Groundwater Recharge Areas

   A sanitary landfill shall not be located in the one hundred year floodplain of any watercourse as defined by Rule 323.311 of the administrative rules of Part 31, Water Resources Protection, of Act 451 and wetlands regulated by Part 303, Wetlands Protection, of Act 451. These sensitive sites are not suitable locations for landfills since they are subject to severe wetness and flooding and serve important functions in terms of groundwater recharge, fish and wildlife habitat, and vegetative cover. A facility shall not be located in a environmental area as defined in part 323, Shorelands Protection and Management, of Act 451, or in areas of unique habitat as defined by the Department of Natural Resources, Natural Features Inventory. A facility shall not

be located in an area of groundwater recharge as defined by the United States Geological Survey or in a wellhead protection area as approved by the Michigan Department of Environmental Quality.

3. Part 361, Farmland and Open Space Preservation, of Act 451 Agricultural Lands

Siting of proposed landfills on land already enrolled under the Part 361, Farmland and Open Space Preservation, of Act 451, shall be considered inconsistent with the County Plan. Such action would constitute a non-agricultural use of designated Part 361, Farmland and Open Space Preservation, of Act 451 lands and is prohibited by legally binding agreements between the owners and the State.

4. Historic and Archaeological Areas

The site shall not be located in a designated historic or archaeological area as defined by the State Historic Preservation officer (SHPO).

5. Maximum Number of Operating Sanitary Landfills

a. Only one Type II facility will be allowed to operate in Mason County at one time unless the County has less than 66 months of disposal capacity available under the Plan. Additional disposal facilities may be sited until such time that the aggregate capacity for Mason County of all available primary disposal facilities is 20 years or more. At the time a new site is proposed, remaining capacity shall be determined by the quantity of waste which is accepted under normal conditions from the service area identified in the Solid Waste Management Plan.

b. The condition described in 5a. shall not apply if a landfill with remaining capacity permanently ceases operation for any reason.

6. Operational requirements

The facility developer shall submit a statement agreeing to the following operational requirements. If the developer does not agree to these requirements the facility shall not be considered consistent with this Plan.

Provide the following data at least annually to the County Solid Waste Planning Agency:

a. The area and volume the landfill is expected to occupy when it reaches capacity based on the service area and waste volumes allowed by this Plan;

b. An estimate of the time it is expected to take to reach capacity based on the waste stream indicated above.

c. Provide <u>semi-annually</u> the average quantity of waste being received on a daily basis itemized by in-county and out-of-county sources by county; the estimated remaining time for continued landfill operation in terms of quantity of waste, cubic yards of landfill space and years.

7. Accessibility

a. A potential site must have direct access to an all-weather "class A" road to accommodate heavy truck traffic generated at the site. If a proposal for a disposal facility includes or assumes year-round traffic to off-site sources of cover material, the proposal must include all-season road access provisions for this function. If a solid waste disposal facility proposal includes upgrading a road to all-season status, the design and construction must conform to the current standards of the American Association of State Highways and Transportation Officials (AASHTO), as set forth in Design Guidelines, ASHTO Interim Structural Pavement Design Procedure, Adopted for All Season Roads (revision of January 1989, or a later revision if issued). A proposal will be found consistent with the road access requirement of the Plan if it contains a written statement agreeing to upgrade direct access roads to all-season "class A" standards based on AASHTO specifications as cited here, at no direct charge to county, road commission or local governments. A 66-foot easement recorded on the deed of a land-locked parcel qualifies as having road frontage, but does not negate the necessity for the access road to be of all-season construction. Said upgrade to all-season "class A" standards must be completed prior to the start of construction of the disposal facility. Sites lacking direct access to an all-weather "class A" road to accommodate heavy truck traffic is <u>inconsistent</u> with this Plan.

b. Access to the site shall not be directly through a residential area for which the roads were constructed primarily for local passenger vehicle traffic. If the only access to the site entrance is by such residential roads the proposal is <u>inconsistent</u> with this Plan.

8 Proposed Disposal Capacity

A potential site shall provide sufficient capacity to meet the disposal needs of the county for the next 20 years. The proposed site will be located on a minimum of 320 acre parcel to be consistent with this Plan. If a decision is made to accept waste from several counties, the required disposal area will increase accordingly.

9. Local Ordinances

A potential site shall conform with county and/or local zoning ordinances to the extent they are provided for in this Plan on page 83. A proposed site must be located in an area that is zoned for agricultural or industrial uses.

10. Compliance with Adopted Master Plans

A potential site shall conform to master land use plans adopted by the host community or county. If no area is specifically planned for waste disposal uses, a proposed site should be located in an area that is planned for agricultural or industrial uses. Master Plans are available from the County of Mason, City of Ludington, City of Scottville, Pere Marquette Charter Township and Amber Township.

11. Site Landscaping and Screening

Landscaping, composed of shrubbery and trees, shall be provided and maintained to beautify the view of the landfill. The landscaping must be of sufficient maturity and density to serve as an effective sight barrier. Such barriers shall consist of the following: plantings of evergreen trees, in staggered rows parallel to the boundaries of the property. Evergreens shall be at least two-year transplants at the time of planting, and shall grow to not less than fifteen (15) feet in height, and shall be sufficiently spaced to provide effective sight barriers when fifteen (15) feet in height. Trees and shrubs which die must be replaced according to the previously described standards during the next growing season.

12. Federal or State of Michigan owned Lands

Solid waste disposal facilities shall not be located or permitted to expand on land owned by the United States of America or by the State of Michigan. Except as specified here, such sites are inconsistent with this Plan. Disposal areas can be located on State land only if both of the following conditions are met:

a. Thorough investigation and evaluation of the proposed site by the facility developer indicates to the satisfaction of the DEQ that it is suitable for such use.

b. The State determines that the land may be released for landfill purposes and the facility developer acquires the property in fee title from the State in accordance with State requirements for such acquisition.

13. Importation Authorization

Solid waste disposal facilities shall be authorized to import waste from counties specifically mentioned on pages 32 & 33. Solid waste disposal facilities shall not be authorized to import waste from Michigan counties that are not specifically mentioned on pages 32 & 33.

Secondary Siting Criteria

As previously mentioned, the secondary criteria provide additional standards for evaluating potential landfill sites. The secondary criteria are designed to be used in a site scoring system as a means of objectively evaluating a proposed site. The site scoring system is used to measure how well a potential site meets each of the established criteria. This method involves assigning point values to a proposed site for each of the criteria. The result of this process is a total score for the site. The scoring system is explained in greater detail later in this section. First, the secondary siting criteria are described in general below.

1. Natural Site Characteristics

The facility developers are encouraged to use natural clay sites that meet all Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), requirements for a natural site. Site proposals that contain a site that meets all Part 115 requirements for a

natural site will score ten (10) points. Sites that do not meet all Part 115 requirements will score zero (0) points.

2. Isolation from Residential Development

Potential landfill sites should be in areas which allow the establishment of substantial buffer zones between the proposed landfill and adjacent properties and residential dwellings, minimum isolation distances, as specified in Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), have been established in the primary siting criteria. The secondary criteria go further in encouraging the maximum degree of isolation possible. Point values will be assigned based on the number of dwelling units within a one mile radius of the proposed site. The radius shall be measured from the property lines of the site. Site proposals that have less than ten (10) dwelling units within a one (1) mile radius of the site will score fifteen (15) points. Site proposals that have more than nine (9) but less than twenty-five (25) dwelling units within a one (1) mile radius of the site will score ten (10) points. Site proposals that have more than twenty-four (24) but less than fifty (50) dwelling units within a one (1) mile radius of the site will score five (5) points. Site proposals that have more than fifty (50) dwelling units within a one (1) mile radius of the site will score zero (0) points.

3. Isolation of Public Water Supplies

Ideally, a proposed site will be well isolated from public water supplies. In this siting procedure, a site that has a 5000 foot or greater isolation from public water supply wells will score ten (10) points. A site that has a 2500 foot or greater but less than 5000 foot isolation from public water supply wells will score five (5) points. A site that has less than a 2500 foot isolation from public water supply wells will score zero (0) points.

4. Isolation of Private Water Supplies

Ideally, a proposed site will be well isolated from private water supplies. In this siting procedure, a site that has a 2500 foot or greater isolation from private water supply wells will score ten (10) points. A site that has a 1500 foot or greater but less than 2500 foot isolation from private water supply wells will score five (5) points. A site that has less than a 1500 foot isolation from private water supply wells will score zero (0) points. Individual domestic wells are also protected indirectly by a required minimum isolation distance from residences.

5. Adjacent Land Use and Zoning

This Plan seeks to minimize adverse impacts of disposal facility siting on surrounding areas. Zoning and actual use of adjacent parcels are considered in determining the consistency of a proposed facility with this Plan. A site where the land on all of the site's perimeter is zoned either agricultural or industrial will score ten (15) points. A site where the land on seventy-five (75) percent but less than one hundred (100) percent of the site's perimeter is zoned either agricultural or

industrial will score ten (10) points. A site where the land on fifty (50) percent but less than seventy-five (75) percent of the site's perimeter is zoned either agricultural or industrial will score five (5) points. A site where the land on fifty (50) percent or more of the site's perimeter is zoned for uses other than either agricultural or industrial will score zero (0) points.

6. Materials Recovery Provisions

Ideally only those materials which cannot be reused or recycled should be disposed of. A disposal facility that collects materials for recycling is better than one that disposes of materials which could be recycled. A site where recycling will be provided for nine (9) or more material types to be recovered from most waste will score twenty (20) points. A site where recycling will be provided for more than six (6) but less than nine (9) or more material types to be recovered from most waste will score fifteen (15) points. A site where recycling will be provided for more than three (3) but less than six (6) material types to be recovered from most waste will score ten (10) points. A site that provides for one (1) to three (3) material types to be recovered from most waste will score five (5) points. A site that provides no recycling of material types will score zero (0) points. Material types for the purpose of this section include 1) clear glass; 2) colored glass; 3) cardboard; 4) newsprint and glossy magazines; 5) office and computer paper; 6) all household appliances including those with refrigerants; 7) concrete and cement materials; 8) metal; 9) #1 and #2 plastic bottles and jugs; 10) other plastic materials; and 11) polystyrene.

7. Household Hazardous Waste Collection

Although small amounts of hazardous materials discarded by households are legally allowed in Type II landfills, it is better to collect these materials separately and, if no other use can be found for them, to send them to hazardous waste disposal facilities. This criterion gives preference to facilities that provide this service. A site that provides four (4) or more opportunities yearly for the proper disposal of Household Hazardous Waste will score ten (15) points. A site that provides two (2) or three (3) yearly opportunities for the proper disposal of Household Hazardous Waste will score ten (10) points. A site that provides one opportunity yearly for the proper disposal of Household Hazardous Waste will score five (5) points. A site that does not provide for the proper disposal of Household Hazardous Waste will score zero (0) points.

8. Scrap tires

Although tires are legally allowed in Type II landfills, it is better to collect these materials separately and reuse them. A site where the collection and reuse of farm implement, truck, automobile and other motorized vehicle tires will be provided will score ten (10) points. A site where the collection and reuse of truck and automobile tires will be provided will score five (5) points. A site that does not collect tires for reuse will score zero (0) points.

9. Composting

The composting of organic materials reduces the amount of materials going into landfills thus extending the life of a site. A site that provides for the composting of brush, leaves, organic kitchen and garden waste will score ten (10) points. A site that provides for the composting of brush and leaves will score five (5) points. A site that does not provide composting of both brush and leaves will score zero (0) points.

10. Surcharges or royalties

As the host of the proposed site, the County and host municipality will incur certain administrative costs related to the site and its compliance with the County's Solid Waste Management Plan. Tipping surcharges or royalties are appropriate to assist the County and host municipality in paying for these administrative costs. A site that provides the County and host municipality with tipping surcharges or royalties totaling $.70 per cubic yard received at the site will score fifteen (15) points. A site that provides the County and host municipality with tipping surcharges or royalties totaling $.50 per cubic yard received at the site will score ten (10) points. A site that provides the County and host municipality with tipping surcharges or royalties totaling $.30 per cubic yard received at the site will score five (5) points. A site that provides the County and host municipality with tipping surcharges or royalties totaling less than $.30 per cubic yard received at the site will score zero (0) points. This paragraph refers to tipping surcharges or royalties as proposed by the facility developer in a landfill application. Final tipping surcharges or royalties are subject to negotiation between the facility developer and the County and/or host municipality.

Site Evaluation

As previously mentioned, a site evaluation method has been developed to provide an objective means of evaluating any proposed landfill site. The evaluation uses the secondary siting criteria. Each of the secondary criteria has been assigned a maximum point value ranging from ten to fifteen points with fifteen being the most important. In addition, a site may score less than the maximum point value by implementing different levels of compliance with the criteria. This is based on the concept that the criteria are not equally important, and that the criteria which have the greatest potential impacts on the community should receive the highest point values. For each criterion, a proposed site is assigned a point value according to the level of service being provided. The point values are intended to measure how well a site meets the secondary criteria. After evaluating the site for each of the criteria, a total score is obtained for the site.

Total Site Scores and Interpretation

Based on the site evaluation, the maximum total score for proposed sites is 130 points. For a site to be considered consistent with the County Solid Waste Management Plan, the site must receive a total score of at least 85 points. A site meeting the primary criteria and scoring at least 85 points in secondary criteria scoring is consistent with the Plan.

Negotiations

Although neither Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), nor this siting review process requires negotiations to take place between a disposal facility owner/operator and the community, the Act does not prohibit negotiations from taking place. The Plan encourages or recommends the establishment of discussions between the County and/or host municipality and the owner/operator of a proposed disposal facility. The objective of such discussions will be the development of a mutual agreement with a private owner/operator to address areas of local concern which are not specifically addressed in Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) or local regulations. These considerations are separate from the criteria for determining whether a proposed facility is consistent with this Plan and do not affect that determination.

As a starting point, the County, the host municipality, and (if private enterprise is involved) the private owner/ operator of a proposed disposal facility should jointly prepare a negotiation plan. The negotiation plan is to serve as an agenda for further discussion, outlining the points of negotiation to be considered. Recommended points of negotiation may include, but are not limited to, the following:

1. Facility design, including greenbelts, landscaping, screening, and fencing.
2. Hours of operation.
3. On-site access roads.
4. Control of noise, litter, dust, odors, and vectors.
5. Operating records and reports.
6. Security.
7. Monitoring of wastes accepted and prohibited.
8. Surcharges or royalties.

The owner/operators of solid waste disposal facilities should recognize the importance of negotiating with the County and/or municipality to ensure that local concerns are adequately addressed and that reasonable efforts are made to mitigate potential negative impacts. The County's Solid Waste Management Planning Committee may request reports on the progress of negotiations and may arrange for public input to the negotiations as it sees fit.

The Site Review Process

This-section describes the review process for evaluating proposed disposal facility sites, identifies the bodies responsible for conducting the review, and specifies the information which must be submitted by the applicant:

1. Pre-Application Conference (Recommended)

   The applicant for a proposed disposal facility is expected to request a pre-application conference with a representative of the designated solid waste planning agency to informally discuss the County Solid Waste Management Plan, the site review process, and other relevant matters. Success in reaching agreement at this

conference is desirable but is not a prerequisite to being found consistent with this Plan.

2. MDEQ Advisory Analysis

Prior to submitting a proposed site to the County for review, the applicant shall request that an advisory analysis for the site be prepared by the Michigan Department of Environmental Quality, as specified in Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The format of the request and required information will be specified by the district staff of the MDEQ Waste Management Division.

3. Submission of Proposed Site for Formal Review

Following the preparation of any advisory analysis, an applicant wishing to proceed with the development of a disposal facility shall submit to the Mason County Solid Waste Management Committee, in care of the Mason County Administrator, a written request for the County to conduct a formal review of the site to determine its consistency with the County Solid Waste Management Plan. The request shall be accompanied by an application package containing the following items:

a. The MDEQ advisory analysis if available.

b. The names, addresses, and phone numbers of the applicant and any authorized representative.

c. A map of the site with the following requirement:

   i. A scale of not less than one inch equals 100 feet.

   ii. Date, north point, and scale.

   iii. The dimensions of all lot and property lines for the subject property and all adjacent parcels.

   iv. The location of all existing structures on the subject property.

   v. The location of all existing access roads.

   vi. The location and right-of-way widths of all abutting roads.

   vii. Proposed boundaries of solid waste disposal areas.

   viii. Other information to demonstrate conformance with siting criteria (e.g., location of licensed airports, any proposed road upgrading, etc.)

d. The locations of all residential dwellings within a one mile radius of the site. The radius shall be measured from the property lines of the site.

e. The locations of all public drinking water supply wells (serving more than one user) within a 5,000 foot radius of the site, and private water supply wells within a 2,500 foot radius of the site.

f. The estimated capacity of the site for solid waste disposal.

g. A non-refundable application fee in an amount of $25,000 or such greater amount as may be set by the County Board of Commissioners. Any amount of this fee that is not used in the review of the application will be refunded to the applicant.

h. A description of the proposed construction features and management practices designed to minimize offsite effects of noise and vibration.

i. A statement of intent to consult with the County and the host municipality before and during development of the facility if requested.

j. If the facility is a landfill, a statement of intent to consult periodically, over the life of the landfill, with the municipality where the facility is to be located, in order to consider possible steps to help make the post-closure use of the land consistent with the host municipality's land use plans and zoning ordinances, if any.

k. A written statement that the proposed development is consistent with proven technologies and with Part 115.

l. A written statement that all haulers will be treated equitably and impartially.

m. Documentation of the possible source of the waste stream coming to the facility to determine compliance with Primary Siting Criteria Number 13.

n. Documentation that the facility will meet 20 year capacity criteria.

o. Documentation of the apparent needs of the service area and how they will be met by the proposed development, including proposed recycling services. This item is for informational purposes only.

The Mason County Solid Waste Management Planning Committee, or its designee, will ascertain whether the application is complete within sixty (60) calendar days after the County Administrator receives it. By the end of the sixty (60) calendar day review period, the Committee will inform the applicant by letter whether the application is complete or incomplete. If the application is found incomplete, the letter will specify the items missing and will offer the opportunity to resubmit the application when those items are provided. If no decision is reached within sixty (60) calendar days, the application will be considered complete and proceeds into the remainder of the review process.

4. Responsibilities for Conducting Review

The body responsible for reviewing any proposed disposal site for plan consistency shall be the Mason County Solid Waste Management Planning Committee (SWMPC). To assist the SWMPC in its review, a technical review committee (TRC) may be established consisting of the following persons or agency representatives:

a. The County Road Commission Engineer

b. Mason County Board of Commissioners Member

c. The County Soil Erosion and Sedimentation Control Agency

d. The Regional Solid Waste Planning Agency

e. The local health department

f. The County Drain Commission Host Government Designee

g. The chief elected official of the host municipality or his/her designated representative

h. Any other technical expertise that the SWMPC deems appropriate

The TRC shall conduct an evaluation of the proposed site using the site evaluation criteria described on pages 64-71 in this section. In conducting its evaluation, the TRC may request assistance from other agencies as necessary. Such agencies may include, but not be limited to, the Michigan Department of Environmental Quality and the Soil Conservation Service.

Upon completion of its review, the TRC shall submit its report and recommendations to the SWMPC for concurrence or non-concurrence. Upon acceptance of the TRC recommendation, the SWMPC shall notify the applicant of its findings in writing. If the SWMPC finds that a proposed site is not consistent with the Plan, it shall also notify the applicant, in writing, of the reason(s) for its findings.

The SWMPC/TRC shall have 180 calendar days from the date a complete application package was submitted to the County Administrator in which to issue its consistency determination. Failure to act within the prescribed time frame will result in an automatic determination of plan consistency by the County. The consistency determination is then forwarded to the DEQ, by the Designated Planning Agency, for review as part of a construction permit application, and the DEQ Director makes the final determination of consistency.

5. The Formal Construction Application

A report of the County's determination of consistency/inconsistency with this Plan is required documentation in any Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), construction permit application submitted to the DEQ.

Siting Criteria for Other Solid Waste Facilities

This section is intended to describe the County's siting criteria and review process for major solid waste facilities, other than landfills, which require licensing under Part 115, Solid

Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Such major facilities include Type A Transfer Facilities and Solid Waste Material Recovery Facilities.

Transfer facilities

The transfer facility building(s) shall not be located within 300 feet of adjacent property lines, road right-of- way, or lakes and perennial streams. All facilities shall be screened with a suitable barrier at least 8 feet high and with 75% screening to reduce the visibility of the operation.

The transfer facility building(s) shall not be located closer than 300 feet to domiciles existing at the time of permit application, unless the affected property owner had provided a written waiver consenting to activities closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

The transfer facility shall not be located within the 100-year flood plain as identified on DEQ prepared maps as defined in Part 31 of Act 451 Administrative rules.

The transfer facility shall not be located within 300 feet of a wetland as defined and regulated under Part 303 of Act 451.

The transfer facility shall not be located within 300 feet of any existing public park or recreation area.

A potential transfer facility site must have direct access to an all-weather "class A" road to accommodate heavy truck traffic generated at the site. If a proposal for a transfer facility includes or assumes year-round traffic to off-site sources of cover material, the proposal must include all-season road access provisions for this function. If a transfer facility proposal includes upgrading a road to all-season status, the design and construction must conform to the current standards of the American Association of State Highways and Transportation Officials (AASHTO), as set forth in Design Guidelines, ASHTO Interim Structural Pavement Design Procedure, Adopted for All Season Roads (revision of January 1989, or a later revision if issued). A proposal will be found consistent with the road access requirement of the Plan if it contains a written statement agreeing to upgrade direct access roads to all-season "class A" standards based on AASHTO specifications as cited here, at no direct charge to county, road commission or local governments. A 66-foot easement recorded on the deed of a land-locked parcel qualifies as having road frontage, but does not negate the necessity for the access road to be of all-season construction. Said upgrade to all-season "class A" standards must be completed prior to the start of construction of the transfer facility. Sites lacking direct access to an all-weather "class A" road to accommodate heavy truck traffic is <u>inconsistent</u> with this Plan.

The developer must provide a written noise and vibration abatement plan for the proposed transfer facility site.

Solid Waste Material Recovery Facilities (MRF)

The MRF building(s) shall not be located within 300 feet of adjacent property lines, road right-of- way, or lakes and perennial streams. All facilities shall be screened with a suitable barrier at least 8 feet high and with 75% screening to reduce the visibility of the operation.

The MRF building(s) shall not be located closer than 1,000 feet to domiciles existing at the time of permit application, unless the affected property owner had provided a written waiver consenting to activities closer than 1,000 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

The MRF shall not be located within the 100-year flood plain as identified on DEQ prepared maps as defined in Part 31 of Act 451 Administrative rules.

The MRF shall not be located within 300 feet of a wetland as defined and regulated under Part 303 of Act 451.

The MRF shall not be located within 300 feet of any existing public park or recreation area.

A potential MRF site must have direct access to an all-weather "class A" road to accommodate heavy truck traffic generated at the site. If a proposal for a MRF includes or assumes year-round traffic to off-site sources of cover material, the proposal must include all-season road access provisions for this function. If a MRF proposal includes upgrading a road to all-season status, the design and construction must conform to the current standards of the American Association of State Highways and Transportation Officials (AASHTO), as set forth in Design Guidelines, ASHTO Interim Structural Pavement Design Procedure, Adopted for All Season Roads (revision of January 1989, or a later revision if issued). A proposal will be found consistent with the road access requirement of the Plan if it contains a written statement agreeing to upgrade direct access roads to all-season "class A" standards based on AASHTO specifications as cited here, at no direct charge to county, road commission or local governments. A 66-foot easement recorded on the deed of a land-locked parcel qualifies as having road frontage, but does not negate the necessity for the access road to be of all-season construction. Said upgrade to all-season "class A" standards must be completed prior to the start of construction of the MRF. Sites lacking direct access to an all-weather "class A" road to accommodate heavy truck traffic is <u>inconsistent</u> with this Plan.

All MRF's shall be located in an area that has been zoned for industrial or agricultural use.

Landscaping, composed of shrubbery and trees, shall be provided and maintained to beautify the view of the MRF. The landscaping must be of sufficient maturity and density to serve as an effective sight barrier defined as follows. Such barriers shall consist of the following: plantings of evergreen trees, not more than 12 feet apart, or shrubbery not more than 5 feet apart, in staggered rows parallel to the boundaries of the property. Evergreen transplants shall be at least 4 feet in height at the time of planting, and shall grow to not less than 10 feet in height. Trees or shrubs that die must be replaced according to the previously described standards during the next growing season.

Noise effects on adjacent properties shall be minimized by the utilization of adequately sound proofed equipment and facilities designed to effect such minimization, and by the use of berms, walls, and natural planting screens. The developer must provide a written abatement plan.

SOLID WASTE MANAGEMENT COMPONENTS'

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

Department of Environmental Quality (DEQ)
Various sections of the DEQ are charged by law with the regulation, enforcement and review of the conduct of the solid waste management systems in Mason County and all other Michigan counties. The county will be dependent upon the appropriate offices of the DEQ to be informed of changes in the requirements for solid waste management from both federal and state levels. This information from the DEQ will include new solid waste legislation, regulatory rulings. changes in the handling of disposal of all types of solid waste, national or state public information programs, financial aid program from the national or state level available to the county. and technical assistance from DEQ staff.

Enforcement
Any person believing violations of the Solid Waste Disposal Act or any other Enforceable Mechanism as defined in said Act, pursuant to M.C.L.A. 324. 101 et seq., as amended, particularly Parts 5, 17, 31, 55, 89, 91, 111, 115 and 121; 257.1 et seq.; 16.338 et seq.; that have been, are, or will be occurring shall report same to the MDEQ, the MDNR. an health officer, or any other law enforcement officer for appropriate action and relief according to the law. The Mason County Administrator acting on behalf of the County Board of Commissioners is responsible for the implementation and enforcement of the plan. The Administrator has all the technical, administrative, financial and legal power vested in the position by the County Board of Commissioners.

Mason County Board of Commissioners
The County Board is responsible for the overall supervision of the solid waste management system for the county. This responsibility includes the implementation of the 5 year and 10 year plans. It also includes financing, administration and operations of the county solid waste management system, as well as accountability to the public. The County Board shall designate a board responsible for implementing the Solid Waste Management Plan.

Mason County Administrator's office
The Mason County Administrator's office is responsible for the continued planning effort in the solid waste management area for the county. This planning should be done in coordination with other units of government actively involved in solid waste planning and implementation of plans. The Mason County Administrator's office is the "Central Informational Repository" of all solid waste planning Information as it relates to Mason County.

Solid Waste Management Planning Committee (SWMPC)
The Mason County Solid Waste Management Planning Committee (SWMPC) is responsible for working with the Mason County Administrator's office to develop 5 year and 10 year Solid Waste Plans and recommending said plans to the County Board for their approval. 'The SWMPC is responsible to assist the County Board in the approval process of the plan. The SWMPC is also responsible for reviewing any proposed disposal site for plan consistency.

Technical Review Committee (TRC)
The Technical Review Committee (TRC) shall be responsible for assisting the SWMPC in its review of any proposed disposal site for plan consistency.

Local units of government
The local units of government will continue to keep the County Board informed of the effectiveness of the Solid Waste Management Plan in Mason County. Existing programs in local units of government for waste collection, recycling and yard waste collection will continue to be the responsibility of the local units of government

Private Enterprises
Private enterprises will continue to manage those activities that are best served by the free market system such as collection and disposal of solid waste and the collection and marketing of recyclable materials. The private sector will be encouraged to develop a landfill site in Mason County. They will continue to perform the majority of source reduction, product reuse and the increasing of material lifetime.

General public
The general public of Mason County will be asked to support the goals and objectives of this solid waste management plan to insure their success. The support will include continued participation in recycling, composting and hazardous materials collection programs.

Environmental Groups
AFFEW (A Few Friends for the Environment of the World and their Children), Dow Chemical Company, District Health Department No. 10, Mason County Department of Public Works and Michigan State University Extension will continue to coordinate the Mason County Household Hazardous Materials Collection Day and other programs aimed at diverting specific materials from the waste stream.

MSU Extension and the Mason Lake Conservation District
MSU Extension and the Mason Lake Conservation District will continue to provide county residents with informational pamphlets concerning individual composting and recycling.

Components or subcomponents may be added to this table.

IDENTIFICATION OF RESPONSIBLE PARTIES

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

Resource Conservation:

Source or Waste Reduction

Product Reuse

Reduced Material Volume - Mason County Administrator and Solid Waste Management Committee

Increased Product Lifetime

Decreased Consumption

Resource Recovery Programs:

Composting - Cities of Ludington and Scottville and Pere Marquette Charter Township

Recycling - Cities of Ludington and Scottville, Hamlin Township, Summit Township and Pere Marquette Charter Township

Energy Production - not applicable

Volume Reduction Techniques:

Collection Processes:

Private Waste Haulers

Transportation:

Private waste haulers.

Disposal Areas:

Processing Plants

Incineration

Transfer Stations - Hamlin and Summit Townships & Private contractors

Sanitary Landfills - (Siting criteria) Solid Waste Management Planning Committee

Ultimate Disposal Area Uses:

Local Responsibility for Plan Update Monitoring & Enforcement:

Mason County Board of Commissioners, Mason County Administrator & Mason County Solid Waste Management Planning Committee

Educational and Informational Programs:

Mason County Board of Commissioners, Mason County Administrator & Mason County Solid Waste Management Planning Committee MSU Extension and and the Mason Lake Conservation District will provide county residents with informational pamphlets concerning individual composting and recycling.

Documentation of acceptance of responsibilities is contained in Appendix D.

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

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

_____1. Section 11538 (8) and rule 710 (3) of Part 115 prohibits enforcement of all County and local ordinances and regulations pertaining to solid waste disposal areas unless explicitly included in an approved Solid Waste Management Plan. Local regulations and ordinances intended to be part of this Plan must be specified below and the manner in which they will be applied described.

_____2. This Plan recognizes and incorporates as enforceable the following specific provisions based on existing zoning ordinances:

_____X_3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the appropriate units of government without further authorization from or amendment to the Plan.

Regulation meeting these qualifications may be adopted and implemented by the appropriate governmental unit without additional authorization from, or formal amendment to, the Solid Waste Management Plan. Allowable areas of local regulation include:

1. Certain ancillary construction details, such as landscaping and screening;
2. Hours of operation;
3. Noise, litter, odor and dust control;
4. Operating records and reports;
5. Facility security;
6. Monitoring of wastes accepted and prohibited;
7. Composting and recycling.

Once the Plan is approved, any additions to the Plan's list of incorporated local regulations can be made only by formal amendment or update of the Plan.

CAPACITY CERTIFICATIONS

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

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

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

This County has secured space promises from five facilities in four counties included in the Plan. Letters of Commitment are included in Appendix D-1 on pages 144-149. The County needs approximately 78,000 cubic yards of space per year for the next ten years. Four of the five facilities listed in Appendix D-1 have each agreed to accept up to 100% of the County's waste.

The majority of waste generated in the County goes to the Manistee County Landfill that has 12 years capacity including the waste coming from Mason County.

The Autumn Hill Recycling & Disposal Facility in Ottawa County currently disposes of 500,000 - 600,000 tons of solid waste per year. Autumn Hills has a current capacity of 20.75 million tons that gives it approximately 30 years of capacity. The addition of the entire Mason County waste stream would only reduce the years of capacity at Autumn Hills to approximately 27 years.

The Ottawa County Farms Landfill in Ottawa County currently disposes of 500,000 tons of solid waste per year. Ottawa County Farms has a current capacity of 16.50 million tons that gives it approximately 25-30 years of capacity. The addition of the entire Mason County waste stream would only reduce the years of capacity at Ottawa County Farms to approximately 22-27 years.

The Arbor Hills Landfill in Washtenaw County currently has approximately 16.4 years of capacity. The addition of the entire Mason County waste stream would only reduce the years of capacity at Arbor Hills to approximately 16.2 years.

In addition, Pitsch Sanitary Landfill has a pending expansion that is not included in the above mentioned figures.

Based on the calculation above, the Mason County Solid Waste Planning Committee certifies that Mason County has identified more than ten years capacity and thus an annual certification process is not included in this Plan.