STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

C. HEIDI GRETHER
DIRECTOR

April 9, 2018

Mr. James E. Shotwell, Jr., Chairperson
Jackson County Board of Commissioners
120 West Michigan Avenue
Jackson, Michigan 49201

Dear Mr. Shotwell:

SUBJECT: Jackson County Solid Waste Management Plan Amendment

The locally approved amendment to the Jackson County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on May 1, 2017, is hereby approved with modifications. The Plan Amendment required modifications that were sent to the Jackson County Designated Planning Agency contact, Mr. Grant Bauman, on November 13, 2017. The approval of the modifications, dated December 28, 2017, was received from the Jackson County Board of Commissioners (BOC).

The following modifications were made to the Plan Amendment:

Page II-4, Facility Description – Liberty Environmentalist Landfill (Liberty). Liberty has a permit as a Type III Construction and Demolition Waste Landfill, as well as a Type III Industrial Waste Landfill, which only allows the facility to accept these types of materials; however, the commercial box is checked under the waste-type received section of the facility description, and this facility is not authorized to accept commercial waste. Therefore, this box shall be unchecked.

Page III-21, Facility Description – Henrietta Township Transfer Facility. The "Licensed" box is checked under the operating status section; however, this facility does not have a license and is exempt from being permitted and licensed. Therefore, the "Unlicensed" box shall be checked instead.

Page III-32, Table III-2, Composting. The DEQ database shows that there are two registered compost facilities located in Jackson County: Cooper Street Compost Site, located at 2995 Lansing Avenue, Jackson, Michigan, and Lester Brothers Excavating – Hawkins, located on 2700 Hawkins, Jackson, Michigan. Based upon this information, these facilities shall also be identified in this table.

Page III-42, Siting Review Procedures, Authorized Disposal Area Types, states the following: "Type II and Type III landfills, if required by the Department of Environmental Quality (DEQ) for capacity purposes…" However, on page III-44, the first paragraph states that "expansions may be sited in Jackson County at any time by the owners of the then currently operating landfills, which are serving Jackson County…" These are contradicting statements. Therefore, to clarify the intent of the County, the sentence found on page III-42 shall be changed to the following:

> Type II landfill vertical expansions are authorized to follow the siting process of this plan. Other Type II landfill expansions are allowed only if required by the Department of

Environmental Quality (DEQ) for capacity purposes, as the goal of this plan is to minimize Type II landfilling. New or expanded Type III landfills may be sited if: (1) built to the siting criteria of this plan; and (2) to the Type II landfill construction specifications. New or expanded transfer facilities and processing plants other than incinerators may be sited by this plan. No incinerators maybe sited by this plan.

Page III-45, Solid Waste Disposal Area Siting Constraints Mapping. The last paragraph under this header, states, "The map layers and composite maps are represented in the plan document as Maps 3-1 through 3-11." However, there is not a map labeled 3-11. Therefore, it shall be noted that the maps are represented in the plan document as Maps 3-1 through 3-10.

Page III-47, item number 5, states "Transfer facilities and processing plants shall be located only in districts consistent with local zoning ordinances." However, a siting mechanism cannot be subject to discretionary acts by the local planning entity; also, the phrase "consistent with local zoning ordinances" is not measurable or objective and could be discretionary. Therefore, this phrase shall be deleted from item number 5.

The DEQ would like to thank Jackson County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Christina Miller, Solid Waste Planning, Reporting, and Surcharge Coordinator, Sustainable Materials Management Unit, Solid Waste Section, Waste Management and Radiological Protection Division, at 517-614-7426; millerc1@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Jack Schinderle

Jack Schinderle, Director
Waste Management and Radiological
Protection Division
517-284-6551

cc: Senator Mike Shirkey
Representative Julie Alexander
Representative Brett Roberts
Mr. Grant Bauman, Region 2 Planning Commission
Ms. C. Heidi Grether, Director, DEQ
Ms. Susan Leeming, External Relations Deputy Director, DEQ
Mr. Michael McClellan, Environment Deputy Director, DEQ
Ms. Sarah M. Howes, Legislative Liaison, DEQ
Mr. Steven R. Sliver, DEQ
Ms. Rhonda S. Oyer, DEQ
Mr. Larry Bean, DEQ
Mr. Jeff Spencer, DEQ
Ms. Christina Miller, DEQ/Jackson County File

JACKSON COUNTY
BOARD OF COMMISSIONERS

James E. Shotwell, Jr., Chairperson

Philip S. Duckham III, Vice-Chair

Dr. Allan Tompkins
Sarah L. Lightner
Rodney Walz
Jon Williams

Daniel Mahoney
Carl Rice, Jr.
David K. Elwell

December 28, 2017

Ms. Christina Miller
Solid Waste Planning, Reporting and Surcharge Coordinator
Sustainable Materials Management Unit
Solid Waste Section
Waste Management and Radiological Protection Division
Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909-7741

Dear Ms. Miller:

SUBJECT: **Jackson County Solid Waste Management Plan Amendment Modifications**

As a follow up to your letter dated November 13, 2017, the Jackson County Board of Commissioners respectfully requests the DEQ to issue its approval of the *Jackson County Solid Waste Management Plan Amendment*. The Jackson County Board of Commissioners met in regular session on December 19, 2017 and reviewed the recommended administrative modifications to the Plan Amendment. The Board of Commissioners concurred with your recommendation of approving the six (6) modifications as follows:

(1) Uncheck the "commercial" box under the waste type received section of the Liberty Environmentalist Landfill Facility Description found on Page II-4 of the Amendment.

(2) Uncheck the "licensed" box and check the "unlicensed" box under the operating status section of the Henrietta Township Transfer Facility Description found on Page III-21 of the Amendment.

(3) Add the following compost facilities to Table III-2, Composting, found on Page III-32 of the Amendment:

- Cooper Street Compost Site, located at 2995 Lansing Avenue, Jackson, Michigan.
- Lester Brothers Excavating- Hawkins, located on 2700 Hawkins, Jackson, Michigan.

(4) Replace the two-sentence paragraph under Siting Review Procedures, Authorized Disposal Area Types, found of Page III-42 of the Amendment, with the following:

(Continued on Page 2)

Type II landfill vertical expansions are authorized to follow the siting process of this plan. Other Type II landfill expansions are allowed only if required by the Department of Environmental Quality (DEQ) for capacity purposes as the goal of this plan is to minimize Type II landfilling. New or expanded Type III landfills may be sited if: (1) built to the siting criteria of this plan, and (2) to the Type II landfill construction specifications. New or expanded transfer facilities and processing plants other than incinerators may be sited by this plan. No incinerators maybe sited by this plan.

(5) Note of Page III-45 of the Amendment that there are Maps 3-1 through 3-10 rather than Maps 3-1 through 3-11 as mistakenly stated.

(6) Delete item number 5 on Page III-47 of the Amendment given that the MDEQ considers local zoning ordinances to be discretionary and therefore prohibited.

Thank you for your attention to this request. If there is anything further you require, please contact Grant Bauman, the designated Jackson County Planning Agency Contact, at (517) 768-6711 or gbauman@co.jackson.mi.us.

Sincerely,

James E. Shotwell, Jr., Chairman
Jackson County Board of Commissioners

Jackson County Tower Building 120 W. Michigan Avenue Jackson, MI 49201
Phone: (517) 788-4335 FAX: (517) 780-4755

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

May 1, 2017

Ms. Christina Miller
Solid Waste Planning, Reporting and Surcharge Coordinator
Office of Waste Management and Radiological Protection
Michigan Department of Environmental Quality
PO Box 30241
Lansing, MI 48933

Sent via email to MILLERC1@michigan.gov

Subject: **Jackson County Solid Waste Management Plan | Proposed 2016 Amendment**

Dear Ms. Miller:

The County of Jackson is pleased to officially announce that the proposed 2016 Amendment of the *Jackson County Solid Waste Management Plan* was approved locally. The County Board of Commissioners adopted the proposed Plan Amendment on July 26, 2016, and the required approval of 67% of the 27 municipalities which comprise Jackson County was exceeded. That requirement means that at least 18 (i.e., 67%) of those municipalities must choose to adopt the proposed Plan Amendment locally. Fortunately, 21 municipalities voted to adopt the proposed Plan Amendment. A series of attachments to this letter contain the proposed Plan Amendment and associated documentation requested by the MDEQ. If you require further information, please contact me via (517) 768-6711 or gbauman@co.jackson.mi.us.

Sincerely,

Grant E. Bauman, AICP
Recording Secretary

- *Jackson County Solid Waste Management Plan | Proposed 2016 Amendment*
- A Summary of the 2016 Proposed Amendment
- Proposed 2016 Plan Amendment Notices and County Resolution
- Municipal Resolutions
- Landfill Capacity Letters
- Solid Waste Planning Committee Meeting Minutes

Solid Waste Management Plan

Jackson County, Michigan

2016 Amendment of the 1998 Update

This page was left intentionally blank

2016 PLAN AMENDMENT COVER PAGE

Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, PA 451, (NREPA), as amended, 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 this plan update. This document is that format. The Plan should be prepared using this format without alteration. Please refer to the document entitled "Guide to Preparing the Solid Waste Management Plan Update" for assistance in completing this Plan format.

DATE SUBMITTED TO THE DEQ:

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

Not applicable.

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

Municipality	Original Planning County	New Planning County

Not applicable.

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Region 2 Planning Commission
120 W. Michigan Avenue
Jackson, MI 49201

CONTACT PERSON: Grant E. Bauman, AICP, Principal Planner

ADDRESS: Region 2 Planning Commission
120 W. Michigan Avenue
Jackson, MI 49201

PHONE: (517) 768-6711
FAX: (517) 788-4635
EMAIL: gbauman@co.jackson.mi.us

CENTRAL REPOSITORY LOCATION(S):

1. Jackson County Administrator's Office, 120 W. Michigan Ave. (6th Floor), Jackson, MI 49201
2. Region 2 Planning Commission, 120 W. Michigan Ave. (9th Floor), Jackson, MI 49201

TABLE OF CONTENTS

This page was left intentionally blank

EXECUTIVE SUMMARY

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

The management of solid waste has changed locally since the approval of the 1998 Update of the Jackson County Solid Waste Management Plan:

- There has been a shift in the local concept of recycling from the burning of solid waste to create energy to the removal of items from the solid waste stream via recycling and source reduction.
- Jackson County's Resource Recovery Facility (RRF), a waste to energy incinerator, lost its contracts for selling its energy (i.e., steam and electricity) to the Michigan Department of Corrections, which made it economically unviable and, led to its permanent closure.
- The County's flow control ordinance and tipping fees set to support the RRF were subsequently rescinded, opening Jackson County up to the importation and exportation of solid waste. This shift to private enterprise creates an opportunity for reductions in the cost to consumers given the potential for greater competition.
- Private haulers have placed an increased emphasis on recycling and Jackson County has contracted for a part-time recycling coordinator.

The 2015 Amendment to the Jackson County Solid Waste Management Plan has been prepared pursuant to Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994, MCL 324.11501 et seq.). In preparing the 2015 Amendment, goals and objectives were established to serve as an overall policy framework against which a plan for solid waste management could be developed. The goals include: protecting public health, safety, and welfare; protecting natural resources from pollution and contamination; recognizing solid waste as a resource; promoting and using public education, marketing, and outreach; maintaining an efficient and environmentally sound waste collection system; and developing and implementing an on-going solid waste planning, evaluation and management process.

In order to develop and evaluate the solid waste management alternatives contained in the 2015 Amendment, information was collected and analyzed regarding: the population of the County; local land use patterns; pertinent environmental conditions; the waste stream; components of the solid waste management system (e.g., waste disposal, processing, collection, transportation, source reduction, recycling, and ultimate disposal area uses); and the current arrangements for the solid waste management system.

The following is a summary of information determined to be relevant to the development of solid waste management alternatives for Jackson County:

1. The quantity of waste in Jackson County is expected to decrease slightly (0.4%) over the next ten years.

2. The centers of waste generation are not expected to change significantly in the next ten years

3. Waste hauling in Jackson County is controlled by the private sector. Residential waste collection is provided for almost exclusively through individual contracts between private sector haulers and county residents.

4. Waste disposal in Jackson County is substantially controlled by the private sector, but Henrietta and Rives Townships operate Type B Transfer Facilities.

5. The McGill Road (Type II) Landfill is privately owned with another 15 years of capacity.

6. Diverting recyclable material from the waste stream prior to landfilling is a good public goal and a positive environmental practice.

7. The greatest potential for expanding recycling and composting opportunities in Jackson County lies with the education of the citizens and their understanding of the recycling process, and with the expansion of private waste haulers recycling centers.

8. The movement of waste between counties must be recognized in the plan of both the importing and exporting county.

OVERALL VIEW OF THE COUNTY

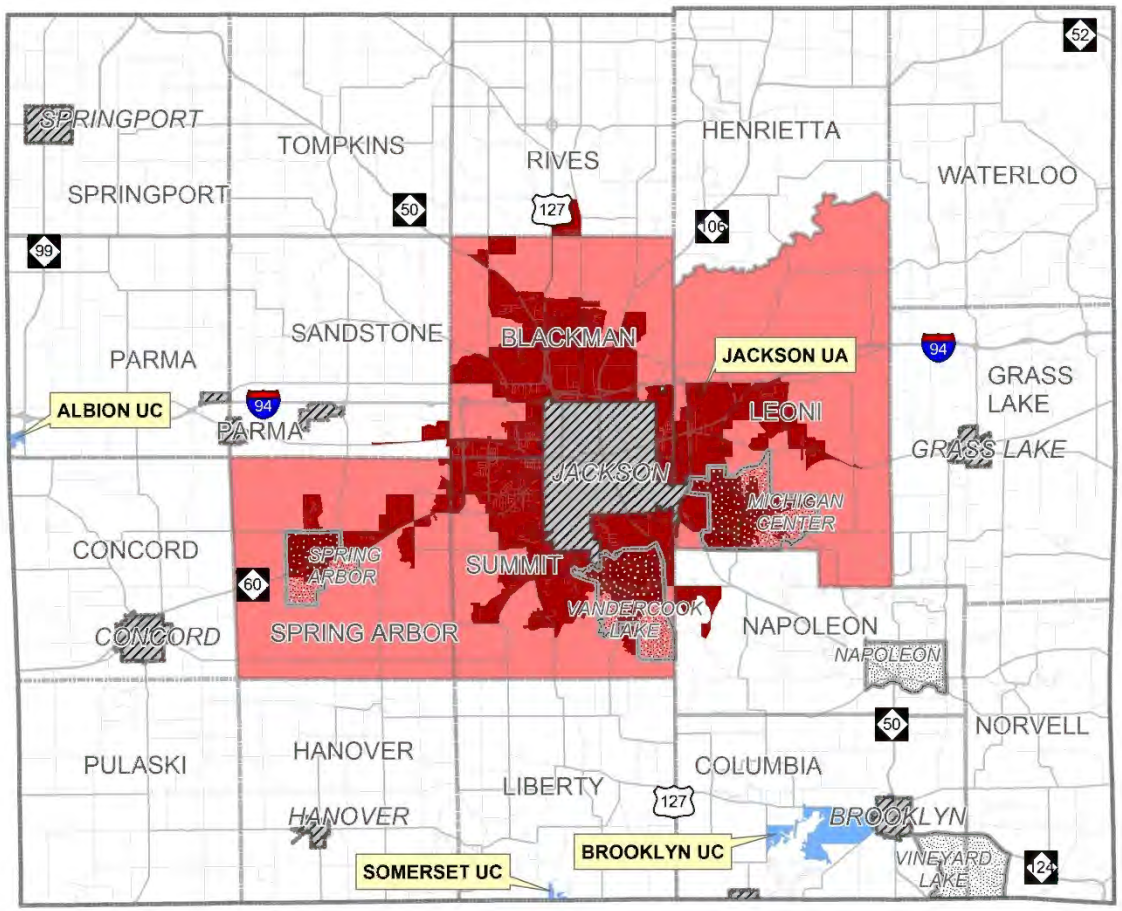
The Jackson Urbanized Area (UA)—comprised of the City of Jackson and portions of surrounding townships—was home to 56.2% of the Jackson County population in 2010 (please see Map I-1). The Brooklyn Urban Cluster (UC)—comprised of much of the Village of Brooklyn as well as part of Columbia Township— was home to 1.7% of the countywide population. Finally, portions of the Albion and Somerset Urban Clusters—which extend into the County from the counties of Calhoun and Hillsdale, respectively—are home to smaller urban populations. However, the majority of Jackson County in 2010 was considered to be rural by the U.S. Census Bureau.

Township or Municipal Name	Population, 2010[1]	% of Land Use, 2010[2]		Estimated % of Economic Base, 2012[a]				
		Rural	Urban	Ag.	For.[b]	Ind.	Com.	Other
Jackson Urbanized Area	90,057	—	—	—	—	—	—	—
Urban Clusters[3]	—[4]	—	—	—	—	—	—	—
City of Jackson	33,534	0.0%	100.0%	—	—	—	—	—
Urban Townships[5,6]	68,633	68.9%	31.1%	—	—	—	—	—
Rural Townships[7,8]	58,081	99.4%	0.6%	—	—	—	—	—
Jackson County	160,248	91.4%	8.6%	46.6%	—	4.8%	3.2%	48.8%

[a] Property class classification for each tax parcel in Jackson County's parcel and assessing databases. "Ag." = Agriculture; "For." = Forestry; "Ind." = Industrial; and "Com." = Commercial.
[b] Information for this land use was not available for the databases cited above.

[1] 2010 U.S. Census, compiled by the Region 2 Planning Commission.
[2] Region 2 Planning Commission, based on a 2010 Urban Area/Urban Cluster shape file generated by the U.S. Census Bureau
[3] The Brooklyn, Albion (partial) and Somerset (partial) Urban Clusters.
[3] The Brooklyn Urban Cluster had a population of 2,733. The population of the Jackson County portion of the other urban clusters was not available.
[4] Comprised of the Townships of Blackman, Leoni, Spring Arbor, and Summit.
[5] Includes the Census Designated Places (CDPs) of Michigan Center, Spring Arbor, and Vandercook Lake
[6] Includes the Villages of Brooklyn, Concord, Grass Lake, Hanover, Parma, Springport, and Cement City (partial)
[7] Includes the Census Designated Places (CDPs) of Napoleon and Vineyard Lake

For the purposes of this plan, the townships of Blackman, Leoni, Spring Arbor, and Summit are considered to be Urban Townships because the Jackson UA extends into them extensively. The remaining townships are considered to be Rural Townships. However, it should be noted that the Rural Townships contain clusters of denser development in the form of portions of the Jackson UA, the Brooklyn and other Urban Clusters, and the various villages and census designated places (CDPs) located outside of the Urban Townships (please see Map I-1 and the Demographic Database in Section II).



JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN 2016 AMENDMENT

MAP I-1

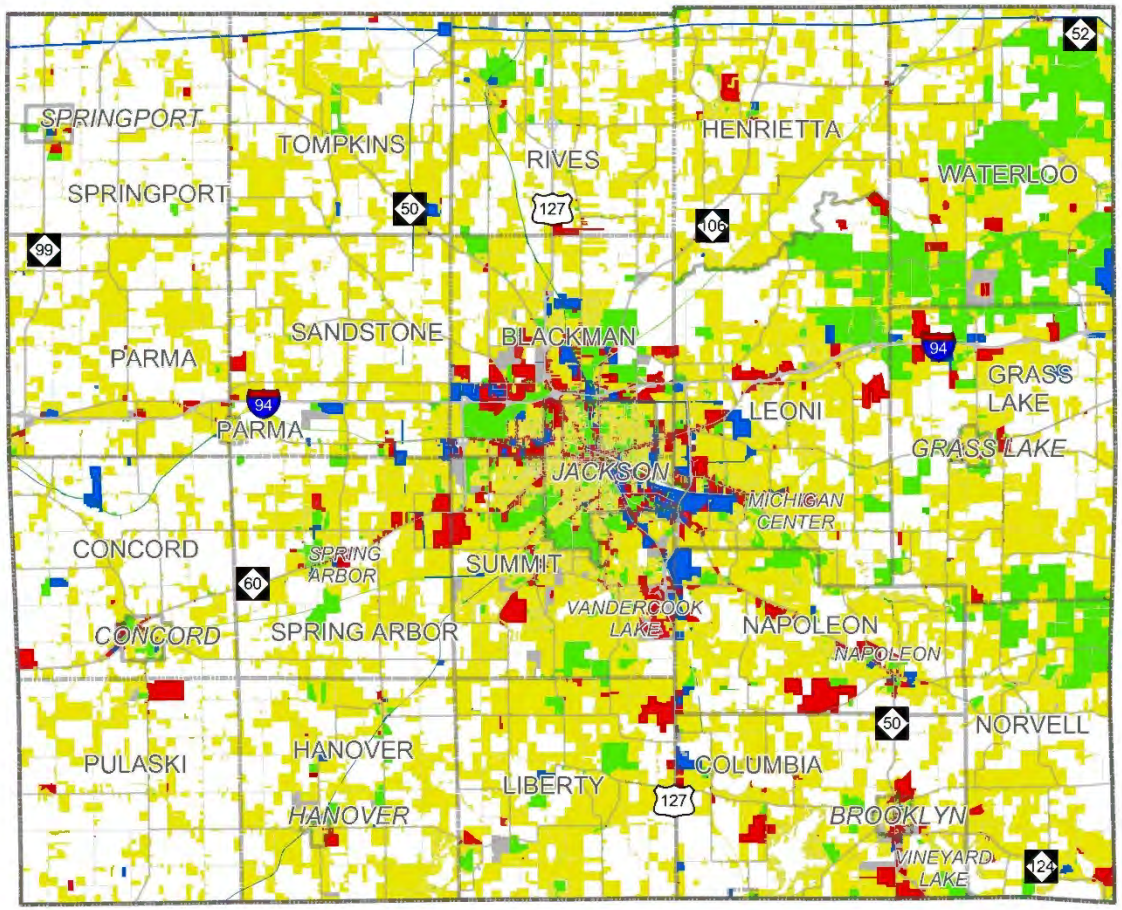
URBAN AREAS AND PLACES*

- URBANIZED AREA (UA)
- URBAN CLUSTER (UC)
- URBAN TOWNSHIPS
- *CITY AND VILLAGES*
- *CENSUS DESIGNATED PLACES (CDP)*

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- US BUREAU OF THE CENSUS
-REGION 2 PLANNING COMMISSION

JULY 13, 2016

Miles
0 2 4 6



JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN 2016 AMENDMENT

MAP I-2

EXISTING LAND USE*

- AGRICULTURAL
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC/EXEMPT
- DEVELOPMENTAL/OTHER

*BASED UPON THE PROPERTY CLASS (I.E., USE) ASSIGNED TO EACH PARCEL BY MUNICIPAL ASSESSORS

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- JACKSON COUNTY GIS (9/24/2014)

July 13, 2016

Miles
0 2 4 6

EXECUTIVE SUMMARY

CONCLUSIONS

As part of the 2015 Amendment, three solid waste management alternatives were investigated. Alternative A is "government does it all," including the reestablishment of a flow control ordinance and the need for a county-operated landfill. Alternative B is "the free market (all private)," relying exclusively on the private sector and limiting government involvement as much as possible. Alternative C is "the best of both hybrid," which relies on a public-private partnership that optimizes the strengths of both sectors as it relates to solid waste management. Recycling is an important component of all three alternatives.

After considering the alternative waste management systems listed above, Alternative C was determined to be the most practical, including an enhanced emphasis on recycling.

SELECTED ALTERNATIVES

The management system selected by this plan and the recommended strategies for implementation are summarized below:

1. The selected alternative calls for continued availability and collection of source separated and single-source materials for recycling or composting as a means of increasing the volume of residential waste recovered prior to landfilling.
2. Private sector waste haulers are encouraged to include recycling and composting in the package of waste management options available to their customers.
3. The McGill Rd. landfill, Liberty Environmentalists landfill, and landfills with reciprocity to Jackson County will be used to implement the selected alternative.
4. The Jackson County Board of Commissioners shall have ultimate responsibility for ensuring that adequate waste disposal areas are provided in a timely manner to meet the county's waste disposal needs and for determining whether a proposal to establish a new disposal area is consistent with the Jackson County Solid Waste Management Plan.
5. Environmentally sensitive or other restricted locations are established in the plan using the solid waste sensitivity overlay maps. These locations shall be avoided before a proposed disposal area shall be considered consistent with this plan.*
6. Transfer facilities may be sited at any time according to the criteria and procedures provided in the plan.*
7. The plan recommends that each local unit of government determine which alternatives for the management of waste collection are best for it.
8. The plan recommends that the waste collection industry remain involved in material recovery.
9. The County Board of Commissioners or its agents shall be responsible for collecting all information needed to ensure implementation of this plan through the appointment and funding of a recycling coordinator.

* *Please note that the siting process and criteria a disposal area must be consistent with and reviewed upon is only found in Section III, starting on page III-42, and siting of a disposal area will not be reviewed against any other Section found within the Plan.*

INTRODUCTION

GOALS AND OBJECTIVES

To comply with Part 115 and its requirements, each plan must be directed toward goals and objectives based on the purposes stated in Part 115, Sections 11538.(1)(a), 11541.(4) and the state solid waste policy adopted pursuant to this section, and Administrative Rules 711(b)(I) and (ii). At a minimum, the goals must reflect two major purposes of solid waste management plans:

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

Goal 1: ***Provide protection for the public health, safety, and welfare of the citizens of the County as it relates to the management of solid waste.***

Objective 1a: To insure that all operating solid waste disposal areas comply with adopted state laws and regulations for proper solid waste management.

Objective 1b: To insure that existing, licensed solid waste disposal facilities are sufficient to meet the County's waste disposal needs for the ten-year period immediately following adoption of this plan.

Objective 1c: To insure that there is a contingency plan (i.e., alternatives) for meeting the County's waste disposal needs in emergency situations.

Goal 2: ***Protect the County's natural resources from pollution and contamination that could result from improper or mismanaged waste disposal.***

Objective 2a: To insure that proper disposal methods are being used in accordance with current regulations.

Objective 2b: To insure that ground and surface waters are not being contaminated from solid waste management practices.

Objective 2c: To minimize the use of landfills within Jackson County in order to protect the County's land resources.

Objective 2d: To insure compliance of operating facilities with air quality regulations minimizing the impact on neighboring uses of airborne particulate matter and odors associated with waste disposal practices.

Goal 3: ***Recognize solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.***

Objective 3a: To promote the reduction and reuse of solid waste where feasible.

Objective 3b: To assist both the private and public sectors in instituting composting and recycling programs where feasible.

Goal 4: ***Promote and use public education, marketing, and outreach to foster a better understanding and encourage broader participation in achieving the goals and objectives of this plan.***

Objective 4a: To inform the public about the existing solid waste management system and any proposed changes in the system.

Objective 4b: To inform the public about solid waste management and the value of recycling.

Goal 5: ***Maintain an efficient and environmentally sound waste collection system with adequate public and/or private facilities, including transportation.***

Objective 5a: To encourage local regulatory agencies and units of government to consider the impact of ordinances (e.g., noise, hours of operation, etc.) on the overall cost-effectiveness of operations which implement the solid waste management plan and conserve local transportation infrastructure.

Goal 6: ***Develop and implement an on-going solid waste planning, evaluation and management process.***

Objective 6a: To develop and implement measurements of successful plan implementation (i.e., metrics), as well as ongoing operation metrics.

Objective 6b: To amend/update the solid waste management plan every five years.

Objective 6c: To monitor State and Federal legislation affecting solid waste management.

DATA BASE

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

The following table estimates waste generation rates (i.e., cubic yards) in Jackson County for the years 2015, 2020 and 2025.

Waste Type	Current Annual Volume, 2015	Five-Year Annual Volume, 2020	Ten-Year Annual Volume, 2025
Municipal Solid Waste	201,662 cy	201,254 cy	200,847 cy
Industrial Waste	32,616 cy	32,500 cy	32,484 cy
Construction & Demolition	70,038 cy	69,896 cy	69,755 cy
Total Waste	304,316 cy	303,701 cy	303,085 cy

1. Current annual volumes were collected from the Michigan Department of Environmental Quality's *Report of Solid Waste Landfilled in Michigan* for FY 2014, after the closure of the RRF.
2. MSW projections were made by calculating the ratio of the estimated county population for 2015 to the actual annual volume in FY 2014. The result is that in 2015, Jackson County generated an estimated 1.26 cubic yards of MSW per person. The 1.26 cy/capita factor is multiplied by the 2020 and 2025 population projections.
3. Industrial waste volumes made by calculating the ratio of the estimated county population for 2015 to the actual annual volume in FY 2014. The result is that in 2015, Jackson County generated an estimated 0.20 cubic yards of IW per person. The 0.44 cy/capita factor is multiplied by the 2020 and 2025 population projections.
4. Construction demolition was projected by calculating the ratio of the estimated county population for 2015 to the actual annual volume in FY 2014. The result is that in 2015, Jackson County generated an estimated 0.44 cubic yards of C&D per person. The 0.44 cy/capita factor is multiplied by the 2020 and 2025 population projections.

TOTAL QUANTITY OF SOLID WASTE GENERATED – 303,701 cy (2020)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL - 303,701 cy (2020)

Overall, the county does not anticipate major problems associated with managing the solid waste generated with its borders. Because the projected population decreases are low and manageable within the current system.

DATA BASE

Inventory and description of all solid waste disposal areas within Jackson County to meet its disposal needs for the planning period (not inclusive of out-county disposal areas)

Solid waste disposal areas within Jackson County (as of October 1, 2015) used by its residents, businesses, and haulers include:

McGill Road Landfill

McGill Road Landfill is a Type II facility with an approved capacity of 40.2 acres and a constructed capacity of 15.2 acres, on a 34.1-acre site. It handled a volume of 50,000 tons.

Liberty Environmentalist Landfill

Liberty Environmental Landfill is a Type III landfill in Liberty Township with an estimated lifetime of 50 years. The landfill receives an annual volume of 125,000 tons of material. *A Type B Transfer Facility is also operated within the landfill.*

Modern Waste Systems

Modern Waste Systems Type A Transfer Facility & Processing Plant operates 300 days a year and has an estimated yearly disposal rate of 105,000 tons. Recycling also takes place.

Northwest Refuse, Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

Northwest Refuse, Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)Type A Transfer Facility & Processing Plant operates over 300 days a year and has an estimated yearly disposal/transfer rate of 130,000 cubic yards. Recycling also takes place at this facility.

Rives Township Transfer Facility

The Rives Township Type B Transfer Facility operates on Saturdays year-round and Wednesday afternoons during the summer. Recycling also takes place at this facility. The waste is disposed of at the discretion of their hauler.

Henrietta Township Transfer Facility

The Henrietta Township Type B Transfer Facility operates on Saturdays between 9:00 a.m. and 3 p.m. Recycling also takes place at this facility. The waste is disposed of at the discretion of their hauler.

Note:
A Facility Description Sheet for each area follows.

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: McGill Road Landfill

County: Jackson Location: Town: 2S Range: 1E &1W Section(s): 19 & 24

Map identifying location included in Map II-1: ☒ Yes ☐ No

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

☐ Public ☒ Private Owner: Waste Management of Michigan, Inc.

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site does not accept friable asbestos

Site Size:

Total area of facility property:	134.08	acres
Total area sited for use:	134.08	acres
Total area permitted:	134.08*	acres
Operating:	30.26	acres
Not excavated:		acres
Closed	10.78	acres
Isolation and Ancillary	93.04	acres

* Permit No. 4037, issued on August 23, 2005, identifies 41.1 acres permitted for waste disposal. Construction for waste disposal beyond this acreage will require a new construction permit

Current capacity:	838,000	☐ tons or ☒ cubic yards per day
Estimated lifetime:	13	years
Estimated days open per year:	270	days
Estimated yearly disposal volume:	50,000	☒ tons or ☐ cubic yards

(if applicable)

Annual energy production:

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

Return to Amendment Letter

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Liberty Environmentalist Landfill

County: Jackson Location: Town: 4S Range: 1W Section(s): 13

Map identifying location included in Map II-1: ☒ Yes ☐ No

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

☐ Public ☒ Private Owner: Liberty Environmentalists

Operating Status		Waste Types Received	
☒	Open	☐	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Foundry sand; transfer of recycling; waste water treatment plant sewage when vented with gas burn-off

Site Size:

Total area of facility property:		339	acres
Total area site for use:	339	acres	
Total area permitted:	339*	acres	
Operating:	34.0	acres	
Not excavated:		30.2	acres
Closed	17.46	acres	
Isolation and Ancillary		257.34	acres

* Permit No. 4163, issued on October 28, 2013, identifies 82.1 acres permitted for waste disposal. Construction for waste disposal beyond this acreage will require a new construction permit.

Current capacity:	500	☒ tons or ☐ cubic yards per day
Estimated lifetime:	50	years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	125,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: _____ megawatts
Waste-to-energy incinerators: _____ megawatts

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility & Processing Plant

Facility Name: Modern Waste Systems

County: Jackson Location: Town: 4S Range: 1E Section(s): 1

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☐ Public ☒ Private Owner: Modern Waste Systems

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	3	acres
Total area site for use:	3	acres
Total area permitted:	3	acres
Operating:		acres
Not excavated:		acres

Current capacity:	500	☒ tons or ☐ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		300 days
Estimated yearly disposal volume:	105,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: _____ megawatts
Waste-to-energy incinerators: _____ megawatts

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility & Processing Plant

Facility Name: Northwest Refuse, Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

County: Jackson Location: Town: 2S Range: 1W Section(s): 22

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: Granger Wood Street Landfill or Granger Grand River Avenue Landfill.

☐ Public ☒ Private Owner: Northwest Refuse, Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Accepts special wastes as authorized by Part 115 of Act 451. Requires review and approval of operator.

Site Size:

Total area of facility property:	29.27	acres
Total area site for use:	29.27	acres
Total area permitted:	29.27	acres
Operating:	9.65	acres
Not excavated:	N/A	acres
Current capacity:	~250	☒ tons or ☐ cubic yards per day
Estimated lifetime:	N/A	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	130,000	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Henrietta Township Transfer Facility

County: Jackson Location: Town: 1S Range: 1E Section(s): 16

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☒ Public ☐ Private Owner: Henrietta Township

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☐	Licensed	☒	Industrial
☒	Unlicensed	☒	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	30	acres
Total area site for use:	1	acres
Total area permitted:	1	acres
Operating:		acres
Not excavated:		acres
Current capacity:	170	☐ tons or ☒ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		52 days
Estimated yearly disposal volume:	3,640	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Rives Township Transfer Facility

County: Jackson Location: Town: 1S Range: 1W
Section(s): 15

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☒ Public ☐ Private Owner: Rives Township

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☐	Licensed	☒	Industrial
☒	Unlicensed	☒	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	5.25	acres
Total area site for use:	1+	acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Current capacity:	160	☐ tons or ☒ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		74 days
Estimated yearly disposal volume:	6,510	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Liberty Environmentalist Landfill

County: Jackson Location: Town: 4S Range: 1W Section(s): 13

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☐ Public ☒ Private Owner: Liberty Environmentalists

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☐	Licensed	☐	Industrial
☒	Unlicensed	☐	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	339	acres
Total area site for use:	339	acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Closed		acres
Isolation and Ancillary		acres

Current capacity: 100 ☐ tons or ☒ cubic yards per day

Estimated lifetime: _____ years

Estimated days open per year: 300 days

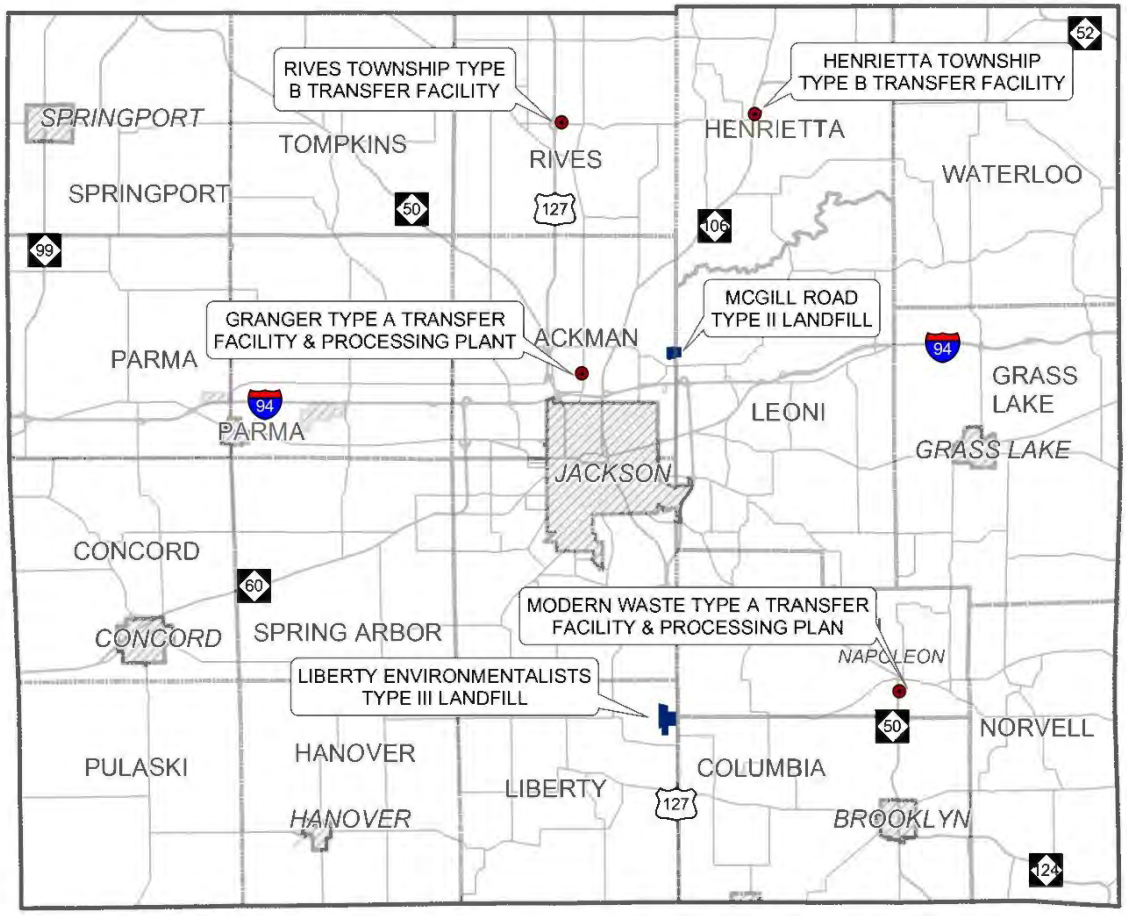
Estimated yearly disposal volume: 4,500 ☐ tons or ☒ cubic yards

(if applicable)

Annual energy production:

Landfill gas recovery projects: _____ megawatts

Waste-to-energy incinerators: _____ megawatts



JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN 2016 AMENDMENT

MAP II-1

SOLID WASTE FACILITIES

LANDFILLS

TRANSFER FACILITIES

LEARN MORE ABOUT RECYCLING OPPORTUNITIES BY VISITING RECYCLING JACKSON'S WEBSITE -- HTTP://RECYCLINGJACKSON.COM

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON
- REGION 2 PLANNING COMMISSION

JULY 13, 2016

Miles
0 2 4 6

Other Jackson County Recycling Opportunities

Scrap Metal Dealers

Various local companies divert metals from the waste stream, including (but not necessarily limited to: We Buy Your Junk, T&B Hauling and Metal Recycling, Omnisource, Jackson Iron & Metal, We Buy Junk Cars & Pay More/Cash for Junk Cars Today Free Removal, United Metals, Jay's Helping Hand, and A-1 Auto Salvage & Scrap.

Recycling Jackson

Recycling Jackson (RJ) focuses on educating children and adults about the benefits of recycling and providing a recycling center. Patrons may dispose of electronics, florescent bulbs, batteries, and latex paint for set fees as well as paper, clear glass, metal cans, and Styrofoam.

Greater Jackson Habitat for Humanity

Habitat for Humanity's ReStore is a nonprofit home improvement store/donation center that sells new and gently used furniture, home accessories, building materials, and appliances.

Various second-hand stores

Goodwill, St. Vincent DePaul, and various for profit consignment stores are engines of source reduction by accepting clothes, furniture, and other household items that would otherwise end up in the waste stream.

Pharmaceuticals

Some pharmacies may accept unused pharmaceuticals for proper disposal. The City of Jackson Police Department accepts and disposes of old pharmaceuticals. The Jackson County Health Department also disposes of unused pharmaceuticals as part of its Household Hazardous Waste events.

Tire recycling

Kurpinski Metal Recycling accepts tires as does the local Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson) transfer facility. Tire shops and other automotive centers may also dispose of tires for their patrons.

Municipal recycling centers

The transfer facilities operated by Henrietta and Rives Townships accept recyclables. Leoni and Grass Lake Townships also operate drop-off-facilities.

Municipal Cleanup Days

Many other municipalities sponsor cleanup days for their residents. Those events will be different in every community. Residents and businesses should contact their municipality directly for specific information.

Educational programs

Jackson County is developing an educational program regarding recycling through the Jackson County Conservation District. Many trash haulers may also have some educational materials. The Dahlem Center and local school districts may also be resources.

DATA BASE

SOLID WASTE COLLECTION SERVICES
AND TRANSPORTATION INFRASTRUCTURE

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

Collection

There are no governmentally operated municipal collection systems in Jackson County other than the transfer facilities provided by two townships (Henrietta and Rives) for their residents. All of the haulers are private operators. Three villages (Concord, Cement City, and Parma) and the Lake Columbia Association (Columbia Township) contract with private haulers to provide residential service.

Below is a list of the collection services/haulers within Jackson County. However, this is not intended to be an all-inclusive. The services are provided county-wide. There are no service area limitations.

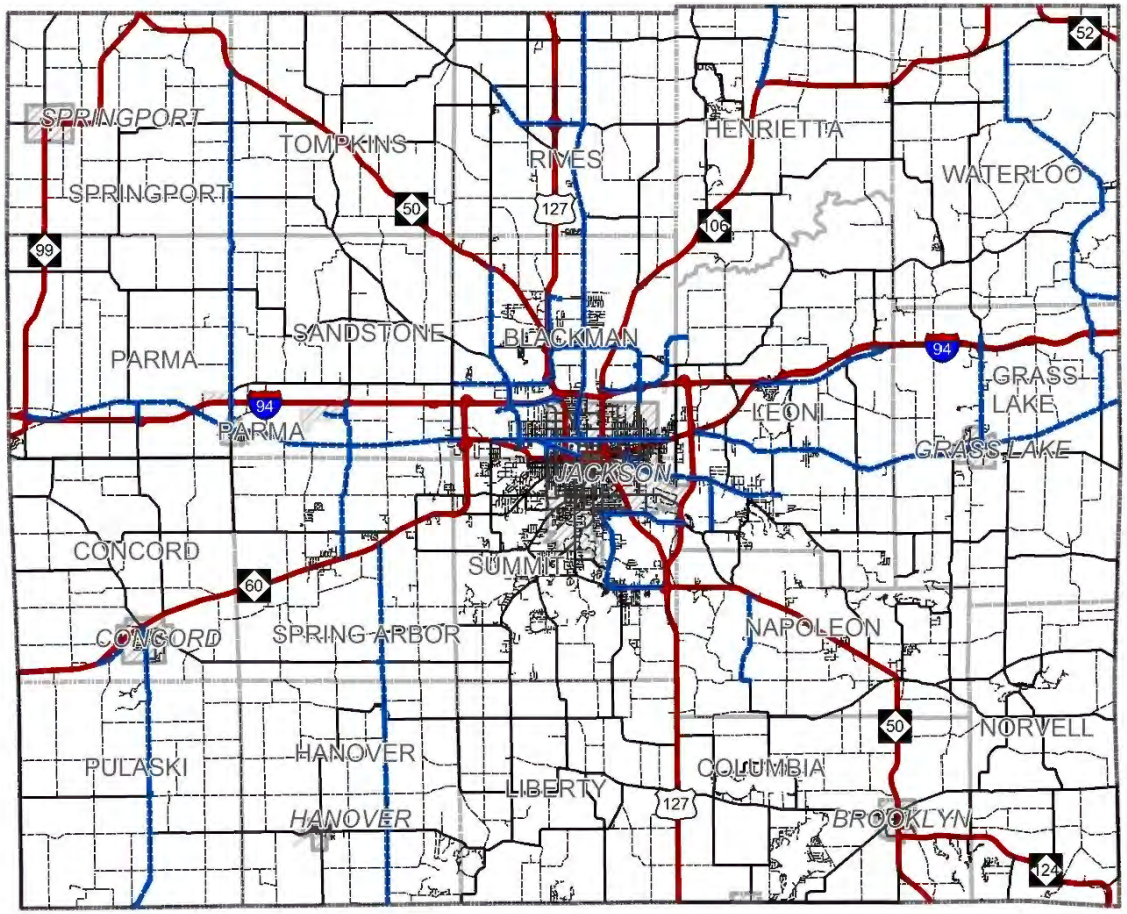
- Republic Services, Inc.
- Bradford Service
- Buckner's Garbage Service
- Bulldog Refuse
- Cyclone Environmental
- Emmons Service Inc.
- Get it Out of Here Co.
- Ideal Disposal Inc.
- Liberty Environmentalists Landfill
- Bulldog Refuse

- Republic Services, Inc.
- Bradford Service
- Buckner's Garbage Service
- Bulldog Refuse
- Cyclone Environmental
- Emmons Service Inc.
- Get it Out of Here Co.
- Ideal Disposal Inc.
- Liberty Environmentalists Landfill
- Bulldog Refuse

Transportation

The major routes used to transport refuse from the collection areas to the disposal sites are state highways (built to all-season standards), other all-season routes, and other county primary roads and city major streets (please see Map II-2). Road weight restrictions on routes which are not built to all-season standards, especially when frost laws are in effect, can have a significant impact on the movement of solid waste because these are generally high-density loads. Weigh limitations are set by the State of Michigan in the Motor Vehicle Traffic Code. The enforcement agency is the Commercial Vehicle Enforcement Division of the Michigan State Police.

There are no locally imposed width limitations on these highways other than all vehicles greater than 8 feet, 6 inches, must obtain a permit from the Jackson County Department of Transportation for an oversized load.



JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN 2015 AMENDMENT

MAP II-2

PRIMARY TRANSPORT ROUTES

- STATE HIGHWAYS
- COUNTY PRIMARY ROADS AND CITY MAJOR STREETS
- OTHER ALL SEASON ROUTES*
- COUNTY LOCAL ROADS AND CITY MINOR STREETS

**THERE ARE MORE ALL SEASON ROUTES IN THE CITY AND VILLAGES THAN DISPLAYED. CONNECTIONS WERE SIMPLY MADE TO THOSE ROUTES EXTENDING OUT INTO THE TOWNSHIPS.*

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- JACKSON COUNTY DEPARTMENT OF TRANSPORTATION
-REGION 2 PLANNING COMMISSION

JULY 13, 2016

Miles
0 2 4 6

EVALUATION OF DEFICIENCIES AND PROBLEMS

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

Closure of the RRF. The State of Michigan's Department of Corrections decided to not renew its contract with Jackson County for the sale of steam and electricity produced by the RRF (i.e., the waste to energy incinerator). The loss of that contract and the unavailability of an alternative customer made the operation economically unviable, leading to its permanent closure. The benefit of solid waste volume reduction from incineration ceased, resulting in an immediate increase in the volume of solid waste needing to be dealt with. The additional volume of solid waste now that it is no longer incinerated must be recycled or landfilled.

Termination of flow control. The legal basis for the County's flow control ordinance was eliminated with the closure of the RRF. The County subsequently terminated its flow control ordinance, opening the county up to the importation and exportation of solid waste at the discretion of landfill operators and trash haulers. The ability of County government to control the volume of solid waste disposed of within Jackson County has been severely reduced.

Landfill Capacity. It is in the interest of the operator of the county's single Type II landfill to maximize the importation of solid waste into the county while it is in the interest of county residents to minimize the importation of solid waste so that the life of the McGill Road Landfill is not shortened.

Recycling. Given the closure of the RRF, recycling is even more important as it pertains to decreasing the volume of solid waste generated in Jackson County. Although non-profit organizations, local governments, and trash haulers have instituted various recycling programs and facilities, the opportunity to further increase the level of recycling still exists.

Some municipal recycling transfer facilities have been very successful while others closed due to a variety of operational issues.

Illegal dumping. Dumping on back roads and empty lots continues to be a problem. Tires are a particular disposal problem along back roads, waterways, and other remote areas.

Siting of new facilities. There is little land suitable in Jackson County for the siting of a new Type II landfill.

Enforcement of regulations/standards. Roadside dumping and other illegal disposal continue to be a problem which may require local or county ordinances to properly enforce.

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.

Current and Projected Population

The 2010 population figures utilized in this plan come from the 2010 U.S. Census. The 2040 population projections were developed for the Jackson Area Comprehensive Transportation Study's *2040 Long Range Transportation Plan* "based on previous trends as depicted in" historic U.S. Census data "and on the Regional Economic Models Inc. (REMI) forecast data developed for the Michigan Department of Transportation. The REMI data forecast is based upon the Cohort Survival methodology in association with economic development factors for a particular jurisdiction." The data was then "straight-lined" to obtain 5-year increments. As the table below depicts, the countywide population is projected to remain fairly stable, decreasing slightly to 0.20% by 2015, 0.40% by 2020, 0.61% by 2025, and 1.21% by 2040.

Table II-1
Current and Projected Population

	2010	2015	2020	2025	2030	2035	2040
Jackson County	160,248	159,924	159,600	159,276	158,952	158,628	158,304

Source: REMI & Region 2 Planning Commission

Current and Projected Population Density and Centers

For the purposes of this plan, Jackson County has been divided into several segments: the City of Jackson; the surrounding Urban Townships of Blackman, Leoni, Summit, and Spring Arbor; and the remaining Rural Townships, including the various villages (please see the Map II-3).

The slight population loss projected for Jackson County is due to the City of Jackson which is projected to lose 11.23% of its population by 2040. However, the population will be fairly stable in the remainder of Jackson County. A small amount of population growth is projected in the Urban Townships (1.01%) and Rural Townships (1.94%).

Table II-2
Current and Projected Population

	2010	2015	2020	2025	2030	2035	2040
City of Jackson	33,534	32,881	32,253	31,626	30,999	30,371	29,744
Urban Townships	68,633	68,784	68,900	69,016	69,131	69,247	69,363
Rural Townships	58,081	58,260	58,447	58,635	58,822	59,010	59,197

Source: REMI & Region 2 Planning Commission

Population density is also projected to remain fairly stable countywide, decreasing by and

estimated 2.7 persons per square mile between 2010 and 2040. Consequently, the estimated population density range is 221.0- 220.1 persons per square mile for 2015-2025. However, the City of Jackson is projected to lose 345.4 people per square mile between 2010 and 2040. Nevertheless, the City will remain the most densely populated area in Jackson County with an estimated population density range of 2,997.0-2,882.6 persons per square mile for 2015-2025.

Table II-3
Current and Projected Population Density (Persons Per Square Mile)

	2010	2015	2020	2025	2030	2035	2040
Jackson County	221.5	221.0	220.6	220.1	219.7	219.2	218.8
City of Jackson	3,056.5	2,997.0	2,939.8	2,882.6	2,825.4	2,768.3	2,711.1
Urban Townships	460.7	461.8	462.5	463.3	464.1	464.9	465.6
Rural Townships	80.3	80.5	80.8	81.0	81.3	81.6	81.8

Source: Region 2 Planning Commission

In contrast, the population density within the remainder of Jackson County is projected to remain fairly stable with a slight increase in population density. Population density within the Urban Townships is projected to increase by 4.9 persons per square mile between 2010 and 2040. Consequently, the population density range within the Urban Townships is estimated to be 461.8-463.3 persons per square mile for 2015-2025. The Rural Townships are also projected to increase slightly by 1.5 persons per square mile between 2010 and 2040. Accordingly, the population density range within the Rural Townships is estimated to be 80.5-81.0 persons per square mile for 2015-2025.

Current and Projected Centers of Solid Waste Generation

Centers of waste generation can often be related to the density of development. Areas which contain concentrations of residential, commercial, or industrial uses also generate concentrations of waste. In general, the density of development is greatest in the City of Jackson, decreasing outward through the Urban Townships and Rural Townships. However, other concentrated pockets of development exist in the various villages located within the Rural Townships, the census designated places (CDPs) located with the Urban Township and Rural Townships, and other clustered development (please see the Map II-3). Factors which influence the pattern of development in Jackson County include the location of transportation facilities such as I-94, US-127, M-60, M-106 and M-50 (please see Maps II-2 and II-3); the predominance of development; and the lack of central sewer and water services in much of the county.

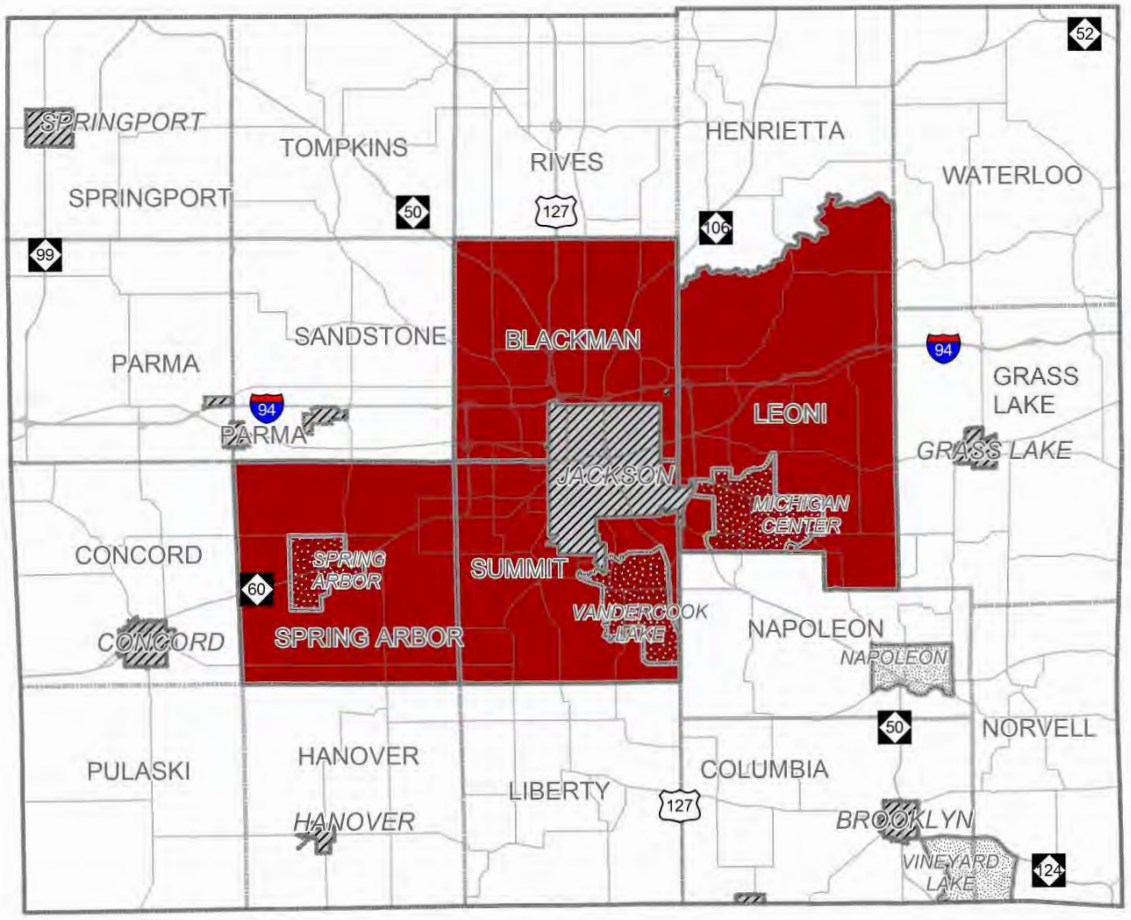
Other Jackson County Population Centers

Villages

Brooklyn
Concord
Grass Lake
Hanover
Parma
Springport
Cement City (partial)

Census Designated Places (CDPs

Michigan Center
Napoleon
Spring Arbor
Vandercook Lake
Vineyard Lake



JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN 2016 AMENDMENT

MAP II-3

MUNICIPALITIES AND PLACES

URBAN TOWNSHIPS

CITY AND VILLAGES

CENSUS DESIGNATED PLACES (CDP)

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- US BUREAU OF THE CENSUS
-REGION 2 PLANNING COMMISSION

July 13, 2016

Miles
0 2 4 6

DATA BASE

LAND DEVELOPMENT

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

The land development pattern of Jackson County is characterized by the Jackson Urbanized Area—comprised of the City of Jackson at its core, substantial portions of the townships of Blackman, Leoni, Spring Arbor, and Summit, and small extensions into the townships of Napoleon, Rives, and Sandstone (see Map I-1)—and the surrounding rural area, including small urban settlements located in and around both incorporated and unincorporated villages, lakeside developments, and dispersed development along county roads.

For the purpose of this plan Jackson County is divided into three sectors (see Map II-2):

- the City of Jackson;
- the surrounding Urban Townships of Blackman, Leoni, Spring Arbor, and Summit; and
- the remaining Rural Townships, including the incorporated villages.

Residential development is found throughout the county and continues to disperse. The percentage of the county's population residing in the City of Jackson has decreased (-4.1%) while the percentage of the population living in the Urban Townships (1.4%) and Rural Townships (2.6%) grew between 1990 and 2010. Although the slight population growth projected within the county is limited to the Urban and Rural Townships over the next ten years, the replacement of older housing stock and the formation of new households can be expected to create some demand for new residential development. However, the increasing value of agricultural land may slow the dispersal of residential growth within the Rural Townships (outside of villages, census designated places, lake developments, and other settlements) as well as the undeveloped portions of the Urban Townships. The incidence of adult children living in their parents' homes may also decrease the need for additional dwelling units. Various initiatives within Jackson may reduce population decline in the City as young people gravitate towards urban centers. The high level of renters within the City may also impact how solid waste is disposed of in Jackson.

Residential development is most dense in the City of Jackson with 3,065.5 people per square mile. Despite its projected population decrease, the City is still estimated to have 2,711 people per square mile in 2040. The next most densely populated area is the Urban Townships with 460.7 people per square mile in 2010 and a projected 456.6 people per square mile in 2040. The Rural Townships have the least population density with 80.3 people per square mile in 2010 and a projected 81.8 people per square mile in 2040.

However, the pattern of residential development in the Urban Townships and Rural Townships is sporadic. Population density is likely to be much greater within and surrounding villages, census designated places, lake communities, and other settlements (see Map II-2). Much of that residential development has occurred in subdivisions whose placement is controlled by one or more of the following factors:

- the location of transportation corridors,
- the availability of central sewer and water, and
- various environmental constraints.

However, a significant amount of residential development in the Urban Townships and Rural Townships has also occurred on scattered sites along county roads and state highways.

Most of the commercial development in Jackson County is located in the City of Jackson and the Urban Townships (see Map I-1). It is concentrated in Downtown Jackson and smaller central business districts (e.g., Michigan Center, and Spring Arbor), in various shopping centers (e.g., Jackson Crossing, Westwood Mall, etc.), and in strip development along the major thoroughfares. Outside the urban area, the most intense commercial development is located in the villages (e.g., Brooklyn, Springport, etc.) and census designated places (e.g., Napoleon, Vineyard Lake, etc.) as well as other settlements. However, small commercial establishments continue to be scattered throughout Jackson County.

Industrial land uses are focused in the City of Jackson and the Urban Townships. Businesses and industries in the Rural Townships are likely to be located in the vicinity of a village, census designated place, or designated industrial park. However, small industrial facilities continue to be scattered throughout Jackson County. Future industrial development is likely to occur along the I-94 Corridor as well as state highways (e.g., M-50, US-127, etc.) and other all-season roads.

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES

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

SOLID WASTE MANAGEMENT ALTERNATIVES AND EVALUATION

Description of the Alternative

Several alternatives are considered for solid waste management in Jackson County. Two fundamental approaches (i.e., alternatives) were considered. Due to past solid waste management practices, the initial alternatives considered were a system controlled by the County versus a system controlled by the private sector. Using the 'decision table' (see below), the Solid Waste Management Planning Committee defined each alternative as a set of 'decision choices' across all the 'decision areas'. After those alternatives were defined, it was clear that each possessed certain strengths missing in the other. Consequently, the Solid Waste Management Planning Committee built a third alternative—using the 'decision table'—which sought to combine wherever possible the strengths of Alternatives A and B.

Decision Table Template

Dispose at Landfill(s) Located	Landfill Sites to include in the selected system	Flow Control In Effect	Landfill Sites to Utilize Chosen By	Solid Waste Collection & Transport Done By	Education Performed By	Education Funded By	Utilize Transfer Facilities	Transfer Facility Site Selection	Method to Increase Amount of Solid Waste Collected	Method to Increase Amount of Solid Waste Recycled	Collecting Recyclable Solid Waste
Entirely Inside Jackson County	Establish New County Owned & Operated Landfill	Yes	County Government	County Run Organization	Full Time County Employee	Portion of County Disposal Fee	County Owned and Operated	County Selects	Mandated by County	Mandated by County	Separate Containers & Separate Trucks
Entirely Outside Jackson County	McGill Road Privately Operated	No	Private Haulers	Private Haulers Competing for Individual Customers	Part Time County Employee	Surcharge on Private Haulers	Township Owned and Operated	County Recommends	Advocated by County	Advocated by County	Bagged Separately, Same Container, Same Truck
Both Inside and Outside Jackson County	Liberty Landfill Privately Operated	-	-	Private Haulers Under County Contracts	County Contracts Service from Existing Local Organization	Surcharge on Private Landfills	Privately Owned and Operated	Owner Selects	Allow Mandate by Municipality	Advocated by Private Haulers	Mixed at Source, Separated After Collected
-	Out of County Sites	-	-	Private haulers under municipal contracts	Private Haulers at Their Discretion	County Budget	Municipal cleanup events	None	Advocated by Municipality	Financial Incentives by Private Haulers (Pricing)	Other Innovative Methods
-	-	-	-	-	-	Private Hauler Self Funded	None	-	No Mandate	-	-
-	-	-	-	-	-	Pursue Grants	-	-	-	-	-

Alternative A, 'The County Does It All', is built around the premise that exercising county government's power to control, compel, prohibit, and charge is necessary for solid waste management to be successful. Alternative B, 'The Free Market (All Private)', is built around the premise that private enterprise and free market forces can deliver the best results in solid waste

management. Alternative C, 'The Best of Both Hybrid', is built around the premise that neither government nor the private sector can deliver the best results in solid waste management. Combining the strengths and capabilities of both approaches enables a better outcome than could be achieved by either one alone. Each alternative addresses the following 'decision areas' (i.e., questions).

- Will solid waste be disposed of in landfills located inside and/or outside of the County and what landfills will be included in the selected system?
- Will a flow control ordinance be in effect and who will choose the landfills to be utilized?
- Who will collect and transport solid waste?
- Who will provide and fund solid waste education?
- How will transfer facilities be utilized and who will choose the transfer facilities to be utilized?
- What methods will be used to increase the amount of solid waste collected?
- What methods will be used to increase the amount of solid waste recycled?
- How will recyclable solid waste be collected?

Alternative A 'The County Does It All'

Alternative A is built around the premise that exercising county government's power to control, compel, prohibit, and charge is necessary for solid waste management to be successful. This approach would have all solid waste generated within Jackson County directed to a County-owned and -operated landfill, enforced by a County ordinance. Solid waste collection and transport would be provided by a County-run organization. Transfer facilities would be owned and operated by the County. Education would be performed by a full-time County employee funded by a portion of disposal fees. Recycling would be mandated by Jackson County as well as how it is collected and transported.

Alternative B 'The Free Market (All Private)'

Alternative B is built around the premise that private enterprise and free market forces can deliver the best results in solid waste management. This approach would have private haulers competing for individual customers and transporting solid waste for disposal in landfills located inside or outside Jackson County, at their own discretion. Transfer facilities would be privately owned and operated. Any education would be performed and funded by private haulers, utilizing grants when available. There would be no flow control or other mandates from county government to increase the amount of solid waste collected. Any recycling would be encouraged and advocated by private haulers, with price incentives being a possible method. Recycling would be up to the private sector, including how it is collected and transported.

Alternative C 'The Best of Both Hybrid'

Alternative C is built around the premise that neither government nor the private sector can deliver the best results in solid waste management. Combining the strengths and capabilities of both approaches enables a better outcome than could be achieved alone. Private haulers would dispose of solid waste at landfills of their choosing, both inside and outside Jackson County. They would also compete for private customers, but could also have municipal contracts.

Education would be performed by a part-time Jackson County employee, by contract with an existing local organization, and/or by private haulers. County education would be funded through its general fund and hauler efforts would be self-funded. Transfer facilities could be operated by township governments as well as privately owned and municipalities could also schedule special collection events. Increasing the amount of recyclables and solid waste collected would be advocated by both Jackson County and private haulers and encouraged through private hauler price incentives. Private haulers would also choose how to collect and transport recyclables.

Evaluation of Alternatives

Each of the three alternatives was evaluated against ten criteria: two major purposes required by the State of Michigan regarding compliance with Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994, MCL 324.11501 *et seq.*), the six updated *Jackson County Solid Waste Management Plan* goals, and sets of project management and process quality attributes.

Part 115, Solid Waste Management, Purposes

- 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 resources recovery.
- 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.

Updated *Jackson County Solid Waste Management Plan* Goals

- Provide protection for the public health, safety, and welfare of the citizens of the County as it relates to the management of solid waste.
- Protect the County's natural resources from pollution and contamination that could result from improper or mismanaged waste disposal.
- Recognize solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.
- Promote and use public education, marketing, and outreach to foster a better understanding and encourage broader participation in achieving the goals and objectives of this plan.
- Maintain an efficient and environmentally sound waste collection system with adequate public and/or private facilities, including transportation.
- Develop and implement an on-going solid waste planning, evaluation and management process.

Project Management and Process Quality Attributes

- Implementation and operation cost, implementation and operation complexity/difficulty, length of time to implement, and risk of failure during implementation or operation.
- Process effectiveness, process efficiency, and process flexibility/adaptability when circumstances change.

The Solid Waste Management Planning Committee considered each of the alternatives against each of these criteria and ranked them as excellent, good, fair, or poor.

Evaluation Criteria	Alternative A	Alternative B	Alternative C
Resource Use	good	good	good
Prevent Adverse Effects	good	good	good
Protect Health, Safety, Welfare	good	good	good
Protect Natural Resources	excellent	good	good
Solid Waste as a Resource	good	good	excellent
Promote Vitality, Ecology, Quality, Sustainability	good	good	excellent
Efficient and Sound Collection System	fair	good	excellent
Planning, Evaluation, Management Process	good	good	good
Cost, Complexity, Time to Implement, Risk	poor	excellent	good
Effectiveness, Efficiency, Flexibility	fair	good	excellent

Alternative C is the solid waste management system selected by the Solid Waste Management Planning Committee for Jackson County.

This page was left intentionally blank

THE SELECTED SOLID WASTE

MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing Jackson County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of Jackson 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 B. Following is an overall description of the Selected System:

Alternative C—'The Best of Both Hybrid'—is described below, utilizing the 'decision areas' and 'decision choices' identified in the 'decision table'.

- **Will solid waste be disposed of in landfills located inside and/or outside of the County and what landfills will be included in the selected system?**

  Solid waste generated in Jackson County may be disposed of in landfills located inside and outside of Jackson County. The McGill Road (Type II) and Liberty Environmental Landfill (Type III)—which are located in Jackson County—are included in the selected system. Various landfills located outside of the County which are utilized regularly by trash haulers are also included in the selected system. The plan does not foresee any need for a new landfill to be located within the County.

- **Will a flow control ordinance be in effect and who will choose the landfills to be utilized?**

  No flow control ordinance will be in effect and trash haulers will choose the landfills where the trash they collect is deposited, provided the county in which a landfill is located is listed in Table 2-A—Current Export Volume Authorization of Solid Waste—of the *Jackson County Solid Waste Management Plan*.

- **Who will collect and transport solid waste?**

  Solid waste will be collected and transported by private sector trash haulers. Throughout most of Jackson County, trash haulers will compete directly for individual customers (i.e. households and businesses). However, local governments with appropriate authority may evaluate and implement a contract or agreement with a hauler(s).

- **Who will provide and fund solid waste education?**

  Jackson County will hire a part-time employee and/or contract with an existing local organization to develop and execute a solid waste education program. The program will be funded through the County's general fund on an annual basis. Trash haulers and other private sector organizations involved in solid waste management may also provide educational programs to their customers, at their own discretion and expense. However, the County and the private sector may also pursue grants to fund solid waste education.

- **How will transfer facilities be utilized and who will choose the transfer facilities to be utilized?**

  Municipalities may own and operate transfer facilities in the County so long as they are included in or consistent with the Plan; Rives and Henrietta Townships already operate such facilities. Transfer facilities may also be owned and operated by the private sector; Modern Waste operates a private facility in Napoleon Township. Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson) operates a private facility in Blackman Township. Individual households and businesses will make the decision to utilize transfer facilities in general as well as a specific facility. The County and municipalities may also organize various community clean-up events (e.g., electronics and other household items, unused pharmaceuticals, batteries, etc.).

- **What methods will be used to increase the amount of solid waste collected?**

  Jackson County will not enact a mandate to increase the proper collection and disposal of solid waste although it may be an advocate. The plan does not bar municipalities from enacting their own mandates or to become advocates of the practice.

- **What methods will be used to increase the amount of solid waste recycled?**

  Jackson County will not enact a mandate to increase the amount of recycled solid waste although it may be an advocate. The private sector may also advocate for increased recycling by providing the option to their customers as well as providing financial incentives (e.g., a customer may require a smaller less costly container if more is recycled). Those municipalities which contract for trash hauling services on behalf of their constituents may also advocate by including recycling in that service.

- **How will recyclable solid waste be collected?**

  The plan allows for all of the current local collection practices for recyclables: separate containers and separate trucks; bagged separately but same container or truck; and mixed at source and separated after collection. However, it also allows for other innovative methods to be introduced as they become available.

Alternative C: The Best of Both Hybrid

Dispose at Landfill(s) Located	Landfill Sites to include in the selected system	Flow Control In Effect	Landfill Sites to Utilize Chosen By	Solid Waste Collection & Transport Done By	Education Performed By	Education Funded By	Utilize Transfer Facilities	Transfer Facility Site Selection	Method to Increase Amount of Solid Waste Collected	Method to Increase Amount of Solid Waste Recycled	Collecting Recyclable Solid Waste
Entirely Inside Jackson County	Establish New County Owned & Operated Landfill	Yes	County Government	County Run Organization	Full Time County Employee	Portion of County Disposal Fee	County Owned and Operated	County Selects	Mandated by County	Mandated by County	Separate Containers & Separate Trucks
Entirely Outside Jackson County	McGill Road Privately Operated	No	Private Haulers	Private Haulers Competing for Individual Customers	Part Time County Employee	Surcharge on Private Haulers	Township Owned and Operated	County Recommends	Advocated by County	Advocated by County	Bagged Separately, Same Container, Same Truck
Both Inside and Outside Jackson County	Liberty Landfill Privately Operated	-	-	Private Haulers Under County Contracts	County Contracts Service from Existing Local Organization	Surcharge on Private Landfills	Privately Owned and Operated	Owner Selects	Allow Mandate by Municipality	Advocated by Private Haulers	Mixed at Source, Separated After Collected
-	Out of County Sites	-	-	Private haulers under municipal contracts	Private Haulers at Their Discretion	County Budget	Municipal cleanup events	None	Advocated by Municipality	Financial Incentives by Private Haulers (Pricing)	Other Innovative Methods
-	-	-	-	-	-	Private Hauler Self Funded	None	-	No Mandate	-	-
-	-	-	-	-	-	Pursue Grants	-	-	-	-	-

SELECTED SYSTEM

IMPORT AUTHORIZATION

If a licensed solid waste disposal area is currently operating within the county, disposal of solid waste generated by the following EXPORTING COUNTIES are authorized by Jackson 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	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS
Jackson	Allegan				P
Jackson	Barry				P
Jackson	Berrien				P
Jackson	Calhoun				P
Jackson	Cass				P
Jackson	Clinton				P
Jackson	Eaton				P
Jackson	Genessee				P
Jackson	Gratiot				P
Jackson	Hillsdale				P
Jackson	Ingham				P
Jackson	Ionia				P

n/a - not applicable

a. Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.
b. Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

Table 1-A (cont'd)
CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS
Jackson	Kalamazoo				P
Jackson	Lenawee				P
Jackson	Livingston				P
Jackson	Macomb				P
Jackson	Monroe				P
Jackson	Montcalm				P
Jackson	Muskegon				P
Jackson	Newaygo				P
Jackson	Oakland				P
Jackson	St. Clair				P
Jackson	St. Joseph				P
Jackson	Sanilac				P
Jackson	Shiawassee				P
Jackson	Van Buren				P
Jackson	Washtenaw				P
Jackson	Wayne				P

n/a - not applicable

a. Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.
b. Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and operating in the future in the county, then disposal of solid waste generated by the exporting county is authorized by the importing county up to the authorized quantity according to the authorized conditions in Table 1-B.

Table 1-B
FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS

n/a - not applicable

a. Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.
b. Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

EXPORT AUTHORIZATION

If a licensed solid waste disposal area is currently operating with 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	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS
Jackson	Allegan				P
Jackson	Barry				P
Jackson	Berrien				P
Jackson	Calhoun				P
Jackson	Cass				P
Jackson	Clinton				P
Jackson	Eaton				P
Jackson	Genesee				P
Jackson	Gratiot				P
Jackson	Hillsdale				P
Jackson	Ingham				P
Jackson	Ionia				P

n/a - not applicable

a. Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county
b. Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

Table 2-A (cont'd)
CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS
Jackson	Kalamazoo				P
Jackson	Lenawee				P
Jackson	Livingston				P
Jackson	Macomb				P
Jackson	Monroe				P
Jackson	Montcalm				P
Jackson	Muskegon				P
Jackson	Newaygo				P
Jackson	Oakland				P
Jackson	St. Clair				P
Jackson	St. Joseph				P
Jackson	Sanilac				P
Jackson	Shiawassee				P
Jackson	VanBuren				P
Jackson	Washtenaw				P
Jackson	Wayne				P

n/a - not applicable

a. Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county
b. Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM

If a new solid waste disposal area is constructed and 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	AUTHORIZED QUANTITY/DAILY	AUTHORIZED QUANTITY/ANNUAL	AUTHORIZED CONDITIONS

n/a - not applicable

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

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

SELECTED SYSTEM

SOLID WASTE DISPOSAL AREAS

The following identifies the names of existing disposal areas which will be used to provide the required capacity and management needs for the solid waste generated within the county for the next five and ten years and, if possible, the next ten years. Pages III-12 through III-22 contain descriptions of the solid waste disposal facilities which area located within the county and the disposal facilities located outside of the county which will be used by the county for the planning period. Additional facilities within the county with applicable permits and licenses may be used 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.

This list is not all inclusive:

Type II Landfill:

McGill Road Landfill
Granger Wood Street Landfill
Granger Grand River Avenue Landfill
C & C Expanded Sanitary Landfill
Advanced Disposal Services Arbor Hills Landfill, Inc.
Carleton Farms Landfill
Woodland Meadows RDF – Van Buren

Type III Landfill:

Liberty Environmentalists Landfill

Incinerator:

None

Waste-to-Energy Incinerator:

None

Type A Transfer Facility:

Modern Waste Systems
Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

Waste Piles:

None

Type B Transfer Facility:

Henrietta Township
Rives Township

Processing Plant:

Modern Waste Systems
Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

Other:

None

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: McGill Road Landfill

County: Jackson Location: Town: 2S Range: 1E &1W Section(s): 19 & 24

Map identifying location included in Map II-1: ☒ Yes ☐ No

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

☐ Public ☒ Private Owner: Waste Management of Michigan, Inc.

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site does not accept friable asbestos

Site Size:

Total area of facility property:	134.08	acres
Total area sited for use:	134.08	acres
Total area permitted:	134.08*	acres
Operating:	30.26	acres
Not excavated:		acres
Closed	10.87	acres
Isolation and Ancillary	93.04	acres

* Permit No. 4073, issued on August 23, 2005, identifies 41.1 acres permitted for waste disposal. Construction for waste disposal beyond this acreage will require a new construction permit.

Current capacity:	838,000	☐ tons or ☒ cubic yards per day
Estimated lifetime:	13	years
Estimated days open per year:		270 days
Estimated yearly disposal volume:	50,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Granger Wood Street Landfill

County: Clinton Location: Town: 5N/4N Range:2W
Section(s): 34/3

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Granger Waste Management Company and Granger Meadows

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Accepts special wastes as authorized by Part 115 of Act 451

Site Size:

Total area of facility property:	416.9	acres
Total area site for use:	416.9	acres
Total area permitted:	229.7	acres
Operating:	127.2	acres
Not excavated:	102.5	acres
Current capacity:	19,432,449	☐ tons or ☒ cubic yards per day
Estimated lifetime:	25.97	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	748,180	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

Landfill gas recovery projects:	8	megawatts
Waste-to-energy incinerators:	N/A	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Granger Grand River Avenue Landfill

County: Clinton Location: Town: 5N Range: 3W Section(s): 29

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Granger Land Development Co.

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Accepts special wastes as authorized by Part 115 of Act 451

Site Size:

Total area of facility property:	181	acres
Total area site for use:	181	acres
Total area permitted:	85.7	acres
Operating:	67.8	acres
Not excavated:	17.9	acres

Current capacity: 5,431,088 ☐ tons or ☒ cubic yards per day
Estimated lifetime: 433.45 years
Estimated days open per year: on call/by appt. days
Estimated yearly disposal volume: 12,530 ☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: 3.2 megawatts
Waste-to-energy incinerators: N/A megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: C & C Expanded Sanitary Landfill

County: Calhoun Location: Town: 1S Range: 6W Section(s): 28

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Republic Services of Michigan, LLC

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Friable asbestos.

Site Size:

Total area of facility property:	749.0	acres
Total area site for use:	223.0	acres
Total area permitted:	116.7	acres
Operating:	10.0	acres
Not excavated:	0.0	acres
Current capacity:	36,384,728	☒ tons or ☐ cubic yards per day
Estimated lifetime:	4.6	years
Estimated days open per year:		313 days
Estimated yearly disposal volume:	450,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: 32,800 scfm
Waste-to-energy incinerators: _____ megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Advanced Disposal Services Arbor Hills Landfill, Inc.

County: Wayne Location: Town: 1S Range: 8E Section(s): 16

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Advanced Disposal

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Friable and non-friable asbestos, foundry sand, ash, wastewater bio-solids, sludge, inert waste

Site Size:

Total area of facility property:	686.3	acres
Total area site for use:	337.2	acres
Total area permitted:	242.4	acres
Operating:	18.0	acres
Not excavated:	22.0	acres
Current capacity:	64,310,000	☒ tons or ☐ cubic yards per day
Estimated lifetime:	11	years
Estimated days open per year:	313	days
Estimated yearly disposal volume:	2,168,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Carleton Farms Landfill

County: Wayne Location: Town: 4S Range: 8E Section(s): 36

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Republic Services of Michigan, LLC

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Sludges, Ash, Auto Fluff

Site Size:

Total area of facility property:	664.1	acres
Total area site for use:	426.9	acres
Total area permitted:	374.6	acres
Operating:	241.8	acres
Not excavated:	170.4	acres
Current capacity:	6,200	☒ tons or ☐ cubic yards per day
Estimated lifetime:	38	years
Estimated days open per year:		286 days
Estimated yearly disposal volume:	1,780,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Woodland Meadows RDF – Van Buren

County: Wayne Location: Town: 3S Range: 8E Section(s): 1

Map identifying location included in Map II-1: ☐ Yes ☒ No

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

☐ Public ☒ Private Owner: Waste Management of Michigan, Inc.

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	269.0	acres
Total area site for use:	206.2	acres
Total area permitted:	206.2	acres
Operating:	156.2	acres
Not excavated:	0.0	acres
Current capacity:	16,340,000	☐ tons or ☒ cubic yards per day
Estimated lifetime:	10	years
Estimated days open per year:		307 days
Estimated yearly disposal volume:	1,600,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Liberty Environmentalist Landfill

County: Jackson Location: Town: 4S Range: 1W Section(s): 13

Map identifying location included in Map II-1: ☒ Yes ☐ No

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

☐ Public ☒ Private Owner: Liberty Environmentalists

Operating Status		Waste Types Received	
☒	Open	☐	Residential
☐	Closed	☐	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Foundry sand, transfer of recycling

Site Size:

Total area of facility property:	339	acres
Total area site for use:	339	acres
Total area permitted:	339*	acres
Operating:	34.0	acres
Not excavated:	30.2	acres
Closed	17.46	acres
Isolation and Ancillary	257.34	acres

* Permit No. 4163, issued on October 28, 2013, identifies 82.1 acres permitted for waste disposal. Construction for waste disposal beyond this acreage will require a new construction permit.

Current capacity:	500	☒ tons or ☐ cubic yards per day
Estimated lifetime:	50	years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	125,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility & Processing Plant

Facility Name: Modern Waste Systems

County: Jackson Location: Town: 4S Range: 1E Section(s): 1

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: _All authorized landfills in the County Plan

☐ Public ☒ Private Owner: Modern Waste Systems

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	3	acres
Total area site for use:	3	acres
Total area permitted:	3	acres
Operating:		acres
Not excavated:		acres
Current capacity:	500	☒ tons or ☐ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		300 days
Estimated yearly disposal volume:	105,000	☒ tons or ☐ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: _____ megawatts
Waste-to-energy incinerators: _____ megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Facility & Processing Plant

Facility Name: Northwest Refuse, Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)

County: Jackson Location: Town: 2S Range: 1W Section(s): 22

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: Granger Wood Street Landfill or Granger Grand River Avenue Landfill.

☐ Public ☒ Private Owner: Northwest Refuse, Inc. (leased and operated by Granger

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☒	Construction Permit	☒	Contaminated Soils
☐	Open, but Closure	☒	Special Wastes*
☐	Pending		

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

Accepts special wastes as authorized by Part 115 of Act 451. Requires review and approval by operator.

Site Size:

Total area of facility property:	29.27	acres
Total area site for use:	29.27	acres
Total area permitted:	29.27	acres
Operating:	9.65	acres
Not excavated:	N/A	acres
Current capacity:	~250	☒ tons or ☐ cubic yards per day
Estimated lifetime:	N/A	years
Estimated days open per year:	312	days
Estimated yearly disposal volume:	130,000	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Henrietta Township Transfer Facility

County: Jackson Location: Town: 1S Range: 1E Section(s): 16

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☒ Public ☐ Private Owner: Henrietta Township

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☒	Licensed	☒	Industrial
☐	Unlicensed	☒	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	30	acres
Total area site for use:	1	acres
Total area permitted:	1	acres
Operating:		acres
Not excavated:		acres
Current capacity:	170	☐ tons or ☒ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		52 days
Estimated yearly disposal volume:	3,640	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Rives Township Transfer Facility

County: Jackson Location: Town: 1S Range: 1W Section(s): 15

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☒ Public ☐ Private Owner: Rives Township

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☒	Commercial
☐	Licensed	☒	Industrial
☒	Unlicensed	☒	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	5.25	acres
Total area site for use:	1+	acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Current capacity:	160	☐ tons or ☒ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:		74 days
Estimated yearly disposal volume:	6,510	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:

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

FACILITY DESCRIPTIONS

Facility Type: Type B Transfer Facility

Facility Name: Liberty Environmentalist Landfill

County: Jackson Location: Town: 4S Range: 1W Section(s): 13

Map identifying location included in Map II-1: ☒ Yes ☐ No

If facility is an incinerator or a transfer facility, list the final disposal site and location for incinerator ash or transfer facility wastes: All authorized landfills in the County Plan

☐ Public ☒ Private Owner: Liberty Environmentalists

Operating Status		Waste Types Received	
☒	Open	☒	Residential
☐	Closed	☐	Commercial
☐	Licensed	☐	Industrial
☒	Unlicensed	☐	Construction and Demolition
☐	Construction Permit	☐	Contaminated Soils
☐	Open, but Closure	☐	Special Wastes*
☐	Pending		

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

Site Size:

Total area of facility property:	339	acres
Total area site for use:	339	acres
Total area permitted:		acres
Operating:		acres
Not excavated:		acres
Closed		acres
Isolation and Ancillary		acres
Current capacity:	100	☐ tons or ☒ cubic yards per day
Estimated lifetime:		years
Estimated days open per year:	300	days
Estimated yearly disposal volume:	4,500	☐ tons or ☒ cubic yards

(if applicable)
Annual energy production:
Landfill gas recovery projects: _____ megawatts
Waste-to-energy incinerators: _____ megawatts

SELECTED SYSTEM

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION

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

It is expected that solid waste collection services and transportation will continue to operate as described in Section II. All solid waste is currently collected by private haulers. It is expected that private waste haulers will continue to play a primary part in the collection and transport of waste.

Collection

There are no governmentally operated municipal collection systems in Jackson County. All of the haulers are private operators. Three villages (Concord, Cement City, and Parma) and the Lake Columbia Association (Columbia Township) contract with private haulers to provide residential service.

Below is a list of the collection services/ haulers within Jackson County.

- Republic Services of Michigan, LLC
- Bradford Service
- Bulldog Refuse
- Buckner's Garbage Service
- Bulldog Refuse
- Cyclone Environmental
- Emmons Service Inc.
- Get it Out of Here Co.
- Ideal Disposal Inc.
- Liberty Environmentalists Landfill
- Granger Recycling & Disposal Center of Jackson
- J's Hauling
- Cascade Recycling
- M & M Hauling
- Earl Miles
- Modern Waste Systems Inc.
- Right Away Hauling & Demolition Inc.
- Rubbish Removal Service
- U-Call We Haul-Grama PLT Hauling
- Waste Management Inc.

Transportation

The major routes used to transport refuse from the collection areas to the disposal sites are state highways (built to all-season standards), other all-season routes, and other county primary roads and city major streets (please see Map II-1). Road weight restrictions on routes which are not built to all-season standards, especially when frost laws are in effect, can have a significant impact on the movement of solid waste because these are generally high-density loads. Weigh limitations are set by the State of Michigan in the Motor Vehicle Traffic Code. The enforcement agency is the Commercial Vehicle Enforcement Division of the Michigan State Police.

There are no locally imposed width limitations on these highways other than all vehicles greater than 8 feet, 6 inches, must obtain a permit from the Jackson County Department of Transportation for an oversized load.

SELECTED SYSTEM

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	Estimated Diversion (tons/year)		
	Current	5th year	10th year
Public education and promotional activities	11,200	19,900	28,800

Projections were based upon a goal of increasing recycling/waste reduction from 6% of the waste stream to 15%

SELECTED SYSTEM

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	Estimated Air Space Conserved (cubic yards/year)		
	Current	5th year	10th year

SELECTED SYSTEM

Overview of Resource Recovery Programs:

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

Most of the materials found in MSW can be recycled somewhere. Glass, plastics, motor oil, cardboard, newspaper, office paper, wood, grass clippings leaves and metals can all be recycled within the county. Most of the recycling requires the consumer to separate the waste. Drop-off and curbside collection opportunities exist based on household density and service offerings from the private and public sectors.

There are no ordinances that require haulers to collect recyclable materials or for consumers to sort and handle recyclables outside of household disposal waste. The Selected System does not include any for the future.

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

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

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

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

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

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

SELECTED SYSTEM

RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the county in this plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the county and the impacts of these factors on recycling and composting. Following the written analysis, the tables on pages III-31 through III-35 list the existing recycling, composting, and source separation of hazardous material programs that are currently active in the county and which will be continued as part of this plan. The second group of three tables on pages III-36 through III-38 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.

In Jackson County recycling is handled by private haulers and by Recycling Jackson and other local non-profit groups engaged in recycling.

Private Haulers.

The use of (and dependence on) private haulers is part of the current system and is continued into the selected system. This is because the private waste haulers have primary responsibility for collecting and transporting waste. Individual residents and business pay them a fee for providing waste management services offered.

The Selected System includes the continuation and possible expansion of recycling by private haulers. The haulers will continue to be responsible for designing their own recycling and/or composting programs, including designing the types of materials to be collected and the collection methods and equipment to be used. The volume of waste targeted for recovery by these recycling and composting programs is that which will reduce landfilling in Jackson County and elsewhere.

Finally, while recovery of either source or site separated materials is acceptable, program developers are encouraged to include curbside collection of source separated materials in their program design because of the higher recovery rates achievable through such a program.

Recycling Jackson

Recycling Jackson will be encouraged to continue operating its recycling drop-off site and to continue recycling education.

Conservation District

The Conservation District is expanding recycling efforts in Jackson County. These efforts include working with local schools to reduce food and classroom waste such as milk cartons, paper, plastic beverage bottles, and cardboard. Efforts are also being focused on

developing relationships with event locations, such as the fairgrounds, to maintain a positive presence within the community. The Conservation District is also encouraging an increase in the amount of household hazardous waste properly recycled.

Jackson County

Recycling Jackson, the Jackson County Health Department, and the Jackson County Conservation District work together to sponsor an annual household hazardous waste disposal day. County residents may bring certain items to a designated site for proper disposal.

City of Jackson

The City of Jackson contracts the collection of leaves from property owners. The City is under the impression that the haulers contracted to collect those leaves are composting them, although there is no requirement to do so.

SELECTED SYSTEM

TABLE III-1

RECYCLING:

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
Recycling Jackson	Jackson County	Private	d	w	A,B,C,D,E,F	4	4	4
Emmons Services	Jackson County	Private	d	d	A,B,C,D,E,F	5	5	5
Modern Waste	Jackson County	Private	d	d	A,B,C,D,E,F	5	5	5
Republic Services	Jackson County	Private	d	d	A,B,C,,E,F	3	3	3
Henrietta Township	Jackson County	Public	d	w	A,B,D,E,F	3	3	3
Rives Township	Rives Township	Public	d	w	A,B,C,D,E,F	3	3	3

(a) 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.

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

(c) Identified by c = curbside; d = drop-off; o = onsite' and if other, explained.

(d) 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.

(e) Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc.

TABLE III-1 (cont'd)

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
Omni Source	Jackson County	Private	d	d	CFD	3	3	3
Waste Management	Jackson County	Private	d	d	CFJ	5	5	5
Liberty Environmentalist	Jackson County	Private	d	d	D,F	5	5	5
Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)	Jackson County	Private	d	d	A,B,C,D,E,F,	3	3	3
Grass Lake Township	Grass Lake Township	Public	d	d	A,B,C,D,E	3	5	3
Leoni Township	Leoni Township	Public	d	d	A,B,C,D,E	5	5	5

(a) 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.

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

(c) Identified by c = curbside; d = drop-off; o = onsite' and if other, explained.

(d) 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.

(e) 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.

SELECTED SYSTEM

TABLE III-2

COMPOSTING:

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
Emmons Service	Jackson County	Private*	d	d	G,L	5	5	5
Liberty Environmentalist	Jackson County	Private	d	d	G,L,W	5	5	5
City of Jackson	City of Jackson	Public**						

* Emmons Service is currently applying for a composting permit.
** This facility is no longer operating.

(a) 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.
(b) Identified by 1= Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group; 5 = Private Owner/Operator; 6 = Other
(c) Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.
(d) 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.
(e) 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.

SELECTED SYSTEM

TABLE III-3

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Since improper disposal of non-regulated 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	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
Household Hazardous Waste Program	Jackson County	Public	Collection Point	By appointment only	AR, A, AN, B,2,C,P,PS	2	2	2
Emmons Service	Jackson County	Private	d	d	U,B1	5	5	5
Liberty Environmentalist	Jackson County	Private	d	d	UP,B1	5	5	5
Henrietta Township	Jackson County	Public	d	d	B1	6	6	6
Rives Township	Rives Township	Public	d	d	B1	6	6	6
Omni Source	Jackson County	Private	d	d	B1	5	5	5

(a) 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.

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

(c) Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

(d) 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.

(e) 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-3 (cont'd)

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
Taylor Rental	Jackson County	Private	d	d	B2	5	5	5
K-Mart	Jackson County	Private	d	d	B1	5	5	5
Autoworks	Jackson County	Private	d	d	UA	5	5	5
Jenk's Oil	Jackson County	Private	d	d	U	5	5	5
Valvoline Instant Oil Change	Jackson County	Private	d	d	U	5	5	5
T.C.'s Garage	Jackson County	Private	d	d	AN,UA	d	d	d

(a) 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.

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

(c) Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

(d) 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.

(e) 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

SELECTED SYSTEM

TABLE III-4

PROPOSED RECYCLING:

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
N/A								

SELECTED SYSTEM

TABLE III-5

PROPOSED COMPOSTING:

Program Name (if known)	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
N/A								

SELECTED SYSTEM

TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities		
						Development	Operation	Evaluation
N/A								

SELECTED SYSTEM

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

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

Environmental Groups:

Recycling Jackson
Jackson County Conservation District

Other:

Jackson County Board of Public Works
Emmons Service
Modern Waste
Republic Services of Michigan, LLC
Northwest Refuse Inc. (operated under agreement by Granger Recycling & Disposal Center of Jackson)
Henrietta Township
Rives Township
Waste Management
Liberty Environmentalists
Omni Source

SELECTED SYSTEM

PROJECTED DIVERSION RATES:

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

Collected Material	Projected Annual Tons Diverted		
	Current	5th Year	10th Year
A. TOTAL PLASTICS:	1,120	1,990	2,880
B. NEWSPAPER + D.	5,488	9,751	14,112
C. CORRUGATED CONTAINERS			
D. TOTAL OTHER PAPER:	See "B"		
E. TOTAL GLASS:	896	1,592	2,304
F. OTHER MATERIALS	1,568	2,786	4,032
F1.			
F2.			

Collected Material	Projected Annual Tons Diverted		
	Current	5th Year	10th Year
G. GRASS & LEAVES:			
H. TOTAL WOOD WASTE:			
I. CONSTRUCTION AND DEMOLITION			
J. FOOD AND FOOD PROCESSING:	1,008	1,791	2,592
K. TIRES:			
L. TOTAL METALS:	1,120	1,990	2,880
F3.			
F4.			

Current diversions based on the current estimate of total waste that is recycled(page II-I) and proportioned by the % component of the waste stream (from the paper, Official Position of Recycling Jackson. - Paper = 49%, Plastic = 10%, Glass = 8%, Food = 9%, other = 14%.

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

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

Collected Material	In-State Markets	Out-of-State Markets
A. TOTAL PLASTICS:		
B. NEWSPAPER:		
C. CORRUGATED CONTAINERS:		
D. TOTAL OTHER PAPER:		
E. TOTAL GLASS:		
F1.		
F2.		
G. GRASS AND LEAVES		

Collected Material	In-State Markets	Out-of-State Markets
H. TOTAL WOOD WASTE:		
I. CONSTRUCTION AND DEMOLITION:		
J. FOOD AND FOOD PROCESSING:		
K. TIRES:		
L. TOTAL METALS:		
F3.		
F4.		

SELECTED SYSTEM

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

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

Program Topic (a)	Delivery Medium (b)	Target Audience (c)	Program Provider (d)
1,2,3,4,5	r,n,o,f, ot (email & website)	p,b,i,s (K-12)	EG (Jackson County Conservation District)

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

(b) 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 listed.

(c) 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.

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

SELECTED SYSTEM

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

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

TABLE III-7

Management Components	Timeline
Landfilling	Ongoing
Waste hauling	Ongoing
Educational programs	Ongoing
Hazardous waste collection day	Ongoing
Transfer facilities (Henrietta and Rives Townships)	Ongoing
Recycling drop-off (Recycling Jackson / private haulers)	Ongoing
Recycling drop-off centers	Ongoing
Composting	Ongoing

SELECTED SYSTEM

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

Type II and type III landfills, if required by the Department of Environmental Quality (DEQ) for capacity purposes, transfer facilities and processing plants other than incinerators may be sited by this plan, but the goal of this plan is to reduce landfilling to a minimum. No incinerators maybe sited by this plan.

SITING CRITERIA AND PROCESS

The following process describes the criteria and procedures to be used to site solid waste disposal facilities and determine consistency with this plan.

The Jackson County Board of Commissioners shall have ultimate responsibility for ensuring that adequate waste disposal areas are provided in a timely manner to meet the County's waste disposal needs and for determining whether a proposal to establish a new disposal area is consistent with the Jackson County Solid Waste Management Plan.

The following procedure shall be used to determine if a proposal to develop a new solid waste disposal area is consistent with the Jackson County Solid Waste Management Plan. The Jackson County Board of Public Works shall be responsible for initial review of such proposals. All steps must be completed within the given time-frame, otherwise, if no decision is made, it will act as an automatic approval upon completion of the time-frame and move to the subsequent step in the process.

The sponsor of a proposed solid waste disposal area shall make a request in writing to the County Board of Public Works asking for a determination of consistency. The request shall include at a minimum the following information:

- The names and addresses of the project sponsor, the owners of the proposed facility and of the property where the disposal area will be sited, the operators of the proposed disposal area if different from the owners.
- A brief written description of the type of disposal area proposed for construction.
- A description of similar facilities operated elsewhere by any of the following: the project sponsor, the owners of the property, and/or facility, and the proposed operators of the facility.
- A written description of the anticipated type and quantity of waste to be managed and of the geographic area, by county and state, from which the waste will be obtained.
- A written description of how the owners of the proposed disposal area will ensure compliance with the goals of this plan.
- A site plan of the proposed disposal area which shall include at a minimum a map

at a scale of: one (1) inch = two hundred (200) feet showing the property boundaries of the proposed disposal area, and the location of all features from the *Solid Waste Disposal Area Siting Constraints* mapping, which are either on site or within five hundred (500) feet of the proposed site. If the proposed disposal area is a landfill, the boundaries of the area which will receive fill must also be shown on the site plan. The site plan must be presented on a sheet no larger than twenty-four (24) inches by thirty-six (36) inches.

- If areas mapped as wetlands on the *Solid Waste Disposal Area Siting Constraints* mapping are found on site or within five hundred (500) feet of the site, the County Board of Public Works will require that the proposal's sponsor obtain a wetlands determination from either the MDEQ or another qualified professional to confirm that no wetlands are located within the boundaries of the proposed disposal area.
- A copy of the application submitted to the MDEQ.

The County Board of Public Works shall review the request for a determination of consistency at a public meeting, within sixty (60) days of receipt, after receiving a recommendation from the DPA (Designated Planning Agency). A review meeting may be adjourned for up to thirty (30) days to allow the proposal's sponsor to gather additional information needed for the Board of Public Works to complete their review.

The County Board of Public Works shall report their findings to the County Board of Commissioners within fifteen (15) days after the review meeting, along with a recommendation to either find the proposed solid waste disposal area consistent or not consistent with the County Solid Waste Management Plan.

Within 45 days of receiving the County Board of Public Works recommendation, the County Board of Commissioners shall review, at a public meeting, the request for a determination of consistency.

In addition to the applicant, the County Board of Commissioners shall notify the following of their findings: the chief elected or appointed officials of municipalities within 2½ miles of the proposed site; the Jackson County Health Department; the Jackson County Department of Transportation; the Michigan Department of Environmental Quality; the Jackson County Drain Commissioner; and the County Board of Public Works.

Because the consistency of a proposal to develop a new waste disposal area may change with time, if within one year of receiving a determination of consistency from the County Board of Commissioners a construction permit has not been issued by the MDEQ, the project sponsor shall obtain an extension of the determination of consistency from the County Board of Commissioners.

In evaluating for consistency with the County Solid Waste Management Plan, a proposal to construct or operate a solid waste disposal area, the following shall be considered:

Type II Landfills

Any Type II Landfill developed to serve Jackson County's waste disposal needs shall be developed with the understanding that the goal of the plan is to reduce landfilling to a minimum, to be used for disposal of non-recoverable wastes, and thus the quantity of waste being landfilled

in the County will decrease with time.

Type II Landfill expansions may be sited in Jackson County at any time by the owners of the then currently operating landfills, which are serving Jackson County's waste disposal needs, provided that the landfill shall receive non-recoverable wastes from the Jackson County waste stream and the waste streams of those exporting counties listed in Table 1-A of this plan. An expansion must meet the siting criteria for a new Type II Landfill.

If the owners of the then currently operating landfills have not applied for and received a determination of consistency for an expanded Type II landfill by the time the remaining Type II Landfill capacity available to the County reaches 66 months, or if they have not applied for or received a MDEQ construction permit for an expanded Type II Landfill, which was previously found to be consistent with this plan, by the time the remaining landfill capacity available to the County reaches 4 years, the County Board of Commissioners shall assume responsibility for providing a new or expanded Type II Landfill to meet the county's waste disposal needs through one or more of the following mechanisms:

- Negotiations with the owners of the then currently operating Type II landfill, or the conversion of a Type III Landfill to a Type II Landfill for expansion of landfill capacity.
- Negotiations with officials from surrounding counties for inclusion in their solid waste management plan and use of landfill capacity in their county.
- Development of a Request for Proposals (RFP) to construct and operate a new Type II Landfill to serve Jackson County and selection of a new landfill operator based on specifications in the RFP (this may include either county or private sector ownership of landfills).

Type III Landfills

The maximum number of Type III landfills operating in Jackson shall be one. A new or expanded Type III Landfill shall be constructed to the standards for a Type II Landfill.

Transfer Facilities and Processing Plants (see definitions on Page D-7)

In evaluating proposed transfer facilities and processing plants for consistency with this plan, the following shall be considered. Type II waste shall only be transferred to other disposal areas in counties which are listed in Table 2A. Transfer facilities and processing plants will not have to prove a need but will meet the requirements of the plan and the Michigan Department of Environmental Quality (MDEQ) and may be sited at any time. The construction of transfer facilities must comply with Rule 504 (R299.4504) of the Michigan Department of Environmental Quality's rules regarding solid waste management, as authorized by Sections 11538, 11539, and 11540 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994, MCL 324.11538 to 324.11540). Transfer facility and processing plant containers must be watertight. Any leachate occurring at a transfer facility or processing plant must be collected and disposed of properly. All transfer facilities and processing plants must be maintained and operated so as to be consistent with this plan.

Solid Waste Disposal Area Siting Constraints Mapping

Eight *Solid Waste Disposal Area Siting Constraints* maps were prepared by the Region 2 Planning Commission—utilizing a GIS (geographic information system) platform and data—for this amendment to the solid waste management plan. Each map displays the characteristics of a hydrological or land use feature which should constrain the establishment of a new solid waste disposal area:

- Hydrology: (1) surface waters (i.e., lakes, ponds, rivers, streams, county drains, and wetlands); (2) floodplains; (3) wellhead protection areas; and (4) ground water recharge areas
- Land Use: (5) institutions and public lands; (6) licensed public use airports; and (7) the agricultural preservation area (as delineated in the *Jackson Community Comprehensive Plan*); (8) Primary Transport Routes

When composite maps are created by combining the first seven 'solid waste facility siting constraints' map layers, areas not suitable for hosting Type II Landfills are identified. The map layers and composite maps are represented in the plan document as Maps 3-1 through 3-11. These maps are intended for general planning purposes and need to be verified by the applicant when an application is submitted.

New and Expanded Type II Landfills

New type II Landfills must meet the following location criteria in order to be considered consistent with the plan:

Hydrology Features

1. The landfill shall not be located within five hundred (500) feet of a lake, pond, river, stream, county drain, or in a wetland regulated by Part 303, Wetlands Protection, of Act 451 unless a permit is issued.
2. The landfill shall not be located within a 100-year floodplain as defined by Rule 323.311(e) of the administrative rules of Part 31, Floodplains and Floodways, of Act 451.
3. The landfill shall not be located within the boundaries of the wellhead protection areas as defined by the Safe Drinking Water Act 399 of 1976 and its administrative rules.
4. The landfill shall not be located within the boundaries of the high and moderate ground water recharge areas as defined by the most current available map from the United States Geographical Survey.

Land Use Features

5. The landfill shall not be located within the boundaries of an institutional property or public land (unless a public institution purchases the land for such purpose).

   Nor shall the landfill be located closer than three hundred (300) feet to any area, site, or structure included on the federal or state registers of historic places or included in a local historic district.

6. The landfill shall not be located within ten thousand (10,000) feet of a licensed public use airport.

7. The landfill shall not be located within the agricultural preservation area—as delineated in the current *Jackson Community Comprehensive Plan*— unless it can be documented that at least seventy-five (75) percent of the proposed site is already utilized for nonagricultural purposes.

8. The landfill must be located on a State Highway or other Class A Road or brought up to Class A standards prior to its accepting of solid waste.

The active work area and leachate collection system of any landfill shall not be located closer than one hundred (100) feet to adjacent road rights-of-way. Nor shall the active work area and leachate collection system of any landfill be located closer than 300 feet to the property lines of residences existing at the time of issuance of a construction permit. Nor shall active work areas and leachate collection systems be located within four (4) feet of the high water mark of the ground water table (as defined by the Public Health Code (PA 368 of 1978, MCL 333.1101 *et seq*.).

Type III Landfills

New type III landfills must meet the same location criteria identified for new type II landfills in order to be considered consistent with the plan. However, the prohibition against locating a type III landfill within 10,000 feet of a licensed public use airport is suspended. The conversion of an existing type III landfill into a type II landfill will be considered a new type II landfill and must meet the siting criteria for new type II landfills and meet all pertinent DEQ regulations.

Incinerators

No incinerators or waste-to-energy incinerators (i.e., RRFs) shall be sited.

Transfer Facilities and Processing Plants

New transfer facilities and processing plants must meet the following location criteria in order to be considered consistent with the plan:

Hydrology Features

1. The transfer facility or processing plant shall not be located within five hundred (500) feet of a lake, pond, river, stream, county drain, or in a wetland regulated by Part 303, Wetlands Protection, of Act 451 unless a permit is issued. Non-storm water liquids will be properly contained onsite and managed appropriately which may include being transported to a sanitary sewer, or directly connected to a sanitary sewer, or appropriate measures are taken to prevent storm water contact with waste materials; appropriate measures may include covered containers and paved surfaces.

2. The transfer facility or processing plant shall not be located within a 100-year floodplain as defined by Rule 323.311(e) of the administrative rules of Part 31, Floodplains and Floodways, of Act 451.

3. The transfer facility or processing plant shall not be located within the boundaries

of the wellhead protection areas as defined by the Safe Drinking Water Act 399 of 1976 and its administrative rules.

4. The transfer facility or processing plant shall not be located within the boundaries of the high and moderate ground water recharge areas as defined by the most current available map from the United States Geographical Survey.

Land Use Features

Return to Amendment Letter

5. Transfer facilities and processing plants shall be located consistent with this this Solid Waste Management Plan and with applicable local zoning ordinances.

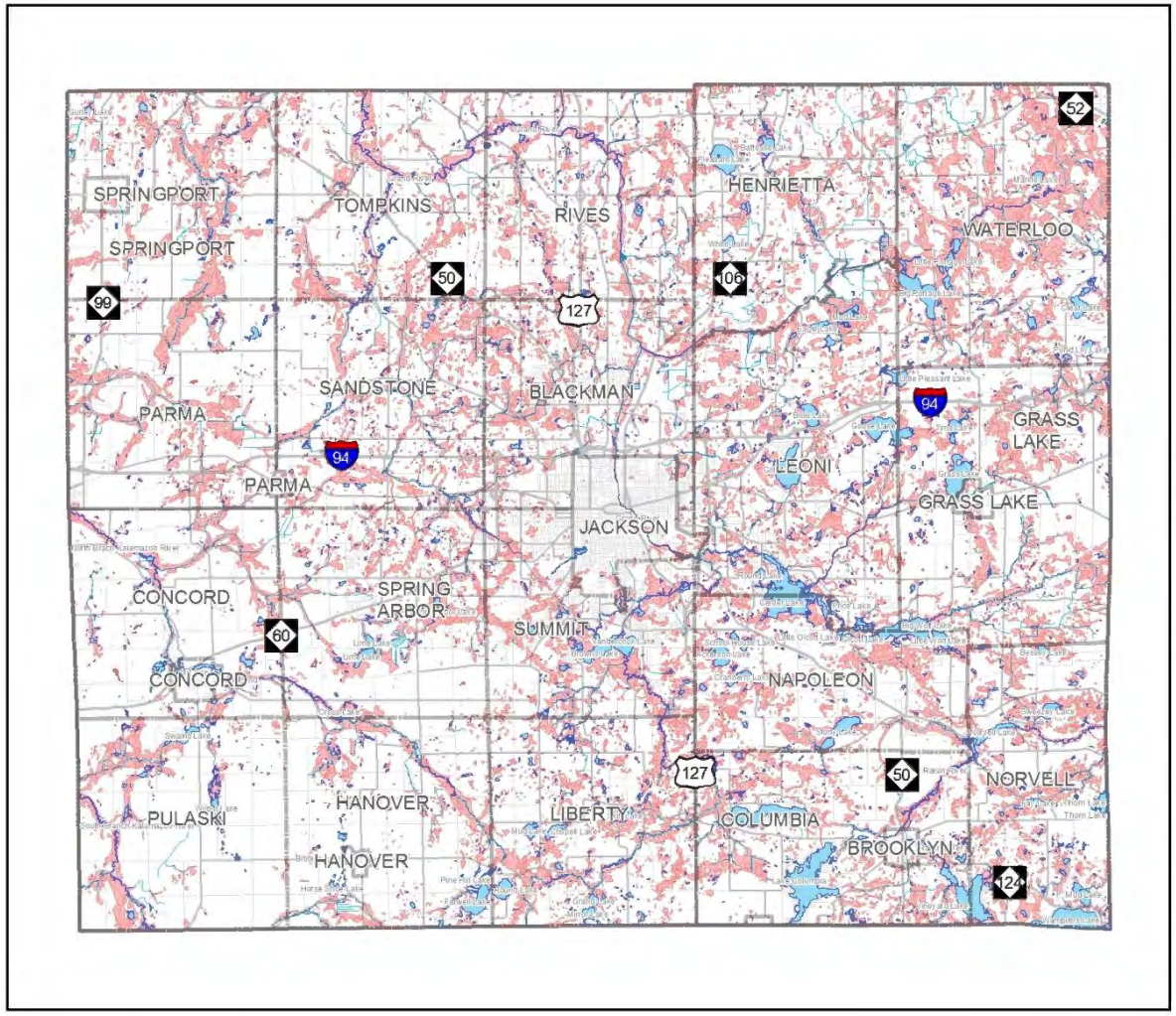
6. The transfer facility or processing plant shall not be located in any areas identified by the MDNR natural resources inventory as habitats of threatened or endangered species.

7. The transfer facility or processing plant shall not be located closer than three hundred (300) feet to any residence existing at the time the construction permit is issued.

8. The transfer facility or processing plant must be located on a State Highway or other class A road, or brought up to class A standards prior to its opening.

Appeals Process

Should the applicant believe that the Board of Public Works was arbitrary or capricious, or clearly errored, an appeal shall first be made to the Jackson County Board of Commissioners to assess such issue. Such appeal shall be made within sixty (60) days from the date of the Board of Public Work's decision. The Board of Commissioners shall make its determination within sixty (60) days.



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.1

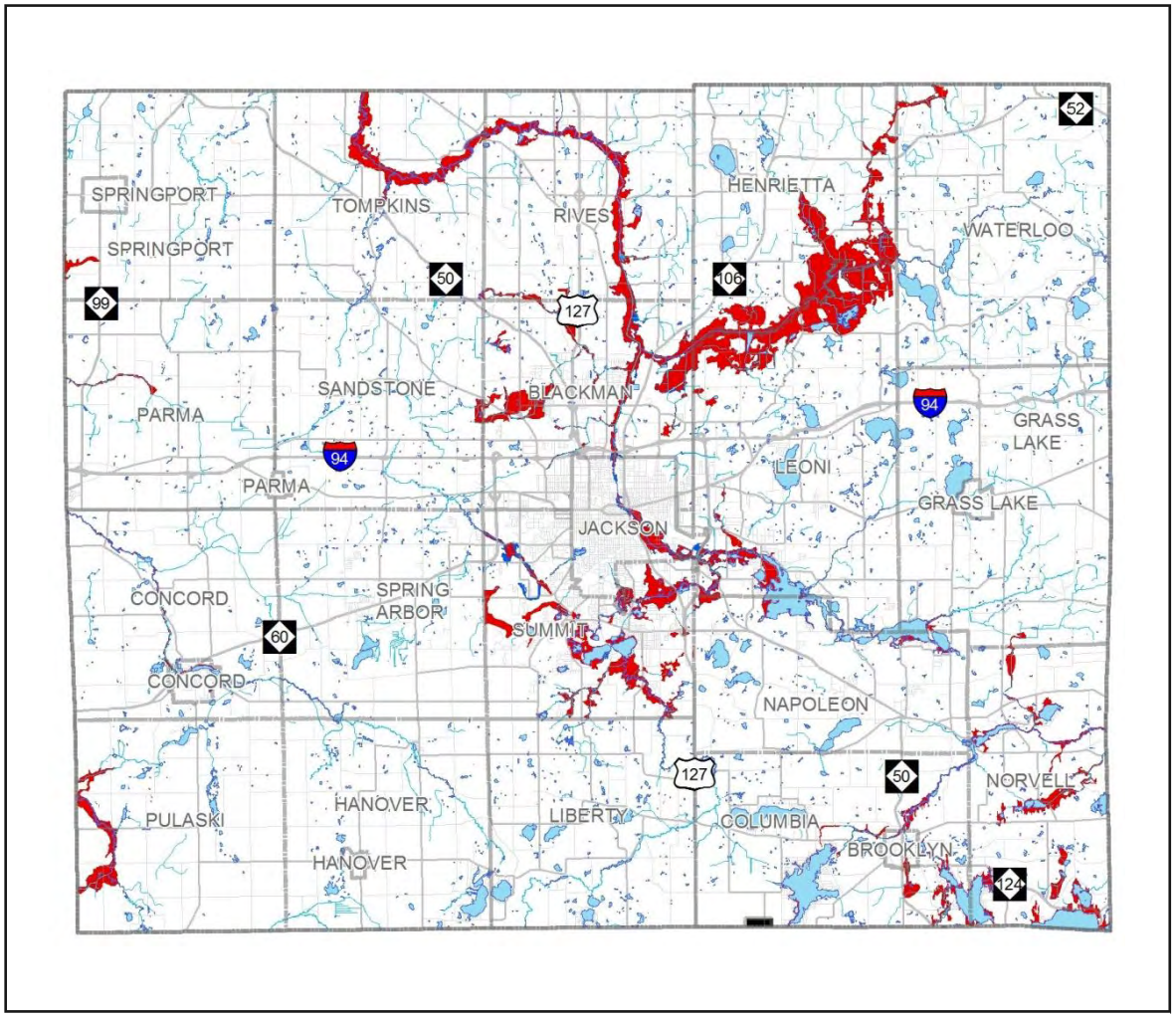
SURFACE WATERS

- LAKES AND PONDS
- RIVERS, STREAMS, AND DRAINS
- WETLANDS

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- NATIONAL WETLANDS INVENTORY (NWI)

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.2

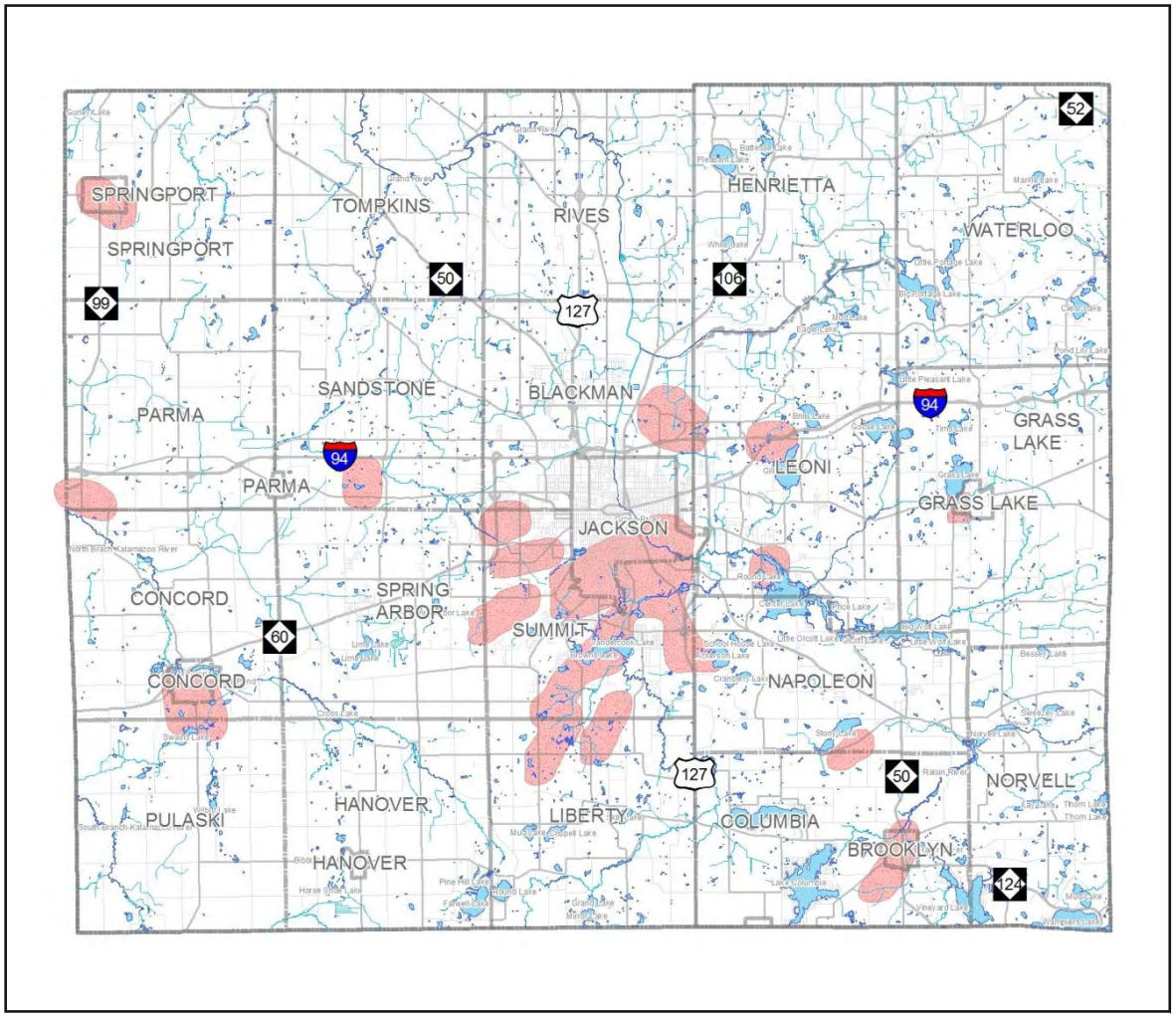
FLOODPLAINS

- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN
- UNMAPPED

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- FEMA FLOODPLAIN DATA

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.3

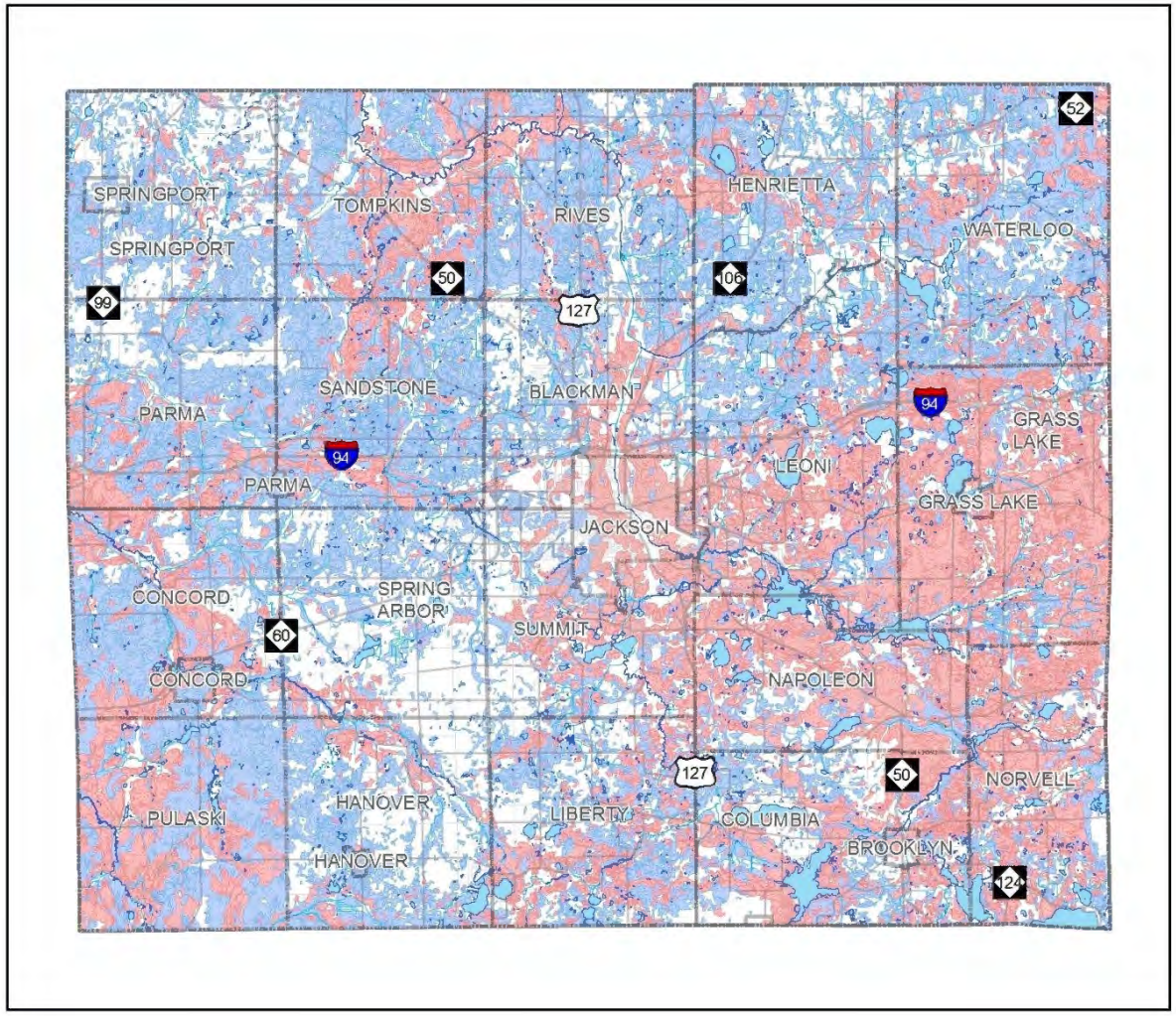
WELLHEAD PROTECTION AREAS

WELLHEAD PROTECTION AREA

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON, MICHIGAN

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.4

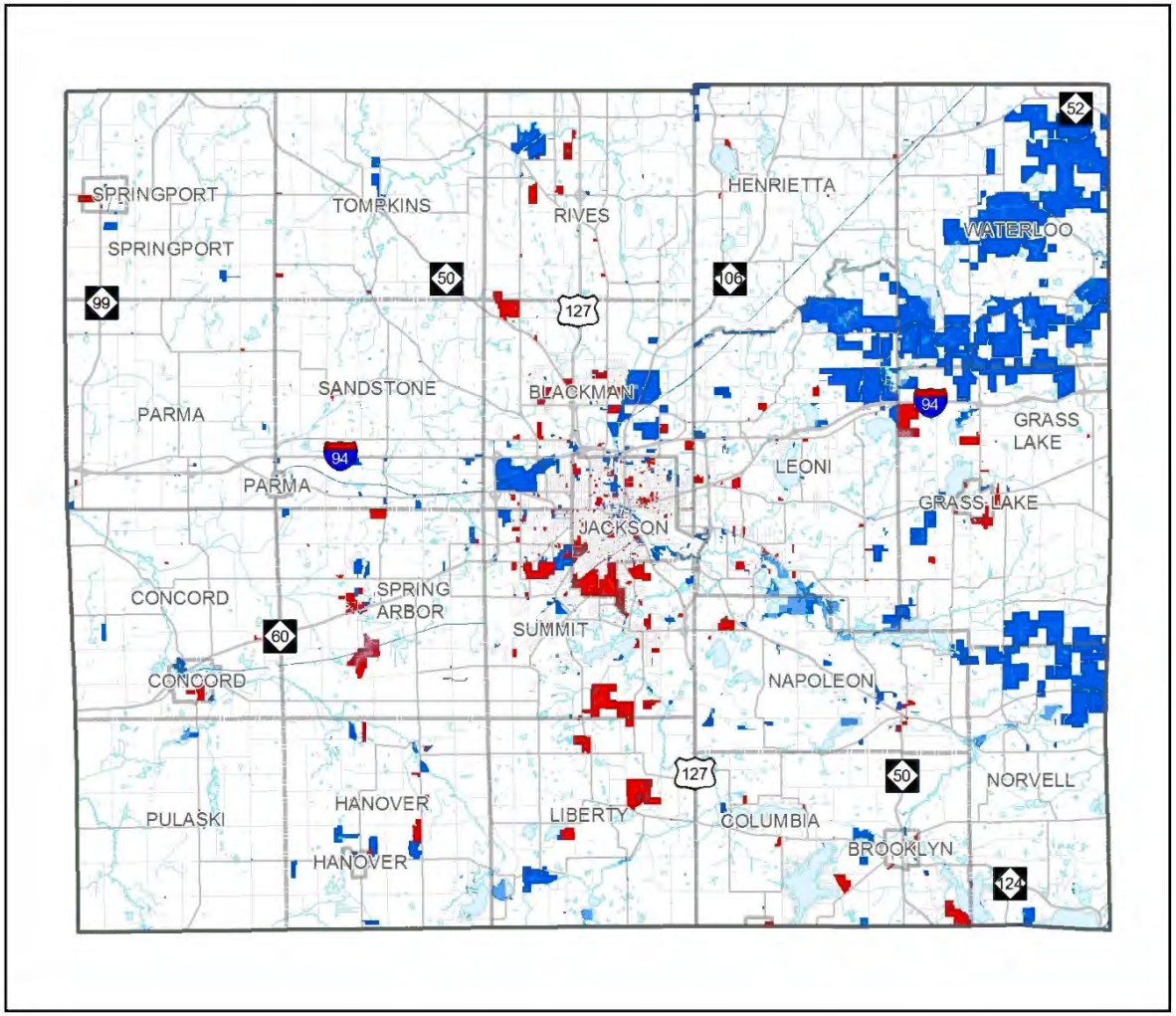
GROUND WATER RECHARGE AREAS

- HIGH RECHARGE AREAS
- MODERATE RECHARGE AREAS
- OTHER SOILS

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- JACKSON COUNTY SOIL SURVEY
- DR. BRUCE PAPE, PROFESSOR OF GEOGRAPHY, CENTRAL MICHIGAN UNIVERSITY

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.5

INSTITUTIONS AND PUBLIC LANDS*

INSTITUTIONS**

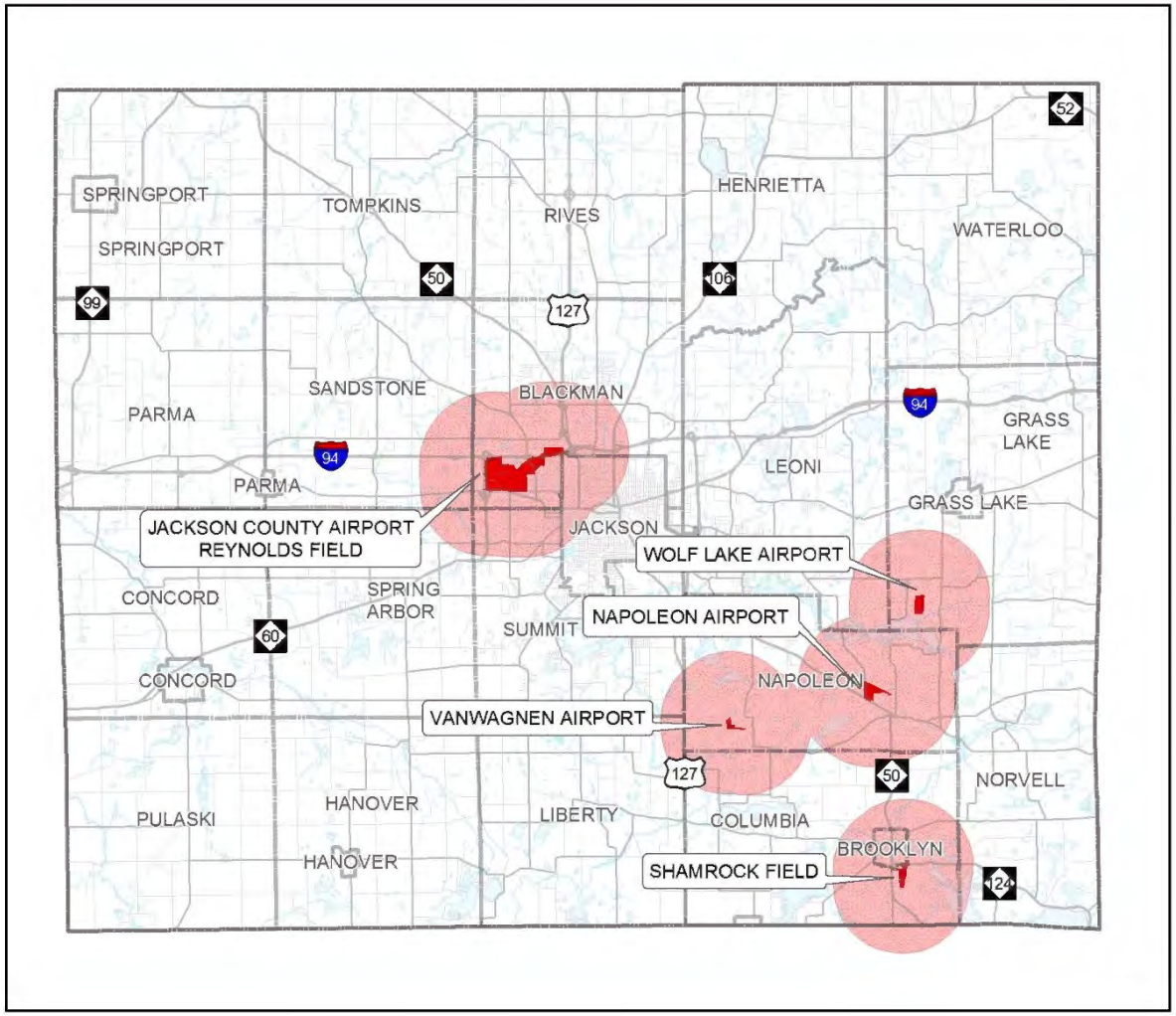
PUBLIC LANDS***

* BASED UPON THE PROPERTY CLASS (I.E., USE) ASSIGNED TO EACH PARCEL BY MUNICIPAL ASSESSORS
** CEMETERIES, CHURCHES, PARKS, SCHOOLS, AND HOSPITAL/MEDICAL BUILDINGS
*** GOVERNMENT OWNED AND OTHER EXEMPT PROPERTIES

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.6

LICENSED PUBLIC USE AIRPORTS

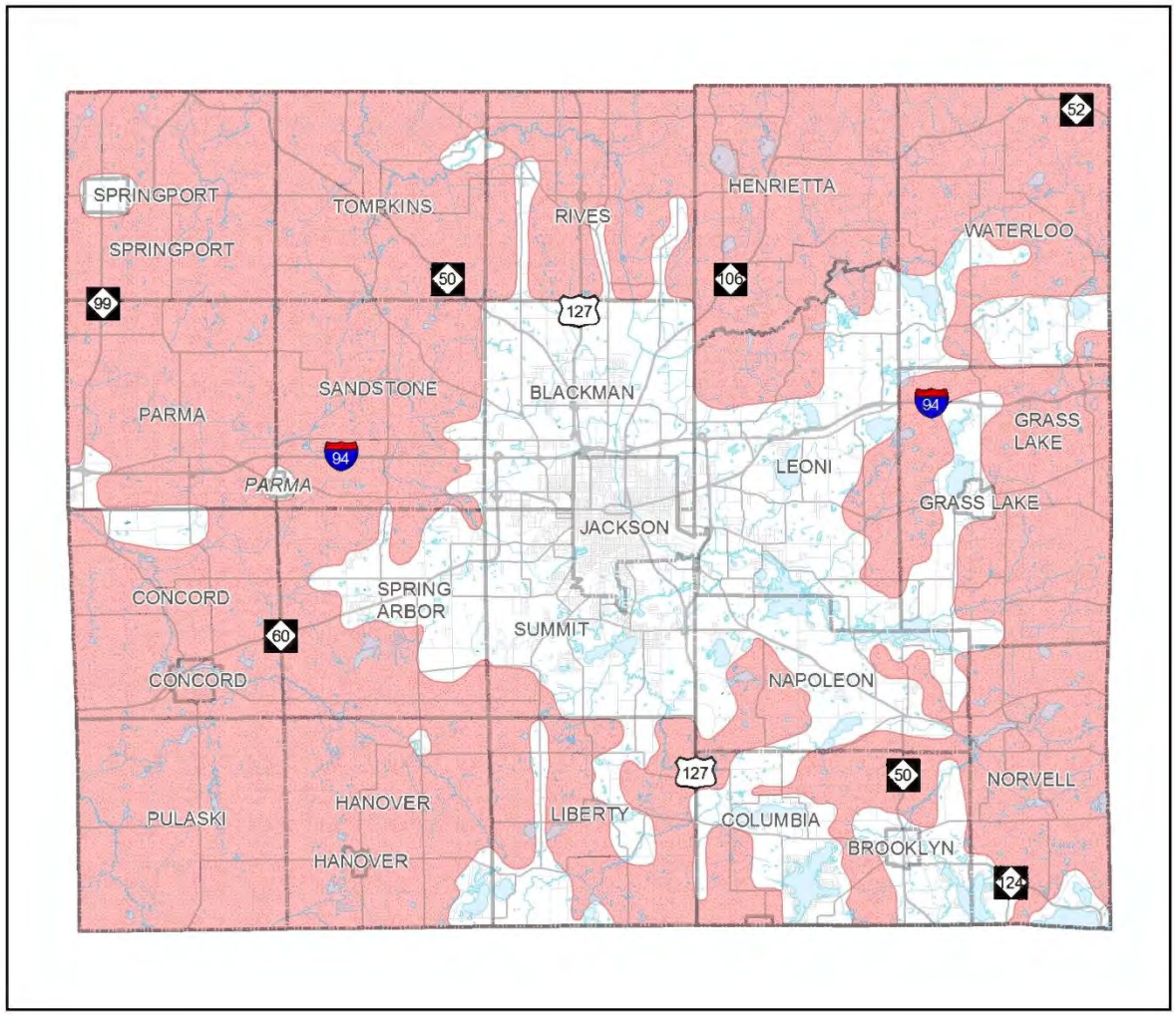
AIRPORT

10,000 FOOT BUFFER

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- MICHIGAN AIRPORT DIRECTORY
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.7

AGRICULTURAL PRESERVATION AREA

AGRICULTURAL PRESERVATION AREA

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- JACKSON COUNTY COMMUNITY PLANNING COMMITTEE
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6

LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.8

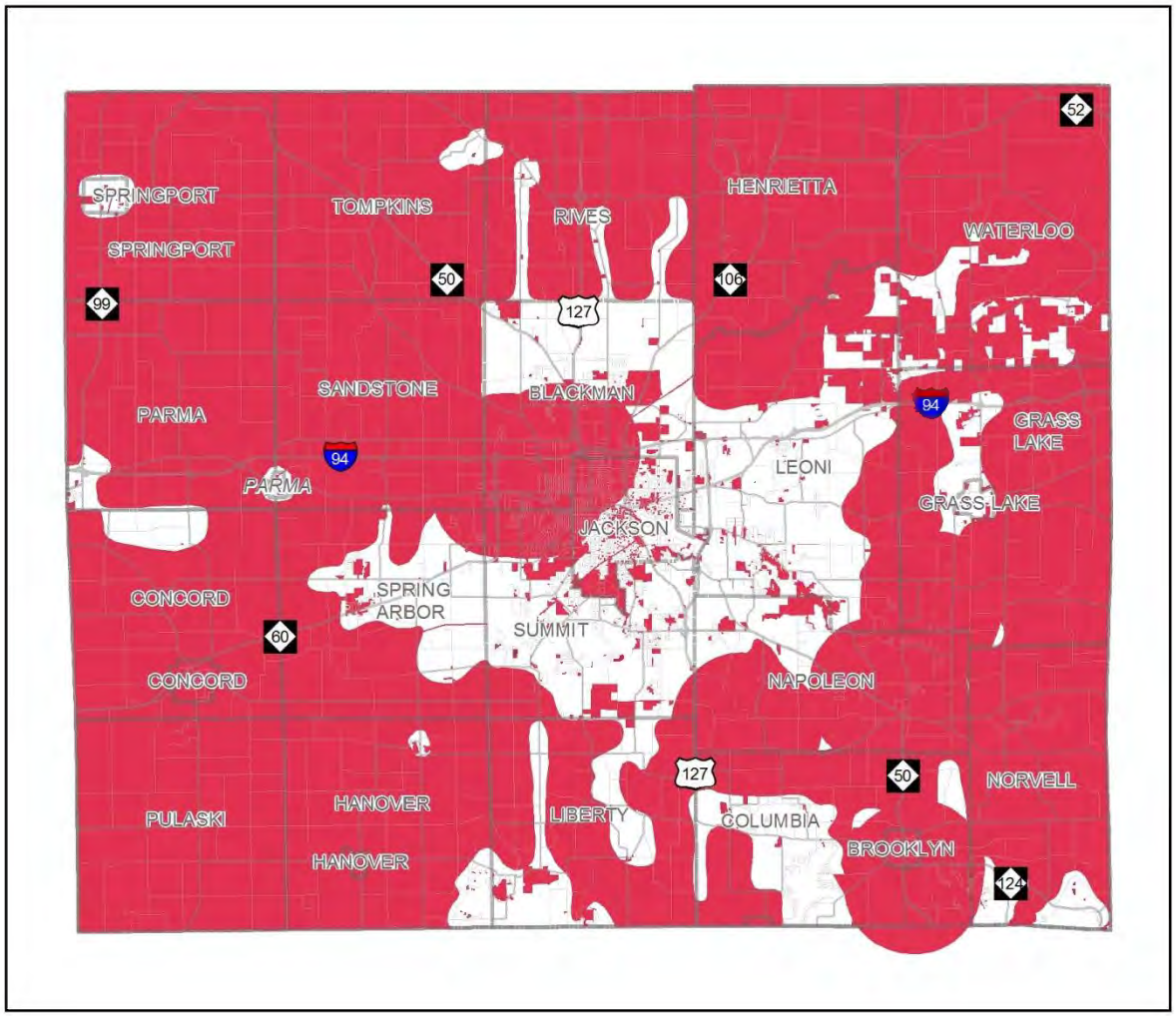
HYDROLOGY: AREAS UNSUITABLE FOR LANDFILL SITING

AREAS UNSUITABLE FOR LANDFILL SITING

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON, MICHIGAN
- FEMA FLODPLAIN DATA
- JACKSON COUNTY SOIL SURVEY
- NATIONAL WETLANDS INVENTORY (NWI)
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.9

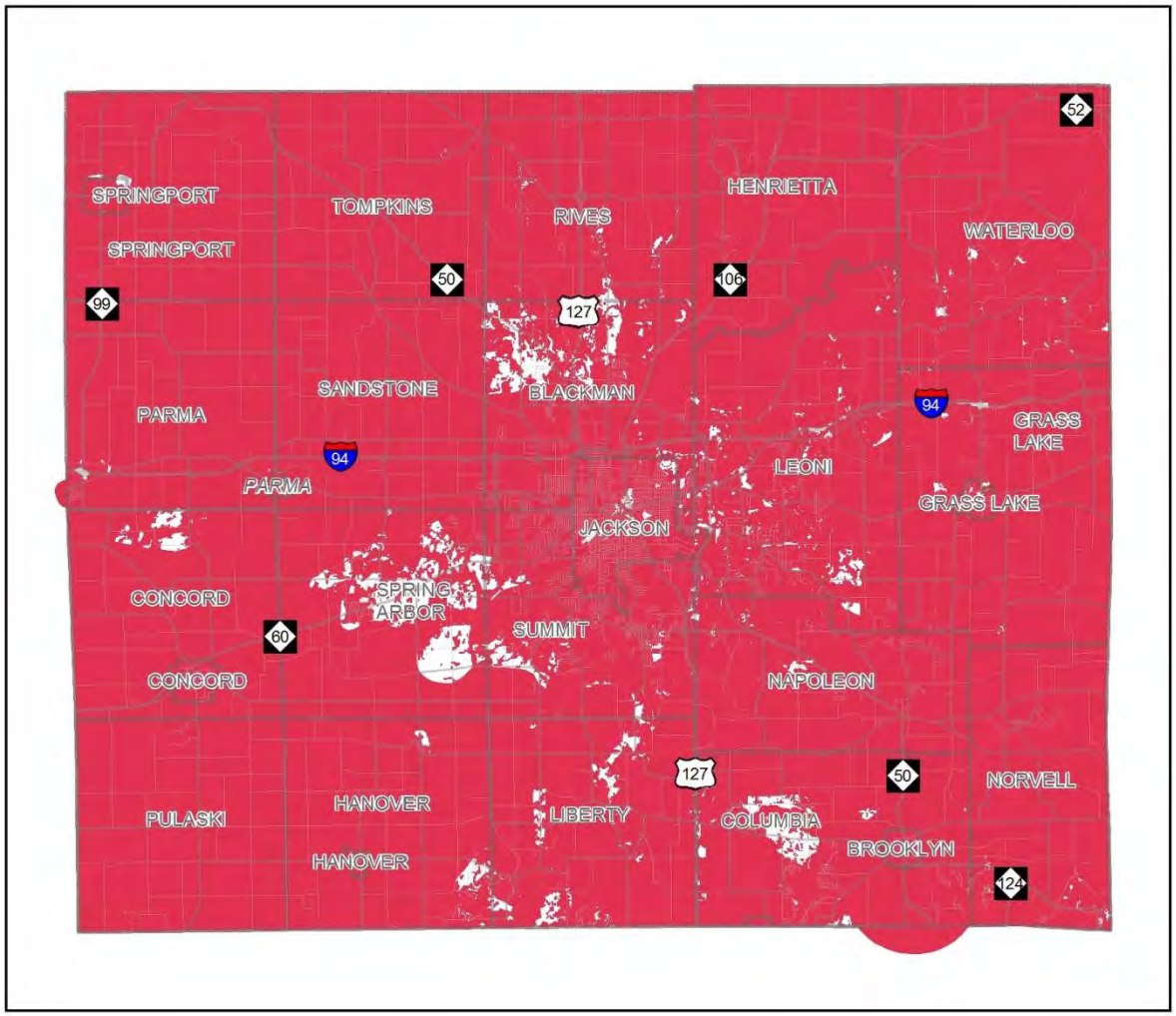
LAND USE:
AREAS UNSUITABLE FOR LANDFILL SITING

AREAS UNSUITABLE FOR LANDFILL SITING

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON, MICHIGAN
- FEMA FLODPLAIN DATA
- JACKSON COUNTY SOIL SURVEY
- NATIONAL WETLANDS INVENTORY (NWI)
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6



LANDFILL SITING CONSTRAINTS

JACKSON COUNTY MICHIGAN

MAP 3.10

COMPOSITE: AREAS UNSUITABLE FOR LANDFILL SITING

AREAS UNSUITABLE FOR LANDFILL SITING

SOURCE(S):
- MICHIGAN GEOGRAPHIC DATA LIBRARY
- COUNTY OF JACKSON, MICHIGAN
- FEMA FLODPLAIN DATA
- JACKSON COUNTY SOIL SURVEY
- NATIONAL WETLANDS INVENTORY (NWI)
- REGION 2 PLANNING COMMISSION

JANUARY 7, 2015

Miles
0 2 4 6

SELECTED SYSTEM

SOLID WASTE MANAGEMENT COMPONENTS

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

The Jackson County solid waste system will be managed by a variety of governments and private interests. However, the ultimate responsibility belongs to the Jackson County Board of Commissioners (BoC). The BoC oversees the management of hazardous waste and recycling coordination, as well as plan implementation and enforcement, by way of funding. The Jackson County Board of Public Works (BPW) has responsibility for approving permit applications as being consistent with this plan for new or expanding solid waste disposal facilities. The applicant may appeal a decision of the BPW to the BoC.

Some of the responsibilities for plan implementation are left to private businesses, industries, organizations and individuals. The policies in this plan are unlikely to be implemented without private participation. Especially important are the educational programs implemented by Recycling Jackson, and the recycling opportunities offered by the private haulers and by Recycling Jackson.

Henrietta and Rives Townships also have management responsibilities with the operation of their transfer facilities.

SELECTED SYSTEM

IDENTIFICATION OF RESPONSIBLE PARTIES

Document which entities within the county will have management responsibilities over the following areas of the plan.

Resource Conservation:

Source or Waste Reduction - None

Product Reuse - None

Reduced Material Volume - None

Increased Product Lifetime - None

Decreased Consumption - None

Resource Recovery Programs:

Composting - private haulers

Recycling - Recycling Jackson, private haulers, Jackson County

Energy Production - None

VOLUME REDUCTION TECHNIQUES:

Education - Jackson County Board of Commissioners

COLLECTION PROCESSES:

Transportation:

Private haulers, Jackson County Department of Transportation, City of Jackson Department of Public Works (DPW)

Disposal Areas:

Processing Plants – Private industry

Incineration - None

Transfer Facilities – Private industry, Rives Township, Henrietta Township

Sanitary Landfills - Jackson County Board of County Commissioners, private industry

Ultimate Disposal Area Uses:

Existing Regional Facilities – Jackson County Board of Commissioners, private industry

Local Responsibility for Plan Update Monitoring & Enforcement:

Jackson County Board of Commissioners

Educational and Informational Programs:

Jackson County Board of Commissioners (funding and appointment), non-profits and private industry.

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 indicated units of government without further authorization from or amendment to the plan.

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

___ Additional listings are on attached pages.

CAPACITY CERTIFICATIONS

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

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

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

APPENDIX A

ADDITIONAL INFORMATION

REGARDING THE

SELECTED

SYSTEM

EVALUATION OF RECYCLING

The following provides additional information regarding implementation and evaluations of various components of the selected system.

In Jackson County, private waste haulers have primary responsibility for collecting and transporting waste. Individual residents and business pay them a fee for providing waste management services. Waste haulers have the opportunity to include recycling and composting as part of the waste management services, which are made available through avoided tipping fees, to cover the costs associated with operating a recycling or composting program.

Recycling Jackson, the local community recycling group, will be encouraged to continue operating its recycling drop-off site to provide recycling opportunities for individuals living in communities where the private sector has not yet implemented a recycling program and for individuals who take responsibility for disposal of their own waste. Recycling Jackson will also be encouraged to continue its efforts in the area of recycling education.

The Jackson County Conservation District provides an annual *Household Hazardous Waste Collection Day*. The collection provides an opportunity for county residents to dispose of their household hazardous waste in one location for a nominal fee.

Finally, Jackson County will conduct a public information campaign designed to inform residents of the various opportunities for recycling within the county.

According to the U.S. Environmental Protection Agency (EPA), approximately 75% of our waste can be recycled. In Michigan, the recycling rate averages around 15%, lower than any other Great Lakes state. Can you help make the difference?

Contact us for more information

JACKSON
CONSERVATION DISTRICT

Jackson Conservation District

211 W. Ganson Street, Suite 200
Jackson, MI, 49201
517-784-2800 x 5

www.jacksoned.org

Users Guide For:

Recycling in Jackson County

Why recycling matters

- Items thrown away can take decades to break down, taking up valuable land space. Recycling reduces the need for landfill use
- Recycling helps conserve resources, reduce pollution, reduce land degradation, and create jobs
- When hazardous materials such as batteries and household chemicals are thrown away instead of recycled, the break-down process often releases dangerous materials into our soil and water

Many recycling companies accept standard recyclable materials (paper, plastic, cardboard, etc), but what about non-standard, or hazardous, materials? Many of those items can be recycled too!

- On the first Saturday of every month from 9-1 at 1401 N. Brown Street, Recycling Jackson (www.recyclingjackson.com) accepts standard recyclables as well as non-standard materials such as:

Latex paint	Clear Glass
Styrofoam	Batteries
Electronics	Florescent bulbs

- Annually, the Conservation District hosts a Household Hazardous Waste Collection day. Look out for details for 2016's collection day!

Recycling providers in Jackson

Most recycling services are free with your regular trash pick-up. Call your waste management provider to find out more details, as well as what products they accept!

➢ **Curbside pick-up (standard items):**

- Granger
- Republic Services
- Modern Waste Systems
- Emmons Service, Inc

➢ **Drop-off (specialty items):**

- OmniSource: Scrap metal
  711 Lewis Street
- Cascade Recycling: Scrap metal and tires
  1401 E. Morrell Street

➢ **Additional resources:**

- MDK Recycling, LLC, offers on-site document shredding and paper/cardboard pickup for industrial and commercial businesses. www.mdkrecycling.com
- Check with your township office to find out what drop-off recycling options may be offered in your township!
- Jackson County recycling website: **www.tinyurl.com/JacksonRecycling**

Jackson County Conservation District

Completed recycling efforts in Jackson. Except where noted, all were completed since September 1.

- Household Hazardous Waste collection day (September 19)
- Recycling website for Jackson County: www.tinyurl.com/JacksonRecycling
- An application was completed for a scrap tire collection grant through the DEQ. We are still awaiting results.
- A recycling brochure (attached) was created with basic information for interested residents. It is available at the County Health Department and the County Building.
- Meeting with Breina Pugh from Granger regarding outreach and increased school participation
- Meeting with Emily Freeman from the DEQ regarding networking and planning a community-wide meeting in late winter.
- Meeting with Roger Cargill from Schupan Recycling regarding Earth Day and networking
- Meeting with Lisa Perschke and Christine Chessler-Stull from Recycle Ann Arbor regarding surveying residents and potential partnerships.
- Phone call with Shannon Mills, Area Account Manager for Republic Services, to introduce myself and open up a pathway to collaboration.
- Recycling bins were purchased for St. Mary Star of the Sea to help increase their water bottle and other plastic waste
- Lori attended the Michigan Recycling Coalition Training October 2014
- Lori attended the Governor's Recycling Council Meeting in January 2015
- Lori attended the Sierra Club recycling forum at the Jackson District Library in May 2015
- JAXPO event stressing our recycling efforts, door prize was a home/office recycling bin filled with energy efficient and recycled items.

In-progress recycling efforts in Jackson

- Residential Survey, the goal of which is to find out who's recycling, who isn't (and what might incentivize them to recycle), and if residents are willing to support a millage to increase recycling efforts in the county.
- We are in the process of applying for a milk carton recycling grant from the Carton Council. I have four elementary schools interested in being part of the pilot program, and I am in discussion with recycling haulers to determine interest.
- An annual 'recycling guide' is in the works to be distributed in January. Included is information regarding township recycling options, hazardous waste disposal, non-standard item disposal (paints, Styrofoam, etc), composting, and more.
- The Earth Day theme this year will center around recycling, so I created a flyer for an art contest (attached) which was dispersed to all Jackson County middle and high schools. See the attached flyer for details.
- We are in discussion with Meijer, Menard's, and Polly's Market to sell clear and blue plastic recycling bags with the JCCD logo to encourage higher recycling participation by making the proper bags available.
- Aleta is signed up to attend the Governor's Recycling Council forum on January 12, 2016

December, 2015

2016 EARTH DAY ART CONTEST

ORGANIZED BY: THE JACKSON AREA OUTDOOR COALITION

It's time to start getting our 2016 Earth Day event planned, and we want YOU to help out! The 2016 Earth Day event, organized by the Jackson Area Outdoor Coalition (JAOC), is going to include a first annual art contest! As an artist, you will have two options, as explained below. This year's theme is 'Recycled'. All entries must be completed by **FRIDAY, MARCH 4TH**. Winners will be announced by Friday, March 11th, followed by instructions for the next steps of the contest.

Option 1: Poster

- The piece must clearly represent the 'Recycled' them
- Must be created by a student currently in grades 6-12
- Must be 11" x 17"
- Student must include name, grade, and school on the *back* of the poster
- The poster must be original artwork of the student submitting the piece
- Entries may be completed in any desired medium
- Entries may include words, but the words should not make up more than 25% of the piece

Option 2: 3-D Model

- Must be created by a student currently enrolled in grades 6-12
- The piece must be at made of at least 75% recycled material. The base is not included in this number.
- The student's name, grade, and school name must be submitted with the piece, but is not required to be on the model
- The piece must be no larger than 17 inches tall and 10 inches wide (the base is not included in these numbers)
- The model must be the original work of the student submitting the piece

So, what are the prizes, you ask? The top 12 entries will be represented in our 2016/2017 Calendar, and will be on display at Art 634 during the Earth Day and Fairy Festival the weekend of Earth Day, April 22-24. Two grand prizes will be given, one for each Option. The grand prizes will be for the winners to work with a local artist to re-create their piece on a larger scale; a mural for Option 1, and a larger 3-D model for Option 2. These prizes are in thanks to the efforts of Ed Thayer (Steam Punk Eddie), and the Jackson School of the Arts.

What is recycling?

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit the community and the environment.

Why Recycle?

- Over 70% of our trash can be recycled;
- Reduces the amount of waste sent to land-fills and the need for new landfills;
- Conserves natural resources such as trees, water, and minerals;
- Prevents pollution by reducing the need to collect new raw materials;
- Saves energy;
- Reduces greenhouse gas emissions that contribute to global climate change;
- Preserves the environment for future generations;
- Creates new well-paying jobs in the recycling and manufacturing industries in the United States.

Source: U.S. Environmental Protection Agency

Location

Recycling Jackson
1401 N. Brown St.
Jackson, Michigan 49201
recyclingjackson@gmail.com
517-414-6142

We are located one block behind Home Depot, behind the Jackson Public Schools Bus Garage and just north of Hunt School.

Hours: First Saturday of the Month
9 a.m. to 1 p.m.

A $2 donation is requested to help us cover costs and continue to provide these services.

www.recyclingjackson.com

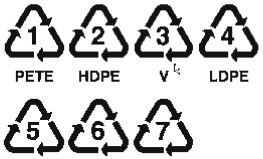
Recycling Jackson

Helping Jackson County Recycle Since 1983

* A Michigan 501(c)3 Non-Profit

2016 RECYCLING GUIDE

www.recyclingjackson.com

Type of Material	Preparation	Fee
Paper - We accept all forms of paper: Office paper, boxboard, card-board, junk mail, newspaper, magazines, shredded office paper, refrigerated cartons, shelf stable cartons	Separate into types (paper, boxboard, cardboard, etc.). Package in recycling bins, paper bags or cardboard boxes. ***Please - no plastic sacks***	No
Glass - We accept clear glass ouly.	***Rinse and remove lids.*** Recycle lids with cans/tin/other metals.	No
Cans/Tin/Other Metals - All types of metals are accepted.	***Tin cans should be rinsed and labels removed.*** Separate from other recyclables.	No
Plastic - We accept all types of plastics **IF MARKED** with these recycling symbols. 	Separate into #1 thru #7 plastic containers and bottles and other material (plastic films). Grocery bags should be sorted by color and tied into bundles.	No
Electronics - We accept all electronics and most things with an electric cord. Most electronics are recycled for free. ***Some items may have a charge associated with the proper recycling of that material.*** Those items currently include tube-type televisions, tube-type computer monitors and projection televisions.	For vacuum cleaners, please empty the collection container or remove the vac bag.	See Recycling Jackson website (www.recyclingjackson.com) for current pricing.
Styrofoam: We recycle styrofoam, including packing peanuts.	Please bag packing peanuts in a plastic bag and tie closed. All material must be free of foodstuffs. Some food stains are OK, but no food.	No
Florescent bulbs - YES we recycle them. CFLs, Tubes (up to 4 foot), U-shaped and circles.		$0.25 each
Batteries - We will recycle all types of batteries. All lithium and rechargeable type batteries **MUST** be separated.	Sort into alkaline, lithium and rechargeable batteries.	$1 per pound (weight estimated). For bulk containers (pails, etc.) of batteries that are not separated, there is a $5 sorting charge.
Latex Paint - Watch the Recycling Jackson website for latex paint recycling days. They are held during warm months.		$1 per gallon

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

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

The following table illustrates the potential for recycling and composting in Jackson County. The table is based on waste composition estimates of the U.S. Environmental Protection Agency and on the waste generation estimates found in Section II of this plan

Category	% of Municipal Solid Waste Tonnage	Amount Available for Recycling/Composting (Tons)
Paper and Paperboard	37.5	40,411
Glass	6.7	7,220
Metals	8.3	8,944
Plastics	8.3	8,944
Other	14.6	15,733
TOTAL		81,252

Therefore, it is estimated that 81,252 tons of materials are available for recycling.

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

Equipment Selection

Existing Programs:

The process of equipment selection is dealt with by the private sector and does not involve direct expenditures by County agencies.

Proposed Programs:

It is anticipated that the private sector will continue to select the equipment needed for the County's recycling and composting programs.

Site Availability & Selection

Existing Programs:

Proposed Programs:

No additional programs are proposed. Recycling Jackson may have a future need to expand.

Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.

Existing Programs:

Program Name	pH Range	Heat Range	Other Parameter	Measurement Unit

Proposed Programs:

Program Name	pH Range	Heat Range	Other Parameter	Measurement Unit
City of Jackson Leaf Collection and Composting Contract				

COORDINATION EFFORTS:

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

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

Ultimate responsibility for the Jackson County solid waste management program rests with the Jackson County Board of Commissioners.

The current collection system is dependent on the private sector. The residential collection system used most frequently is personal contracts with private haulers and personal delivery to a transfer facility.

Jackson County coordinates the proper disposal of solid waste through the Jackson County Conservation District's Household Hazardous Waste Day and recycling education efforts.

COSTS & FUNDING:

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

System Component	Estimated Costs	Potential Funding Sources
Resource Conservation Efforts	n/a	
Volume Reduction Techniques	n/a	
Collection Processes	n/a	
Transportation	n/a	
Disposal Areas	n/a	
Future Disposal Area Uses	n/a	
Management Arrangements	n/a	
Educational & Informational Programs	$50,000	*$20,000 for recycling education and promotion and $30,000 for household hazardous waste disposal*

Calculation of the costs of the various system components is not possible due to the number of agencies and business providing the services. Agencies and businesses tend to absorb the cost of performing these tasks without knowledge of their specific cost.

EVALUATION SUMMARY OF THE SELECTED SYSTEM:

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

Different arrangements for the management of waste disposal, collection and material recovery have been evaluated. What follows is a summary of the evaluation of the selected system: 'The Best of Both Hybrid'.

Waste Disposal

Jackson County government no longer directly participates in the management of solid waste disposal options. Those arrangements are left to waste generators and trash haulers servicing Jackson County. For example, although Rives and Henrietta Townships operate public Type B transfer facilities, they are serviced by private haulers. The advantages of relying on the private sector are that each hauler can seek the best disposal price for their customers and to do that in an efficient and effective manner.

Collection

The effective and efficient movement of waste from its generators to disposal sites is imperative if the public health and welfare is to be protected. The current collection system is controlled by the private sector. Most households and businesses contract with private haulers or personally deliver their solid waste to a landfill or a transfer facility/processing plant.

Overall, this system has been effective, resulting in the collection of most of the County's waste in a way which causes few environmental or public health concerns. Although there continue to be incidents of illegal dumping, they do not appear to have resulted from a lack of viable collection alternatives.

However, there are some situations in which the potential exists for developing more cost-effective or energy-efficient disposal alternatives. Potential problems with dependence on private sector collection are as follows:

1. Severe competition among haulers may result in business failures which then cause service interruptions.

2. Overlapping trash hauler service routes may waste fuel, add to road deterioration, and increase traffic.

The preferred alternative allows for each local unit of government within Jackson County to choose an alternate option which better serves local market forces and preferences. The unique demographic and land use development characteristics found in each municipality combined with its location relative to disposal areas and preferred level-of-service will determine which alternative collection systems are appropriate.

Material Recovery

Jackson County has taken the lead in educating the public about recycling and further promoting the practice. Appropriations from the general fund are currently set aside for recycling education and promotion as well as household hazardous waste collection. The Jackson County Conservation District currently has the contract for recycling education and promotion (please see the attached flyer and other documents at the beginning of this appendix). The management of recycling is also promoted by three private sector groups: the private waste haulers, the county-based scrap recycling industries and other non-profit community groups, including Recycling Jackson.

Trash haulers have taken the responsibility for providing a primary recycling opportunity as part of the municipal solid waste stream. Many haulers provide single-stream recycling to their customers. The benefit to customers is the potential to use a smaller trash container with a corresponding decrease in price. The benefit to the haulers is the sale of those recyclables as commodities.

Trash haulers are not the only entities to provide opportunities for re-use and recycling. For example, Henrietta and Rives Townships operate recycling drop-off centers as part of their transfer facilities and Grass Lake and Leoni Townships provide stand-alone drop-off centers. Recycling Jackson, Greater Jackson Habitat for Humanity, and other non-profits; second-hand stores and scrap metal dealers; and other specialty recyclers/re-users (e.g., pharmaceuticals and batteries) provide opportunities for the proper recycling or reuse of commodities that would otherwise end up in a landfill.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

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

ADVANTAGES:

1. The preferred system currently works well and Jackson County households and businesses are familiar with the system.

2. Retaining the current system will not require additional public infrastructure.

3. There are a variety of opportunities for recycling in the County. Most trash haulers currently provide single-stream recycling programs. Several municipalities provide recycling drop-off sites. Various non-profit and for-profit entities also accept other hard-to-recycle items.

DISADVANTAGES:

1. The development of a successful county-led educational and informational program regarding recycling is in its infancy and will take time to mature.

2. The market for recyclables is unpredictable and the cost of recycling can be high when the demand for recyclables is low.

NON-SELECTED

SYSTEMS

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

SYSTEM COMPONENTS:

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

Description of Alternative A

Alternative A—'The County Does it All'—is described below, utilizing the 'decision areas' and 'decision choices' identified in the 'decision table'.

- **Will solid waste be disposed of in landfills located inside and/or outside of the County and what landfills will be included in the selected system?**

  Solid waste generated in Jackson County would be disposed of exclusively in landfills located in Jackson County. The County of Jackson would establish and operate a new landfill.

- **Will a flow control ordinance be in effect and who will choose the landfills to be utilized?**

  A flow control ordinance would be in effect and the County of Jackson would choose the landfills where the solid waste collected is deposited.

- **Who will collect and transport solid waste?**

  Solid waste would be collected and transported by a county-run organization.

- **Who will provide and fund solid waste education?**

  Jackson County would hire a full-time employee to develop and execute a solid waste education program.

- **How will transfer facilities be utilized and who will choose the transfer facilities to be utilized?**

  Jackson County would own and operate transfer facilities and would select the facilities to be used.

- **What methods will be used to increase the amount of solid waste collected?**

  Jackson County would mandate the proper collection and disposal of solid waste.

- **What methods will be used to increase the amount of solid waste recycled?**

  Jackson County would enact a mandate to increase the amount of recycled solid waste.

- **How will recyclable solid waste be collected?**

  Most recyclables would be bagged separately but disposed of in the same container and transported in the same truck.

Alternative A: The County Does it All											
Dispose at Landfill(s) Located	Landfill Sites to include in the selected system	Flow Control In Effect	Landfill Sites to Utilize Chosen By	Solid Waste Collection & Transport Done By	Education Performed By	Education Funded By	Utilize Transfer Facilities	Transfer Facility Site Selection	Method to Increase Amount of Solid Waste Collected	Method to Increase Amount of Solid Waste Recycled	Collecting Recyclable Solid Waste
Entirely Inside Jackson County	Establish New County Owned & Operated Landfill	Yes	County Government	County Run Organization	Full Time County Employee	Portion of County Disposal Fee	County Owned and Operated	County Selects	Mandated by County	Mandated by County	Separate Containers & Separate Trucks
Entirely Outside Jackson County	McGill Road Privately Operated	No	Private Haulers	Private Haulers Competing for Individual Customers	Part Time County Employee	Surcharge on Private Haulers	Township Owned and Operated	County Recommends	Advocated by County	Advocated by County	Bagged Separately, Same Container, Same Truck
Both Inside and Outside Jackson County	Liberty Landfill Privately Operated	-	-	Private Haulers Under County Contracts	County Contracts Service from Existing Local Organization	Surcharge on Private Landfills	Privately Owned and Operated	Owner Selects	Allow Mandate by Municipality	Advocated by Private Haulers	Mixed at Source, Separated After Collected
-	Out of County Sites	-	-	Private haulers under municipal contracts	Private Haulers at Their Discretion	County Budget	Municipal cleanup events	None	Advocated by Municipality	Financial Incentives by Private Haulers (Pricing)	Other Innovative Methods
-	-	-	-	-	-	Private Hauler Self Funded	None	-	No Mandate	-	-
-	-	-	-	-	-	Pursue Grants	-	-	-	-	-

Description of Alternative B

Alternative B—'The Free Market (All Private)'—is described below, utilizing the 'decision areas' and 'decision choices' identified in the 'decision table'.

- **Will solid waste be disposed of in landfills located inside and/or outside of the County and what landfills will be included in the selected system?**

  Solid waste generated in Jackson County would be disposed of in landfills located inside and outside of Jackson County. The McGill Road (Type II) and Liberty Environmental Landfill (Type III)—which are located in Jackson County—are included in the selected system. Various landfills located outside of the County which are utilized regularly by trash haulers are also included in the selected system.

- **Will a flow control ordinance be in effect and who will choose the landfills to be utilized?**

  No flow control ordinance would be in effect and trash haulers would choose the landfills where the trash they collect is deposited, provided the county in which a landfill is located is listed in Table 2-A—Current Export Volume Authorization of Solid Waste—of the *Jackson County Solid Waste Management Plan*.

- **Who will collect and transport solid waste?**

  Private haulers would compete for individual customers.

- **Who will provide and fund solid waste education?**

  Private haulers would provide and fund and execute solid waste education programs at their own discretion. They could also pursue grants.

- **How will transfer facilities be utilized and who will choose the transfer facilities to be utilized?**
  Any transfer facilities would be privately owned and operated.
- **What methods will be used to increase the amount of solid waste collected?**
  There would be no mandate for the proper collection and disposal of solid waste.
- **What methods will be used to increase the amount of solid waste recycled?**
  There would be no mandate to increase the amount of recycled solid waste.
- **How will recyclable solid waste be collected?**
  All current local collection practices for recyclables would be permitted: separate containers and separate trucks; bagged separately but same container or truck; and mixed at source and separated after collection.

Alternative B: The Free Market (All Private)

Dispose at Landfill(s) Located	Landfill Sites to include in the selected system	Flow Control in Effect	Landfill Sites to Utilize Chosen By	Solid Waste Collection & Transport Done By	Education Performed By	Education Funded By	Utilize Transfer Facilities	Transfer Facility Site Selection	Method to Increase Amount of Solid Waste Collected	Method to Increase Amount of Solid Waste Recycled	Collecting Recyclable Solid Waste
Entirely Inside Jackson County	Establish New County Owned & Operated Landfill	Yes	County Government	County Run Organization	Full Time County Employee	Portion of County Disposal Fee	County Owned and Operated	County Selects	Mandated by County	Mandated by County	**Separate Containers & Separate Trucks**
Entirely Outside Jackson County	**McGill Road Privately Operated**	**No**	**Private Haulers**	**Private Haulers Competing for Individual Customers**	Part Time County Employee	Surcharge on Private Haulers	Township Owned and Operated	County Recommends	Advocated by County	Advocated by County	**Bagged Separately, Same Container, Same Truck**
Both Inside and Outside Jackson County	**Liberty Landfill Privately Operated**	-	-	Private Haulers Under County Contracts	County Contracts Service from Existing Local Organization	Surcharge on Private Landfills	**Privately Owned and Operated**	Owner Selects	Allow Mandate by Municipality	Advocated by Private Haulers	**Mixed at Source, Separated After Collected**
-	**Out of County Sites**	-	-	Private haulers under municipal contracts	**Private Haulers at Their Discretion**	County Budget	Municipal cleanup events	None	Advocated by Municipality	Financial Incentives by Private Haulers (Pricing)	Other Innovative Methods
-	-	-	-	-	-	**Private Hauler Self Funded**	None	-	**No Mandate**	-	-
-	-	-	-	-	-	**Pursue Grants**	-	-	-	-	-

EVALUATION SUMMARY OF THE NON-SELECTED SYSTEMS:

The non-selected systems were evaluated to determine their potential of impacting human health, economics, environmental, transportation, siting and energy resources of the county. In addition, the alternatives were reviewed for technical feasibility, and whether they would have public support. Following is a brief summary of that evaluation along with an explanation why these systems were not chosen to be implemented.

Three alternative solid waste management systems were evaluated and rated in terms of technical and economic feasibility; access to land and transportation networks; effects on energy, environmental impacts, public acceptability, and public health effects. Alternative A was rated "excellent" for protecting natural resources and "good" for resource use; the prevention of adverse effects; the protection of health, safety, and welfare; the promotion of vitality, ecology, quality, and sustainability; and planning, evaluation, and management processes. It rated "fair" or "poor" in all other categories (see page II-22). Alternative B received an 'excellent' rating for cost, complexity, time to implement, and risk. All other categories rated "good".

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

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

Alternative A – The County Does it All.

ADVANTAGES:

1. Natural resource protection would be easier under County control.

2. Recycling programs would be uniform countywide and easier to quantify and measure success.

DISADVANTAGES:

1. The administration of a County-mandated program would be complex and time consuming.

2. It would be challenging for the County to manage that complexity and its associated costs in a cost-effective manner that also minimizes risk.

3. The County would also find it challenging to operate a collection system which is effective, efficient, and flexible.

Alternative B – The Free Market (All Private).

ADVANTAGES:

1. The administration of individual private-sector programs would be less complex and time consuming.

2. The private sector has the resources to manage a collection system and its associated costs in a cost-effective manner that also minimizes risk.

3. The private sector also has the resources to operate a collection system which is effective, efficient, and flexible.

DISADVANTAGES:

1. Natural resource protection would be more difficult under private sector control.

2. Recycling programs would be less uniform and harder to quantify and measure success.

PUBLIC PARTICIPATION

PUBLIC PARTICIPATION AND APPROVAL

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

PUBLIC PARTICIPATION

<u>PUBLIC INVOLVEMENT PROCESS:</u> A description of the process used, including dates of public meeting, copies of public notices, documentation of approval from the solid waste management planning committee, county board of commissioners, and municipalities.

Meetings of the Solid Waste Management Planning Committee were generally held in the 5th Floor Commission Chambers located in the County Tower Building (120 W. Michigan Avenue, Downtown Jackson). The regular meeting schedule was posted in the 1st Floor Lobby of the County Tower Building as well as the 8th Floor. Special meetings were also posted in the same manner. Meeting notices/agendas were emailed to Solid Waste Management Planning Committee members prior to the meetings. Staff added citizen attendees to the email list upon request.

PUBLIC PARTICIPATION

PLANNING COMMITTEE APPOINTMENT PROCEDURE

September 17, 2013, the Jackson County Board of Commissioners authorized the filing of a notice of intent with the Michigan Department of Environmental Quality to prepare a solid waste management plan amendment. In order to amend the plan, it was necessary to reactivate the Jackson County Solid Waste Planning Committee.

Jackson County's Designated Planning Agency (i.e., the Region 2 Planning Commission) staff notified the Board of Commissioners about the need to amend the *Jackson County Solid Waste Management Plan* during its August, 2013, Study Session. The Board of Commissioners subsequently solicited appointments to the Jackson County Solid Waste Planning Committee which prepared the plan amendment.

The Board of Commissioners appointed the 14-member Solid Waste Management Planning Committee on September 17, 2013. Appointment letters to the Committee were mailed on September 20, 2013. The Committee held its first meeting on October 20, 2013 and elected Mr. Geoff Snyder as Chair and James (Steve) Shotwell as the Vice-Chair.

PUBLIC PARTICIPATION

PLANNING COMMITTEE

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

Four representatives of the solid waste management industry:
1. Charles (later replaced by David) Dunigan, Liberty Landfill
2. David Emmons, Emmons Service
3. Tonia Olson, Granger
4. James Schweikert, Northwest Refuse

One representative from an industrial waste generator:
1. Jason Kurpinski,

Two representatives from environmental interest groups from organizations that are active within the county:
1. Pegg Clevenger,
2. Mark Muhich,

One representative from county government. All governmental representatives shall be elected officials or designees of an elected official.
1. James (Steve) Shotwell, Jr., County of Jackson

One representative from township government:
1. Dan Wymer, Napoleon Township

One representative from city government:
1. Derek Dobies, City of Jackson

One representative from the regional solid waste planning agency:
1. Phil Duckham, Region 2 Planning Commission

Three representatives from the general public who reside in the county:
1. Glenn Remington
2. Jack Ripstra
3. Geoff Snyder

ATTACHMENTS

APPENDIX D

Plan Implementation Strategy:

Jackson County, through its Board of Public Works, shall be responsible for implementation of the Goals and Objectives set forth within the Solid Waste Management Plan, and review all Part 115 applications and determine whether or not the application is consistent with the Solid Waste Management Plan.

Additionally, the Jackson County Conservation District shall be responsible for the implementation of the Plan and the Jackson County Recycling Program, as determined by the Jackson County Board of Public Works.

ATTACHMENTS

Resolutions:

Jackson County Municipalities & Votes

	Townships	
1	Blackman	YES
2	Columbia	YES
3	Concord	YES
4	Grass Lake	YES
5	Hanover	YES
6	Henrietta	YES
7	Leoni	YES
8	Liberty	
9	Napoleon	YES
10	Norvell	YES
11	Parma	YES
12	Pulaski	YES
13	Rives	YES
14	Sandstone	YES
15	Spring Arbor	YES
16	Springport	
17	Summit	YES
18	Tompkins	YES
19	Waterloo	

YES = 16
NO = 0

	CitY	
20	Jackson	

YES = 0
NO = 0

	Villages	
21	Brooklyn	YES
22	Cement City	YES
23	Concord	YES
24	Grass Lake	
25	Hanover	
26	Parma	YES
27	Springport	YES

YES = 5
NO = 0

Total Votes

YES = 21
NO = 0

Total Municipalities

67% of 27= 18
33% of 27 = 9

27

JACKSON COUNTY BOARD OF COMMISSIONERS
RESOLUTION (07-16.21)

THE ADOPTION OF THE 2016 AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the Jackson County Solid Waste Management Plan every five years and because of the closure of the Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the Plan on July 21, 2016 and approved the amended plan and recommended its approval by the Board of Commissioners as reflected in the attached minutes;

NOW THEREFORE BE IT RESOLVED that the Jackson County Board of Commissioners approve the attached 2016 amendment of the Jackson County Solid Waste Management Plan.

James E. Shotwell, Jr., Chairperson
Jackson County Board of Commissioners
July 26, 2016

STATE OF MICHIGAN)
) ss.
COUNTY OF JACKSON)

I, Amanda Riska, the duly qualified and acting Clerk of the County of Jackson, Michigan, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the County Board of Commissioners of the County of Jackson, State of Michigan, at a regular meeting held on July 26, 2016 at which meeting a quorum was present and remained throughout and that an original thereof is on file in the records of the County. I further certify that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.

Amanda Riska, County Clerk

Date: 8/8/16

MINUTES OF THE JACKSON COUNTY BOARD OF PUBLIC WORKS
REGULAR MEETING
July 25, 2016
6th Floor Conference Room

MEMBERS PRESENT: James E. Shotwell, Jr., Julie Alexander, Phil Duckham, Geoffrey Snyder

MEMBERS EXCUSED/ABSENT: Larry Bamm

OTHERS PRESENT: Mike Overton, Dlaine Armstrong, Don Hayduck, Grant Bauman

MEETING CONVENED: 8:02 a.m.

PUBLIC COMMENTS: None.

MINUTES: Approval of the 5-23-16 Board of Public Works minutes.

Motion: Moved by Duckham, supported by Alexander to approve the minutes. Motion passed.

SOLID WASTE PLAN

Motion: Moved by Shotwell, supported by Alexander to approve resolution and send it to the full board with the Administrator/Controller's discretion to take in July or August. Motion passed with a four to zero vote with one absence.

CONSIDERATION & ALLOWANCE OF CLAIMS:

A. **Claims** – Claims for May 1, 2016 through June 30, 2016 were presented for payment.

Motion: **Moved by Alexander, supported by Duckham to approve the payment of May through June 2016 claims. Motion passed.**

PUBLIC COMMENT – None.

ADJOURN: 8:22 a.m.

NEXT SCHEDULED MEETING: September 19, 2016

Geoff Snyder
James E. Shotwell, Jr
Larry Bamm
Phil Duckham, III
Julie Alexander

BLACKMAN CHARTER TOWNSHIP
COUNTY OF JACKSON, MICHIGAN

RESOLUTION #15-2016-1017

2016 Amendment of the
Jackson County Solid Waste Management Plan
Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Blackman Charter Township Board hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Shelly Sercombe, Clerk of the Charter Township of Blackman, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Township Board at a meeting thereof held on the 17th day of October, 2016.

Shelly Sercombe

Shelly Sercombe, Clerk
Blackman Charter Township, Michigan

10-29-16

Date

Columbia Township

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the [Municipal Name] [Township Board/Village Council/City Council] herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, [Name of the Clerk], Clerk of the [Township/Village/City] of [Municipal Name], do hereby certify that the foregoing is a true and original copy of a resolution adopted by the [Township Board/Village Council/City Council] at a meeting thereof held on the [place the day] day of [place the month], 2016.

Barry Marsh

November 21, 2016.

Barry Marsh, Township Clerk
Columbia Township, Brooklyn, Michigan

November 21, 2016

CONCORD TOWNSHIP BOARD

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Concord Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Judy A, Clark, Clerk of Concord Township, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Concord Township Board at a meeting thereof held on Monday, October 10, 2016 at our meeting room at 121 Grove Street, Concord, MI.

Judy A. Clark — Oct 10, 2016

Judy A. Clark, Clerk
Concord Township, Michigan

Date

Grass Lake Charter Township

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Grass Lake Charter Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Catherine N Zenz, Clerk of the Charter Township of Grass Lake, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Township Board at a meeting thereof held on the 10th day of January, 2016.

Catherine N. Zenz

Catherine N Zenz, Clerk
Grass Lake Charter Township, Michigan

1-10-2017

Date

Hanover Township

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Hanover Township Board hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Jennifer Crews, Deputy Clerk of the Township of Hanover, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Hanover Township Board at a meeting thereof held on the 12th day of October, 2016.

Jennifer C. Crews

Jennifer Crews, Deputy Clerk
Hanover Township, Michigan

October 12, 2016

October 12, 2016

Henrietta Township Board of Trustees

RESOLUTION

2016 Amendment of the
Jackson County Solid Waste Management Plan
Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and ;

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and;

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners, and;

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners, and;

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and;

WHEREAS, Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities,

NOW, THEREFORE, BE IT RESOLVED the Henrietta Township Board of Trustees hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Sally J. Keene, Clerk of the Township of Henrietta, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Henrietta Township Board of Trustees at a meeting thereof held on the 12th day of October, 2016.

Sally J. Keene Clerk

Sally J. Keene, Henrietta Township Clerk

10/12/2016

Date

Leoni Township Office

www.leonitownship.com

913 Fifth St.
Michigan Center, Michigan 49254
PHONE: (517) 764-4694 – FAX: (517) 764-1380

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Leoni Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Michele Manke, Clerk of the Township of Leoni, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Leoni Township Board at a meeting thereof held on the 11th day of October, 2016.

Michele Manke

Michele Manke, Clerk
Leoni Township, Michigan

10-11-16

Date

Napoleon Township Board of Trustees

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Napoleon Township Board of Trustees hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Chris Hawker, Clerk of the Township of Napoleon, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Napoleon Township Board of Trustees at a meeting thereof held on the 13th day of September, 2016.

Chris Hawker, Clerk
Napoleon Township, Jackson County, Michigan

9/13/16
Date

RESOLUTION 16-08

Norvell Township Board of Trustees

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Norvell Township Board of Trustees hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Anne M. Hagadorn, Clerk of the Township of Norvell, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Norvell Township Board of Trustees at a meeting thereof held on the 9th day of November, 2016.

Anne M. Hagadorn

Anne M. Hagadorn, Clerk
Norvell Township, Jackson County, Michigan

12-5-16

Date

2016-13

Parma Township

2016 Amendment of the Jackson County Solid Waste Management Plan

Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 115 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioner, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan of July 21, 2016 and recommended its approval by the Board of Commissioners, and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners, and

WHEREAS, THE Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

WHEREAS, Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities,

NOW, THEREFOE BE IT RESOLVED the Parma Township Board hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Donald E, Spangler, Clerk of the Township of Parma, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Parma Township Board at a Regular Meeting held on the 10th day of October, 2016.

Donald E Spangler — OCT 10, 2016

Donald E. Spangler — Date

Pulaski Township Board

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Pulaski Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Kris Runyon, Clerk of the Township of Pulaski, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Pulaski Township Board at a meeting thereof held on the 12th day of September, 2016.

Kris Runyon

Kris Runyon, Clerk
Pulaski Township, Michigan

9-12-16

Date

Resolution R2016-7

RIVES TOWNSHIP BOARD

2016 Amendment of the
Jackson County Solid Waste Management Plan
Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

WHEREAS Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Rives Township Board hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Stacy Stoner, Clerk of the Township of Rives, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Rives Township Board at a meeting thereof held on the 13th day of September, 2016.

Stacy Stoner — 9-13-2016

Stacy Stoner, Clerk
Rives Township, Michigan

Date

SANDSTONE CHARTER TOWNSHIP
2016 AMENDMENT OF THE
JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN
RESOLUTION OF ADOPTION

Whereas, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of1994) required the amendment of the Jackson County Solid Waste management Plan every five years and because of the closure of the Jackson County Resource Recovery facility (i.e. the waste to energy incinerator), and

Whereas, part 115, Solid Waste Management. Of the Natural Resources and Environmental Protection Act (PA 451of 1994) provides the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners; and

Whereas, The Solid Waste Planning Committee met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

Whereas, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the Townships, Villages and City which comprise the County, and

Whereas, Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the Jackson County Solid Waste Management Plan to be approved by 67% of the County Municipalities.

Now, Therefore be it Resolved the Sandstone Charter Township Board hereby adopts the 2016 Amendment of the Jackson County Solid Waste Management Plan.

I Priscilla J. Sterrett, Clerk of the Charter Township of Sandstone, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Sandstone Charter Board at a meeting thereof held on the 11, day of October 2016 in the Sandstone Charter Township Hall, 7940 County Farm Rd., Parma, MI 49269

Priscilla J. Sterrett — October 11, 2016

Priscilla J. Sterrett, Clerk — Date
Sandstone Charter Township

Spring Arbor Township

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Spring Arbor Township Board hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Julia K. Stonestreet, Clerk of the Township of Spring, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Township Board at a meeting thereof held on the 11th day of October 2016.

Julia K. Stonestreet, Clerk

10-11-16

Date

Spring Arbor Township, Michigan

Summit Township Board of Trustees

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Summit Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Meghan K Dobben, Clerk of the Township of Summit, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Summit Township Board at a meeting thereof held on the 20th day of September, 2016.

Meghan K Dobben

Meghan K Dobben, Clerk
Township of Summit, Michigan

Sept 21, 2016

Date

Tompkins Township Board of Trustees

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Tompkins Township Board herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Melanie J. Curran, Clerk of the Township of Tompkins, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Township of Tompkins at a meeting thereof held on the 8th day of September, 2016.

Melanie J. Curran, Clerk
Tompkins Township, Michigan

September 8, 2016
Date

RESOLUTION 2016-15

VILLAGE OF BROOKLYN

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

WHEREAS, Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities,

NOW, THEREFORE BE IT RESOLVED the Village Council for the Village of Brooklyn hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan.*

I, Mick Linderman, Village Clerk of the Village of Brooklyn, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Village Council for the Village of Brooklyn at a meeting thereof held on the 12th day of September, 2016.

Mick Linderman, Village Clerk
Brooklyn, Michigan

9/12/16
Date

Village of Cement City

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the [Municipal Name] [Township Board/Village Council/City Council] herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

I, Carol Ladd, Clerk of the Village of Cement City, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Village Council at a meeting thereof held on the 8th day of December, 2016.

Carol Ladd

Carol Ladd, Clerk
Village of Cement City, Michigan

12-8-16

Date

Concord Village Council

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Village of Concord Council herby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

Ayes: J. Bush, J. Jackson, K. Bush, T. Casey, A. Meeks, M. Lovitt, and J. Mockeridge.

Nays: None

I, Judy A. Lefere, Clerk of the Village of Concord, do hereby certify that the foregoing is a true and original copy of a resolution adopted by the Concord Village Council at a meeting thereof held on the twenty third day of August, 2016.

Judy A. Lefere

Judy A. Lefere, Clerk
Concord, Michigan

8-24-16

Date

Resolution #2016-12
2016 Amendment of the
Jackson County Solid Waste Management Plan
Resolution of Adoption

At a regular meeting of the Village Council, called to order by

Jim Jenkins on Oct 11 at 7:08 P.M.

the following resolution was offered:

Moved by J. Jenkins Seconded by D. Humphrey

WHEREAS, *Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator); and*

WHEREAS, *Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners; and*

WHEREAS, *the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and*

WHEREAS, *the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and*

WHEREAS, *the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages and city which comprise the County; and*

WHEREAS, *Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN to be approved by 67% of the County's Municipalities.*

NOW, THEREFORE BE IT RESOLVED *the VILLAGE OF PARMA COUNCIL herby adopts the 2016 Amendment of the JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN.*

Be recommended for _____*Approval*_____

Yeas: Jenkins, Humphrey, Burns Cooper, Locke, Patterson

Nays:

Absent: M. Carothers

Motion: Passes

State of Michigan
County of Jackson

I hereby certify that the following is a true and complete copy of a resolution offered and adopted by the Village of Parma at a special meeting of the Village Council held on 10/11/2016.

SEAL

/s/
Village Clerk

[illegible]
Village Address

VILLAGE OF SPRINGPORT
RESOLUTION 16-9

RESOLUTION TO ADOPT THE 2016 AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN.

Village of Springport Village Council

2016 Amendment of the *Jackson County Solid Waste Management Plan* Resolution of Adoption

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the *Jackson County Solid Waste Management Plan* every five years and because of the closure of the Jackson County Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the amended Plan on July 21, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Board of Public Works met and approved the amended Plan on July 25, 2016 and recommended its approval by the Board of Commissioners; and

WHEREAS, the Jackson County Board of Commissioners met and approved the Plan on July 25, 2016 and recommended its approval by the townships, villages, and city which comprise the County, and

Whereas Part 115 of PA 451 of 1994 requires that the 2016 Amendment of the *Jackson County Solid Waste Management Plan* to be approved by 67% of the County's municipalities.

NOW, THEREFORE BE IT RESOLVED the Village of Springport Village Council hereby adopts the 2016 Amendment of the *Jackson County Solid Waste Management Plan*.

Ayes:

Nays:

Absent or Abstained:

I hereby certify that the above resolution is a true and accurate account of what transpired at a regular council meeting of the Springport Village Council on October 13, 2016 as contained in the official minutes of said meeting.

Jennifer Naylor
Jennifer Naylor, Village Clerk

10-13-16
Date

I hereby certify that the above resolution has been reviewed.

10-13-16

ATTACHMENTS

Listed Capacity:

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

Grant Bauman

From: Dave Rettell <Dave.Rettell@advanceddisposal.com>
Sent: Wednesday, December 21, 2016 12:12 PM
To: Grant Bauman
Subject: RE: Access to capacity at the Arbor Hills Landfill

Mr. Bauman

Arbor Hills Landfill can and will except up to 150,000 gate yards annually from Jackson County, per the current Washtenaw County Solid Waste Plan.

David Rettell | **East Region Landfill Operation Manager**

Advanced Disposal

10690 West Six Mile Road | Northville | MI 48168
T: 248-412-0692 | **M:** 248-755-9306 | **E:** dave.rettell@advanceddisposal.com
Connect with us: AdvancedDisposal.com Facebook Youtube

From: Grant Bauman [mailto:GBauman@co.jackson.mi.us]
Sent: Tuesday, December 20, 2016 9:46 AM
To: Dave Rettell <Dave.Rettell@advanceddisposal.com>
Subject: Access to capacity at the Arbor Hills Landfill

Mr. Rettell,

It was nice speaking with you this morning. As I mentioned, I need an email from you that Jackson County has access to landfill capacity at your Arbor Hills Landfill. The suggested language is as follows:

"This communication is provided by Advanced Disposal Services as documentation that Jackson County has access to landfill capacity at Advanced Disposal Services Arbor Hills Landfill, Inc."

Please date the communication and email it back to me. Thank you for assistance. It is greatly appreciated.

Regards,
Grant Bauman

Grant E. Bauman, AICP | Principal Planner

Region 2 Planning Commission
Serving Hillsdale, Jackson, and Lenawee Counties

www.region2planning.com | gbauman@co.jackson.mi.us
p. +1-517-768-6711 | **f.** +1-517-788-4635

120 W. Michigan Ave, 9th Floor, Jackson, MI 49201

Grant Bauman

From: Kendall, Kevin <KKendall@republicservices.com>
Sent: Friday, August 05, 2016 8:01 AM
To: Grant Bauman
Cc: Porter, James; Leclerc, Betty
Subject: Capacity- Carleton Farms Landfill

August 5, 2016

This communication is provided by Republic Services as documentation that Jackson County has access to landfill capacity at Carleton Farms Landfill.

J. Kevin Kendall
Sales Manager
Flint- Pinconning Business Unit

4101 Holiday Drive Flint, Michigan 48507
e kkendall@republicservices.com
o 248-333-8624 c 248-379-2756
f 810-341-1281 w www.RepublicServices.com

REPUBLIC SERVICES

We'll handle it from here.™

Grant Bauman

From: Kendall, Kevin <KKendall@republicservices.com>
Sent: Friday, August 05, 2016 8:03 AM
To: Grant Bauman
Cc: Porter, James; Leclerc, Betty
Subject: Landfill Capacity C&C Landfill

August 5, 2016

This communication is provided by Republic Services as documentation that Jackson County has access to landfill capacity at C&C Expanded Sanitary Landfill.

J. Kevin Kendall
Sales Manager
Flint- Pinconning Business Unit

4101 Holiday Drive Flint, Michigan 48507
e kkendall@republicservices.com
o 248-333-8624 c 248-379-2756
f 810-341-1281 w www.RepublicServices.com

REPUBLIC SERVICES

We'll handle it from here.™

Grant Bauman

From: Tonia M. Olson <Tolson@grangernet.com>
Sent: Thursday, August 04, 2016 1:57 PM
To: Grant Bauman
Subject: Landfill Capacity Access - Granger Grand River Avenue Landfill

August 4, 2016

This communication is provided by Granger as documentation that Jackson County has access to landfill capacity at Granger Grand River Avenue Landfill.

TONIA OLSON
DIRECTOR OF GOVERNMENTAL & COMMUNITY RELATIONS
GRANGER
D 517-371-9720
C 517-896-9729
www.grangernet.com

Grant Bauman

From: Tonia M. Olson <Tolson@grangernet.com>
Sent: Thursday, August 04, 2016 1:55 PM
To: Grant Bauman
Subject: Landfill Capacity Access - Granger Wood Street Landfill

August 4, 2016

This communication is provided by Granger as documentation that Jackson County has access to landfill capacity at Granger Wood Street Landfill.

TONIA OLSON
DIRECTOR OF GOVERNMENTAL & COMMUNITY RELATIONS
GRANGER
D 517-371-9720
C 517-896-9729
www.grangernet.com

Grant Bauman

From: Shena Buckner <shena@libertylandfill.com>
Sent: Monday, August 08, 2016 2:47 PM
To: Grant Bauman
Subject: REVISED: Capacity access request

August 8, 2016

This communication is provided by Liberty Environmentalist as documentation that Jackson County has access to landfill capacity at 10,000,000 yards.

Thank you-

David Dunigan
517-787-1177

From: Shena Buckner [mailto:shena@libertylandfill.com]
Sent: Monday, August 08, 2016 2:45 PM
To: 'Grant Bauman' <GBauman@co.jackson.mi.us>
Subject: RE: Capacity access request

August 8, 2016

This communication is provided by Liberty Environmentalist as documentation that Jackson County has access to landfill capacity at 10,000,000.

Thank you-

David Dunigan
517-787-1177

From: Grant Bauman [mailto:GBauman@co.jackson.mi.us]
Sent: Thursday, August 04, 2016 3:43 PM
To: shena@libertylandfill.com
Subject: FW: Capacity access request
Importance: High

Please forward this to Dave Dunigan. Thanks, Shena.

Grant Bauman

Grant E. Bauman, AICP | Principal Planner

Region 2 Planning Commission
Serving Hillsdale, Jackson, and Lenawee Counties

www.region2planning.com | gbauman@co.jackson.mi.us
p. +1-517-768-6711 | **f.** +1-517-788-4635

120 W. Michigan Ave, 9th Floor, Jackson, MI 49201

From: Grant Bauman
Sent: Thursday, August 04, 2016 11:28 AM

WASTE MANAGEMENT

RECEIVED
AUG 15 2016
Per

CITY ENVIRONMENTAL SERVICES LANDFILL, INC. OF HASTINGS
P.O. Box 336
1899 North M-43 Highway
Hastings, MI 49058
(269) 945-2260
(269) 945-4582 Fax

Mr. Grant Bauman
Region 2 Planning Commission
120 W. Michigan Ave
9th Floor
Jackson, MI 49201

Re: Jackson County Solid Waste Planning – Jackson County Landfill capacity of Waste Management Landfills.

Dear Mr. Bauman,

This correspondence is Waste Management documentation that Jackson County has access to landfill capacity of the McGill Landfill, located in Jackson County. Additionally, Jackson County has access to landfill capacity at the Woodland Meadows Landfill, located in Wayne County.

Steve Essling

Government & Regulatory Affairs/
Compliance Manager

ATTACHMENTS

Maps:

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

Please see Map II-1 on Page II-10 for the location of disposal facilities in Jackson County.

ATTACHMENTS

Inter-County Agreements:

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

N/A

ATTACHMENTS

Special Conditions:

Special conditions affecting import or export of solid waste:

There are no special conditions affecting the importation or exportation of solid waste.

ATTACHMENTS

Common Definitions

The following definitions are needed in order to ensure that all stakeholders know what the terms utilized throughout the Solid Waste Management Plan mean. The sources for most of the definitions are Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994), as amended, and the associated rules promulgated by the Office of Waste Management, Department of Environmental Quality.

"**Disposal area**" means 1 or more of the following, as licensed by the Department of Environmental Quality:

- Landfill
- Transfer Facility
- Processing Plant
- Incinerator (none identified in the Preferred Alternative)

(MCL 324.11503 (5))

"**Landfill**" means a disposal area consisting of 1 or more units and active work areas licensed/classified as follows:

- "**Type II Landfill**" means a municipal solid waste landfill which receives household waste or municipal solid waste incinerator ash and which may also receive any of the following types of solid waste:
    - Construction and demolition waste.
    - Sewage sludge.
    - Commercial waste.
    - Nonhazardous sludge.
    - Hazardous waste from conditionally exempt small quantity generators.
    - Industrial waste. Such a landfill may be publicly or privately owned.
- "**Type III Landfill**" means any landfill not defined as a municipal solid waste landfill or hazardous waste landfill, including the following:
    - Construction and demolition waste landfills.
    - Industrial waste landfills.
    - Landfills which accept waste other than household waste, municipal solid waste incinerator ash, or hazardous waste from conditionally exempt small quantity generators.

(MCL 324.11504 (4); R 299.4105 (a); and R 299.4104 (d)

"**Solid Waste Transfer Facility**" means a parcel(s) of land, building(s), and/or container(s) licensed for use in the re-handling or storage of solid waste—incidental to its transportation— but not located at the sites of generation or ultimate disposal. Based on design and type of refuse received, solid waste transfer facilities are classified as follows:

- "**Type A Transfer Facility**" means a facility designed and operated to receive solid waste primarily from mechanically unloaded vehicles
- "**Type B Transfer Facility**" means a facility designed and operated to receive domestic and commercial solid waste from vehicles unloaded by hand

MCL 324.11506 (5) and R 299.4501 (3)

"**Hauler**" means a person who owns or operates a container—which may be an integral part of a truck or other piece of equipment—used for the transportation of solid waste.

MCL 324.11506 (2) and MCL 324.11506 (4)

"**Recycling**" means the removal, storage, transportation, and eventual sale or reuse of any site- or source-separated materials taken from the solid waste stream that would otherwise be disposed of in a landfill.

"**Recycling Center and Service**" means a drop-off site which accepts a variety of recyclable materials or particular types of solid waste which need proper disposal. These sites can be operated by for-profit, non-profit, or governmental providers and are often included in the services provided by Transfer Facilities and Haulers.

"**Resource Recovery Facility (RRF)**" means the former waste-to-energy incinerator operated by the County of Jackson.

"**Solid Waste Processing Plant**" means a parcel(s) of land, building(s), and/or container(s) licensed for the processing of solid waste or the separation of material for salvage or disposal, or both, but does not include plants associated with ferrous or nonferrous scrap metal scrap or slag or slag products.

MCL 324.11506 (3)

"Solid waste" means garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial waste, solid industrial waste, and animal waste. However, solid waste does not include the exceptions listed in MCL 324.11506 (1).

MCL 324.11506 (1)

"**Special Event**" means an event during which a variety of recyclable materials or particular types of solid waste which need proper disposal are accepted for a certain period of time. These events are provided by for-profit, non-profit, or governmental institutions.

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Wednesday, October 30, 2013

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

1. **Call to Order.** The meeting was called to order at 9:30 a.m. by staff.
2. **Introduction of Members, and Staff.** Committee members and staff introduced themselves, noting who they represent.
3. **Election of Officers.** Staff requested that the Committee nominate a Chair and Vice Chair from amongst its membership.

   A motion was made by Mr. Duckham, and seconded by Ms. Clevenger, to nominate Mr. Snyder as Chair of the Solid Waste Planning Committee. ***The motion passed by unanimous voice vote.***

   Mr. Snyder, who presided over the meeting from this point on, requested a nomination for Vice Chair of the Committee.

   A motion was made by Mr. Duckham, and seconded by Mr. Muhich, to nominate Mr. Shotwell as Vice-Chair. ***The motion passed by unanimous voice vote.***

4. **Discussion of Committee Purpose.** Mr. Snyder asked staff to summarize the purpose of the Committee. Mr. Bauman, referring to the Solid Waste Management Plan Amendment Primer distributed at the meeting, indicated that the Committee is charged with reviewing the various alternatives of the current edition of the Plan in light of its age and the closure of the Resource Recovery Facility (RRF).

   Mr. Muhich asked for a summary of the alternatives:

   #1. Maintain the existing system, with a greater emphasis on recycling,
   #2. Landfill all of the county's waste within the county with an emphasis on recycling, and
   #3. Transfer all of the waste out of the county, with an emphasis on recycling.

   Mr. Shotwell, who provided the summary of the alternatives, noted that the electrical and steam power produced by the Resource Recovery Facility (RRF)—and sold to the Michigan Department of Corrections—was viewed as a type or recycling. He also stated that the Board of Public Works has chosen to operate under Alternative #2 since the closure of the RRF.

   Staff noted that the original and current editions of the Plan have been posted to the webpage created for the Committee and that other information will be posted as it becomes available. Mr. Muhich requested that the webpage address (see the bottom of the first page) be emailed to the Committee.

   The frequency, as well as dates and time, of future meetings were also discussed. By general consent it was agreed that monthly meetings were appropriate and that they will be held on the third Wednesday of each month at 9:00 a.m. Staff will send out reminder emails to all members prior to each meeting.

5. **Overview of County Solid Waste Issues.** The following issues were discussed by the Committee:

   - Mr. Remington inquired about the acceptance of out-of-county waste at the McGill Landfill and Mr. Muhich requested information on its capacity. Mr. Essling, Waste Management (member of the public), replied that McGill Landfill is nearing its capacity, but will remain open for at least five years. A small amount of waste generated out-of-county is accepted at the landfill. Documentation on the capacity of the facility was requested by Mr. Remington.

   - Mr. Snyder pointed out that local municipalities must be kept apprised of the amendment process so that any issues with the amended Plan are addressed as early as possible. Potential forums mentioned by staff include the Township Supervisor's Association and the Community Planning Committee. Mr. Wymer liked the idea of utilizing the Supervisor's Association.

   - Ms. Clevenger wants to ensure that recycling is integrated into the process with a focus on recycling products rather than steam generation. She stated that Resource Recovery Systems and the Michigan Recycling Coalition are possible resources for information on recycling. Mr. Glen, RRF Project Manager (member of the general public) informed the Committee that 60% of the waste stream, not including other recycling efforts, was reduced utilizing the RRF. Mr. Muhich indicated that recycling must be promoted by the County and that the recycling coordinator for Emmett County is available to speak with the Committee regarding recycling. Mr. Duckham responded that local haulers have recycling experience that should be tapped rather than outside experts.

   - Mr. Dobies asked what was meant by "emphasis on recycling," as included in the current Plan alternatives? Mr. Snyder indicated that is one of the decisions that need to be made by the Committee. Mr. Duckham suggested that a decision on a public or private approach is needed. Other members stated that the various pertinent issues need to be identified and requested that staff investigate recycling alternatives and bring them back to the Committee. Ms. Olson informed the Committee that a DEQ workgroup on recycling has been established and that its work may be of use.

- It was decided that a round-table discussion designed to identify solid waste issues will be the main focus of the next meeting. That information can then be utilized to amend the goals and objectives of the Plan where needed. Mr. Wymer will facilitate the discussion and Mr. Bauman will be the scribe for the session.

6. **Public Comment.** Members of the general public made the following statements:
   - Mr. Essling, Waste Management, stated that the current edition of the Plan is essentially complete in his opinion. However, clear goals and objectives are needed which are understandable and easy to achieve. Baseline data is also needed in order to measure progress towards those goals and objectives. He also noted that recycling is a separate issue from solid waste planning and that it is to the private sector's advantage to recycle because of the resulting decrease in total paid tipping fees.
   - Mr. Bormuth announced his preference for Alternative #3 in the current edition of the Plan because it will decrease water pollution in a county which contains the headwaters of four major Michigan watersheds. He advocates for government sponsored countywide recycling with flow control. He feels that mature markets exist and that the RRF was not recycling in his opinion.
   - Jim Snavely also expressed his concern regarding water pollution and noted that he thought the RRF was the solution for that concern.
7. **Adjournment.** Mr. Snyder adjourned the meeting at 10:30 a.m.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Wednesday, November 20, 2013

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Steve Essling	Waste Management, Inc.
Chuck Cassie	Waste Management, Inc.
Peter Bormuth	

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Approval of Meeting Minutes.** The Committee considered the minutes for its October 30, 2013 meeting.

   A motion was made by Ms. Olson, and seconded by Mr. Wymer, to approve the minutes for the October 30, 2013 meeting of the Committee. The motion passed by unanimous voice vote.

3. **Brainstorming Session.** Mr. Wymer, who facilitated the session, made a short PowerPoint presentation. The first several slides made the following salient points:

- **Planning: A Tangle of Terminology —** Vision, Mission, Objectives, Strategies, Goals, Initiatives, Guiding Principles, Critical Success Factors, Key Success Factors, Strengths, Weaknesses, Opportunities, Threats, Value Statements, Issues, Risks.
- **A Simple Way to Look At Planning:**
  - There is Always a Default.
  - Is Intervention Justified?
  - If so, What Form Should It Take?
- **Issues:**
  - Something So Important We Want To Control What Happens There: ***Goals & Objectives.***
  - What We Want To Happen There: ***Evaluation Criteria.***
  - How to Make It Happen There.
- Important That We Recognize This: ***SOLID WASTE MANAGEMENT > RECYCLING.***

He concluded his presentation by identifying various issues and facilitating the discussion which resulted in the following listings:

- **Main Issues:**
  1. Improperly managed solid waste can harm public health.
  2. Improperly managed solid waste can harm the environment.
  3. The incinerator is no longer operating to recycle solid waste into energy and reduce the volume of solids being landfilled.
  4. The volume of solid waste being recycled in Jackson County [is assumed to be] far less than what it could be.
  5. High solid waste disposal costs are difficult for residents and businesses to afford.
  6. Groundwater and surface water pollution in Jackson County--as it relates to the siting of landfills--can impact the headwaters of multiple river systems.
  7. Available Jackson County landfill space is limited and expensive to increase.
  8. Transporting solid waste and recyclables is costly in terms of fuel, driver time, equipment time, and infrastructure wear.
  9. The flow control ordinance is going away.
- **Other Considerations:**
  - How should the Plan address the disposal of other types of waste (e.g., hazardous, biological, etc.)? *Handled by the State and not part of the purview of this Plan, which is limited to municipal solid waste.*
  - Is it legal for Jackson County to be more restrictive in its regulation than the State regarding the siting landfills? *For further discussion under #6-#7.*
  - Should the County be involved in permitting and regulating the handlers of solid waste?
  - Is this Plan Amendment a simple tweak or a major overhaul of the document?
    - The Plan needs to identify 10 years landfill space and include siting criteria for landfills.
    - McGill Landfill had approximately 8 years of capacity under current conditions (e.g., volume,

flow control, recycling, etc.).
- Keep the options of the County open. Need to do the research.
- Flow control will go away without the introduction of some type of recycling facility. Lawsuit likely otherwise and this decision will likely be made by the County Board in the near future. Free market will prevail and McGill will be able to accept waste from other counties as well as pick-up municipal waste itself. That could increase the volume of waste accepted at the landfill, lessening its capacity over time. Limit McGill to municipal solid waste rather the C&D, prolonging its life? There is also room for expansion of the facility.
- Consensus to move forward with the amendment.

- **Things needed for the next meeting:**
  - Post the solid waste management act to the website.
  - Report annual volumes of solid waste, including recyclables.

5. **Other Business.**
   - Speakers on Recycling. The Committee discussed the proposal made by Mr. Muhich to invite Eliza Setzer, Emmet County Director of Public Works, to speak about recycling. Shelly Hendrick, Greater Jackson Habitat for Humanity Executive Director, and Steve Noble, President of Recycling Jackson, were also suggested as potential speakers. Staff was directed to look into the context of those speakers and then bring the suggestion back to the Committee for further discussion. It was pointed out that the Plan needs to focus on residential waste and the recycling is not a startup industry in Jackson County. That does not mean, however, that there is no need to learn about recycling.
6. **Public Comment.** A member of the general public made the following statements:

   Mr. Bormuth announced that he will be present at the meetings to speak for/address groundwater and surface water concerns. He believes that the Committee has the power and ability to introduce county-wide recycling.
7. **Committee Member Comment.** Committee members made the following statements:
   - Mr. Snyder, Chair, and Mr. Shotwell requested that the meeting be moved as they have a conflict with another meeting. The Committee agreed to meet again on December 11th.
   - Mr. Remington and Mr. Snyder, Chair, thanked Mr. Wymer for facilitating the session and Mr. Snyder requested that Mr. Wymer continue facilitating the reconciliation of the new list with the Plan's existing goals and objectives at the next meeting. Mr. Wymer graciously agreed.
7. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Wednesday, December 11, 2013

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Peter Bormuth	"The surface & ground water of Jackson County"
Steve Essling	Waste Management, Inc.
Kevin Kendall	Republic Services
Mike Overton	Jackson County

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** A member of the general public made the following statements:

   Mr. Bormuth addressed several issues he believes should be addressed in the plan amendment:

   - Where will solid waste be disposed of for the next 10 years? *The answer can be left to the private sector or the County could work towards the expansion of the McGill Road Landfill.*
   - How will recycling be addressed? *The answer can be left to the private sector or the County could work towards the establishment of a single stream recycling facility.*
   - The protection of ground and surface water.

Later in the meeting, Mr. Bormuth also mentioned that statistical analysis on the estimated level of recycling is available through computer modeling (see Item 4c, Objective 6.c).

3. **Approval of Meeting Minutes.** The Committee considered the minutes for its November 20, 2013 meeting.

   A motion was made by Ms. Olson, and seconded by Mr. Ripstra, to approve the minutes for the November 20, 2013 meeting of the Committee. The motion passed by unanimous voice vote.

4. **Brainstorming Session.**

   A. **Issues.** Mr. Wymer, who facilitated the session, began his presentation by restating the listing of issues agreed to during the November meeting, *including the additional 10th issue which was agreed to by the common consent of the Committee*:

      1. Improperly managed solid waste can harm public health.
      2. Improperly managed solid waste can harm the environment.
      3. The incinerator is no longer operating to recycle solid waste into energy and reduce the volume of solids being landfilled.
      4. The volume of solid waste being recycled in Jackson County [is assumed to be] far less than what it could be.
      5. High solid waste disposal costs are difficult for residents and businesses to afford.
      6. Groundwater and surface water pollution in Jackson County--as it relates to the siting of landfills--can impact the headwaters of multiple river systems.
      7. Available Jackson County landfill space is limited and expensive to increase.
      8. Transporting solid waste and recyclables is costly in terms of fuel, driver time, equipment time, and infrastructure wear.
      9. The flow control ordinance is going away.
      10. Imported solid waste shortens landfill use life; exported solid waste lengthens landfill use life.

   B. **State Policy and Regulation.** Ms. Olson gave a short presentation on state policies and regulations regarding solid waste management and the amendment of the Solid Waste Management Plan. She informed the committee that state-mandated goals of the planning process include the prevention of adverse effect on public health and environment through improper practices and the maximum utilization of solid waste. Each alternative must be evaluated for its impact on public health, the economy and the environment (including energy) as well as siting issues. Ms. Olson also provided definitions for solid waste, source separated material, site separated material, recyclable materials, and enforceable mechanisms. She concluded by showing the location of landfills available to Jackson County municipal waste.

   C. **Goals and Objectives.** Mr. Wymer led the brainstorming session regarding the adaptation of the goals and objectives included in the current plan for the plan amendment as follows (the goals and objectives are displayed with 'track changes' engaged so that the original and amended version of each policy is discernable):

      Goal 1: Provide protection for the public health, safety, and welfare of the citizens of the County as it relates to the management of solid waste.

         Objective 1.a To insure that all operating solid waste disposal areas comply with adopted laws and regulations for proper solid waste management.

Objective 1.b To insure that existing, licensed solid waste disposal facilities are sufficient to meet the County's waste disposal needs for the ten-year period immediately following adoption of this plan.

Objective 1.c To insure that there is a contingency plan (i.e., alternatives) for meeting the County's waste disposal needs in emergency situations.

Goal 2: Protect the County's natural resources from pollution and contamination that could result from improper or mismanaged waste disposal.

Objective 2.a To insure that proper disposal methods are being used in accordance with current regulations.

Objective 2.b To insure that ground and surface waters are not being contaminated from solid waste management practices.

Objective 2.c To minimize the use of landfills as a waste disposal option and to enforce existing regulations which prohibit the disposal of waste on land in regulated facilities, as a means of protecting the County's land resources. [Need to revisit.]

Objective 2.d To insure compliance of operating facilities with air quality regulations minimizing the impact on neighboring uses of airborne particulate matter and odors associated with waste disposal practices.

Goal 3: To maximize the use of natural and man-made resources (e.g., materials, etc.) through conservation and recovery. [Need to revisit – align with state policy.]

Objective 3.a To promote resource recovery systems where feasible.

Objective 3.b To assist both the private and public sector in instituting composting and recycling programs where feasible.

Goal 4: ~~Use~~ Promote and use public education, marketing, and outreach to ~~promote a~~ better understand~~ing~~ of solid waste management ~~planning~~and encourage active broad participation and openness to alternative options to disposal. [Need to revisit.]

Objective 4.a To inform the public about existing solid waste management system and any proposed changes in the system.

Objective 4.b To develop support for solid waste management education and the value of recycling.

Goal 5: Maintain an efficient and environmentally sound waste collection system with adequate public and/or private facilities, including transportation.

Objective 5.a To encourage ~~local regulatory agencies and~~ local units of government to consider ~~the impact of~~ ordinances ~~(noise, etc.) on the overall cost-effective operation of~~ which implement the solid waste management ~~business~~plan and conserve public infrastructure.

Goal 6: ~~Achieve~~ Develop an on-going solid waste planning, evaluation and management process.

Objective 6.a To monitor on an annual basis indicators of successful plan implementation, including excising landfill capacity and volume of waste diverted from the waste stream due to recycling and composting.

Objective 6.b To amend/update the solid waste management plan every five years.

Objective 6.c To monitor State and Federal legislation affecting solid waste management.

Objective 6.c. To develop and implement needed metrics that will allow for the annual monitoring of indicators.

5. **Other Business.**

   Chair Snyder asked Committee members what should be the proposed accomplishment of the next meeting. After some discussion the Committee decided by common consent to dedicate the next meeting, under the facilitation of Mr. Wymer, to the following:

   - Continue with the process of amending the goals and objectives; Mr. Wymer and Mr. Bauman will suggested further revisions as part of that process.
   - Develop criteria for judging proposed alternatives.
   - Create metrics for measuring progress on the implementation of the solid waste management plan; Chair Snyder, Mr. Wymer, Mr. Bauman, and a Committee member representing the solid waste management industry will meet prior to the meeting to draft possible metrics.

6. **Public Comment.** A member of the general public made the following statements:

   Mr. Essling, Waste Management, congratulated the Committee on the cordiality of its meetings and its focus on the goals and objectives of the solid waste management plan. He recommends meeting on a continual quarterly once this amendment is completed in order to address the evolving changes in the industry.

7. **Committee Member Comment.** Committee members made the following statements:

   - Ms. Clevenger had questions regarding flow control and other related issues detailed in an email addressed to Mr. Shotwell. Mr. Overton replied that many of those questions are not available for public dissemination at this time due to ongoing negotiations that have arisen due to the closure of the Resource Recovery Facility (RRF).
   - Mr. Remington shared his request for the volunteer reporting from recyclers regarding the volume (i.e., tonnage) and types of materials being recycled. Mr. Duckham noted that information regarding recycled materials that are not part of the municipal waste stream (e.g., cardboard directly transported for recycling by supermarkets, etc.).

7. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Wednesday, February 3, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Peter Bormuth	"The surface & ground water of Jackson County"
Steve Essling	Waste Management, Inc.
Kevin Kendall	Republic Services
John Tallis	Hanover Township
Mike Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Meeting Minutes.**
   a. **Approval of the December 11, 2013 Meeting Minutes.** The Committee considered the minutes for its December 11, 2013 meeting.

   A motion was made by Mr. Shotwell, and seconded by Mr. Ripstra, to approve the minutes for the December 11, 2013 meeting of the Committee. The motion passed by unanimous voice vote.

b. **Receipt of the December 23, 2013 Metrics Subcommittee Meeting Synopsis.** The Committee considered the receipt of the synopsis of the December 23, 2013 Metrics Subcommittee meeting.

A motion was made by Ms. Clevenger, and seconded by Mr. Shotwell, to receive the synopsis of the December 23, 2013 Metrics Subcommittee meeting. The motion passed by unanimous voice vote.

4. **Brainstorming Session.**

a. **Review of the "Jackson County Mapping Project."** Mr. Bauman explained the purpose of the "Jackson County Mapping Project" is to prepare maps for the Jackson County Solid Waste Management Plan and the Jackson County Master Plan. He also showed images of the following maps and took questions of the Committee:

Land Use
- 1.1 Urban Areas and Places
- 1.2 Existing Land Use
- 1.3 Agricultural Preservation Area
- 1.4 Possible Greenways
- 1.5 Institutions and Public Lands

Hydrology
- 2.1 Surface Waters
- 2.2 Wellhead Protection Areas
- 2.3 Ground Water recharge Areas

Transportation
- 3.1 Primary Transport Routes
- 3.2 Licensed Public Use Airports

Solid Waste
- 4.1 Solid Waste Facilities
- 4.2 Current Export and Import Authorization

Several suggestions for improving the maps were made. Map 1.4 will be renamed "Possible Greenways (Natural Areas)." Map 2.2 will be renamed "Public Wellheads." Map 4.1 will be revised to include the Emmons Service property; Northwest Refuse Inc. and Modern Waste will be recognized as transfer stations.

b. **Committee Member Roundtable.** Mr. Wymer asked each of the members of the Committee to briefly answer a couple of questions:

- *What are the one or two things you are most worried about in connection with creating the plan?*
- *What are the one or* two things you most want included in (or excluded from) the plan?

Each Committee member complied with the request.

c. **Goals and Objectives.** The final edits of the goals and objectives were presented to the Committee for adoption. They appear hear as approved by common consent:

Goal 1: Provide protection for the public health, safety, and welfare of the citizens of the County as it relates to the management of solid waste.

Objective 1.a To insure that all operating solid waste disposal areas comply with adopted laws and regulations for proper solid waste management.

Objective 1.b To insure that existing, licensed solid waste disposal facilities are sufficient to meet the County's waste disposal needs for the ten-year period immediately following adoption of this plan.

Objective 1.c To insure that there is a contingency plan (i.e., alternatives) for meeting the County's waste disposal needs in emergency situations.

Goal 2: Protect the County's natural resources from pollution and contamination that could result from improper or mismanaged waste disposal.

Objective 2.a To insure that proper disposal methods are being used in accordance with current regulations.

Objective 2.b To insure that ground and surface waters are not being contaminated from solid waste management practices.

Objective 2.c To minimize the use of landfills within Jackson County in order to protect the County's land resources.

Objective 2.d To insure compliance of operating facilities with air quality regulations minimizing the impact on neighboring uses of airborne particulate matter and odors associated with waste disposal practices.

Goal 3: Recognize solid waste as a resource that should be managed to promote economic vitality, ecological integrity, and improved quality of life in a way that fosters sustainability.

Objective 3.a To promote the reduction and reuse of solid waste where feasible.

Objective 3.b To assist both the private and public sectors in instituting composting and recycling programs where feasible.

Goal 4: Promote and use public education, marketing, and outreach to foster a better understanding and encourage broader participation in achieving the goals and objectives of this plan.

Objective 4.a To inform the public about the existing solid waste management system and any proposed changes in the system.

Objective 4.b To inform the public about solid waste management and the value of recycling.

Goal 5: Maintain an efficient and environmentally sound waste collection system with adequate public and/or private facilities, including transportation.

Objective 5.a To encourage local regulatory agencies and units of government to consider the impact of ordinances (e.g., noise, hours of operation, etc.) on the overall cost-effectiveness of operations which implement the solid waste management plan and conserve local transportation infrastructure.

Goal 6: Develop and implement an on-going solid waste planning, evaluation and management process.

Objective 6.a To develop and implement measurements of successful plan implementation (i.e., metrics), as well as ongoing operation metrics.

Objective 6.b To amend/update the solid waste management plan every five years.

Objective 6.c To monitor State and Federal legislation affecting solid waste management.

A motion was made by Mr. Ripstra, and seconded by Mr. Muhich, to adopt the goals and objectives. The motion passed by unanimous voice vote.

d. **Metrics Subcommittee Report.**

1. **Defining the Waste Stream.** The Committee was presented with two definitions of solid waste. The first was a definition modified by the Metrics Subcommittee from the County's current flow control ordinance. The second was the definition as stated in MCL 324.11506 (see below):

"Solid Waste" *means garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial and solid industrial waste, and animal waste other than organic waste generated in the production of livestock and poultry. However, solid waste does not include the following:*

(a) *Human body waste.*

(b) *Medical waste.*

(c) *Organic waste generated in the production of livestock and poultry.*

(d) *Liquid waste.*

(e) *Ferrous or nonferrous scrap directed to a scrap metal processor or to a reuser of ferrous or nonferrous products.*

(f) *Slag or slag products directed to a slag processor or to a reuser of slag or slag products.*

(g) *Sludges and ashes managed as recycled or nondetrimental materials appropriate for agricultural or silvicultural use pursuant to a plan approved by the department. Food processing residuals, precipitated calcium carbonate from sugar beet processing, wood ashes resulting solely from a source that burns only wood that is untreated and inert, lime from kraft pulping processes generated prior to bleaching, or aquatic plants may be applied on, or composted and applied on, farmland or forestland for an agricultural or silvicultural purpose, or used as animal feed, as appropriate, and such an application or use does not require a plan described in this subdivision or a permit or license under this part. In addition, source separated materials approved by the department for land application for agricultural and silvicultural purposes and compost produced from those materials may be applied to the land for agricultural and silvicultural purposes and such an application does not require a plan described in this subdivision or permit or license under this part. Land application authorized under this subdivision for an agricultural or silvicultural purpose, or use as animal feed as provided for in this subdivision shall be performed in a manner that prevents losses from runoff and leaching. Land application under this subdivision shall be at an agronomic rate consistent with generally accepted agricultural and management practices under the Michigan right to farm act, 1981 PA 93, MCL 286.471 to 286.474.*

(h) *Materials approved for emergency disposal by the department.*

(i) *Source separated materials.*

(j) *Site separated material.*

(k) *Fly ash or any other ash produced from the combustion of coal, when used under any of the following circumstances:*

(i) *As a component of concrete, grout, mortar, or casting molds, if the fly ash has not more than 6% unburned carbon.*

(ii) *As a raw material in asphalt for road construction, if the fly ash has not more than 12% unburned carbon and passes Michigan test method for water asphalt preferential test, MTM 101, as set forth in the state transportation department's manual for the Michigan test methods (MTM's).*

(iii) *As aggregate, road, or building material that in ultimate use will be stabilized or bonded by cement, limes, or asphalt.*

(iv) *As a road base or construction fill that is covered with asphalt, concrete, or other material approved by the department and that is placed at least 4 feet above the seasonal groundwater table.*

(v) *As the sole material in a depository designed to reclaim, develop, or otherwise enhance land, subject to the approval of the department. In evaluating the site, the department shall consider the physical and chemical properties of the ash, including, but not limited to, leachability, and the engineering of the depository, including, but not limited to, the compaction, control of surface water and groundwater that may threaten to infiltrate the site, and evidence that the depository is designed to prevent water percolation through the material.*

(l) *Soil that is washed or otherwise removed from sugar beets, has not more than 35% moisture content, and is registered as a soil amendment under part 85. Any testing required to become registered under part 85 is the responsibility of the generator.*

(m) *Soil that is relocated under section 20120c.*

(n) *Other wastes regulated by statute.*

The Committee discussed the definitions and the consensus was to utilize the state definition for the sake of simplicity. However, there was some concern over the disposal of incinerator ash.

A motion was made by Mr. Shotwell, and seconded by Ms. Olsen, to adopt the goals and objectives. The motion passed by unanimous voice vote.

2. **Establishing Metrics.** The Subcommittee will continue to address this issue. However, the following observations were made:

- The Committee may be able to utilize the metrics that the State is currently developing once they become available.
- Although there is no requirement for haulers to report the volume of recyclables they handle, local haulers could be asked about what proportion of their customers take advantage of their recycling programs.

5. **Other Business.**

a. **Possible Guest Speakers for March.** The Committee discussed inviting speakers to its next meeting to address various questions concerning solid waste and recycling, including the following:

- What alternatives should the Committee look for;
- What are the recommended metrics for assessing those alternatives; and
- Why have some recycling programs been so successful while others have failed.

By consensus, the Committee decided to invite the following types of speakers:

- The various trash haulers operating within the county;
- Representatives from the transfer stations in Henrietta and Rives Townships and the closed recycling drop-off facility in Summit Township; and
- Nonprofit agencies with waste management and recycling programs.

b. **Communicating with Municipalities.** State regulations require that the Solid Waste Management Plan be approved by two-thirds of the municipalities within Jackson County. One avenue for securing buy-in from those local governments is presentations before, and discussions with, the Jackson County Township Supervisors Association. Accordingly, Mr. Bauman announced that he will speak before the Association during its April meeting.

6. **Public Comment.** Members of the general public made the following statements:

- Mr. Essling stated that the Committee needs to find out what it needs and wants. He also noted that past agreements between Waste Management and the County regarding implementation of the recycling policies in the current plan were negotiated between the two parties. Finally, he acknowledged that Waste Management continues to meet with the County; to do otherwise would be irresponsible.
- Mr. Bormuth voiced his concern regarding the April 14, 2014 expiration of the current Waste Management contract with Jackson County. Mr. Overton replied that Waste Management will continue to receive Jackson County waste but will also be able to receive waste from other counties.

7. **Committee Member Comment.** A Committee member made the following statement:

- Mr. Shotwell noted that abuse of various recycling drop-off sites was the cause of their closure. Maintenance and security are key to the success of those sites.

8. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Wednesday, March 3, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☐	☒
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☐	☒
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Peter Bormuth	"The surface & ground water of Jackson County"
Jim Dunn	Summit Township Supervisor
Steve Essling	Waste Management, Inc.
Marston Fortress	Spring Arbor Township Supervisor
Shelly Hendrick	Greater Jackson Habitat for Humanity
Cliff Herl	Rives Township Trustee
Kevin Kendall	Republic Services
Steve Noble	Recycling Jackson
Mike Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** Mr. Bormuth noted that the Committee needs to know the volume of materials currently handled by existing recycling programs in Jackson County and that this information has yet to be collected.

Approval Schedule

Public Hearing notified by ..... May 29, 2016

Public Hearing (Committee Meeting) changed to ..... June 28, 2016

Public Comment Period extended to ..... July 8, 2016

Final Committee meeting held ..... July 19, 2016

Board of Public Works meeting held ..... July 25, 2016

County Commission Agencies and Affairs Committee meeting held ..... August 8, 2016

County Commission meeting held ..... August 16, 2016

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

PUBLIC HEARING NOTICE

2016 AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN

The public comment period for the draft 2016 amendment of the Jackson County Solid Waste Management Plan has been extended beyond May 30, 2016, and is available for public review through July 8, 2016. The plan is available for review on the County's website (http://www.co.jackson.mLus/) as well as in the office of the County's Designated Planning Agency:

Region 2 Planning Commission
120 W. Michigan Avenue, 9th floor
Jackson MI, 49201

A public hearing on the proposed 2016 amendment of the *Jackson County Solid Waste Management Plan* has been moved from Tuesday, June 7, 2016, at 3:00 pm to Tuesday, June 28, 2016 at 3:00 pm. The public hearing will be held in the 5th floor County Commission Chambers of the Jackson County Tower Building (120 W. Michigan Avenue, Jackson MI, 49201). Interested people are invited to attend the hearing and give public comment. Written comments may also be mailed to the Region 2 Planning Commission (see the address above), c/o Grant Bauman, AICP, or emailed to gbauman@co.jackson.mLus.

The Michigan Department of Environmental Quality (DEQ) requires the amendment of the *Jackson County Solid Waste Management Plan* due to the closure of the Resource Recovery Facility. The Jackson County Solid Waste Planning Committee was appointed to develop an amendment to the plan. A complete draft of the amended document was recently drafted by the Committee.

Order Confirmation

Ad Order Number 0007682921

Customer

REGION 2 AREA AGENCY ON AGING

*Account:*1000469179
REGION 2 AREA AGENCY ON AGING
102 N MAIN ST, PO BOX 189
BROOKLYN MI 49230 USA
(517)592-1974

FAX:
Margaret.Omalley@r2aaa.net

Payor Customer

REGION 2 AREA AGENCY ON AGING

Account: 1000469179
REGION 2 AREA AGENCY ON AGING
102 N MAIN ST, PO BOX 189
BROOKLYN MI 49230 USA
(517)592-1974

PO Number

Sales Rep. Joseph Puplis
Order Taker Joseph Puplis
Order Source Phone
Special Pricing

Tear Sheets	0	*Net Amount*	$164.68
Proofs	0	*Tax Amount*	$0.00
Affidavits	1	*Total Amount*	$164.68
Blind Box		*Payment Method*	Invoice
Promo Type	No Promo	*Payment Amount*	$0.00
Materials		*Amount Due*	$164.68

Invoice Text AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN

Ad Schedule

Product	Jackson Citizen Patriot	*Placement/Class*	Announcements
# Inserts	1	*POS/Sub-Class*	Public Notices
Cost	$140.62	*AdNumber*	0007682921-01
Ad Type	CLS Liner	*Ad Size*	1 X 72 li
Pick Up #	0007663637	*Ad Attributes*	
External Ad #		*Color*	<NONE>
Production Method	AdBooker	*Production Notes*	

Run Dates 05/29/2016 *Sort Text* PUBLICHEARINGNOTICE2016AMENDMENTOFTHEJACKSONCOUNTYSOLIDWASTEMANAGEMENTPLANTHEPUBLIC

Product	MLive.com	*Placement/Class*	Announcements
# Inserts	1	*POS/Sub-Class*	Public Notices
Cost	$14.06	*AdNumber*	0007682921-01
Ad Type	CLS Liner	*Ad Size*	1 X 72 li
Pick Up #	0007663637	*Ad Attributes*	
External Ad #		*Color*	<NONE>
Production Method	AdBooker	*Production Notes*	

Run Dates 05/29/2016 *Sort Text* PUBLICHEARINGNOTICE2016AMENDMENTOFTHEJACKSONCOUNTYSOLIDWASTEMANAGEMENTPLANTHEPUBLIC

0007682921-01

Ad Content Proof

PUBLIC HEARING NOTICE 2016 AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN

The public comment period for the draft 2016 amendment of the Jackson County Solid Waste Management Plan has been extended beyond May 30, 2016, and is available for public review through July 8, 2016. The plan is available for review on the County's website (http://www.co.jackson.mLus/) as well as in the office of the County's Designated Planning Agency:

Region 2 Planning Commission
120 W. Michigan Avenue, 9th floor
Jackson MI, 49201

A public hearing on the proposed 2016 amendment of the Jackson County Solid Waste Management Plan has been moved from Tuesday, June 7, 2016, at 3:00 pm to Tuesday, June 28, 2016 at 3:00 pm. The public hearing will be held in the 5th floor County Commission Chambers of the Jackson County Tower Building (120 W. Michigan Avenue, Jackson MI, 49201). Interested people are invited to attend the hearing and give public comment. Written comments may also be mailed to the Region 2 Planning Commission (see the address above), c/o Grant Bauman, AICP, or emailed to gbauman @co.jackson.mLus.

The Michigan Department of Environmental Quality (DEQ) requires the amendment of the Jackson County Solid Waste Management Plan due to the closure of the Resource Recovery Facility. The Jackson County Solid Waste Planning Committee was appointed to develop an amendment to the plan. A complete draft of the amended document was recently drafted by the Committee.

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

PUBLIC NOTICE

2016 AMENDMENT OF THE *JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN*

The Michigan Department of Environmental Quality (DEQ) requires the amendment of the *Jackson County Solid Waste Management Plan* due to the closure of the Resource Recovery Facility. The Jackson County Solid Waste Planning Committee was appointed to develop an amendment to the plan. A complete draft of the amended document was recently drafted by the Committee.

The draft 2016 amendment of the *Jackson County Solid Waste Management Plan* is available for **public review** between **February 29, 2016, and May 30, 2016**. The plan is available for review on the County's website (http://www.co.jackson.mi.us/) as well as in the office of the County's Designated Planning Agency:

Region 2 Planning Commission
120 W. Michigan Avenue, 9th floor
Jackson MI, 49201

A **public hearing** on the proposed 2016 amendment of the *Jackson County Solid Waste Management Plan* is scheduled for **Tuesday, June 7, 2016, at 3:00 pm.** The public hearing will be held in the 5th floor County Commission Chambers of the Jackson County Tower Building (120 W. Michigan Avenue, Jackson MI, 49201). Interested people are invited to attend the hearing and give public comment. Written comments may also be mailed to the Region 2 Planning Commission (see the address above), c/o Grant Bauman, AICP, or emailed to gbauman@co.jackson.mi.us.

JACKSON COUNTY BOARD OF COMMISSIONERS
RESOLUTION (07-16.21)

THE ADOPTION OF THE 2016 AMENDMENT OF THE JACKSON COUNTY SOLID WASTE MANAGEMENT PLAN

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) required the amendment of the Jackson County Solid Waste Management Plan every five years and because of the closure of the Resource Recovery Facility (i.e., the waste to energy incinerator), and

WHEREAS, Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act (PA 451 of 1994) provides for the duly appointed Solid Waste Planning Committee to approve and recommend the amended Plan to the Jackson County Board of Commissioners, and

WHEREAS, the Solid Waste Planning Committee met and approved the Plan on July 21, 2016 and approved the amended plan and recommended its approval by the Board of Commissioners as reflected in the attached minutes;

NOW THEREFORE BE IT RESOLVED that the Jackson County Board of Commissioners approve the attached 2016 amendment of the Jackson County Solid Waste Management Plan.

James E. Shotwell, Jr., Chairperson
Jackson County Board of Commissioners
July 26, 2016

STATE OF MICHIGAN)
) ss.
COUNTY OF JACKSON)

I, Amanda Riska, the duly qualified and acting Clerk of the County of Jackson, Michigan, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the County Board of Commissioners of the County of Jackson, State of Michigan, at a regular meeting held on July 26, 2016 at which meeting a quorum was present and remained throughout and that an original thereof is on file in the records of the County. I further certify that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.

Amanda Riska, County Clerk

Date: 8/8/16

MINUTES OF THE JACKSON COUNTY BOARD OF PUBLIC WORKS
REGULAR MEETING
July 25, 2016
6th Floor Conference Room

MEMBERS PRESENT: James E. Shotwell, Jr., Julie Alexander, Phil Duckham, Geoffrey Snyder

MEMBERS EXCUSED/ABSENT: Larry Bamm

OTHERS PRESENT: Mike Overton, Dlaine Armstrong, Don Hayduck, Grant Bauman

MEETING CONVENED: 8:02 a.m.

PUBLIC COMMENTS: None.

MINUTES: Approval of the 5-23-16 Board of Public Works minutes.

Motion: Moved by Duckham, supported by Alexander to approve the minutes. Motion passed.

SOLID WASTE PLAN

Motion: Moved by Shotwell, supported by Alexander to approve resolution and send it to the full board with the Administrator/Controller's discretion to take in July or August. Motion passed with a four to zero vote with one absence.

CONSIDERATION & ALLOWANCE OF CLAIMS:

A. **Claims** – Claims for May 1, 2016 through June 30, 2016 were presented for payment.

Motion: **Moved by Alexander, supported by Duckham to approve the payment of May through June 2016 claims. Motion passed.**

PUBLIC COMMENT – None.

ADJOURN: 8:22 a.m.

NEXT SCHEDULED MEETING: September 19, 2016

Geoff Snyder
James E. Shotwell, Jr
Larry Bamm
Phil Duckham, III
Julie Alexander

3. **Meeting Minutes.**

Approval of the February 3, 2014 Meeting Minutes. The Committee considered the minutes for its February 3, 2014 meeting. The need for one correction regarding a comment by Mr. Shotwell under item #7 was identified (i.e., "abuse" rather than "overuse").

A motion was made by Mr. Muhich, and seconded by Ms. Olsen, to approve, as corrected, the minutes for the February 3, 2014 meeting of the Committee. The motion passed by unanimous voice vote.

4. **Panel Discussions.**

The Committee requested that the operators of existing recycling programs in Jackson County be invited to the March meeting so that more can be learned about those programs as well as from their success or failure. The Metrics Subcommittee identified the various programs and divided them into three broad categories: trash haulers, local government, and nonprofit organizations. A panel representing each of those categories was then invited to speak at the meeting and provided with a set of questions to answer. The summary of their responses follows:

Trash Hauler Panelists

Mr. Phil Duckham, Modern Waste Systems
Mr. David Emmons, Emmons Service, Inc.
Ms. Tonia Olsen, Granger
Mr. Jim Schweikert, Northwest Refuse, Inc.

Local Government Panelists

Mr. Jim Dunn, Supervisor, Summit Township
Mr. Cliff Herl, Trustee, Henrietta Township
Mr. Marston Fortress, Supervisor, Spring Arbor Township
Mr. Andrew Grimes, Supervisor, Henrietta Township [via written response]

Nonprofit Organization Panelists

Ms. Shelly Hendrick, Greater Jackson Habitat for Humanity
Mr. Steve Noble, Recycling Jackson

a. **Trash Haulers.**

Jim Schweikert, Northwest Refuse, Inc.

- Concentrated on processes (e.g., bailers) and marketing to residential, commercial, and industrial customers.
- Labor is a big issue. Used parolees and Goodwill as sources of labor in the past.
- Operated 13 drop-off centers.
- Removed over 9,000 tons of recyclable materials from the waste stream in 2012, with over 19,000 tons going to the incinerator. [*Peter Bormuth asked for a copy of the 2012 data.*]
- Backdoor service available from the beginning of the recycling program for $2.50 a month, but most customers didn't sign up; people in Jackson are not interested in services with a fee.
- Moved to drop-off centers, which are free but can be abused/taken advantage of (e.g., using them as dumpsters). Manned stations work well, otherwise taken advantage of by some. Volume has increased each year.
- Invested $2,000,000 in the program. Always looked for better ways. For example, took the cue from Modern Waste regarding how to do sorting, but sent to others with the infrastructure to do that. Concrete used as aggregate for drain fields. Recycled Styrofoam even though there is no market for that product.
- Simplicity (make it easy, no cost) and education (ongoing/continuous/need to reteach) are the keys to a successful program. Recycling should not be mandatory. Education should start at younger ages as they are more interested and also has the effect of trickling down to parents.
- Recycling is difficult to budget because of the ups and downs in the market.
- Everything is based on volume.
- Recycling is here to stay. Jackson County does a good job. Should be market driven rather than mandated. Partnerships with entities like Recycling Jackson and school districts, including the

sharing of data, would be a positive step. He would not be opposed to sharing general data, but not specifics.

- He worked with customers to serve them in their entirety (working with contractors/experts as needed). Also worked with Modern Waste in cooperation, adding to Northwest's volume and making it more saleable.

Phil Duckham, Modern Waste Systems

- Started by concentrating on commercial and industrial customers. Moved to 24/7 drop-off sites (11 current with 2 closed). Now also provides free curbside service.
- Customers simply have to put the materials into a single bag (i.e., single-stream) which is pre-sorted from the other solid waste at Modern Waste's facility. Other recyclable items are also separated from the waste stream at that time (e.g., @ 10 tons/week of scrap metal). He estimates that 40-50% of his customers recycle.
- The comingled (i.e., single-stream) products are then sold to another recycler for sorting. The benefit of this system is that Modern Waste doesn't have to throw away recyclables that have no market. The trade-off is that the comingled products are sold at a lower price.
- He estimates that he sells over 10,000,000 pounds of recyclables to other recyclers each year. The volume generated from his curbside service is remaining steady.
- Education is needed, starting in Kindergarten, if children are to grow up to be recyclers.
- It is difficult to estimate the rates of recycling because some commodities are measured in pounds while others are measured by cubic yards. It all depends upon how it is counted.
- Modern Waste surveyed its customers 12 years ago and approximately 50% indicated that they would support recycling (even with a modest fee). However, less than 5% of customers signed up for the service once it was provided. Consequently, the current single-stream (free) service is working quite well.
- He does not support mandatory recycling; the private sector does things better than the government. Rather, government should concentrate on educating the public, focusing on residential households given that industrial and commercial customers have been recycling since the 1990s.
- Modern Waste expects its drop-off sites to be contaminated to a certain extent. They place their drop-off sites at township halls with police stations. Size of area constricts the amount of space available for additional containers when needed.
- Recycling rate has gone up since the incinerator was closed.
- It costs @ $75/hour to remove recyclables from the waste stream at the Modern Waste facility, a lesser cost than operating separate recycling trucks.

David Emmons, Emmons Service, Inc.

- Four-generation business.
- Uses a single stream method, but with a separate truck and driver, making it costly (e.g., extra driver and fuel). Will go to a single stop in the future, similar to what Modern Waste does. Also composts yard waste since it cannot be taken to a landfill. Will not be able to measure household recycling rates once Emmons goes to the one-stop pickup.
- Emmons has a 15% recycling rate now that it is provided free as opposed to 7% with a modest fee.
- Allowing for curbside pickup (as opposed to behind the principal structure) would make his operation less costly, especially during the winter.

- Contamination of recyclables is human nature.
- Recycling is not free.
- Mr. Remington was concerned with ordinances which make it hard to compost and garden. He wants the county to work with the City on these issues. Mr. Shotwell explained that the County does not have that authority. Cooperation must come from amongst the townships, villages, and city.

Tonia Olsen, Granger

- Granger will continue to run Northwest Refuse's recycling program, changing it over time so as not to upset customers.
- Companywide, "Granger collects tomorrow's energy. [They] provide waste, hauling disposal and recycling services and produce renewable energy from landfill gas."
- Granger is headquartered in Lansing with operations in Lansing, Jackson (i.e., Northwest Refuse), and Alma and projects five states, including Michigan. The company was established as a trash hauler in 1966 and expanded to include landfills, recycling, composting, compost, electricity, and energy.
- A single-stream recycling program is operated in Lansing and transported to a central recycling center where contamination is removed. Separate large curbside containers are provided: a factor in going from a 50% to a 65% recycling rate in one community despite a greater cost to each household.
- Drop-off centers are also provided. There is a low rate of contamination at the drop-off center located at its headquarters due to signage and surveillance.
- There is a lot of community outreach, including websites developed in cooperation with municipalities.
- Labor is a large factor in the costs associated with recycling/solid waste. Elimination of flow control increased Granger's margins by 50K tons/year through its recycling center.
- It is important to ensure that accepted recyclables have a sustainable market.

b. **Local Government.**

Marston Fortress, Spring Arbor Township

- Spring Arbor began recycling years ago at the request of citizens by partnering with Northwest Refuse and the local supermarket for containers and the space for a drop-off site, respectively.
- Enforcement was an issue: patrons would simply throw things on the ground if there was no room in the bins.
- Volunteer interest waned over time. Cameras were not effective. Reliance upon the police department was an ineffective use of its resources.
- Decided to close the facility due to its cost and issues with contamination; felt that private enterprise could do it better.
- Still has an annual pickup day (5/6/14) for tires, couches, etc. The Township also encourages curbside recycling.

Jim Dunn, Summit Township

- Summit partnered with Northwest Refuse at no cost to the Township other that the capital costs associated with the siting of the containers.

- The program was the victim of its own success. The Township could not keep up with the demand, due (at least in part) to the strategic location of the drop-off site (1) in the center of the county and (2) at a highly visible road intersection.
- Considered instituting a fee to fund the staffing of the facility. Felt that such a practice would be unfair to residents due to the large number of patrons from outside the Township; a survey indicated that 16% of patrons were not residents of the Township.
- The decision to close the drop-off site came about primarily from its misuse. Use by nonresidents was also a factor.

Cliff Herl, Rives Township

- Rives Township operates a transfer facility which allows residents to deposit their solid waste (i.e., trash) at a central location for a small fee ($3/bag). The solid waste is then compacted and sent to the landfill.
- The Township added recycling as an option for a fee. When a new vendor was contracted, the only recycling fee charged is for tires ($1/tire).
- The transfer facility is open on Saturdays from 8:00 am to 1:00 pm and an average of 150-160 vehicles are served during each 5 hour period. The facility is staffed and also serves a social function for residents. It is currently a break-even/slight profit operation with any shortfalls serviced by the Township's general fund.
- The Township is considering opening up the facility to the general public.

Andrew Grimes, Henrietta Township [note: provided in writing]

- "I am the Supervisor of Henrietta Township [and] I am also the Transfer Station Recycling Center Commissioner. In Henrietta Township we operate our Transfer Station and Recycling Center as a service to our residents. We feel that this is a very important service. It provides a cost effective means for them to dispose of [their] trash [for 10 cents/bag] and also creates [an] environmentally friendly place for them to dispose of [their] recycling free of charge."
- "The primary benefit to the township is providing a location for residents to dispose of all of [their] trash including [their] recycling. For some of our residents they would have to travel over 20 miles round trip for this service if it was not locally provided. We also feel it helps the Township keep cleaner roadways. Residents are more apt to use this service due to the ease and location instead of dumping along the roadways."
- "I truly believe our key element to a successful operation [is] our Employees. I feel that many of our residents and residents from surrounding [communities] come to our location due to the great service they get from the Employees."
- "The Transfer Station is initially financed out of the [Township's] general Fund. With that being said the Transfer Station has had a profit of $3000.00 to $5000.00 per year for the last 6 years. We have been able to set aside almost $20,000.00 in a public improvement fund for future upgrades of equipment and [facilities].
- "Our hours of operation [are] every Saturday from 9am to 3pm. Some of the items that are accepted include all [household refuse], all [e-waste], refrigerators, [freezers], [air conditioners], all furniture, tires, propane tanks, auto [batteries], leaves, grass clipping, brush, cardboard, paper bags, paperboard, magazines, catalogs, junk mail, office paper, phone books, newspaper, glass, plastic bags, steel, tin and aluminum cans, plastic jugs/bottles, household plastic, and Styrofoam. I'm sure I missed something in that list."

c. **Nonprofit Organizations.**

Shelly Hendrick, Greater Jackson Habitat for Humanity

- Habitat Humanity has been serving Jackson since 1989 and 53 houses have been built to date.
- The organization also operates a "restore" which resells donated materials that are useful in maintaining a home (e.g., building materials, furniture, etc.). The non-profit also deconstructs homes occasionally, reselling the building materials in its "restore."
- A significant increase in the volume of recovered materials sold occurred when Habitat for Humanity moved to its present location in 2010.
- The non-profit and its parent organization also recycle paint and electronics, reselling the recycled paint in "restores" after it is mixed and repackaged.
- The organization's recycling efforts would benefit from a comprehensive educational program.

Steve Noble, Recycling Jackson

- Recycling Jackson has offered recycling services for 31 years and includes an educational component. That program used to be paid for by funds generated from selling the recycling commodities but now comes from grants.
- The organization will continue to serve the community by maintaining a drop-off site for specialty items including, but not limit to, electronics, Styrofoam, plastic films (e.g., grocery bags), and paint. The facility, which is open on the 1st Saturday of each month, recycles approximately 8-10 tons of those specialty items each year.
- Recycling Jackson's educational programs are currently housed at the Dahlem Center. The "green schools" program served approximately 2,500 children last year.
- The organization sees the need to educate more kids who then educate their parents. However, a sustained funding source is needed. Its last 2-year grant funded a part-time person for approximately $45,000.
- The organization's website is also in important educational resource.

5. **Other Business.**

   None.

6. **Public Comment.**

   None.

7. **Committee Member Comment.**

   None

8. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Revised Meeting Minutes

Monday, April 14, 2014, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Peter Bormuth	"The surface & ground water of Jackson County"
Peter Mazanec	Waste Management, Inc.
Steve Essling	Waste Management, Inc.
Elena Goodhall	Republic Services
Tracy Reilly	Republic Services
Brad Flory	Freelance Journalist
Lisa Satayut	*Jackson Citizen Patriot*
Mike Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** Mr. Bormuth stated that the trash haulers cannot meet the need for recycling and contended that their own testimony is the best indicator that flow control and a county recycling program is needed. He also felt that the trash haulers can educate their Customers regarding recycling and that data collection should be mandatory, especially if a county position is created.

3. **Meeting Minutes.**

Approval of the March 3, 2014, 2014 Meeting Minutes. The Committee considered the minutes for its March 3, 2014 meeting.

A motion was made by Mr. Remington, and seconded by Mr. Ripstra, to approve the minutes for the March 3, 2014 meeting of the Committee. The motion passed by unanimous voice vote.

4. **Panel Discussions.**

The Committee requested that the operators of landfills be invited to speak about their facilities. The Metrics Subcommittee developed a series of questions to ask each of the panelists. The summary of their responses follows:

Landfill Operator Panelists

Mr. Steve Essling, Waste Management, Inc.
Mr. Charles (Charlie) G. Dunigan, Liberty Environmental Landfill
Ms. Tonia Olson, Granger

a. **What drives your company's decision-making for the siting of a new landfill or the expansion of an existing facility?**

Mr. Steve Essling, Waste Management, Inc.

- It costs approximately half a million dollars ($500,000) per acre to create a landfill, fill it, and make a profit.
- Flow control is also an issue.
- Additional land is available for the expansion of the McGill Road Landfill. The landfill was expanded nine (9) years ago and an additional two (2) cells remain on that permit.
- Mr. Remington inquired about the current capacity of the McGill Road Landfill. Mr. Essling responded that the landfill has a good ten (10) to twenty (20) years of capacity at the annual volumes currently received.
- Commissioner Shotwell inquired about Waste Management's plans for increasing recycling. Mr. Essling responded that Waste Management is committed to increasing recycling at a rate that makes sense. He reminded that there is a world market for recycled commodities.

Mr. Charles (Charlie) G. Dunigan, Liberty Environmental Landfill

- Liberty Environmental Landfill's decision making regarding the siting of facilities is similar to that described by Waste Management.
- The Liberty Landfill looks at flows from the previous ten (10) years and identifies where the facility can be expanded and any pertinent issues (e.g., wetland mitigation).
- Mr. Dunigan reminded his fellow Committee members that Liberty Landfill is a Type III rather than a Type II facility.
- Mr. Bauman asked if the landfill would consider accepting municipal solid waste at some point in the future (pending any required improvements). Mr. Dunigan responded that it would thirty plus (30+) years before the receipt of Type II solid waste could be considered given that the recent expansion of the facility was designed to receive Type III waste.
- Mr. Remington inquired about the current capacity of the Liberty Landfill as it exists today and how much room there is at the site for potential future growth. Mr. Dunigan responded that the landfill has thirty (30) to thirty-five (35) years of current capacity and land for twenty (20) to thirty (30) years of additional capacity. Mr. Remington also asked about the environmental stewardship of the landfill given its proximity to the Grand River, associated wetlands, and groundwater. Mr. Dunigan responded that the landfill meets the setback (i.e., distance) and elevation (i.e., as it relates to the underlying water table, the nearby Grand River, and associated wet-

lands) requirements specified in the permit issued by the Department of Environmental Quality (DEQ). The landfill also meets the DEQ's requirements regarding groundwater monitoring.

- Commissioner Shotwell inquired about Liberty Landfill's plans for increasing recycling. Mr. Dunigan responded that the facility will expand its recycling program based upon the Governor's recent call to action.

Ms. Tonia Olson, Granger

- Ms. Olson stated that she would answer the questions from a statewide perspective given that Granger does not operate a landfill in Jackson County.
- Statewide, there is excess landfill capacity based upon past policy.
- Granger balances the cost of a new facility, from design through closure, against the actual need and support for the proposed project.
- Commissioner Shotwell inquired about Granger's response to double the rate of recycling statewide. Ms. Olson replied that recycling will continue to expand but reminded the Committee that there needs to be a sustainable market for recycled materials.

b. **What is the minimum needed volume/tonnage for a new or expanding facility?**

Mr. Steve Essling, Waste Management, Inc.

- At least one-hundred fifty (150) to two hundred (200) tons per day [*one hundred sixty-four (164) to two hundred nineteen (219) thousand cubic yards per year*] is needed for a new facility.
- The McGill Landfill has five (5) acres left of additional land. However, an additional ten (10) to fifteen (15) acres is available if new cells are built in the "valleys" created by the current cells.
- One (1) ton equals three (3) cubic yards, although high compaction will get it closer to the one to one (1:1) ratio.

Mr. Charles (Charlie) G. Dunigan, Liberty Environmental Landfill

- The State is not keen on siting new facilities
- At least one-hundred fifty (150) to one hundred seventy-five (175) thousand cubic yards a year is needed to expand an existing facility.

Ms. Tonia Olson, Granger

- It depends on site specific data.
- At least one (1) million cubic yards per year is needed for a new facility.
- At least eight (800) hundred thousand cubic yards per year is needed to expand a facility.
- Granger currently has at least one hundred fifty (150) acres of land available for expansion.
- However, one of Granger's two (2) landfills does not currently accept waste regularly and is operating on an on-call basis. It will not close.

c. **In your opinion, is a new or expanded landfill feasible in Jackson County?**

Mr. Steve Essling, Waste Management, Inc.

- A new facility is not needed for at least ten (10) years.
- Mr. Muhich asked how long it takes to go through the permitting process. Mr. Essling responded that it takes approximately one (1) year.
- Mr. Remington asked about the possibility of energy conversion at the McGill Road Landfill. Mr. Essling responded that the gas volumes are not enough to convert to electricity although this may change now that less ash is deposited.
- Between two hundred (200) and four hundred (400) tons a day [*two hundred nineteen (219) to*

four hundred thirty-eight (438) thousand cubic yards per year] are needed to make an energy conversion facility feasible.

- Mr. Muhich asked if the methane flares will go away. Mr. Essling said no and he and Ms. Olson both pointed out that flares are a vital part of any energy conversion project.

Mr. Charles (Charlie) G. Dunigan, Liberty Environmental Landfill

- A new facility is not needed.
- The Liberty Landfill will only expand if needed.

Ms. Tonia Olson, Granger

- A new facility is not feasible but an expansion is, if needed.
- It is important to note that feasibility does not equate to need.

d. **Is a County Health Department license needed for vehicles and containers?**

Mr. Steve Essling, Waste Management, Inc.

- Licensing would not accomplish a lot due to the ongoing turnover in trucks.
- Licensing trucks could be a money-generating tool for the County, figuring in the cost for staff.
- However, there are many different mechanisms for raising funds
- Containers are only as good as the company that supplies them. Mr. Emmons noted that the Health Department does regulate containers located at restaurants and other businesses.
- Commissioner Duckham noted that the Motor Carrier Division of the Michigan State Police does a good job of monitoring trucks.

Mr. Charles (Charlie) G. Dunigan, Liberty Environmental Landfill

- Local licensing is not needed due to state inspections.
- Mr. Overton noted that the Committee may want to explore a revenue source to cover costs.

Ms. Tonia Olson, Granger

- Trucks are licensed by the Michigan Department of Transportation.
- The County Health Department is not the right mechanism for regulating trucks.
- Granger balances the cost of a new facility, from design through closure, against the actual need and support for the proposed project.
- Commissioner Shotwell inquired about Granger's response to double the rate of recycling statewide. Ms. Olson replied that recycling will continue to expand by there needs to be a sustainable market for recycled materials.

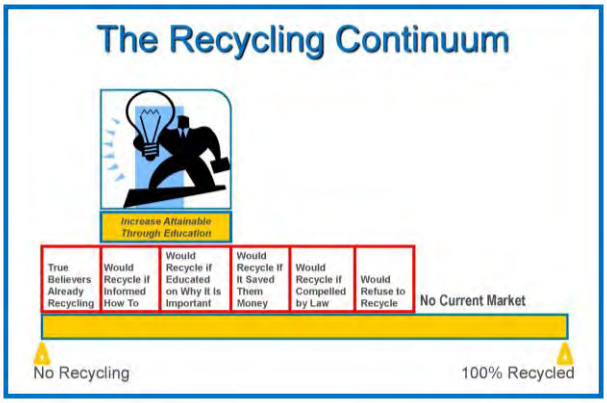
5. **Alternatives Decision Table.**

a. **The Recycling Continuum —** Mr. Wymer summarized his visualization of the recycling continuum:

No recycling

- True believers already recycling.
- Would recycle if informed how to.
- Would recycle if educated on why it is important.
- Would recycle if it saved them money.
- Would recycle if compelled by law.
- Would refuse to recycle.
- No current market.

Complete (100%) recycling



He noted that "would recycle if informed how to" and "would recycle if educated on why it is important" are the two (2) attitudes along that continuum where an "increase [is] attainable through education." Commissioner Duckham stated that the first, fourth, and final boxes of the continuum are already covered and that education is the key (as revealed during the trash haulers panel held during the March meeting).

b. **Cost per ton to recycle** — Mr. Wymer reminded the Committee that each recycling approach has an associated cost which must be taken into account. Table 7.1 of the Barry County Recycling Report reveals that the cost to recycle in select communities in 2013 ranged from $51/ton to $593/ton. Commissioner Shotwell indicated the need for some type of cost/benefit analysis.

c. **Decision category table and available choices** — Mr. Wymer reviewed the proposed decision category table which "puts everything on the table," making it easier for future officials to understand how decisions were made. The proposed table takes into consideration (1) the location of new landfills inside or outside of the county, (2) public and/or private ownership of landfills, (3) flow control, (4) decision authority for the location of a new landfill, (5) public and/or private collection and transport of solid waste, (5) the provision of recycling education, (6) the funding of recycling education, (7) the utilization of transfer stations, (8) the location of transfer stations, (9) utilization of an incinerator, (10) the mandate and/or advocacy for recycling, and (11) the collection of recyclables.

Dispose at Landfill(s) Located	Landfill Sites to Utilize	Flow Control in Effect	Landfill Sites to Utilize Chosen By	Solid Waste Collection & Transport Done By	Education Performed By	Education Funded By	Utilize Transfer Stations	Transfer Station Site Selection	Utilize an Energy Generating Incinerator	Method to Increase Amount of Solid Waste Recycled	Collecting Recyclable Solid Waste
Entirely Inside Jackson County	Establish New County Owned & Operated Landfill	Yes	County Government	County Run Organization	Full Time County Employee	Portion of County Disposal Fee	County Owned and Operated	County Selects	No	Mandated by County	Separate Containers & Separate Trucks
Entirely Outside Jackson County	McGill Road Privately Operated	No	Private Haulers	Private Haulers Competing for Individual Customers	Part Time County Employee	Surcharge on Private Haulers	Township Owned and Operated	Owner Selects	Yes	Advocated by County	Bagged Separately, Same Container Same Truck
Both Inside and Outside Jackson County	Liberty Landfill Privately Operated			Private Haulers Under County Contracts	County Contracts Service from Existing Local Organization	Surcharge on Private Landfills	Privately Owned and Operated	None		Advocated by Private Haulers	Mixed at Source, Separated After Collected
	Out of County Sites				Private Haulers at Their Discretion	County Budget	None			Financial Incentives by Private Haulers (Pricing)	
						Private Hauler Self Funded					

Mr. Wymer envisions the analysis of three (3) scenarios utilizing the above table: (1) "The County Does it All," (2) "Free Market—All Private," and (3) the "Best of Both Hybrid."

Proposed process — Mr. Wymer suggested the following process for utilizing the table:

- ***May*** — (a) revise the table as agreed to by the Committee after careful review during the May 5th meeting and (b) break into teams, with equal representation on each team, to review the proposed scenarios.
- ***June*** — (a) the teams will report their findings and (b) the Committee will select the preferred alternative.

Chair Snyder requested and received the consensus of the Committee to move forward with the proposed process.

6. **Report of Solid Waste landfilled in Michigan.**

   Mr. Bauman provided the Committee with some data on the volume of solid waste generated within Jackson County as well as the volume of solid waste disposed of in the McGill Road (Type II) and Liberty Environmental (Type III) landfills over the past several years. The data was collected from the Department of Environmental Quality's annual Report of Solid Waste Landfilled in Michigan.

7. **Other Business.**

   None.

8. **Public Comment.**

   Mr. Bormuth reminded the Committee of its Goal #2 and noted that there are issues with groundwater contamination from the current landfills. He concluded by stating that the groundwater within the county needs to be protected.

9. **Committee Member Comment.**

   a. Mr. Muhich stated his wish that the Committee recommend to the County Board to endorse Governor Snyder's recycling proposal. The request was deferred until the May 5th meeting.

   b. Mr. Remington asked permission to hold his own town hall meeting to inform the public about the activities of the Committee and to solicit comments. Mr. Overton suggested that the public invited to the meeting needs to be inclusive. Chair Snyder advised Mr. Remington to be sure to inform the participants that his views are not necessarily those of the entire Committee. Mr. Wymer stated that he thought that it would be very appropriate for Mr. Remington to hold a meeting to solicit input from the public so long as Mr. Remington refrained from advocating his own opinions at the meeting. Wymer noted that one of the first things he had done on being appointed to represent the township supervisors was to solicit input from other supervisors at a meeting of the Jackson County Township Supervisor's Association. Ms. Clevenger suggested that Mr. Remington should take comments, but remain silent. Mr. Remington indicated that he had no objections to any of the cautionary comments.

   c. Commissioner Shotwell pointed out to the Committee that there are other avenues available for public comment. A couple of County Commissioners are represented on the Committee and an open forum is also available during County Board meetings.

10. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, May 5, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☐	☒
Ms. Tonia M. Olson	Solid Waste Management Industry	☐	☒
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☐	☒
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Peter Mazanec	Waste Management, Inc.
Mr. Steve Essling	Waste Management, Inc.
Mr. Steve Reed	Granger
Mr. Kevin Kendall	Republic Services

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** Mr. Bormuth stated the need to create and mandate a reporting mechanism if a county position is created. He would like the Committee to not recommend a new landfill given the excess capacity in the state. Mr. Mazenac provided a handout (attached) regarding groundwater quality in the vicinity of the McGill Road Landfill.

   A motion was made by Mr. Duckham, and seconded by Mr. Dobies, to receive the report. The motion passed by unanimous voice vote.

3. **Meeting Minutes.**

Approval of the April 14, 2014 Meeting Minutes. The Committee considered the minutes for its April 14, 2014 meeting. Mr. Remington asked for his questions posed to Mr. Dunigan (as recorded in item 4a) and their answers to be amended to more accurately reflect what was said. He volunteered to work with the Recording Secretary to make the needed changes.

A motion was made by Mr. Remington, and seconded by Mr. Duckham, to approve the minutes for the April 14, 2014 meeting of the Committee, as amended. The motion passed by unanimous voice vote.

4. **Alternatives Decision Table — Discussion & Team Formation.**

a. **Discussion on the Proposed Table**

Mr. Wymer facilitated the discussion on and resulting edits to the proposed alternatives decision table. The following general issues were discussed:

- Ms. Clevenger inquired about the need for environmental protection, the capacity of the McGill Road Landfill, public/private partnerships regarding solid waste collection and transport, and individuals hauling their own trash;
- Mr. Dobies asked for clarification on a couple of points;
- Mr. Duckham felt that the Committee was getting too bogged down with questions regarding landfill siting criteria due to State approval. Mr. Bormuth and Ms. Clevenger disagreed;
- It was decided that home owners organizations were covered under solid waste collection and transport, based upon a question posed by Mr. Shotwell;
- It was determined that banning the disposal of items would be a type of mandate, based upon a question posed by Mr. Muhich who also asked how the Table will be approved;
- A column regarding the "Method to Increase Amount of Solid Waste Collected" was added to the Table based upon a question asked by Mr. Dobies;
- Mr. Essling inquired if resource recovery would fit under the column titled "Utilize an Energy Generating Incinerator?" Mr. Wymer and Ms. Clevenger suggested that a note was needed explaining that the County is open to new methods of resource recovery, but that the document needs to be amended. Mr. Muhich feels that the term is a misnomer and that all resource recovery technologies to date are fraught with problems. Mr. Duckham stated that Modern Waste's sorting process is a form of resource recovery. The Committee decided to strike the column from the Table based upon the suggestion of Chair Snyder.
- It was pointed out that even in a free-market, the County has some responsibility regarding the selection of landfill sites to be used (i.e., reciprocal agreements).
- Mr. Bormuth stated that the County can ban out-of-state waste. Several members of the Committee disagreed.
- Chair Snyder stated that a revenue stream is needed to fund recycling education. He asked how the community can get the "biggest bang for the buck?" Mr. Duckham stated that haulers need help in educating the public. Mr. Remington wondered if the Committee was "stepping on the toes" of the Dahlem Center by discussing recycling education. Mr. Shotwell wondered if adding a surcharge to fund education would just be a continuation of the high prices charged under the flow control ordinance. He also noted that there is a line item in the current and post County budgets to fund education through the Health Department and a local service organization. Will that continue?
- Mr. Essling explained that the solid waste stream can be generally divided into equal thirds: residential, commercial, and industrial. Given that the commercial and industrial sectors are

already recycling everything that makes economic sense, he suggested that an education program aimed at them is not needed. Rather, the effort needs to be concentrated on the residential sector. He also mentioned that funding programs based on fees is self-defeating: if the program is successful, less money is generated to fund it in the future.

- Chair Snyder asked if the education program should be limited to recycling. Mr. Muhich and Ms. Clevenger stated no while Mr. Duckham stated yes.

1. **Alternative A — The County Does it All.**

   This alternative assumes that Jackson County will take over management of the solid waste stream generated within its boundaries. Consensus was achieved regarding the following likely outcomes:

   - Solid waste would be disposed of in landfills located entirely inside Jackson County.
   - A new County-owned and -operated landfill would be established and County government would choose the landfill(s) to which solid waste can be transported.
   - A County ordinance reestablishing flow control would be enacted.
   - Solid waste collection and transport would be done by a county-run organization.
   - Recycling education programs would be performed by a full-time County employee.
   - Education programs would be funded using a portion of County disposal fees.
   - Transfer stations would be County owned and operated.
   - Jackson County would select the locations of new transfer stations.
   - Methods to increase the amount of solid waste collected would be County mandated.
   - Methods to increase the amount of solid waste recycled would be County mandated.
   - Collecting of recyclables would take the form of recycled items bagged separately but placed in the same container as solid waste and transported by a single truck.

2. **Alternative B — The Free market (All Private).**

   This alternative assumes that the solid waste stream generated within Jackson County would be managed entirely by the free market. Consensus was achieved regarding the following likely outcomes:

   - Solid waste would be disposed of in landfills located both inside and outside of Jackson County;
   - The McGill Road and Liberty landfills would be privately operated. Out-of-county landfills would also be utilized. Private haulers would choose the landfills they utilize.
   - A County ordinance reestablishing flow control would <u>not</u> be enacted.
   - Solid waste collection and transport would be done by private haulers competing for individual customers.
   - Recycling education programs would be performed by private haulers at their discretion.
   - Education programs would be self-funded by the haulers and/or through grants.
   - Transfer stations would be privately owned and operated.
   - Methods to increase the amount of solid waste collected would <u>not</u> be mandated.
   - Collecting of recyclables would take the form of:
     - Separate containers and separate trucks;
     - Separate bagging of recycled items but placed in the same container as solid waste and transported by a single truck.; and/or
     - Mixed at source but separated after collected.

3. **Alternative C — The Best of Both Hybrid.**
    - Solid waste would be disposed of in landfills located both inside and outside of Jackson County;
    - The McGill Road and Liberty landfills would be privately operated. Out-of-county landfills would also be utilized. County government and private haulers would choose the landfills they utilize.
    - A County ordinance reestablishing flow control would not be enacted.
    - Solid waste collection and transport would be done by:
        - Private haulers competing for individual customers and/or
        - Private haulers under municipal contracts.
    - Recycling educational programs would be performed by:
        - A part-time County employee;
        - An existing local organization contracted by the County; and/or
        - Private haulers at their discretion.

      [*Ms. Clevenger wants to revisit this issue.*]
    - Education programs would be funded through the county budget, self-funded by the haulers, and/or through grants.
    - Transfer stations would be township and/or privately owned and operated and municipal cleanup events would also be utilized.
    - The locations of new transfer stations would be selected by Jackson County, recommended by the County and/or selected by the owner.
    - Methods to increase the amount of solid waste collected would be advocated by the County, mandated by a municipality, advocated by a municipality, and/or not mandated.
    - Methods to increase the amount of solid waste recycled would be advocated by the County, advocated by the private haulers, and/or include financial incentives by private haulers (i.e., pricing).
    - Collecting of recyclables would take the form of:
        - Separate containers and separate trucks;
        - Separate bagging of recycled items but placed in the same container as solid waste and transported by a single truck;
        - Mixed at source but separated after collected; and/or
        - Other innovative methods.

At the request of Chair Snyder, it was the consensus of the Committee to approve the Alternatives Decision Table as amended.

b. **Team Formation to Assess each Proposal**

Mr. Wymer suggested that the following teams be formed to review each of the alternatives, based upon the identified criteria:

- **Goals and Objectives —** Ms. Clevenger, Mr. Dunigan, Mr. Emmons, and Mr. Shotwell, facilitated by Mr. Bauman.
- **State Requirements —** Mr. Dobies, Mr. Kurpinski, Mr. Muhich, and Ms. Olson, facilitated by Chair Snyder.
- **Project Metrics —** Mr. Duckham, Mr. Remington, Mr. Ripstra, and Mr. Schweikert, facilitated by Mr. Wymer.

At the request of Chair Snyder, it was the consensus of the Committee to accept the review teams

and the topics they have been assigned.

Mr. Wymer also suggested each team use a scale of 1 to 5, with 5 being best and 1 being worst, to evaluate each of the three alternatives against the individual (or sub-grouped if the team chooses) criteria assigned to the team. This will help in bringing together the results from the three teams

5. **Endorsement of the Governor's Recycling Proposal.**

   Mr. Muhich requested that the Committee recommendation endorsement of Governor Snyder's recycling proposal by the Jackson County Board of Commissioners.

   A motion was made by Mr. Remington, and seconded by Ms. Clevenger to table the request until the next meeting. The motion passed by a five (5) to four (4) voice vote.

6. **Adjournment.** Mr. Snyder adjourned the meeting.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, June 2, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☐	☒
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham*	Regional Solid Waste Planning Agency	☐	☒
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Steve Essling	Waste Management, Inc.
Mr. Kevin Kendall	Republic Services
Mr. Peter Mazanec	Waste Management, Inc.

* *Mr. Duckham's absence was excused due to his jury duty commitment.*

1. **Call to Order.** The meeting was called to order at 9:10 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** Mr. Bormuth requested that the Liberty Landfill's permit be reopened. He feels that the Committee's goals and objectives are relevant if that happens. Mr. Mazenac would like to see the plan reflect the possible expansion of the McGill Road Landfill as its 10-year capacity is a 'moving target.'
3. **Meeting Minutes.**

   The Committee considered the minutes for its May 5, 2014 meeting. Ms. Clevenger requested that the subsection regarding "recycling educational programs" under Alternative C (see Item #4.a.3) be amended to reflect that she wishes to revisit this issue.

A motion was made by Mr. Ripstra, and seconded by Mr. Muhich, to approve the minutes for the May 5, 2014 meeting of the Committee, as amended. The motion passed by unanimous voice vote.

4. **Alternatives Decision Table — Discussion of Alternatives Evaluation.**

Mr. Bauman, Mr. Snyder, and Mr. Wymer provided summaries of the conclusions of the Goals and Objectives, State Requirements, and Project Metrics Subcommittees, respectively. Those summaries resulted in the following questions which were asked and addressed by the Committee:

a. **Goals and Objectives.**
Ms. Clevenger was concerned that the environment was not included as a column (i.e., issue) on the decision table. Mr. Dunigan felt that the environment is covered under the other columns. Mr. Bauman stated that the Committee will include more detail in the narrative summary of the preferred alternative.

b. **State Requirements.**
- The inclusion of 'county government' under 'landfill site to utilized chosen by' under the 'best of both hybrid' (Alternative C) was questioned. Mr. Bauman and Mr. Wymer explained that 'county government' was included because reciprocal agreements are required among Michigan counties regarding the importation and exportation of solid waste.
- The institution of a surcharge on haulers was questioned. Ms. Clevenger brought up the Eaton County example. Ms. Olson stated that the Eaton County approach is known to have problems.
- Mr. Muhich stated that he was originally included on the State Requirements Subcommittee, but was accidently excluded, and that a funding mechanism for recycling education should be included in the solid waste management plan.
- Clevenger wants a mix of public and private funding. Mr. Snyder spoke about how an ordinance is needed to back up that approach.

c. **Project Metrics.**
- Mr. Wymer noted that the free market (Alternative B) received the highest score. However, in terms of flexibility, effectiveness, and efficiency the hybrid (Alternative C) scored higher.
- Mr. Shotwell asked if government oversight should be included in the analysis. Mr. Wymer answered that oversight is included in the other criteria.
- Mr. Muhich wants some type of metrics to measure approaches against each other. Mr. Bormuth wants information to be gathered and measured in order to inform the next solid waste planning committee.
- Mr. Remington questioned the scope of the Solid Waste Committee's charge. He felt that the Committee was not charged locally to do more than amend what is needed. Mr. Shotwell noted that state financing and control of the process is the difference between an update and an amendment.

Mr. Snyder asked which alternative the Committee should take. Support for Alternative C was voiced. Ms. Clevenger asked if that approach precluded the development of metrics. The answer was no.

A motion was made by Mr. Shotwell, and seconded by Mr. Ripstra, to select Alternative C. The motion passed by a unanimous voice vote.

5. **Next Steps.**

The Committee has developed goals and objectives and selected the preferred hybrid alternative. What is the next step for getting needed detail? Mr. Muhich wants to address recycling funding and Ms. Clevenger wants to address metrics (see Goal #6). Mr. Remington wants to identify what parts of the ex-

isting plan are obsolete, what needs to be amended, and what gaps are there? Ms. Olson suggested working on the gap analysis prior to metrics and funding for recycling. Mr. Remington will perform the gap analysis.

6. **Endorsement of the Governor's Recycling Proposal.**

   Mr. Muhich requested that the Committee recommend endorsement of Governor Snyder's recycling proposal by the Jackson County Board of Commissioners. The action would put recycling on the dashboard in his opinion. He wants the County to take a position and noted that it is already proposed in the budget. Mr. Wymer strongly objected, stating that he did not necessarily disagree with what the governor has proposed, but that he did disagree with this work team, which was created for a specific limited purpose, becoming involved in political matters. He stressed that his presence on the work team representing township supervisors did not mean a majority vote of the work team on a political issue could obligate his support and by implied extension other supervisors. Ms. Clevenger stated that this is a way to educate Commissioners. Mr. Remington is concerned about the accuracy of the low recycling rate provided by the Department of Environmental Quality (DEQ) versus other sources of information

   A motion was made by Mr. Muhich, and seconded by Ms. Clevenger, to recommend endorsement of the proposal to the County Board of Commissioners via the County Administrator's Office. The motion failed by a two (2) to eight (8) hand vote.

7. **Public Comment.**

   Mr. Essling stated that new processing technologies may be coming (i.e., low-heat, etc.), so the Committee may want to provide siting criteria in the Plan to meet possible future needs/opportunities.

8. **Committee Member Comment.**

   Mr. Overton (commenting on the Governor's recycling proposal endorsement request) stated that he did not realize that this was a policy-related committee. Ms. Clevenger replied that no one else is doing this. Mr. Shotwell stated that the Board of Public Works (BPW) is taking corrective action and that it is not fair to state that the County isn't addressing recycling. Mr. Remington asked for documentation and Mr. Shotwell suggested the last couple months of BPW minutes. Ms. Clevenger suggested that the BPW should be part of the agenda. Mr. Snyder suggested attaching BPW minutes to future agenda packets.

9. **Adjournment.** Mr. Snyder adjourned the meeting at 10:30 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, July 7, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☐	☒
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☐	☒
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Steve Essling	Waste Management, Inc.
Mr. Kevin Kendall	Republic Services

* *Mr. Snyder's absence was excused due to his testimony in a court case.*

1. **Call to Order.** The meeting was called to order at 9:05 a.m. by Mr. Bauman, DPA Staff, on the behalf of Chair Geoffrey Snyder.
2. **Public Comment.** There was no public comment.
3. **Meeting Minutes.**

   The Committee considered the minutes for its June 2, 2014 meeting. Mr. Duckham, Mr. Remington, Mr. Muhich, and Ms. Clevenger requested various amendments. Mr. Snyder had also contacted staff regarding a proposed change.

A motion was made by Mr. Duckham, and seconded by Mr. Ripstra, to approve the minutes for the June 2, 2014 meeting of the Committee, as amended. The motion passed by unanimous voice vote.

4. **Solid Waste Management Plan Amendment.**

   a. **Listing of Accomplishments and Remaining Tasks.**

   Mr. Bauman reviewed for Members the accomplishments of the Committee to date and the tasks that remain. The following timeline for the completion of the plan amendment was drafted:

   - DPA staff and the Metrics Subcommittee will update the text of the "1998 Update" edition of the Plan during July and August. *The Committee will meet on September 8, 2014 (note change in date) while the August 4, 2014 meeting is cancelled.*
   - The Committee—with the continued assistance of the Metric Subcommittee and DPA Staff—will finalize the draft plan in October and November. *The Committee will meet on October 6, 2014 and November 3, 2014, as scheduled.*
   - The Committee will then hold a public hearing—after the required 90-day notice period— and approve the plan. *The Committee will meet on February 2, 2015; the December 1, 2014 and January 5, 2015 meetings are cancelled.*
   - The County Board of Commissioners will approve the draft 2015 Edition of the Plan during March of 2015.
   - Municipalities will vote to adopt or reject the 2015 Edition during April and May of 2015.
   - DPA Staff will submit the 2015 Edition of the Plan to the Department of Environmental Quality (DEQ) in June of 2015.

   b. **Remington/Clevenger Amendment Summary.**

   Mr. Bauman directed Committee members to the catalogue of changes required to update the information included in the 1998 Update of the *Jackson County Solid Waste Management Plan*, thanking Mr. Remington and Ms. Clevenger for their review. He also mentioned that review of the Plan by other members of the Committee would also be welcome. Mr. Remington pointed out that page numbering of the hard and PDF copies of the document are cited for subsequent reviewers. Mr. Ripstra requested that DPA Staff email a copy of the Remington PDF out to the Committee.

5. **Discussion of Financing On-Going Solid Waste Management Programs.**

Mr. Bauman informed the Committee that Mr. Muhich would like to invite Christina Miller—Solid Waste Planning Coordinator for Michigan's Department of Environmental Quality—to the next meeting of the Committee for the purpose of providing a synopsis of state funding options available for recycling education programs. A robust discussion ensued, including the need for the Plan to be nimble enough to take advantage of unanticipated opportunities and eliminate the need for another Plan amendment. Mr. Remington inquired about the County's process for instituting a funding source. Mr. Shotwell responded that the following scenario is <u>likely</u>:

- Review of the current edition of the *Jackson County Solid Waste Management Plan*.
- Forward to the Board of Public Works for its recommendation.
- Submission to the County Board of Commissioners for approval.
- Approval by (1) a supermajority of municipalities within Jackson County or (2) a majority vote of the electorate.

Mr. Duckham informed the Committee that he could not support a surcharge given (1) that they are hard to enforce and (2) would ultimately add cost to consumers. This statement spurred further discussion regarding the purpose and effect(s) of a surcharge. That discussion included, but is not necessarily limited to, the following issues/concerns:

- Residents and trash haulers can only recycle what the free market is willing to purchase.
- Flexibility must be built into the Plan which allows for a variety of options.

A motion was made by Mr. Muhich, and seconded by Ms. Clevenger, to invite Ms. Miller to address the Committee regarding the funding of recycling programming during its September 8, 2014 meeting.

Mr. Remington suggested the submission of a position paper as an alternative, preventing a 60-day standstill before the issue is resolved. Mr. Duckham noted that there are other funding options out there in addition to those created by the State of Michigan. Ms. Clevenger and Mr. Muhich stated that the County needs to secure the funding for the proposed program, as outlined in the Request for Proposals (RFP) and its current Enterprise Fund Budget. Mr. Bauman called the question.

The motion failed on a voice/hand vote of 3 in favor and 7 against.

A new motion was made by Mr. Remington, and seconded by Ms. Clevenger, to have the Metrics Subcommittee research funding options for recycling education and to create a brief prior to the September meeting. It was mentioned that the County's RFP regarding recycling education can also be utilized as a template for selecting appropriate funding mechanisms. The motion passed by majority voice vote.

6. **Public Comment.**

- Mr. Bormuth voiced his concern that there is no mechanism or dedicated funding source for gathering and collecting information on recycling in Jackson County.
- Mr. Essling noted that host agreements are an alternative to surcharges. It is important to not confuse the tools

7. **Committee Member Comment.**

- Ms. Clevenger invited everyone to attend the Metric Subcommittee when it next meets in order to explore the funding issue.
- Ms. Clevenger was curious about what Waste Management is contemplating regarding the operation of the McGill Road Landfill. Mr. Essling responded that no decision has been made as of yet. Any decision will take into account the Plan, including proposed surcharges and other potential components; evolving technologies; and the changing market area.
- Ms. Clevenger asked Mr. Essling about updated usage figures for the McGill Road Landfill. He indicated that volumes have dropped approximately 50% since flow control was rescinded. Mr. Remington asked how this was possible given that the volume of landfilled trash generated in Jackson County increased with the closure of the incinerator. The answer is that trash is also hauled to other landfills now that flow control is no longer in effect.
- Mr. Wymer asked what aspects of the Plan may have on Waste Management's decision regarding the McGill Road Landfill. Mr. Essling responded that Waste Management does not want to see any punitive elements (e.g., surcharges, etc.) introduced into the Plan as it does not envision being the funding tool for recycling education. Mr. Wymer asked if <u>low</u> charges would be an acceptable alternative to <u>no</u> charges.

- Ms. Clevenger also asked how haulers are licensed. The answer was that a mix of state, county, and local registrations come into play. For example, the Michigan Department of Transportation regulates the transport of solid waste on state trunkline (i.e., highways) and the City of Jackson also regulates hauling within its boundaries. Finally, all haulers operating within Jackson County may also be registered with the County Health Department.

8. **Adjournment.** Mr. Bauman adjourned the meeting at 10:30 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, October 6, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☐	☒
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Steve Essling	Waste Management, Inc.
Mr. Kevin Kendall	Republic Services
Mr. Michael Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** There was no public comment.
3. **Meeting Minutes.**

   The Committee considered the minutes for its July 7, 2014 meeting. Ms. Clevenger has several questions and requested one amendment. It was also noted that the Committee needs to receive meeting minutes from the Board of Public Works. The Metrics Subcommittee still needs to prepare a brief regarding funding options for recycling education.

   A motion was made by Mr. Dobies, and seconded by Mr. Duckham, to approve the minutes for the July 7, 2014 meeting of the Committee, as amended. The motion passed by unanimous voice vote.

4. **Solid Waste Management Plan Amendment.**

   a. **Summary of progress on language amendments to the current plan.**

   Mr. Bauman provided a PowerPoint presentation regarding proposed amendments to the introductory portion of the Jackson County Solid Waste Management Plan. The presentation can be summarized as follows:

   - Over half of the population of Jackson County lives in the Jackson Urbanized Area, which comprises the City of Jackson and major portions of the Townships of Blackman, Leoni, Spring Arbor, and Summit. Therefore, the County has been divided up into three segments for the purpose of this (and other) plans: 1) the City of Jackson; the Urban Townships of Blackman, Leoni, Spring Arbor, and Summit; and the Rural Townships (including the Villages).
   - The population of Jackson County is projected to decrease slightly (-1.21%) between 2010 and 2040. Most of that loss is attributable to the City of Jackson (-11.23%), while the populations of the Urban (1.01%) and Rural (1.94%) Townships will increase slightly.
   - The population of Jackson County in 2010 was 160,248 while the populations of the City of Jackson, the Urban Township, and the Rural Townships were 33,534, 68,633, and 58,081, respectively. The economic base of the County was 46.6% agricultural, 4.8% industrial, 3.2% commercial, and 48.8% other.
   - The solid waste facilities to be included in the plan inventory are: McGill Road Landfill, Liberty Environmentalist Landfill, Modern Waste Transfer Station, Granger Transfer Station, Rives Township Transfer Station, and Henrietta Township Transfer Station. Various recycling opportunities will also be summarized and a listing of trash haulers provided.
   - Transportation routes differentiated include state highways and other all-season routes as well as primary/major and local county roads and city streets where frost laws apply. The Jackson County Department of Transportation required permits for vehicles greater than 8'-6" in width.

     Mr. Remington had a question regarding the agencies which regulate trash haulers. He asked DPA staff to clarify if the Michigan Public Service Commission is the same as the Motor Carrier Division of the Michigan State Police.

   - Deficiencies in the current system include: closure of the resource recovery facility; termination of flow control, landfill capacity, recycling, illegal dumping, the enforcement of regulations and standards, and quantifying recyclables.
   - The issue of the siting of new facilities was also addressed. An assumption was made that "there are increases in recycling and source reduction, new technologies, and existing landfill capacity at the local/regional level." Based upon that, the recommended conclusion is "no new landfill will be allowed within Jackson County within the next 10 years as long as accessible capacity is available." The question posed by staff is if siting/site plan criteria for landfills and transfer facilities need to be included in the plan.

     Ms. Clevenger was concerned about not having criteria for the siting of transfer facilities within the plan. Mr. Remington noted that siting criteria is listed in the current plan (beginning on page III-34). Mr. Muhich, Mr. Essling, Mr. Duckham, and Ms. Olson also made contributions to the conversation. It was the consensus of the Committee that although the assumption and conclusion are good, criteria for the siting of new landfills and transfer stations still needs to be includ-

ed in the plan. It was proposed by the Chair that a subcommittee be formed to review and suggest improvements to those criteria. Remington, Olson, Dunigan, Clevenger, and Snyder agreed to serve on that committee along with DPA staff.

b. **Overview of the 3 Alternatives.**

Mr. Wymer prepared a document which explains the planning process and the 3 alternatives. The document can be summarized as follows:

- Strategic planning processes come in many forms and have a language all their own – a confusing tangle of terminology. The Committee chose to 'cut through the clutter' with a simple and straightforward view of planning:
    1. There is always a 'default' outcome, a result that will occur if no action is taken.
    2. The planning process helps identify places where the outcome is so important to us we are unwilling to simply accept the default outcome. Action to Intervene and produce a different outcome is justified.
    3. The planning process then helps define what form the interventions will take.
- The Committee identified 10 issues which were transformed into 6 goals and 15 objectives. The Committee then developed a decision table which was utilized to create the following alternatives:
    a. The County Does It All
    b. The Free Market (All Private)
    c. The Best of Both Hybrid
- In order to decide which alternative was best suited for accomplishing what the Committee wanted, it defined evaluation criteria that could be applied to each alternative. Applying the evaluation criteria to each of the 3 alternatives and comparing the results, the Committee identified Alternative C as the preferred approach.

Mr. Wymer also prepared a document which explains the 3 alternatives. The summaries contained in that document follow:

- Alternative A is built around the premise that exercising county government's power to control, compel, prohibit, and charge is necessary for solid waste management to be successful. This approach would have all solid waste generated within Jackson County directed to a county owned and operated landfill, enforced by a county ordinance. Solid waste collection and transport would be done by a county run organization. Education would be performed by a full time county employee funded by a portion of the disposal fee charged by the county. Transfer stations would be owned and operated by the county, and their locations chosen by the county. Recycling would be mandated by the county, collected in the same container and transported by the same truck as solid waste.
- Alternative B is built around the premise that private enterprise and free market forces can deliver the best results in solid waste management. This approach would have private haulers competing for individual customers and transporting solid waste for disposal at landfills inside or outside Jackson County at their discretion. Education would be performed by the private haulers at their discretion, at their expense and through grants they pursued. Transfer stations would be privately owned and operated, with their locations selected by their owners. There would be no flow control or other mandates from county government to increase the amount of

solid waste collected. Recycling would be encouraged and advocated by private haulers, with price incentives being one of the methods. Private haulers could choose how to collect recyclables: separate containers + separate trucks, separately + same container + same truck, or source separated after collection.

- Alternative C is built around the premise that neither government alone nor private enterprise alone can deliver the best results in solid waste management. Each has strengths and capabilities not possessed by the other, and combining the best elements of both enables a better outcome than either of them could achieve alone. This approach would have private haulers disposing of solid waste at landfills of their choosing both inside and outside Jackson County. There would be no flow control ordinance. The County would have a role, along with private owners, in the siting of landfills. Private haulers would compete for private customers, but could also have contracts with municipalities. Education would be performed by a part time county employee, by contract with an existing local organization, and by private haulers. Education would be funded in part from the county budget, in part by private haulers, and in part by grants. Transfer stations would be operated by township governments and also privately owned and operated. Townships would have periodic scheduled cleanup events. The county would have a role in transfer site recommendation and selection, in cooperation with private owners. Increasing the amount of solid waste collected would be advocated by both the county and private haulers, and encouraged through private hauler price incentives. Similarly, recycling would be advocated by both the county and private haulers, and encouraged through private hauler price incentives. Recyclables would be collected by: separate containers + separate trucks, separately + same container + same truck, source separated after collection, or other innovative methods.

It was suggested by Ms. Clevenger that nonprofits be added to the listing of recycling advocates included in Alternative C.

Mr. Muhich asked about the institution of fees to fund recycling. A conversation ensued in which Mr. Essling, Mr. Shotwell, and Mr. Overton participated. County officials believe that the County Board can levy a surcharge to raise such fund even if that possibility is not mentioned specifically in the plan. Mr. Overton will verify that understanding.

Ms. Clevenger was concerned that funding for recycling education was not listed specifically in Alternative C. Ms. Olson stated that this can be done by ordinance and does not need to be included in the plan. However, the white paper listing the permissible ways to fund recycling education could be referenced in the plan. Ms. Clevenger proposed a motion to reference those funding options in the plan.

A motion was made by Mr. Duckhan, and seconded by Mr. Schweikert, to approve the documents drafted by Mr. Wymer. The motion passed, with Ms. Clevenger dissenting.

5. **Discussion of Financing On-Going Solid Waste Management Programs.**

Mr. Bauman asked the Committee to include Lapeer County in the listing of approved importing/exporting counties. Mr. Shotwell supported this request as long as Lapeer County is reciprocal.

A motion was made by Mr. Shotwell, and seconded by Mr. Duckham, to reference Lapeer County in the plan. The motion passed by unanimous voice vote.

6. **Public Comment.**

    - Mr. Essling noted that it seems as though some people think that the plan is not working. He believes that the current plan is working right now.

7. **Committee Member Comment.**

    - Ms. Clevenger attended the recent hazardous waste disposal day and thanked the Jackson County Health Department for hosting the event. She also recognized 2 other events where it was possible to properly dispose of hazardous waste.

8. **Adjournment.** Chair Snyder adjourned the meeting at 10:25 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, December 1, 2014

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☐	☒
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☐	☒
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☐	☒
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Steve Essling	Waste Management, Inc.
Mr. Kevin Kendall	Republic Services
Mr. Michael Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** There was no public comment.
3. **Meeting Minutes.**

   The Committee considered the minutes for its October 6, 2014 meeting.

   A motion was made by Mr. Shotwell, and seconded by Mr. Emmons, to approve the minutes for the October 6, 2014 meeting of the Committee. The motion passed by unanimous voice vote.

   Ms. Clevenger pointed out that the subcommittee formed to review and suggest improvements to the criteria for the siting of new landfills and transfer stations has yet to meet. Mr. Bauman stated that a meeting will be scheduled for mid-December.

4. **Solid Waste Management Plan Amendment.**

   a. **Summary of the presentation before the Township Supervisor's Association.**

   Mr. Bauman stated that the presentation made before the Jackson County Township Supervisor's Association in October went well. Although the supervisors voiced some concern over an unfunded mandate, they appeared to agree with the planning process, its conclusions, and the preferred alternative. Ms. Clevenger inquired over the concern regarding unfunded mandates. Mr. Overton replied that the township supervisors were assured that the Plan was not an example of 'big government' trying to take over. Mr. Shotwell stated that the township supervisors appreciated the broad overview. Anecdotally, they like the Plan, its wide array of local choices, and the policy statement against new landfills. Mr. Shotwell also informed the Committee that they want local meetings regarding the Plan amendment. He suggested holding meetings in the four quarters of Jackson County. Mr. Bauman suggested that they be held during the state-mandated public comment period.

   b. **Review of amendments made to the Plan to date.**

   Mr. Bauman explained that a formal review of the amendments was not planned since that information had been transmitted in past presentations. Rather, this was an opportunity for Committee members to voice any concerns regarding the proposed amendments:

   - Ms. Clevenger questioned the reference to 'source reduction' in the executive summary. Mr. Bauman explained that the summary is simply acknowledging a reduction in the generation of solid waste (i.e., using totes rather than cardboard boxes to transfer parts during the manufacturing process) as well as other reductions in contributions to the solid waste stream (i.e., large retailers recycling cardboard internally rather than throwing it away). Ms. Clevenger also asked how the County's new recycling coordinator would be addressed in the Plan and suggested that the new coordinator would be a good information source for recycling data.
   - Mr. Snyder informed the Committee that staff is recommending that solid waste facilities outside of Jackson County be included in the Plan. Mr. Bauman explained that Jackson County is no longer closed regarding solid waste and that Lenawee County includes such a listing in its solid waste management plan.
   - Mr. Shotwell had questions regarding the inclusion of the transfer facilities operated by Modern Waste and Granger under the listings of Type A and Type B transfer facilities in the Plan. Mr. Bauman explained that they were included in the listing of facilities on page II-3 of the Plan. He went on to explain that Type B facilities accept trucks which are unloaded by hand while Type A facilities accept trucks that are unloaded manually. Mr. Remington suggested that terms like that should be placed in an appendix.
   - Mr. Remington explained that changing the orientation of the Plan from 'portrait' to 'landscape' would make it easier to view the Plan as a PDF. Mr. Bauman stated that it is his understanding that the format provided by the DEQ must be followed. Mr. Remington requested that staff confirm that understanding.

5. **Public Comment.** There was no public comment.
6. **Committee Member Comment.** There was no further committee member comment.
7. **Adjournment.** Chair Snyder adjourned the meeting at 9:40 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, February 23, 2015

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. Charles (Charlie) G. Dunigan	Solid Waste Management Industry	☒	☐
Mr. David D. Emmons	Solid Waste Management Industry	☐	☒
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County
Mr. Steve Essling	Waste Management, Inc.
Mr. Brad Flory	Journalist
Mr. Kevin Kendall	Republic Services
Mr. Michael Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.**
   - Mr. Bormuth stated that he wants the requirement that Type III landfills respect the 10,000 foot limit around airports reincorporated into the criteria. It is an issue he will litigate.
   - Mr. Essling spoke about the Waste Management proposal for the expansion of the McGill Road Landfill. He would like to see it approved.

3. **Meeting Minutes.**

The Committee considered the minutes for its December 1, 2014 meeting.

A motion was made by Mr. Dobies, and seconded by Mr. Shotwell, to approve the minutes for the December 1, 2014 meeting of the Committee. The motion passed by unanimous voice vote.

4. **New Business.**

a. **Summary of County Recycling Activities.**

Kandice Karll, Project Manager for the Jackson County Conservation District (JCCD), provided a few copies of the December 9, 2014, issue of Jackson County Recycles (attached to these minutes), and provided the following verbal summary of recycling activities:

- Continuing to develop metrics for measuring the amount of recycling.
- Forming partnerships with trash haulers, the Upper Grand River Watershed Council (UGRWC), the Grand River Action Team (GREAT), and other organizations.
- Working on surveys, including a survey for kids (and other ongoing education efforts through schools).
- Attending education events provided by the Michigan Recycling Council and other recycling organizations.

Mr. Muhich inquired about the low recycling rate in Jackson County recorded in the recent Michigan Recycling Council survey. Ms. Karll noted that it is hard to quantify the amount of recycling in Jackson County for a variety of factors. Ms. Olson responded by pointing out that there are more organizations involved in recycling than the waste industry, which was largely not included.

Ms. Clevenger stated that access to recycling is not free. Mr. Remington asked about Waste Management's commitment under the current plan. Mr. Essling stated that Waste Management provided the containers which were turned over to various municipalities. Contamination of the municipal facilities was a problem which led to many of them closing. It was pointed out that the several recycling stations maintained by Modern Waste are free to the public as are the sites maintained by Emmons and Granger.

b. **Solid Waste Disposal Facility Siting Criteria.**

Mr. Snyder summarized the process for the development of the siting criteria (see the memo on page 4 of the agenda packet), including Ms. Clevenger's participation. Mr. Dunigan stated that he had asked to be included in the process. Mr. Duckham asked why the other members of the subcommittee were not invited to the meeting with Ms. Clevenger.

Mr. Bauman showed images of the maps referenced in the siting criteria (i.e., surface waters, floodplains, wellhead protection areas, groundwater recharge areas, institutions and public lands, licensed public use airports, the agricultural preservation area, and primary transport routes. Ms. Clevenger feels that the maps lack detail and that it should be explained that more detailed mapping can be made available to applicants.

The various siting criteria were also summarized by Mr. Bauman. The following issues were discussed by the Committee:

- Mr. Dunigan asked if the airport map would be applied to Type III landfills. Mr. Bauman replied that the proposed criteria did not apply the 10,000 foot buffer around airports to Type III landfills, but that Mr. Bormuth was objecting to that omission.
- It was the consensus of the Committee that the proposed maps are adequate for inclusion in the solid waste management plan.
- There was consensus within the Committee that the 500-foot buffer around a lake, pond, river, stream, county drain, or wetland was acceptable.
- It was the consensus of the Committee that the 10,000-foot buffer around airports was acceptable.
- There was consensus within the Committee that excluding landfills from the Agricultural preservation area (unless a certain criterion is met) was acceptable.
- The need for the criterion regarding access to a Class A Road be amended to allow for a road to be brought up to Class A standards was debated (including the need to change the map reference for all-season standards to Class A road standards).

Remington asked about the legal review of the proposed criteria. Ms. Olson stated that the criteria should be judged upon their economic impacts as well as their environmental impacts and agreement with other laws and regulations.

Due to time constraints, Mr. Snyder suspended discussion on the site selection criteria.

c. **Preferred Alternative Selection.**

Mr. Wymer summarized the ten criteria used to identify the preferred alternative and the following table he developed to represent the decision-making processes of the three subcommittees charged with reviewing the alternatives based upon: the two major purposes required by the State; the six goals defined by the Committee; and sets of project management and process quality attributes.

		Alternative		
		A	B	C
SR1	Resource Use	good	good	good
SR2	Prevent Adverse Effects	good	good	good
G1	Protect Health, Safety, Welfare	good	good	good
G2	Protect Natural Resources	excellent	good	good
G3	Solid Waste a Resource	good	good	excellent
G4	Promote Vitality, Ecology, Quality, Sustainability	good	good	excellent
G5	Efficient and Sound Collection System	fair	good	excellent
G6	Planning, Evaluation, Management Process	good	good	good
PM1	Cost, Complexity, Time to Implement, Risk	poor	excellent	good
PQ1	Effectiveness, Efficiency, Flexibility	fair	good	excellent

It was moved by Shotwell, and seconded by Duckham, to approve the chart as proposed. The motion was approved by majority voice vote, with Ms. Clevenger voting no.

d. **Waste Management Proposal.**

Mr. Snyder summarized the request of Waste Management to include the expansion of the McGill Road Landfill in the Solid Waste Management Plan. Mr. Shotwell clarified that past practice was for such proposals to go to the Board of Public Works.

A motion was made by Duckham, and seconded by Dunigan, to refer the letter (containing the map dated 10/02/14) to the Board of Public Works. The motion passed unanimously be voice vote.

5. **Public Comment.**

- Mr. Essling felt that it was within the authority of the Committee to address Waste Management's proposal. He also noted that Sections 4.12.f, 4.15.1.f; and 4.12.5.a of the Department of Environmental Quality's rules contain the minimum setback information enforced by the State.
- Mr. Bormuth reminded the Committee that it is up to Jackson County if it wants to have stricter standards than the State and that he feels it is important to have stricter standards because Jackson County contains the headwaters of several river systems.

6. **Committee Member Comment.**

- Mr. Muhich wants the County to reconsider having an agreement with Waste Management, as do many counties.

7. **Adjournment.** Chair Snyder adjourned the meeting at 11:00 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Monday, December 8, 2015

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. David. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☐	☒
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☐	☒
Mr. Jack L. Ripstra	General Public	☐	☒
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Steve Essling	Waste Management, Inc.
Mr. Brad Flory	Journalist
Mr. Kevin Kendall	Republic Services
Mr. Michael Overton	Jackson County/BPW Director

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Meeting Minutes.**

   The Committee considered the minutes for its December 1, 2014 meeting. Ms. Olson asked that the last sentence of the last paragraph of #4a be changed to read: ". . . which was ~~the focus of~~largely not included in that survey".

A motion was made by Mr. Duckham, and seconded by Mr. Wymer, to approve the minutes for the February 23, 2015 meeting of the Committee as corrected. The motion passed by unanimous voice vote.

4. **New Business.**

   The purpose of the meeting was to review the draft document and to receive comments from those committee members and guests in attendance. Those comments generated a lot of conversation which resulted in various changes to the plan.

5. **Public Comment.**

   - Mr. Bormuth would like the exception for Type III landfills from the 10,000 foot setback from public use airports to be removed.

6. **Committee Member Comment.**

   - Ms. Clevenger stated that a disadvantage of the selected system is that haulers choose recycling programs that work for them rather than for their customers and the system.

7. **Adjournment.** Chair Snyder adjourned the meeting at 11:15 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Tuesday, January 12, 2016

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. David. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☐	☒
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☐	☒
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☐	☒
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Ms. Aleta Daniels	Jackson County Conservation District
Ms. Lori Fitzgibbons	Jackson County Conservation District
Mr. Glen Goestenkors	Republic Services

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.**

   Mr. Bormuth thanked the Committee for its work, Mr. Duckham for his recycling program, and Mr. Dunigan for agreeing to build his Class III landfill to Class II landfill standards.
3. **Meeting Minutes.**

   Mr. Remington requested that the December meeting minutes reflect that he submitted comments on the draft plan even though he was unable to attend the meeting.

A motion was made by Mr. Wymer, and seconded by Ms. Clevenger, to approve the minutes for the December 8, 2015 meeting of the Committee as amended. The motion passed by unanimous voice vote.

4. **New Business.**

   a. **Introduction of Aleta Daniels**

   Ms. Aleta Daniels, the Jackson County Conservation District's new recycling coordinator was introduced to the Committee. Ms. Lori Fitzgibbons, from the Conservation District, was also in attendance. Committee members asked several questions of Ms. Daniels, including the survey currently underway to track residential recycling in Jackson County.

   b. **Amendment Approval Process**

   Mr. Bauman summarized the state-mandated approval process for amending the County's solid waste management plan.

   c. **Review of the Draft 2016 Plan Amendment**

   The Committee reviewed the current draft of the solid waste plan amendment and made a number of changes to the document. Ms. Olson summarized many of the substantive changes she submitted in writing to staff. Ms. Clevenger, Mr. Duckham, and Mr. Remington also suggested various changes to the draft text. There was not enough time to review all of Ms. Olson's suggested changes so the following motion was made:

   A motion was made by Mr. Remington, and seconded by Mr. Wymer, to authorize staff to make the changes to the draft amendment agreed to by the Committee and to schedule another meeting of the Committee as soon as possible. The motion passed by unanimous voice vote.

5. **Public Comment.** None.

6. **Committee Member Comment.** None.

7. **Adjournment.** Chair Snyder adjourned the meeting at 11:20 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Tuesday, January 26, 2016

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. David. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☒	☐
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☒	☐
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☐	☒
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☐	☒
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Ms. Aleta Daniels	Jackson County Conservation District
Mr. Kevin Kendall	Republic Services

1. **Call to Order.** The meeting was called to order at 9:00 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Meeting Minutes.**

   A motion was made by Mr. Wymer, and seconded by Mr. Ripstra, to approve the minutes for the January 12, 2016 meeting of the Committee. The motion passed by unanimous voice vote.

4. **New Business.**

Review of the Draft 2016 Plan Amendment

The Committee reviewed the current draft of the solid waste plan amendment and continued to make changes to the document. For example:

- The landfill gas recovery for the C&C Expanded Sanitary Landfill was changed to read 32,800 scfm.
- A clarification was made on the data sheets for Liberty Environmentalists Landfill, noting that any residential and commercial solid waste collected is part of the landfill's transfer facility and is not landfilled at the Liberty Environmentalists Landfill.
- The first criteria listed for the siting of transfer facilities and processing plants was amended to address appropriate measures taken to prevent storm water contact with waste materials.
- "There is the potential for collusion among haulers which would reduce competition and keep prices high" was removed from the listing of potential problems with the selected system.

  A motion was made by Mr. Shotwell, and seconded by Ms. Olson, to remove the potential for collusion among haulers from the listing of potential problems with the selected system. *The motion passed unanimously.*
- The answer to the question, how will recyclable solid waste be collected, under the description of the components of the non-selected systems, was changed to read: "Most recyclables would be bagged separately but disposed of in the same container and transported in the same truck".

  A motion was made by Mr. Wymer, and seconded by Mr. Ripstra, to approve the answer to the question, how will recyclable solid waste be collected, as amended. The motion passed unanimously.

A motion was made by Mr. Shotwell, and seconded by Mr. Ripstra, to adopt the plan as corrected for public review. *The motion passed unanimously by a roll call vote (Emmons, Olson, Schweikert, Kurpinski, Clevenger, Muhich, Shotwell, Wymer, Duckham, Ripstra, Snyder, (11) yes; none (0), no; Dunigan, Dobies, Remington, (3), absent.*

Staff was directed to contact the DEQ regarding the correct procedure for the 90-day public review period and to then email the Committee on how the public was notified and when the 90-day clock started. A press release will also be sent. All of this will be done as quickly as possible.

5. **Public Comment.** None.

6. **Committee Member Comment.**

Mr. Bormuth voiced his concern regarding the removal of the possibility of collusion among trash haulers from the listing of possible problems regarding the selected system.

7. **Adjournment.** Chair Snyder adjourned the meeting at 10:12 am.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Tuesday, June 28, 2016

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. David. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☐	☒
Mr. James R. Schweikert	Solid Waste Management Industry	☐	☒
Mr. Jason D. Kurpinski	Industrial Waste Generator	☒	☐
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☐	☒
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☐	☒
Mr. Glenn T. Remington	General Public	☒	☒
Mr. Jack L. Ripstra	General Public	☒	☐
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Brad Flory	Brooklyn Exponent
Mr. Jim Porter	Republic Services
Mr. Phil Preston	Blackman Township
Mr. Bill Thomas	Republic Services
Mr. Steve Essling	Waste Management

1. **Call to Order.** The meeting was called to order at 3:17 p.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Meeting Minutes.**

   A motion was made by Ms. Clevenger, and seconded by Mr. Ripstra, to approve the minutes for the January 26, 2016, meeting of the Committee. *The motion passed by unanimous voice vote.*

4. **New Business.**

Public Hearing on the Draft 2016 Amendment of the Jackson County Solid Waste Management Plan

Chair Snyder opened the public hearing at 3:20 p.m.

a. **Written Comments**

The Committee reviewed the following comments:

- Mr. Vainner wrote regarding his concern over drinking water (and that no testing was occurring), the size/legibility of landfill siting maps, and the size of landfills in the County.

  Ms. Clevenger commented that it is up to the landowner to have their well tested, but recognized the nearness of the McGill Road Landfill to Mr. Va inner. Mr. Essling noted that landfills do quarterly testing of monitoring wells and that those records are open to the public. He also noted that the Jackson County Health Department may be able to do the testing for Mr. Vainner.

  Mr. Wymer noted that Geographic Information Systems (GIS) can be utilized to create maps with sufficient detail at a useable size at the request of an applicant or a member of the general public. The mapping included in the plan was not meant to convey sufficient detail due to their size. Mr. Essling noted that a typical licensed disposal area is less than the total size of the property upon which they are located.

  A motion was made by Mr. Dobies, and seconded by Mr. Wymer, to receive the emails and send a response to Mr. Vannier rather than altering the proposed plan amendment further. *The motion passed by unanimous voice vote.*

- Mr. Peter Bormuth wrote regarding his concern over siting new Type II landfills within 10,000 ft. of an airport; the removal of price fixing/collusion from the listing of potential problems with relying on the private sector for the removal of solid waste, and his appreciation that the Liberty Land Fill Expansion was fitted with a Type II liner even though it is a Type Ill landfill. He also asked (in a separate email) for his 'petition for contested case hearing' to be included as part of the public record.

  Discussion took place on whether or not the Committee wanted to amend the Plan to prohibit transfer stations from being located within 10,000 feet of an airport. No motion to that effect was offered.

  A motion was made by Mr. Dobies, and seconded by Mr. Emmons, to receive the emails, to place them on file, and to respond to Mr. Bormuth via a thank you letter. *The motion passed by unanimous voice vote.*

- Mr. Steve Essling wrote to request that Waste Management's Woodland Meadows Landfill to be included in the listing of landfills in the plan.

  A motion was made by Mr. Wymer, and seconded by Ms. Clevenger, to add Woodland Meadows Landfill to the listing of landfills in the plan. The motion passed by unanimous voice vote.

b. **Verbal Comments**

The Committee received no verbal comments.

The public hearing was closed by Chair Snyder at 3:50 pm.

5. **Public Comment.** None.
6. **Committee Member Comment.** None.
7. **Adjournment.** Chair Snyder adjourned the meeting at 3:55 pm.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff

Jackson County Solid Waste Planning Committee

Staffed by the Region 2 Planning Commission (R2PC)
120 W. Michigan Avenue • Jackson, MI 49201
Phone (517) 788-4426 • Fax (517) 788-4635

Meeting Minutes

Thursday, July 21, 2016

Meeting Attendance:

Member/Staff:	Representing	Present	Absent
Mr. David. Dunigan	Solid Waste Management Industry	☐	☒
Mr. David D. Emmons	Solid Waste Management Industry	☒	☐
Ms. Tonia M. Olson	Solid Waste Management Industry	☒	☐
Mr. James R. Schweikert	Solid Waste Management Industry	☐	☒
Mr. Jason D. Kurpinski	Industrial Waste Generator	☐	☒
Ms. Marguerite (Pegg) Clevenger	Environmental Interest Groups	☒	☐
Mr. Mark A. Muhich	Environmental Interest Groups	☒	☐
Mr. James (Steve) Shotwell, Jr.	County Government	☐	☒
Mr. Dan Wymer	Township Government	☒	☐
Mr. Derek Dobies	City Government	☒	☐
Mr. Philip (Phil) S. Duckham	Regional Solid Waste Planning Agency	☒	☐
Mr. Glenn T. Remington	General Public	☒	☐
Mr. Jack L. Ripstra	General Public	☐	☒
Mr. Geoffrey (Geoff) Snyder*	General Public	☒	☐
Mr. Grant Bauman	Designated Planning Agency (DPA) Staff	☒	☐

Guests:	Representing:
Mr. Jim Porter	Republic Services
Mr. Peter Bormuth	"The surface & ground water of Jackson County"
Mr. Steve Essling	Waste Management

1. **Call to Order.** The meeting was called to order at 9:05 a.m. by Chair Geoffrey Snyder.
2. **Public Comment.** None.
3. **Meeting Minutes.**

   A motion was made by Ms. Clevenger, and seconded by Mr. Remington, to approve the minutes for the June 28, 2016, special meeting of the Committee. *The motion passed by unanimous voice vote.*

4. **New Business.**

   a. **Review the administrative changes made by staff based upon the comments received by the Michigan Department of Environmental Quality**

   - Staff was directed to gather data regarding the current daily capacity and estimated yearly disposal volume for The Type B Transfer Facility located in the Liberty Environmentalist Landfill (for Sections II and III of the Plan).
   - Mr. Remington pointed out the discrepancies in the airport setback requirements as regulated by the Federal Aviation Administration and the Michigan Department of Environmental Quality. The Plan is regulated by Part 115 of the Natural Resources and Environmental Protection Act (PA 451 of 1994), so the 10,000 foot setback was selected.
   - Local governments need to be informed that state law does not allow for the preemption of local zoning over the Plan. However, building permits, sewer connections, etc. are still subject to local ordinances.
   - The appeals process for the siting of disposal areas was struck and replaced with a simple paragraph which allows for the appeal of a Board of Public Works decision to the Board of Commissioners, based only upon the Board of Public Works being arbitrary of capricious, or, in error.
   - The Committee wrote a simple plan implementation strategy for inclusion in Appendix D of the Solid Waste Management Plan.

   b. **Approve the 2016 Amendment of the Jackson County Solid Waste Management Plan**

   A motion was made by Commissioner Wymer, and seconded by Commissioner Clevenger, to approve the proposed 2016 Amendment of the Jackson County Solid Waste Management Plan, as revised during the meeting and forward to the Board of Public Works and the Board of Commissioners for immediate action. *The motion passed by unanimous voice vote.*

5. **Public Comment.**

   Peter Bormuth voiced his concern regarding the ability of the Board of Commissioners to make simple amendments to the plan without input from a solid waste planning committee.

6. **Committee Member Comment.** None.

7. **Adjournment.** Chair Snyder adjourned the meeting at 11:02 pm.

Submitted Respectfully by Grant Bauman
Designated Planning Agency Staff