

# **THE SELECTED SOLID WASTE MANAGEMENT SYSTEM (2025-2026 Plan Amendment)**

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal areas, locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies. Detailed information on recycling programs, evaluation, and coordination of the Selected System is included in Appendix A. Following is an overall description of the Selected System for the 2025-2026 Plan Amendment:

The following pages, dealing with:

- Data Base
- Facility Descriptions
- Capacity Certifications
- Appendix D - Maps

supersede the corresponding provisions of the 1999 Solid Waste Management Plan.

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Landfill

Facility Name: Pine Tree Acres Landfill

County: Macomb Location: Lenox Township Town: 4N Range: 14E Section(s): 23,24

Map identifying location included in Attachment Section:  Yes  No

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

Public  Private Owner: Pine Tree Acres, Inc. (Waste Management of Michigan, Inc.)

Operating Status (check)		Waste Types Received (check all that apply)
<input checked="" type="checkbox"/> Open	<input checked="" type="checkbox"/>	Residential
<input type="checkbox"/> Closed	<input checked="" type="checkbox"/>	Commercial
<input checked="" type="checkbox"/> Licensed	<input checked="" type="checkbox"/>	Industrial
<input type="checkbox"/> Unlicensed	<input checked="" type="checkbox"/>	Construction & demolition
<input checked="" type="checkbox"/> Construction permit	<input checked="" type="checkbox"/>	Contaminated soils
<input type="checkbox"/> Open, but closure	<input checked="" type="checkbox"/>	Special wastes*
<input type="checkbox"/> Pending	<input checked="" type="checkbox"/>	Other: _

\* Explanation of special wastes, including a specific list and/or conditions: Non-hazardous wastes including but not limited to: Sludge, Auto-fluff, Asbestos, Contaminated soil, Industrial wastes, Liquid industrial waste for on-site solidification.

Site Size:

Total area of facility property:	<u>813.5</u>	acres
Total area sited for use:	<u>813.5</u>	acres
Total area permitted:	<u>555.8</u>	acres
Operating:	<u>377.2</u>	acres
Not excavated:	<u>0</u>	acres

Current capacity:	<u>22 million</u>	<input type="checkbox"/> tons or <input checked="" type="checkbox"/> yds <sup>3</sup> Est. Future Capacity 75 M yds <sup>3</sup>
Estimated lifetime:	<u>8</u>	years future expansions approx. 25 yrs
Estimated days open per year:	<u>312</u>	days
Estimated yearly disposal volume:	<u>3.1 million</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

Annual energy production:		
Landfill gas recovery projects:	<u>21.6</u>	megawatts
Waste-to-energy incinerators:	<u>N/A</u>	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Pine Tree Acres Transfer Station

County: Macomb Location: Lenox Town: 4N Range: 14E Section(s): 13

Map identifying location included in Attachment Section:  Yes  No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: includes, but not limited to: Pine Tree Acres Landfill (Macomb Co.), Woodland Meadows Landfill (Wayne Co.), Recyclable Materials to WM Detroit Recycling Facility (Wayne Co.), Alternative Fuel Facilities (Macomb County and various locations)

Public  Private Owner: Waste Management of Michigan, Inc.

Operating Status (check)

- Open
- Closed
- Licensed
- Unlicensed
- Construction permit
- Open, but closure
- Pending

Waste Types Received (check all that apply)

- Residential
- Commercial
- Industrial
- Construction & demolition
- Contaminated soils
- Special wastes\*
- Other: Recyclable Materials\_

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

Site Size:

Total area of facility property:	<u>14.81</u>	acres
Total area sited for use:	<u>14.81</u>	acres
Total area permitted:	<u>pending</u>	acres
Operating:	<u>pending</u>	acres
Not excavated:	<u>N/A</u>	acres

Current capacity:	<u>1,500</u>	<input checked="" type="checkbox"/> tons per day or <input type="checkbox"/> yds <sup>3</sup>
Estimated lifetime:	<u>N/A</u>	years
Estimated days open per year:	<u>312</u>	days
Estimated yearly disposal volume:	<u>468,000</u>	<input checked="" type="checkbox"/> tons or <input type="checkbox"/> yds <sup>3</sup>

(if applicable)

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

## CAPACITY CERTIFICATIONS

Every County with less than ten years of capacity identified in their Plan is required to annually prepare and submit to 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, and this Certification amends and restates the Capacity Certification set forth in the 1999 Plan Update.

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

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

The Pine Tree Acres Landfill currently has a permitted remaining capacity of approximately 22.7 million in-place cubic yards. In addition, the County has sited for development as a landfill 813.5 acres of land in Lenox Township, and such acreage is deemed to be part of the County Plan. Pine Tree Acres has estimated these 813.5 acres could yield an additional 75 million in-place cubic yards of airspace. The additional site life gained from this airspace depends on many variables over the course of time and is estimated to add 25 years.

A calculation was made to determine the ability of Pine Tree Acres landfill to meet the foreseeable waste disposal needs of the County. In 2024, the County disposed in Michigan landfills approximately 738,113 tons of waste, which is equivalent to approximately the same amount of airspace in cubic yards. If the Pine Tree Acres landfill accepts all County waste over the next 10-year period, it will utilize approximately 7,381,000 in place yards of airspace. The County actually utilized the Pine Tree Acres landfill for about 80% of its waste disposal needs in 2024, and the balance has been disposed of at landfills in other Counties. Based upon current practices, the Pine Tree Acres landfill can expect to receive approximately 590,000 tons (per year) of waste from County sources. As such, the Landfill has capacity included within the Plan in excess of the County's needs for the next 10 years, based on recent consumption.

Based upon the above, the capacity available to the County at the Pine Tree Acres landfill exceeds a period of 10 years from the Plan Amendment Approval Date, and no siting criteria need be included in the Plan.

## **DATA BASE**

### **SOLID WASTE DISPOSAL AREAS**

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

A survey was completed to identify the disposal areas utilized by Macomb County to determine the amounts of solid waste imported and exported and the Macomb County disposal capacity.

### **Macomb County Disposal Sites**

Six disposal sites were identified in Macomb County. They are the Pine Tree Acres Landfill, Pine Tree Acres Transfer Station, South Macomb Disposal Authority (SMDA) Transfer Station, Ray Township Transfer Station, Armada Township Transfer Station, and the Warren Transfer Station. A sixth disposal facility, the Grosse Pointe-Clinton Refuse Disposal Authority incinerator, is open but is scheduled to close prior to April 1999.

Pine Tree Acres Landfill The Pine Tree Acres Landfill is a modern privately owned and operated landfill which has been in operation since June 1987. The landfill is located in a sparsely populated area of Lenox Township on 29 Mile Road. The original site encompassed approximately 160 acres of land. In December 1988, Macomb County approved a 300-acre expansion of the disposal facility, increasing the total area to 460 acres. The approved 1999 Solid Waste Management Plan Update increased the total area sited for use to 568 acres. This 2025-2026 Amendment to the Solid Waste Management Plan increases the total area sited for use to 813.5 acres. The projected total remaining capacity of the landfill is estimated to be up to approximately 97,000,000 in-place cubic yards.

Pine Tree Acres Transfer Station The Pine Tree Acres Transfer station is a proposed 14.8 acre facility that when permitted and constructed will receive source separated recyclable materials and solid waste. The recyclable materials will be transferred to the WM Detroit Recycling Facility located in Wayne County which is currently under construction. The Pine Tree Acres Transfer Facility will support Macomb County and the surrounding communities in achieving current and future recycling goals by providing a modern materials recovery facility as an outlet for collected recyclable materials. Source separated solid waste will be received and transferred to Alternative Fuel Facilities where it will be used as alternative fuel. Source separated materials that are not suitable for recycling or alternative fuel will be disposed in a Type II landfill, including but not limited to Pine Tree Acres Landfill and Woodland Meadows Landfill.

SMDA Transfer Station The SDMA Transfer Station was constructed in 1979 and primarily serves the member communities of Eastpointe, St. Clair Shores, Roseville, and Center Line. The facility is publicly owned and is currently operated and managed by BFI under provisions of a ten-year contract with the SDMA. This contract expires in 2002. Refuse from the transfer station is taken to the BFI Arbor Hills Landfill in Washtenaw County for final disposal. In 1997 approximately 119,000 tons of refuse was disposed of at the transfer station, including 118,000 tons from Macomb County and 1,000 tons from Wayne County.

Ray Township Transfer Station The Ray Township Transfer Station is located on Kuntsman Road in Section 17 of Ray Township. The station consists of a concrete pad and a ramp which allows residents to deposit waste into 40-cubic yard roll-off boxes. A separate roll-off box is used to collect metals. Approximately 1,900 cubic yards of refuse was deposited at the transfer

station in 1997. Waste is hauled to the Pine Tree Acres Landfill for final disposal. Scrap metal is sold to an area scrap metal dealer.

Armada Township Transfer Station The Armada Township Transfer Station consists of a packer truck brought to the site of the former Township landfill located on Armada Ridge Road, just north of 33 Mile Road. The transfer station, funded by Armada Township, is open on the second and fourth Saturday of each month for use by Armada Township residents. Approximately 60 cubic yards of refuse is collected each year and disposed of in the Pine Tree Acres landfill. City Environmental East operates the transfer station and also provides a compartmentalized recycling container truck two Saturdays per month for the recycling of glass, paper, metals, and plastic.

Warren Transfer Station. The Warren Transfer Station is owned by the City of Warren and operated by City Management. It is located on Flanders Road, approximately one half mile north of 10 Mile Road in the City of Warren. The station was constructed in 1971 and received approximately 46,000 tons of refuse which was hauled to Pine Tree Acres Landfill for final disposal. Waste brought to the facility is weighed and compacted into 75 cubic yard transfer trailers. The transfer station operates 5 ½ days per week and receives refuse from residential, commercial, and industrial haulers.

Grosse Pointe-Clinton Refuse Disposal Authority Incinerator. The Grosse Pointe-Clinton Refuse Disposal Authority Incinerator is owned and operated by the Grosse Pointe-Clinton Refuse Disposal Authority since 1972. The incinerator is scheduled to close prior to April 1999. The incinerator serves Clinton Township and Mount Clemens in Macomb County, and Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Shores, Grosse Pointe Woods, and Harper Woods in Wayne County. The community members will arrange for refuse disposal once the incinerator shuts down. Current plans are to take waste to the Pine Tree Acres Landfill and/or the Warren transfer Station.

### **Out-of-County Disposal Sites**

A survey was completed of disposal facilities in other counties to identify which disposal facilities were accepting waste from Macomb County and the quantity of waste exported from Macomb County. The Michigan Department of Environmental Quality 1998 *Report of Solid Waste Landfilled in Michigan* was also used to identify landfills that accepted waste from Macomb County.

Washtenaw County. The disposal facility survey identified that approximately 355,000 cubic yards of waste from Macomb County is disposed of in the Arbor Hills Landfill located in Salem Township. This is a 936-acre site with a permitted area of 217 acres. Based on a remaining capacity of 30,500,000 cubic yards, the landfill has a 17.6 year life expectancy. The 1994 Macomb County Solid Waste Management Plan authorized up to 1,500,000 cubic yards of waste into the Arbor Hills Landfill.

Sanilac County. The MDEQ database indicated that Tri-City RDF Landfill accepts approximately 200 cubic yards per year of waste from Macomb County. The 1994 Macomb County Solid Waste Management Plan authorized up to 950 cubic yards per day of waste into the Tri-City Refuse Disposal Facility.

Oakland County. Based on the survey form returned by Oakland Heights Development, approximately 24,000 cubic yards of waste was disposed from Macomb County communities in 1997. This landfill has approximately 3,500,000 cubic yards of permitted airspace, and an estimated life of four years. The MDEQ database indicates that the Eagle Calley RDF accepted

approximately 353,000 cubic yards of refuse from Macomb County. Based on available information approximately 377,000 cubic yards of Macomb County waste was disposed of in Oakland County disposal facilities in 1997. No definitive amount of authorized waste disposal in Oakland County landfill was identified in the 1994 Macomb County Solid Waste Management Plan. However, the plan authorized the exportation of up to 1,301 cubic yards per day of solid waste to facilities in Oakland County for disposal.

Wayne County The Macomb County survey determined that approximately 19,000 cubic yards of refuse from Macomb County was disposed of in the Sauk Trail Hills Development. This landfill has approximately 18,000,000 cubic yards of permitted airspace and an estimated life of 12.5 years. The MDEQ database<sup>4</sup> indicates that approximately 5,000 cubic yards of Macomb County refuse is disposed in the Woodland Meadows Landfill, and approximately 72,000 cubic yards in the Carleton Farms Landfill. Ash from the Grosse Pointe-Clinton Refuse Disposal Authority incinerator (approximately 30,000 tons) is also disposed in the Carleton Farms Landfill. Available data indicates that approximately 126,000 cubic yards of Macomb County waste was disposed in Wayne County landfill in 1997. The 1994 Macomb County Solid Waste Management Plan authorized up to 1,000,000 cubic yards of waste to Wayne County disposal facilities.

Lenawee County No Macomb County waste was identified as being disposed of in the Lenawee County disposal facility, the Adrian landfill, even though the 1994 Macomb County Solid Waste Management Plan authorized the disposal of up to 4800 tons per week. This amount was based on waste importation quantities identified in the Lenawee County Solid Waste Management Plan.

Jackson County The Liberty Environmentalist Landfill acknowledged that approximately 30 cubic yards of waste was disposed of from Macomb County communities in 1997. This site has 400,000 cubic yards of permitted airspace, and an expected life of 20 years. Jackson County was not identified as a source of Macomb County waste during the completion of the 1994 Macomb County Solid Waste Management Plan.

Shiawassee County The Venice Park RDF indicated that it accepted approximately 80 cubic yards of refuse from Macomb County in 1997. This site has 2,200,000 cubic yards of capacity with future expansion plans that will increase the capacity an additional 13,000,000 cubic yards. The site projects an estimated life of 2 years under present conditions, and 25 years with the proposed expansion.

Based on the results of the Macomb County disposal facility survey, and the MDEQ database from its *Report of Solid Waste Landfilled in Michigan*, Macomb County exports approximately 828,300 cubic yards of waste to out-of-county landfills in 1997. An additional 30,000 cubic yards of ash produced at the Grosse Pointe-Clinton Refuse Disposal Authority incinerator were disposed at out-of-County disposal facilities.