

**THREE RIVERS SOLID WASTE MANAGEMENT AUTHORITY**

# **SOLID WASTE MANAGEMENT PLAN**

Comprehensive Update  
2025



Prepared by:

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## ACKNOWLEDGEMENTS

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This solid waste management plan comprehensive update was prepared with the assistance and cooperation of many people throughout the Three Rivers Solid Waste Management Authority's planning area.

This plan would have not been possible without the assistance of Ronnie Bell and Dan Reese of the Three Rivers Solid Waste Management Authority (TRSWMA). Mr. Bell devoted fifteen (15) years to solid waste management in the region and was one of the founders and charter members of the TRSWMA, as a team member of the Three Rivers Planning & Development District (TRPDD). He resigned his position with TRPDD in 2023 to accept the position of Lee County Administrator and continues his association with TRSWMA as a Board Member. Mr. Reese spent the majority of his career in the solid waste profession and was instrumental in the day-to-day management of solid waste throughout and beyond the TRSWMA planning area. Mr. Reese retired in 2017 and his position, Solid Waste Manager, is now held by Mr. Doug Wiggins.

The Authority as a whole is comprised of a diversified group of volunteers that have poured their heart and souls into managing solid waste of the region. The diverse background and proactive leadership of these members has made TRSWMA one of the premier solid waste authorities in the United States.

Key contributors to this comprehensive plan update include:

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## EXECUTIVE SUMMARY

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The enclosed solid waste management plan was prepared to be in compliance with the criteria established by the Mississippi Legislature, specifically Mississippi Code § 17-17-225 and § 17-17-227 along with other State and Federal regulations. The solid waste management plan provides a comprehensive overview of the numerous solid waste facilities and solid waste management programs across the 3,876 square mile area of Calhoun, Itawamba, Lafayette, Lee, Monroe, Pontotoc and Union counties.

This is a comprehensive update of the Solid Waste Management Plan prepared with the financial assistance of the Mississippi Department of Environmental Quality. A total of eighteen plan modifications have been completed since the original approval by the Mississippi Department of Environmental Quality. The first revision (January 2010) was for the expansion of the Monroe County Rubbish Site. The second revision (July 2011) involved a sludge land application in Oxford, Lafayette County. The third (January 2013) revision is for the expansion of the New Albany-Pumpkin Center Rubbish Landfill in Union County. The fourth revision (August 2013) was for the operation of the Tupelo Wondura Rubbish Landfill in Lee County. The fifth revision (October 2013) was for the expansion of the TMCO Rubbish Landfill in Lee County. The sixth revision (December 2013) was for the construction and operation of the North Mississippi Recycling Solutions Class I Rubbish Landfill and recycling facility in Lafayette County. The seventh revision (June 2014) was in response to the Mississippi Department of Environmental Quality Administrative Order No. 6375 13. The eighth revision (November 2014) was for the expansion of the City of Oxford rubbish landfill. The ninth revision (January 2015) was for the new industrial landfill at Tronox LLC in Hamilton, Mississippi. The tenth revision (October 2017) was for the expansion of the Monroe County Rubbish Site. The eleventh revision (May 2018) was for the new GreenServ medical sterilization facility in Lafayette County. The twelfth revision (May 2018) was for the expanded service area of the Mississippi Recycling Solutions Class I Rubbish Landfill and Recycling Facility. The thirteenth revision (August 2020) was an update of Chapter 10 of the Plan in response to MDEQ Administrative Order No. 5829 10 that provided a review of various solid waste needs. The fourteenth revision (August 2019) is for the expansion of the City of Bruce Class II Rubbish Landfill. The fifteenth revision (September 2020) was for the expansion of the Monroe County Class I Rubbish Landfill. The sixteenth revision (November 2022) was for the Akers Railroad Tie-Chipping Facility in Amory. The seventeenth revision (November 2023) was for the Wondura Class I Rubbish Landfill expansion and the Prairie Tire Recyclers facility. The eighteenth revision (January 2025) was for the expansion of the TMCO Rubbish Landfill.

It is the intended purpose of this solid waste management plan to be used by government agencies, Three Rivers Solid Waste Management Authority (TRSWMA), residents, institutions, and businesses throughout the planning area. An overview of each chapter of the solid waste management plan is provided below:

## **Chapter 1 – Introduction**

This chapter provides an overview of the history of solid waste management in the seven county area, the organizational structure of the TRSWMA and the demographics for the planning area and for each county. Overall, the TRSWMA planning area is classified as a rural area with an average population density of 73.5 people per square mile.

## **Chapter 2 – Existing Solid Waste Management in the Planning Area**

This chapter provides an overview of the waste management programs and facilities for the entire planning area. Specific information about residential solid waste collection programs, nonresidential collection programs, the three (3) solid waste transfer stations, the Three Rivers Regional Landfill which is the only Subtitle D landfill in the planning area, Class I rubbish landfills, Class II rubbish landfills, tire disposal facilities, household hazardous waste programs, and unauthorized dumping programs. Maps, phone numbers, addresses and operational hours for all facilities open to the public are identified.

## **Chapter 3 – Solid Waste Composition and Quantification**

This chapter provides an overview of solid waste composition and solid waste production rates for each county within the planning area. Based on available data, approximately 43% of the Subtitle D waste (municipal solid waste) is generated by residential sources while the remaining 57% is produced by non-residential users. The total solid waste stream (Subtitle D waste and rubbish waste) is approximately 24% residential, 35% non-residential and 43% rubbish. Overall, the average person produces about 4.3 pounds of municipal solid waste per day within the region.

## **Chapter 4 – Recycling and Waste Reduction Programs**

This chapter provides a county-by-county overview of recycling and reuse programs in the planning area. Phone numbers, addresses and types of materials recycled by various recyclers can be found in this chapter. Recycling, reuse and waste reduction programs are widespread across the TRSWMA planning area.

The City of Oxford and Tupelo have very aggressive recycling programs and are the only two cities to provide city-wide curbside collection of residential recyclable materials.

In addition to residential recycling, there are numerous commercial operations that have aggressive recycling, reduction and reuse programs. The furniture manufacturing and lumber industry have been heavily involved participants of finding unique ways to utilize waste wood of the region. The region is also home to Liberty Tire Recycling (formerly Mac's Recycling) of Saltillo which is one of the premier recyclers of waste tires in the southeast United States.

Overall, the TRSWMA planning area recycles approximately 62% of all solid waste (Subtitle D wastes, Class 1 Rubbish and Class 2 Rubbish) produced in the region. The 57% recycling and reduction rate is largely skewed by the lumber industry. If the lumber industry is taken out of the equation, the recycling rate would be approximately 35% which is significantly higher than the 25% recycling and reduction goal established by Mississippi Code § 17-17-225(b) and Mississippi Code § 17-17-227(1)(d).

## **Chapter 5 – Population and Waste Quantity Projections**

This chapter provides a forecast of future growth and corresponding solid waste projections for each county within the planning area. The TRSWMA has experienced an average annual waste volume increase of approximately 2% from 2020 through 2024.

## **Chapter 6 – Three Rivers Regional D Landfill**

This chapter is dedicated exclusively to the only Subtitle D landfill that serves the TRSWMA planning area. This chapter provides a detailed discussion of landfill permits, funding mechanisms for the landfill, the life expectancy of the landfill, how leachate and landfill gases are managed along with detailed information relating to landfill closure and post closure activities.

## **Chapter 7 – Management of Other Waste**

This chapter provides information to residents, industry, and government bodies about the proper disposal of non-typical solid waste. Non-typical wastes include construction and demolition (C&D) waste, yard wastes, household hazardous wastes, white goods such as used appliances, computers and electronics, agrichemical containers, used tires, used motor oil and batteries, medical wastes, municipal water/wastewater sludges, septic tank sludge, industrial sludge, residential and commercial bulk liquid waste, non-hazardous industrial/commercial waste, waste metals, waste wood and scrap lumber. Disposal options, locations and phone numbers for each type of waste described above are provided in this chapter.

## **Chapter 8 – Disaster Debris Waste and Planning**

This chapter provides a comprehensive guide for local communities for managing debris associated with a natural disaster. The chapter includes guidance for locating and operating temporary Class 1 and Class 2 rubbish facilities along with guidance to provide temporary residential solid waste collection shortly after a natural disaster.

## **Chapter 9 – Financing of Solid Waste Systems**

This chapter provides a comprehensive overview of how solid waste facilities and programs across the TRSWMA planning area are funded.

## **Chapter 10 – Solid Waste Needs Assessment**

This chapter provides an overview of the various types of solid waste needs of the TRSWMA planning area. Solid waste needs are placed in categories based on the severity of the need. A Category 1 need is a need that is desperately needed to comply with a solid waste capacity limitation, a permit condition or a violation of a State or Federal law. Category 2 needs are solid waste facilities or programs that would be nice to have, but are not necessary to comply with a permit condition, State or Federal law. Category 3 needs are solid waste needs that merit additional study and are not directly related to any State or Federal law.

This chapter is divided into sections that are dedicated to jurisdictional boundaries. Based on the review of all solid waste needs across the TRSWMA planning area, there are several Category 1 solid waste needs at this time. Category 1 needs include new permits for the Three Rivers Regional Landfill and specific facility needs associated with rubbish disposal for Calhoun, Union and Lafayette counties.

# Chapter 1 INTRODUCTION

## 1.1 Background and History

Prior to 1990, there were several active municipal sanitary landfills operating in the region that were nearing the end of their useful lives or needed to be closed to satisfy the requirements of the new Subtitle D regulations (Code of Federal Regulations, Title 40, Parts 257 and 258). Once these landfills were closed, the region would not have an active municipal solid waste landfill that met the requirements of the new Subtitle D regulations. Realizing the financial impacts to the region of not having affordable solid waste disposal, political leaders in the region recognized the need of having a regional solid waste disposal facility.

The TRSWMA was established in 1990 by the TRPDD to serve the region's solid waste disposal needs. Under the direction of TRSWMA, a 30-year solid waste master plan was developed that would determine where to site a regional landfill that would provide a centralized location to minimize transportation costs along with a location that would result in minimal impacts to the public and environment.

The initial solid waste master plan recommended the construction of a single landfill at a site near the city of Pontotoc to serve the region. The Three Rivers Regional Landfill began receiving solid waste in the spring of 1995. As part of the Authority's regional solid waste collection and disposal services, three transfer stations were also constructed. The use of transfer stations allows local collection trucks to direct dump into large transport trailers that transport the waste more economically to the landfill.

Over the years since the original solid waste master plan approval, eighteen (18) modifications to the plan have been made. The most recent was for the TMC Class I Rubbish Landfill expansion in Saltillo that was approved by MDEQ January 22, 2025. This comprehensive update sets the groundwork for management of the TRSWMA regional solid waste disposal system through 2045.

## 1.2 Organization of Three Rivers Solid Waste Management Authority

The TRSWMA was created under the provisions of the Mississippi Regional Solid Waste Management Authority Act passed by the Mississippi Legislature in 1991. The Act provided municipalities and counties the statutory authority to act jointly in the creation of a regional authority to construct, own, finance, and operate a regional solid waste disposal facility.

Today, the Authority oversees or provides support for a variety of solid waste management facilities inclusive of a Subtitle D Landfill, three regional solid waste transfer stations, numerous recycling trailers, tire recycling trailers, white goods, and scrap metal recycling. In addition to the above, the Authority also provides technical, financial and billing assistance to various counties (even some outside the planning area) for solid waste collection, coordination of household hazardous waste collection events and various other solid waste management components as needs and waste management trends change from day-to-day.

Members of the TRSWMA are listed in Table 1-1. Each member of the authority appoints a person to serve on the Board of Commissioners, which comprises the governing authority and leadership of the TRSWMA. The Board annually elects members to serve as Chairman, Vice-Chairman, and Secretary-Treasurer. In addition to internally elected officers, the Board will also elect members to serve on the Executive Committee and will internally create various other committees (such as a Landfill Gas Committee or RFP Committee) on an as needed basis.

The Board typically meets on the 2<sup>nd</sup> Tuesday of each month at the TTRPDD to discuss and make financial, technical and policy related decisions and oversight of solid waste management activities within the region.

In addition to the Board, TRSWMA also utilizes staff and resources from TRPDD and various outside people/firms for professional support (legal, auditing and engineering). An organizational chart illustrating the structure of the TRSWMA is presented in Figure 1-1.

Table 1-1 Members of the Three Rivers Solid Waste Management Authority

Calhoun County	City of Aberdeen (Monroe County)
Itawamba County	City of Amory (Monroe County)
Lafayette County	City of Fulton (Itawamba County)
Lee County	City of Oxford (Lafayette County)
Monroe County	City of New Albany (Union County)
Pontotoc County	City of Pontotoc (Pontotoc County)
Union County	City of Tupelo (Lee County)

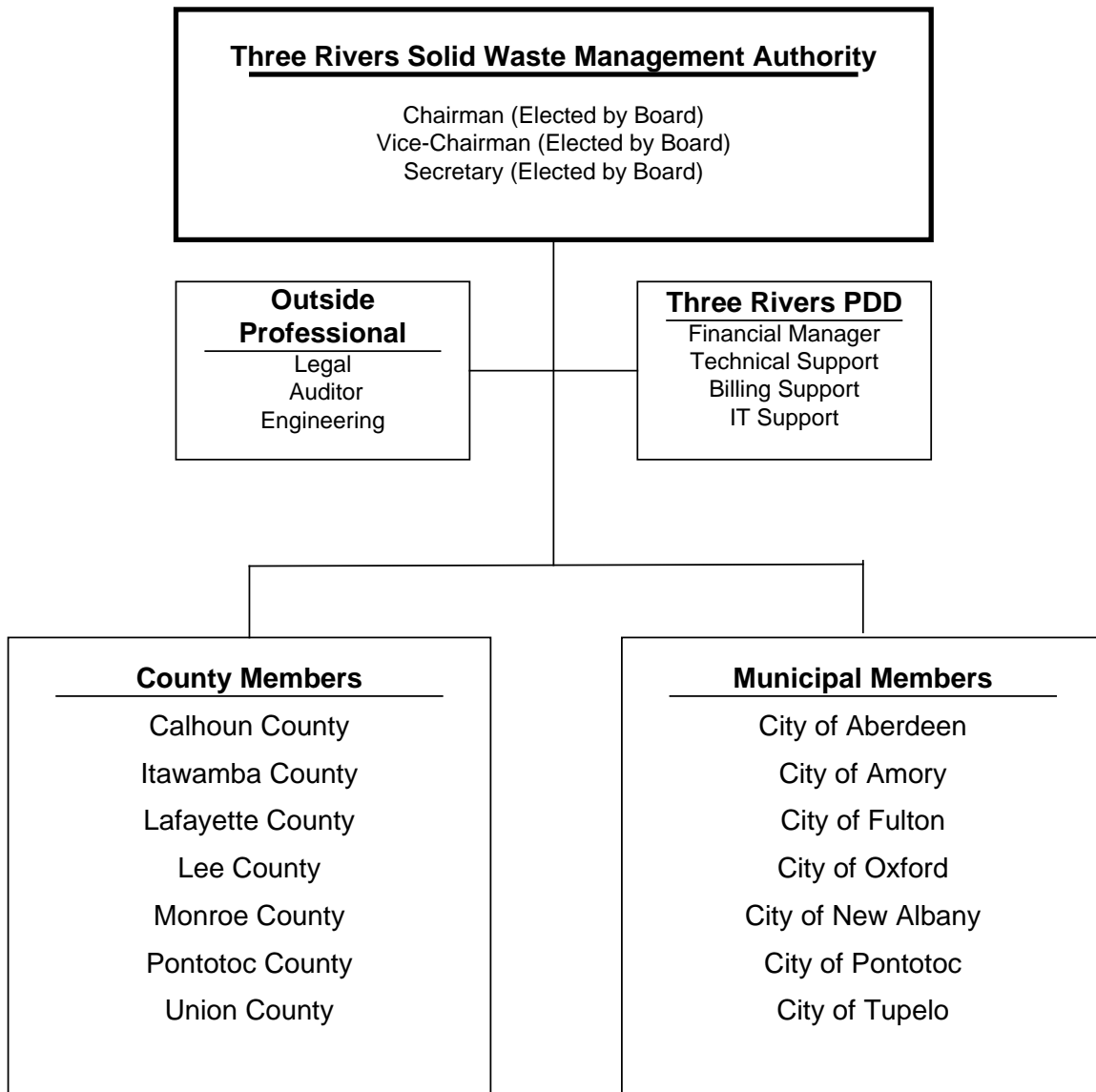


Figure 1-1 TRSWMA Organizational Chart

### 1.3 Description and Demographics of the Planning Area

The TRSWMA is organizationally comprised of seven municipalities and seven counties, as presented above in Table 1-1. The area served by the TRSWMA's planning area consists of approximately 3,876 square miles of lightly to moderately populated land in north Mississippi. The planning area is illustrated in Figure 1-2 and Figure 1-3.

Based on the 2020 U.S. Census Bureau data, the planning area has a population of approximately 269,426 people with a population density of approximately 73.5 people per square mile, which is slightly more than the state average of 63.1 people per square mile. The 2020 planning area population increased approximately 10.2% since 2000 (244,440). Other relative demographical characteristics of the planning area are presented in Table 1-2.

Table 1-2 Demographical Characteristics of the Three Rivers Solid Waste Management Authority Planning Area (U.S. Census Bureau, 2020)

Counties in Planning Area	Population	Number of Persons per Household	Median Household Income	Average Income per Capita	Percent Below Poverty
Calhoun	13,266	2.28	\$44,405	\$24,192	22.8%
Itawamba	23,863	2.53	\$57,252	\$33,243	13.3%
Lafayette	55,813	2.72	\$59,748	\$32,536	17.8%
Lee	83,343	2.57	\$64,479	\$33,209	13.5%
Monroe	33,609	2.51	\$51,190	\$27,619	15.3%
Pontotoc	31,184	2.66	\$54,414	\$26,359	17.6%
Union	27,777	2.69	\$55,970	\$27,373	13.8%
Planning Area (a)	268,855	2.56	(b)	\$29,219	16.3%
State of Mississippi	2,961,279	2.55	\$52,985	\$29,209	19.1%
United States	331,449,281	2.51	\$67,521	\$38,730	11.4%

(a) Calculated based on published data, (b) Cannot be calculated using available data

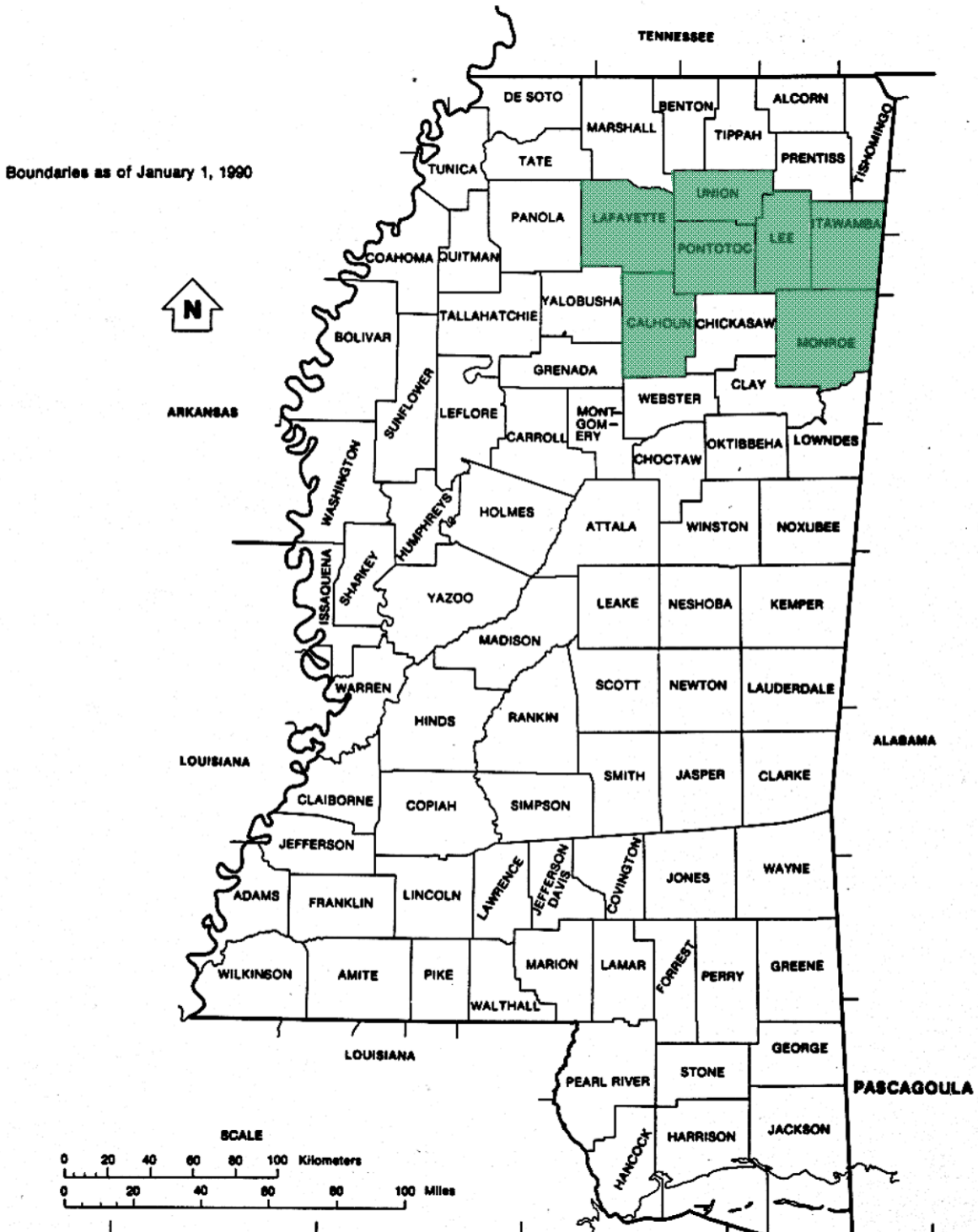


Figure 1-2 Map of Mississippi & Three Rivers SWMA Planning Area

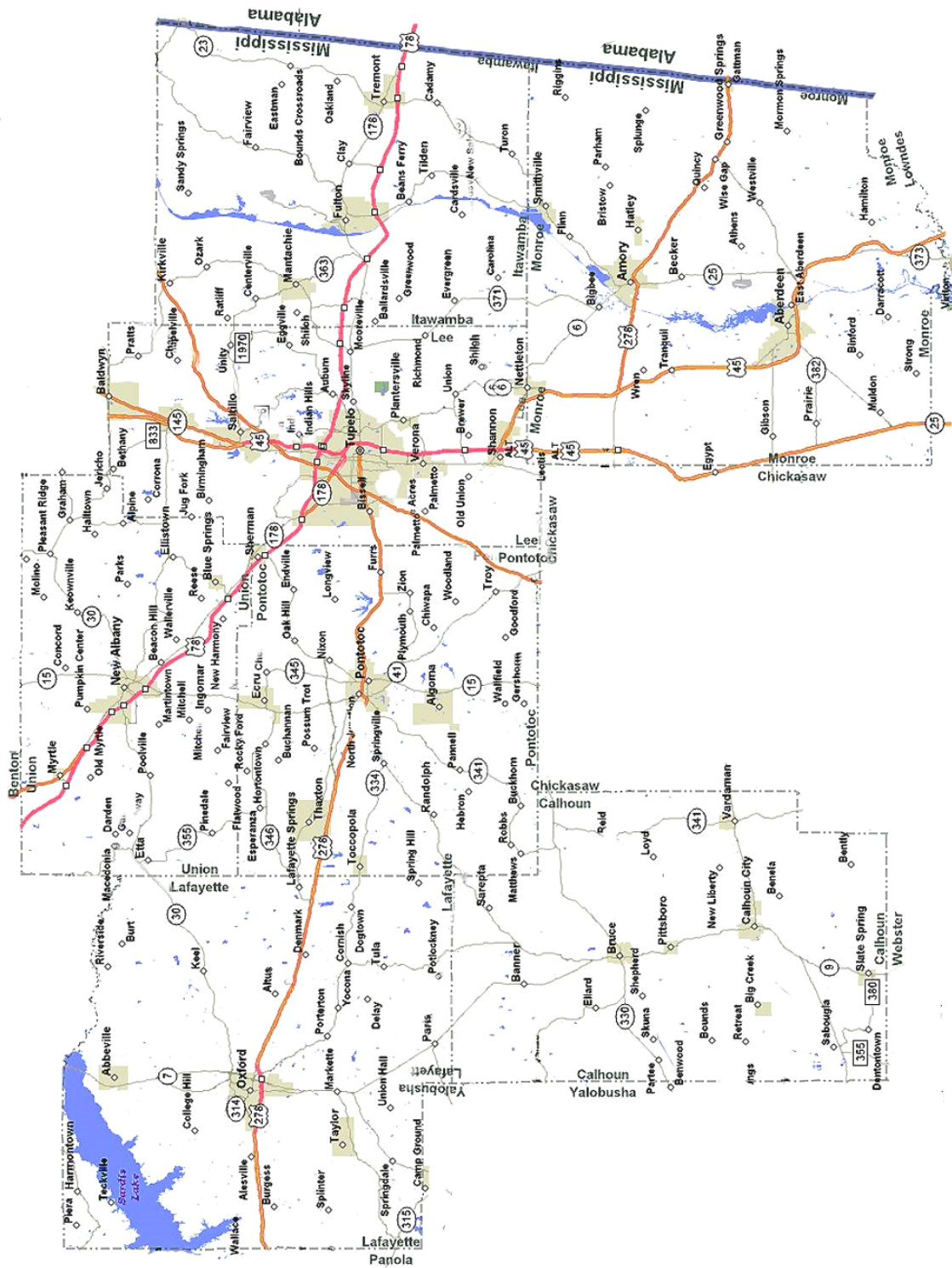


Figure 1-3 Map of the Three Rivers SWMA Planning Area

## 1.4 Objectives for the Solid Waste Management Plan

The objectives of the solid waste management plan are to provide the Authority a strategic planning tool and to continue the Authority's compliance with the Mississippi Department of Environmental Quality (MDEQ) solid waste requirements. This plan was prepared in accordance with Mississippi Code § 17-17-225, § 17-17-227 along with the publication "Guidance to Local Governments for Preparing a Comprehensive Local Solid Waste Management Plan" as published by MDEQ in 2008. The plan will establish the groundwork for solid waste source reduction, reuse, recycling, collection, transfer, and safe disposal initiatives for TRSWMA out to the year 2035. Further, in order to reduce certain solid waste issues such as illegal dumping, the counties in the Authority abide by the Mississippi Code § 97-15-30 regarding unauthorized dumping of solid wastes.

Public participation was encouraged through the use of questionnaires provided to each County and Municipality within the planning area. The questionnaires requested relevant information regarding solid waste collection means, frequency of collection, solid waste collection finances, solid waste management concerns including illegal dumping, and cooperative waste management. Additional correspondence was conducted with County and Municipal representatives and Economic Development Associations for clarification as needed. In addition, residents of the TRSWMA region were encouraged to be involved in the planning process through a public hearing and comment period. Prior to the public hearing, a copy of the Draft Solid Waste Master Plan Update was made available for public viewing at the Courthouse or City Hall of each of the Authority's members during normal business hours. The public hearing was held at the Authority's administrative office in Pontotoc on August 12, 2025 to allow residents an opportunity to ask questions and provide comments concerning the plan update.

This plan has been developed using data and other information that is currently available. Federal or State regulations are subject to change in the future, which could have an impact on the suggested planning recommended by this plan. It should also be noted that this plan is based on population projections that could increase or decrease significantly depending on the economic prosperity within the planning area.

In general, this solid waste management plan is prepared for the intended use of government agencies, TRSWMA, residents and industry within the planning area along with potential residents and industry that may be interested in locating to the region. Key components of the solid waste management plan include but are not limited to:

- Identifies existing solid waste management practices within the planning area
- Identifies where recycling programs and drop off centers are located within the planning area
- Projects solid waste volumes for each county within the planning area
- Identifies proper handling and disposal practices for other wastes such as wastewater treatment sludges, medical waste, used tires, white goods, disaster debris and etc.
- Identifies recycling markets and waste minimization programs within the planning area and assess the potential needs for recycling programs and waste minimization practices
- Identifies future needs for solid waste collection programs, solid waste transfer stations, and future landfill operations including but not limited to landfill expansion, methane gas management, leachate management, landfill closure, and landfill post closure operations

## Chapter 2

# EXISTING SOLID WASTE MANAGEMENT FACILITIES

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### 2.1 Residential Solid Waste Collection in the Planning Area

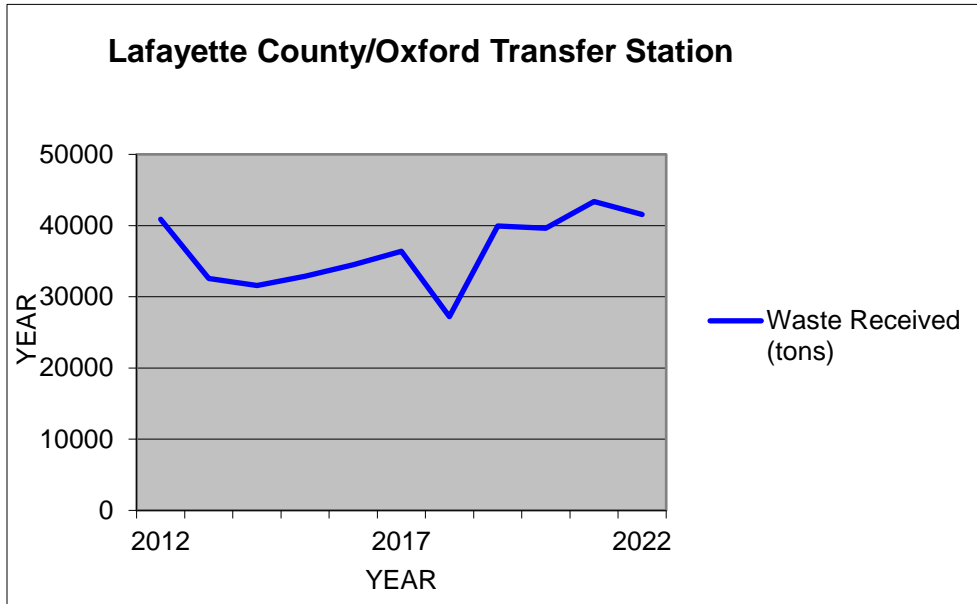
Municipal solid waste (MSW) is collected in each county within the Three Rivers Solid Waste Management Authority (TRSWMA) planning area. Most communities provide their own collection equipment while several communities have collection contracts with private companies. Once the solid waste is collected, it is either transported directly to the Subtitle D Three Rivers Regional Landfill located near Pontotoc, or transported to one of the three solid waste transfer stations (Lafayette County, Lee County, or Monroe County) where the waste is transferred to larger trucks and transported to the Three Rivers Regional Landfill. Locations of each transfer station and the Three Rivers Regional Landfill are illustrated in Figure 2-1. Collection frequency, collection provider, and destination information for each community are also presented in Table 2-1.

TRSWMA utilizes three (3) regional transfer stations to quantify and transfer solid waste from small collector trucks to larger trucks which economically transport the solid waste to the Three Rivers Solid Waste Landfill. During the period 2012 through 2022 a total of approximately 1,318,934 tons of solid waste were collected at the three (3) transfer stations as reported to MDEQ. Fees paid to dispose of collected waste at a transfer facility includes the tipping fee at the landfill, transportation costs to the landfill, maintenance and replacement of transfer trailers, and the operational cost of the transfer station. Disposal fees from the transfer station to the landfill vary by location based on the differences in facility and operational cost. Plans to upgrade each of the transfer stations are currently underway. Improvements include upgrades to the building and tipping floor, hopper loading area, and installation of new scales and should be completed in 2026.

The Lafayette County Transfer Station is located to the south of Oxford off County Road 321 (Section 5, Township 9S, Range 3W). The size of the transfer station was expanded in 2018 along with other rehabilitation work. This facility is very efficient because it has a permitted Class 1 rubbish landfill, a recycling processing center, a ferrous metal recycle



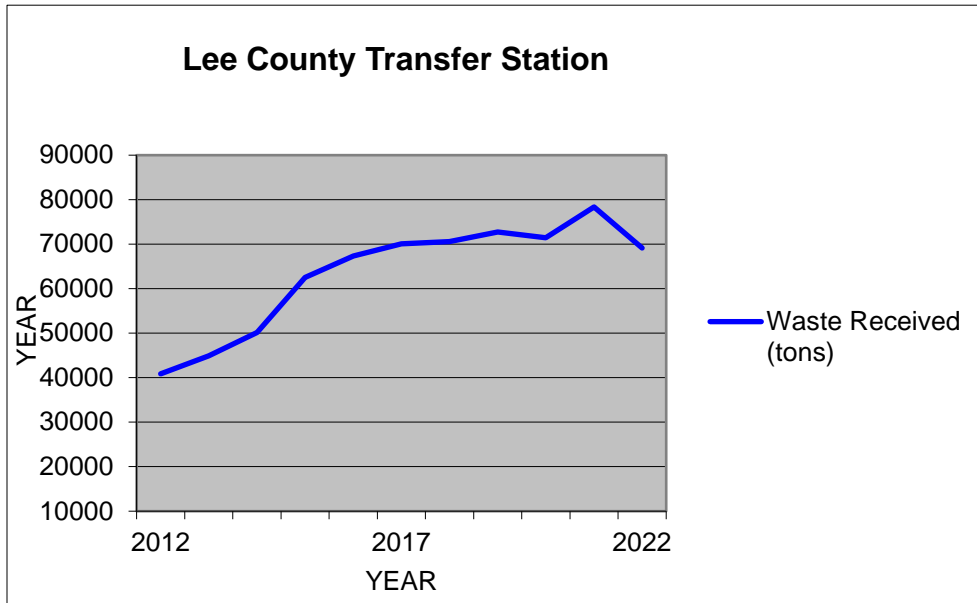
pile, and a used tire collection trailer. Any time a person or company brings in waste that can be classified as rubbish or recyclable, they are immediately diverted to the rubbish landfill portion or the recycling center. The transfer station handled a total of approximately 386,313 tons of waste from 2012 to 2022 averaging approximately 35,119 tons per year.



The Lee County Transfer Station is a very busy facility that receives waste from mostly Lee and Itawamba counties. This facility is located to the east of Tupelo off Old Highway 178 at Skyline on CR 1282 (Section 36, Township 9S, Range 6E). The transfer station was upgraded in 2014 that included a refurbished floor and repair of push walls and hopper area. In

addition to serving as a transfer station, this facility has a ferrous metal scrap pile and a used tire collection trailer. Operators also pull-out recyclable metal from the transfer floor when workloads permit. Although this facility is very efficient at removing certain recyclable materials from the solid waste stream, rubbish materials are not separated and are transferred directly to the Three Rivers Regional Landfill. The transfer station handled

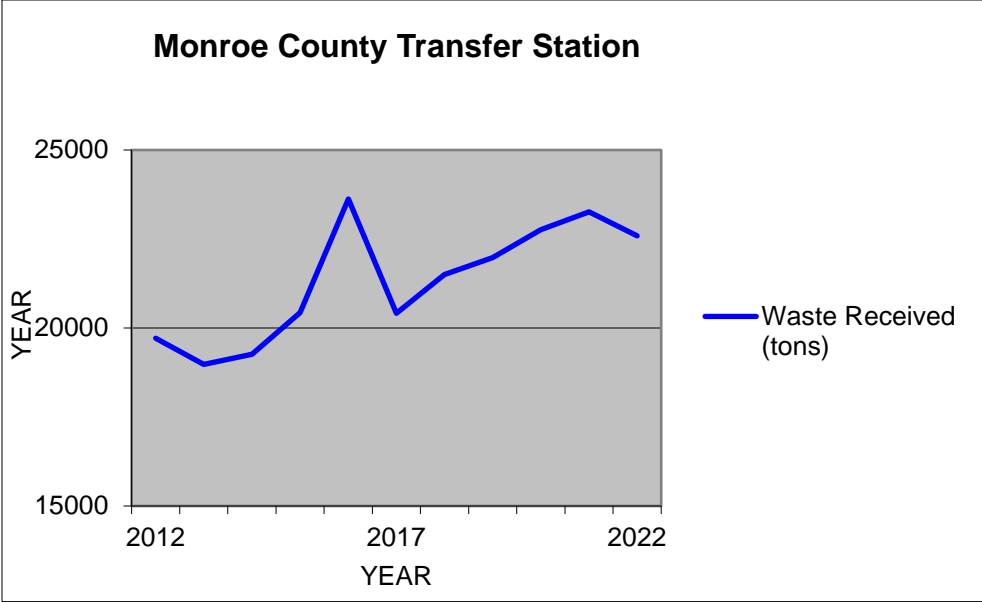
a total of approximately 698,106 tons of waste from 2012 to 2022 averaging approximately 63,464 tons per year.



The Monroe County Transfer Station is located to the northeast of Aberdeen on Highway 8 between Vassar and Westville (Section 23, Township 14E, Range 18W). The transfer station floor was refurbished and repairs were made to the push wall and hopper area in 2013. This facility is very efficient because it has a permitted Class 1 rubbish landfill located on-site



along with a ferrous metal recycle pile and a used tire collection trailer. Any time a person or company brings in waste that can be classified as rubbish, they are immediately directed to the rubbish landfill portion of the site. Rubbish disposal is free to residents of Monroe County and has a small tipping fee for companies. The transfer station handled a total of approximately 234,515 tons of waste from 2012 to 2022 averaging approximately 21,320 tons per year.



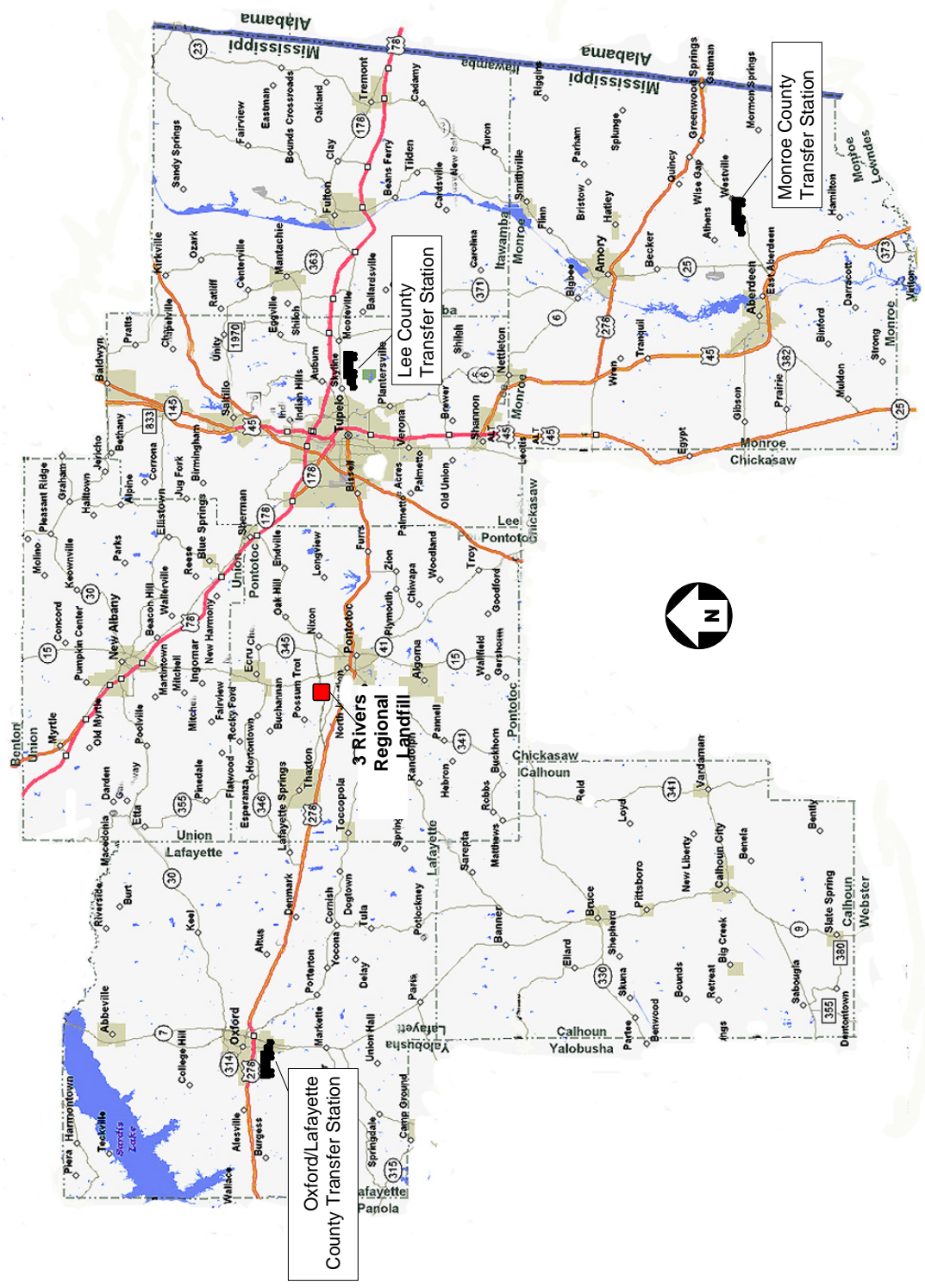


Figure 2-1 Major Solid Waste Facilities in the TRSWMA Planning Area

TABLE 2-1 INVENTORY OF RESIDENTIAL SOLID WASTE COLLECTION SYSTEMS

Community	Type of Collection	Extent of Collection	Collection Service Provider	Primary Users	Collection Frequency	Destination
<b>Calhoun County</b> <sup>1</sup>	Door-to-Door	G, BW, C	Calhoun County	SF, MF, C	Once Weekly	TRSWL
<b>Itawamba County</b> <sup>2</sup> Fulton	Door-to-Door	G, BW, C G, BW, C	Itawamba County Waste Connection	SF, MF, C SF, MF, C	Twice Weekly Twice Weekly	TS then TRSWL TS then TRSWL
<b>Lafayette County</b> <sup>3</sup> Oxford	Door-to-Door	G, BW, C G, BW, C REC YW	Lafayette County City of Oxford City of Oxford City of Oxford	SF, MF, C SF, MF, C SF, MF SF, MF	Once Weekly Twice Weekly Once Weekly Once Weekly	TS then TRSWL TS then TRSWL Recycle Center Oxford Rubbish Site
<b>Lee County</b> <sup>4</sup> Tupelo	Door-to-Door	G, BW, C YW G, BW, C YW REC	Waste Management Lee County Waste Management City of Tupelo Waste Management	SF, MF, C SF, MF SF, MF, C SF, MF SF, MF	Once Weekly As Needed Twice Weekly Monthly Twice Monthly	TS then TRSWL TMCO Rubbish Site TS then TRSWL TMCO Rubbish Site Tupelo Recycling
<b>Monroe County</b> <sup>5</sup>	Door-to-Door	G, C BW, YW, REC	Monroe County	SF, MF, C SF, MF	Once Weekly Twice Monthly	TS then TRSWL Monroe Rubbish Site
<b>Pontotoc County</b> <sup>6</sup> Pontotoc	Door-to-Door	G, BW, C G, BW, C BW, YW	Pontotoc County Waste Connections City of Pontotoc	SF, MF, C SF, MF, C SF, MF, C	Once Weekly Once Weekly Once Weekly	TRSWL TRSWL Pontotoc Rubbish Site
<b>Union County</b> <sup>7</sup> New Albany	Door-to-Door	G, BW, C G, BW, C YW	Union County City of New Albany City of New Albany	SF, MF, C SF, MF, C SF, MF	Once Weekly Once Weekly Once Weekly	TRSWL TRSWL Pumpkin Ctr Rubbish Site

<sup>1</sup>Includes all County municipalities: Big Creek, Bruce, Calhoun City, Derma, Pittsboro, State Springs, Vardaman

<sup>2</sup>Includes County municipalities: Mantachie, Tremont

<sup>3</sup>Includes County municipalities: Abbeville, Taylor

<sup>4</sup>Includes County municipalities: Baldwin, Guntown, Mooreville, Plantersville, Sabllo, Shannon, Verona

<sup>5</sup>Includes County municipalities: Aberdeen, Amory, Gatzman, Hatley, Nettleton

<sup>6</sup>Includes County municipalities: Algoma, Eru, Sherman, Thaxton, Toccoola

<sup>7</sup>Includes County municipalities: Blue Springs, Myrtle

Key:

G - Garbage, REC - Recyclables, BW - Bulky Waste, YW - Yard Waste

SF - Single Family Dwellings, MF - Multi Family Dwellings, C - Commercial Businesses

TS - Transfer Station, TRSWL - Three Rivers Solid Waste Landfill

In addition to residential solid waste, several communities also have special collection programs for items such as unusable white goods (refrigerators, ovens, washers, etc.), recyclable goods, used tires, and yard waste. White goods are usually collected, stored, and picked up by a private company under a TRSWMA contract, while other waste may be routed to a locally owned and operated rubbish landfill or to another disposal/recycling location in the Authority's area. Specific information on other solid waste can be found in Chapter 7 of this document.

## 2.2 Non-Residential Solid Waste Collection in the Planning Area



In addition to residences, private companies, businesses, and educational institutions also produce solid waste that must be collected and transported to the Three Rivers Regional Landfill or to a Class 1 or Class 2 rubbish disposal

landfill. Owners of these entities typically contract with a private hauling company that will routinely pick up and haul the waste either to one of the transfer stations or directly to the Three Rivers Regional Landfill for disposal. In the event that the waste can be classified as rubbish, the waste may be taken to a Class 1 or Class 2 rubbish landfill at a lower disposal fee.

Solid waste classified as Class 1 or Class 2 rubbish (see Section 2.4 and Chapter 7), recyclable materials, or exempt industrial process waste (as defined and authorized by the Authority), may be disposed at other approved disposal sites within or near the Authority's planning area. Private haulers are allowed to collect non-residential solid waste within the Authorities planning area, but are required to deliver the waste to one of the three transfer stations or to the Three Rivers Regional Landfill near Pontotoc. The intent of the flow control ordinance is to financially optimize the operations of the Three Rivers

Regional Landfill, which will enable the TRSWMA to provide the most economical solid waste disposal (tipping fee) to the residents and businesses within the seven counties that makes up the TRSWMA planning area. A copy of the flow control ordinance can be found in Appendix A.

### 2.3 Existing Subtitle D Landfills in the Planning Area

Prior to 1991, it was common practice for counties or communities to own and operate their own municipal solid waste landfill. However, with the enactment of new federal regulations (40 CFR Part 257 and 258), design, operating, and closure requirements were substantially tightened – resulting in most landfills ceasing operation. A municipal solid waste landfill meeting the requirements of 40 CFR Part 257 and 258 is typically referred to as a “Subtitle D Landfill”. Subtitle D landfills are designed, operated, and maintained to minimize the risk of adverse environmental contamination. Specific differences between new Subtitle D landfills and pre-Subtitle D landfills include:

- Stricter location requirements with regard to airport safety, flood plains, wetland protection, seismic impacts, and public safety.
- Stricter design requirements with regard to protective liners, surface water runoff, leachate collection and treatment, groundwater monitoring, landfill gas collection, and air quality monitoring.
- More stringent operational requirements such as the type of allowable waste that can be accepted, cover requirements, disease vector controls, landfill access, and record keeping.
- Closure and post-closure regulations that require extensive sampling, monitoring, and maintenance of the landfill after it no longer accepts solid waste.
- Financial assurance criteria to ensure that a landfill has secure financial resources available to pay for closure and post closure activities.

The Three Rivers Regional Landfill is the primary disposal facility for the Three Rivers Solid Waste Management Authority. The Subtitle D landfill is located to the northwest of the City of Pontotoc at 1904 Pontotoc Parkway West, about 1.5 miles west of Highway 15 (34° 17' 07.9" N, 89° 03' 32.5" W – Section 23, Township 9S,



Range 2E) as illustrated in Figure 2-2. The landfill was originally permitted on December 14, 1993. The landfill site has facilities for scrap metal and unusable white goods disposal/storage, used tire storage, and a drop off station for local residents and companies to empty small loads of solid waste.

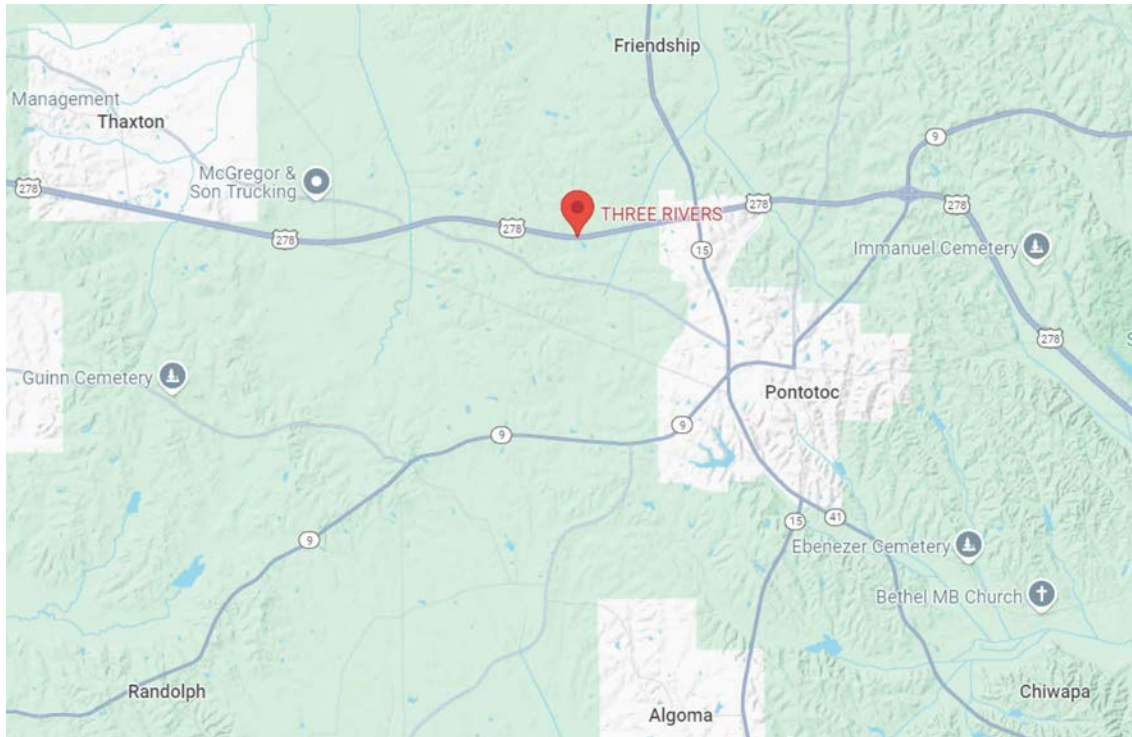


Figure 2-2 Location of Three Rivers Regional Landfill

Each county and city within the planning area of the Authority implemented a flow control ordinance in 2006 that requires all municipal solid waste (inclusive of residential, commercial, and industrial solid waste) to be disposed at the Three Rivers Regional Landfill located near Pontotoc. The TRSWMA does accept municipal solid waste into the Three Rivers Regional Landfill (Landfill) from other areas outside the TRSWMA planning area. Any “outside Authority” waste received and accepted at the Landfill is assessed with an additional out-of-region tipping fee charge that is set by the TRSWMA Board of Commissioners. However, the TRSWMA does not have a contractual obligation to accept waste except from its members made up of the counties and municipalities in the TRSWMA planning area.

In 1996, a small group of industries that had waste classified as an Industrial Process Waste were provided the opportunity to file for an exemption from flow control, provided they satisfy the following criteria:

1. Have a waste that classified as an industrial process waste in accordance with the definition of the industrial process waste as defined by the Mississippi Department of Environmental Quality.
2. The industry has been sending the industrial process waste exclusively to a single solid waste disposal site other than the Three Rivers Regional Landfill since 1996 or since the company's inception.
3. The industry files a request for exemption form with the TRSWMA. Necessary forms can be obtained by contacting TRSWMA at (662) 489-2415. The TRSWMA Board reviews the reserves the right to approve or disapprove the application for exemption.

The TRSWMA does not accept waste from outside the boundaries of the State of Mississippi OR from other communities inside MS that have adopted their own flow control ordinances.

The permitted air space of the Three Rivers Landfill is approximately 32,973,000 cubic yards (yd<sup>3</sup>) over a permitted space of 207 acres. As of 2023, it is estimated that approximately 88.6 acres of the permitted landfill footprint has been utilized or is in active development/use. Approximately 55.4 acres are considered in-active (Cells 1, 2, 3, 4A, and 4B) and 33.2 acres of Cells 5, 6, 7, and 8A are currently in use. These areas represent approximately 42.8% of the 207 acres allowed by the permit. Approximately 118.4 acres of permitted landfill space has yet to be developed.

In calendar year 2023, approximately 379,391 yd<sup>3</sup> of air space were utilized in the landfill. Additional air space will likely be gained due to long-term consolidation of in place waste in the landfill. Assuming that the landfill will continue operation as currently permitted, it is estimated that there is approximately 25,292,474 yd<sup>3</sup> of air space remaining in the landfill which represents approximately 76.7% of the total permitted capacity. Based on the new contract minimum compaction density of 1,600 lb/yd<sup>3</sup>, the remaining landfill should have adequate capacity for up to approximately 19,313,266 tons of municipal solid waste. Tonnage brought to the landfill increased from year 2022 (275,373 tons) to 2023 (277,562 tons). Based on projected solid waste placement (average annual 3.2% increase) and an in-place density of 1,600 lb/cubic yard and the continuance of receiving

MSW from Panola County, the existing permitted area should be adequate through the year 2058, approximately 35 years. Data collected by the Authority and reported to the Mississippi Department of Environmental Quality annually for a 5-year period from 2019 to 2023 are summarized in Table 2-2.

Table 2-2 Municipal Solid Waste Flow in the TRSWMA Planning Area<sup>(1)</sup>

Facility or Item	2019	2020	2021	2022	2023
MSW Generated within Three Rivers Regional Landfill Planning Area (tons)	250,290	235,944	255,379	253,526	255,883
MSW Generated outside the Three Rivers SWA Planning Area (tons)	19,043	18,513	18,442	22,117	21,679
Total Three Rivers Regional Landfill (tons)	269,333	254,457	273,821	275,373	277,562
Percent from outside Planning Area <sup>(2)</sup>	7.6%	7.8%	7.2%	8.7%	8.5%
Tons/day in Three Rivers Regional Landfill (310 days/year)	868.8	820.8	883.3	888.3	895.4
Tons/day from outside Planning Area (310 days/year)	61.4	59.7	59.5	71.3	69.9

<sup>(1)</sup> Does not include solid waste that leaves the State of Mississippi, Class 1 or Class 2 Rubbish or solid waste disposed in permitted industrial facilities

<sup>(2)</sup> Authority is not contractually obligated to accept this waste stream.

## 2.4 Existing Class I and Class II Rubbish Landfills in the Planning Area

Rubbish landfills are specially permitted landfills that are allowed to receive solid waste that are not typically environmentally dangerous when stored for extended periods of time. In Mississippi, rubbish landfills are classified either as a Class I Rubbish landfill or a Class II Rubbish landfill. Class I or Class II Rubbish landfills are not allowed to receive solid waste such as food waste, chemical waste, household garbage, liquids,



sludges, contaminated soils, paint or paint buckets, oil containers, engines, motors, whole tires, batteries, toxic or hazardous waste, or regulated asbestos materials. Items that may be placed in Class I and Class II Rubbish Landfills are identified in Table 2-3.

Rubbish landfills are an asset to the comprehensive solid waste management disposal system as they provide a diversion from the Subtitle D landfill and provide a less costly disposal alternative for appropriate materials. Rubbish landfills are more suited to handle solid waste associated with construction activities, yard wastes, and debris generated from natural disasters. Tipping fees exist for most Class I Rubbish Landfills within the planning area however, some facilities allow local residents to use the rubbish landfill free-of-charge. Customers and residents are encouraged to contact the rubbish landfill to verify disposal fees and operating hours. Disposal/tipping fees are subject to change due to the volatile nature of fuel prices and other economic conditions.

Due to the mode of operation and type of solid waste received at rubbish landfills, it is often difficult to predict the life of a rubbish landfill. Each rubbish landfill is required to file an annual report to MDEQ each year. The annual report includes disposal tonnage for the previous year, landfill volume utilized during the previous year, and landfill volume remaining. Although this information is useful, it has been demonstrated numerous times that rubbish landfills can be quickly filled to capacity after an ice storm, tornado, or major construction activity (such as widening of a highway or demolition of large industrial area) even if the previous annual report indicated that there were several years of life remaining in the landfill. In view of this, the Authority encourages the development and operation of private, commercial, and municipal Class I and Class II rubbish landfills in the region.

Table 2-3 Allowable Materials for Class I and Class II Rubbish Landfills

Material	Class I Rubbish Landfill	Class II Rubbish Landfill
Construction and demolition debris, such as wood, metal, etc.	X	
Brick, mortar, concrete, stone, and asphalt	X	X
Cardboard boxes	X	
Natural vegetation such as tree limbs, stumps, and leaves	X	X

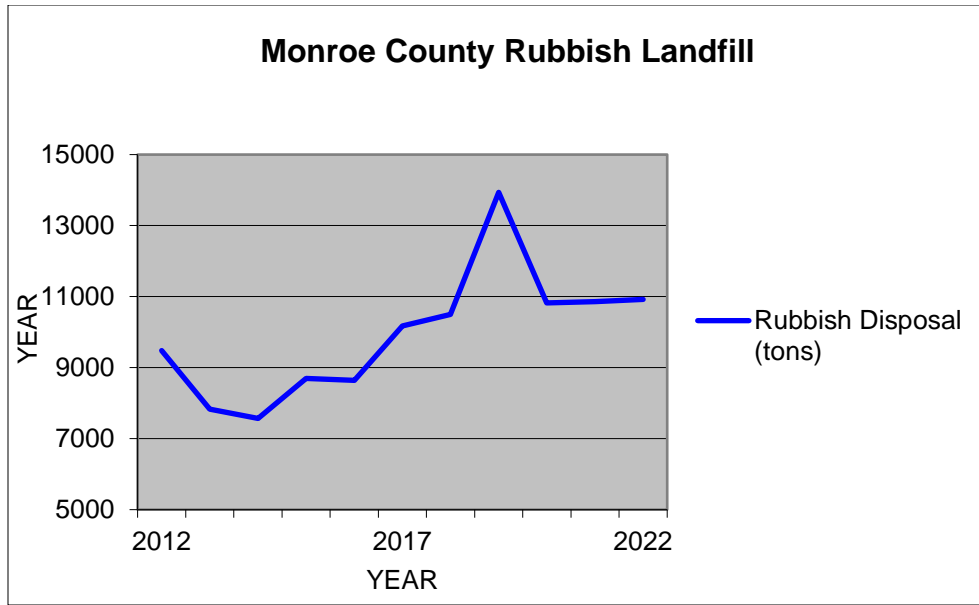
Appliances (other than refrigerators and air conditioners) which have had the motor removed	X	
Furniture	X	
Plastic, glass, crockery, and metal, except containers	X	
Sawdust, wood shavings, and wood chips	X	
Other similar rubbish specifically approved by the Mississippi Department of Environmental Quality	X	X

Based on recent data from MDEQ, there are currently (2025) six (6) permitted Class I Rubbish Landfills, five (5) permitted Class II Rubbish Landfills, and two (2) permitted industrial landfills within the TRSWMA planning area. Locations and contact information for each active rubbish landfill are presented in Table 2-4 and illustrated graphically in Figure 2-3. Service area, landfill size and life expectancy of each landfill are based on the information obtained from Mississippi Department of Environmental Quality Annual Reports submitted by each rubbish facility.

#### 2.4.1 Monroe County Class I Rubbish Landfill

From 2012 to 2022, the Monroe County Rubbish Landfill accepted a total of 109,430 tons of rubbish for disposal. Average annual disposal was approximately 9,948 tons during this time frame. The annual volume peaked in 2019 at 13,936 tons due to the Amory tornado storm debris. Historical volumes have been as high as 28,310 tons in 2011 due to a large demolition project in Lowndes County and storm debris from the area associated with the Smithville tornado. Due to the continuing need for rubbish disposal, the Monroe County Board of Supervisors purchased an additional 65 acres adjacent to the existing facility to meet future rubbish disposal needs. An additional 30.7 acres of disposal area were permitted in 2022 with a projected life span of 20 years. Construction of a new disposal cell is scheduled to begin in mid-2025. In addition, the County is conducting a slope stability analysis that may provide additional cell height to the current and future cells.

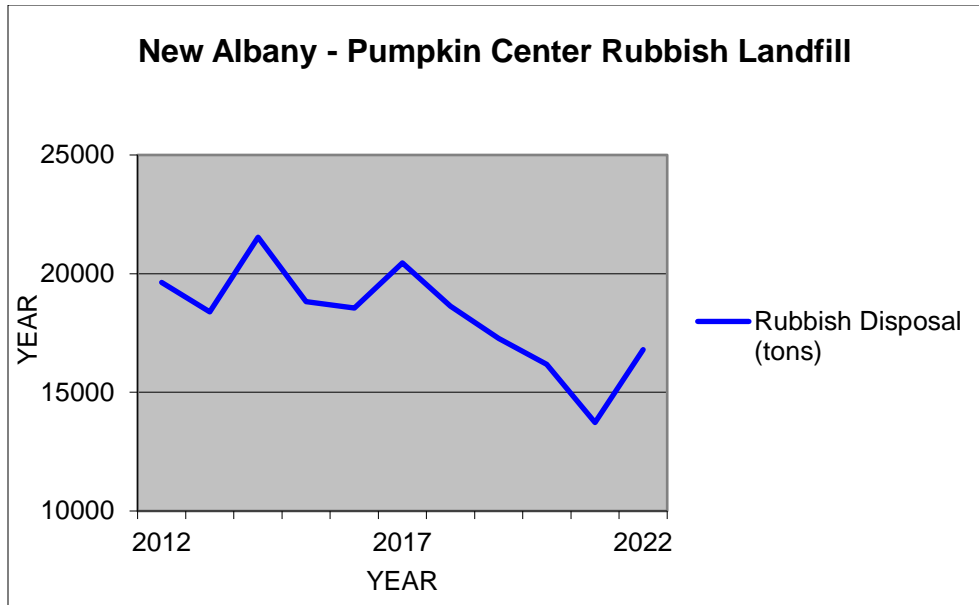




The Monroe County solid waste budget, which includes the rubbish landfill, is funded through local taxes and unit prices charged to the customer. Fees are not charged to individual county residents. The commercial rate for disposal is \$15.00 per ton. Revenue includes ad valorem taxes; intergovernmental revenue including Mississippi Department of Environmental Quality grants and local grants; charges from services including collection fees, individual dumping fees, and tipping fees; and interest income. The operating solid waste budget for Monroe County was \$1,917,367 in 2023. Revenue collected totaled \$3,893,000 (includes rubbish landfill and transfer station). The majority of the operating budget is generated from taxes and service fee revenue. The Monroe County Board of Supervisors, based on requests from the Monroe County Administrator, establishes the operating budget annually.

#### 2.4.2 New Albany-Pumpkin Center Rubbish Landfill

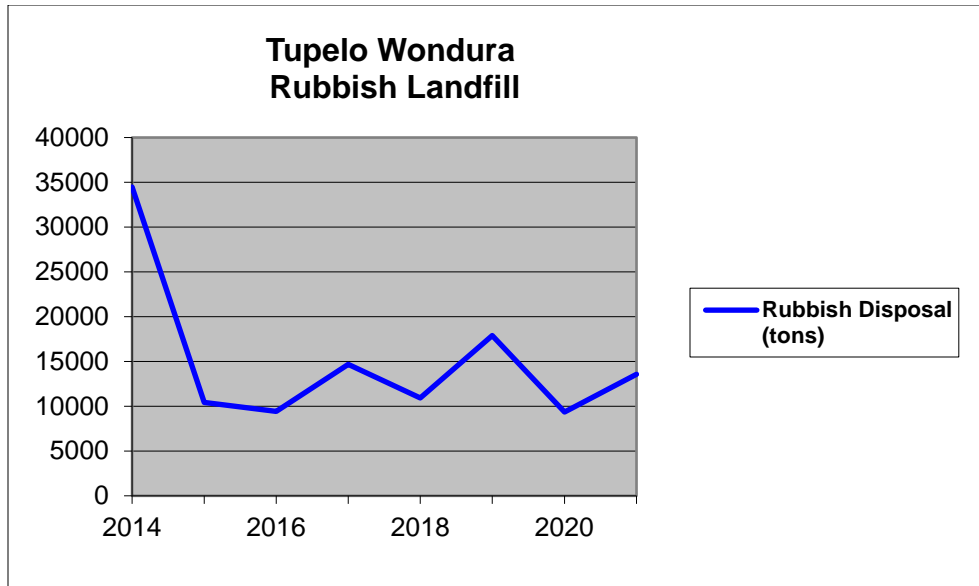
The New Albany-Pumpkin Center Class I Rubbish Landfill totaled 199,964 tons of rubbish disposal from 2012 to 2022 with an average of 18,179 tons per year. The 2013 expansion (31.4 acres) was necessary to continue to meet rubbish disposal needs of the area. The life span remaining at the facility was reported at 3 years in the 2023 MDEQ Annual Report. The City of New Albany is evaluating options for future landfill expansion.



The New Albany-Pumpkin Center Rubbish Landfill budget is funded through local taxes and unit prices charged to the customer. The City of New Albany total cost of collection service for 2023 was approximately \$913,500 and revenue was \$879,027 collected from disposal fees.

### 2.4.3 Tupelo Wondura Class II Rubbish Landfill

The conversion of the Tupelo Wondura sewage lagoon to a Class II Rubbish Landfill in 2014 provided continued rubbish disposal capabilities to the Tupelo Water & Light Department. The landfill is located off of South Canal Street in Tupelo and disposal activities are limited to the City of Tupelo, primarily materials removed from Tupelo right-of-way. The existing 10-acre disposal area is located on a 47.5 acre parcel owned by the City of Tupelo. The landfill operation is part of the City of Tupelo solid waste budget that totals approximately \$4,100,000 annually.



In 2023, the City of Tupelo purchased approximately 235 acres located adjacent to the existing rubbish site. This western adjacent property will be developed to provide rubbish disposal capabilities for years to come. The immediate plan is to develop a new cell west of the existing disposal area. Future expansion will be further to the west and then to the south providing a total of three (3) contiguous disposal cells totaling 27.1 acres increasing the permitted disposal area to 37.1 acres. These three (3) cells will provide approximately 612,440.5 cubic yards (cy) of air space resulting in an estimated life span of approximately 20.1 years based on the average disposal rate from 2014 to 2021. Sufficient property will be available for further development in the future.

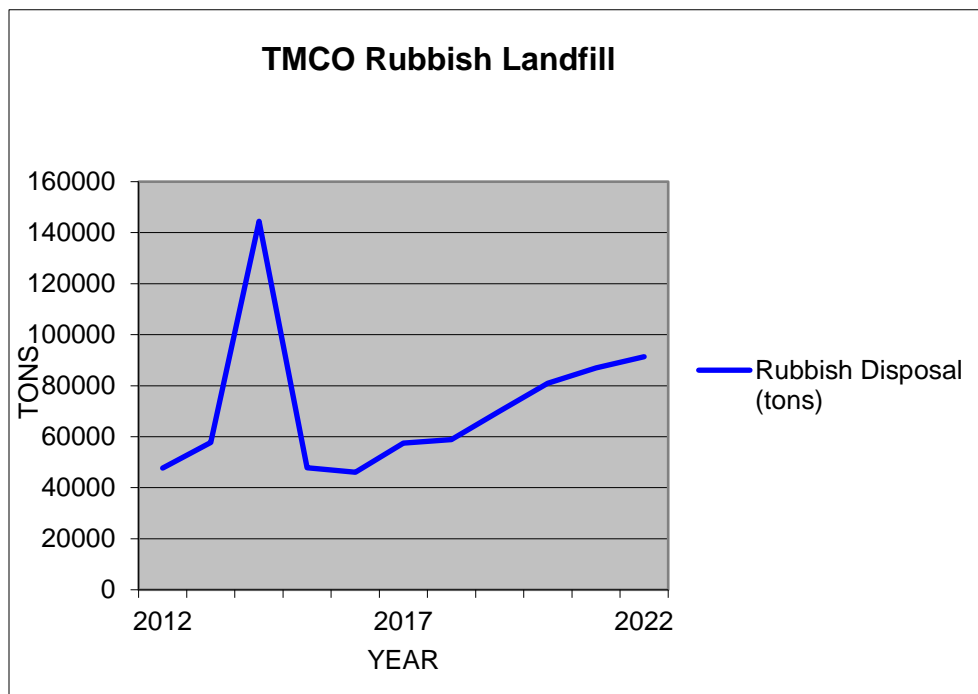
Beginning in approximately 2026, the City of Tupelo may authorize Lee County to utilize the new cell space on a cost reimbursement basis.

## 2.4.4 TMCO Class I Rubbish Landfill



The expansion in 2013 of the permitted disposal area from 30.0 acres to 42.88 acres allows the privately owned TMCO Rubbish Landfill to continue to offer rubbish disposal to Lee County. The landfill, located at 544 Birmingham Ridge Road in Lee County, opened in 1994. The facility is a Class I rubbish site and is also authorized by DEQ to accept processed waste tire materials generated by Liberty Tire Recycling and rubber scrap generated by the Goodyear Tire and Rubber Company. The TMCO Rubbish Landfill received a total of 789,672 tons and averaged 71,788 tons disposal per year from 2012 thru 2022.

The facility is a Class I rubbish site and is also authorized by DEQ to accept processed waste tire materials generated by Liberty Tire Recycling and rubber scrap generated by the Goodyear Tire and Rubber Company. The TMCO Rubbish Landfill received a total of 789,672 tons and averaged 71,788 tons disposal per year from 2012 thru 2022.

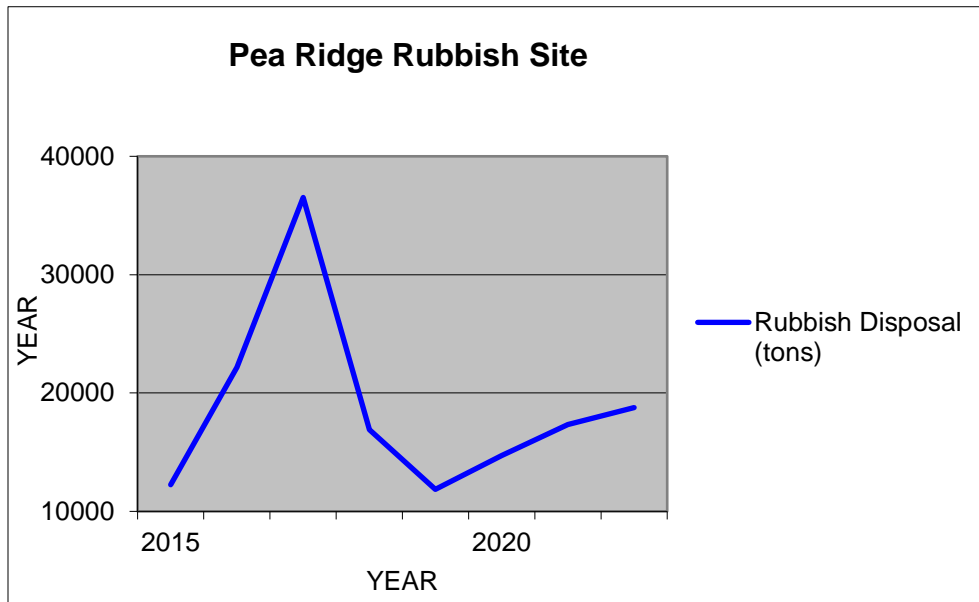


The facility was granted a vertical height expansion in 2021 and a modification to the Solid Waste Management Plan was requested in June of 2023 for a 5.16-acre disposal cell. The expansion complies with local land use and zoning requirements and will result in no change in the current outcome of waste disposal in the County. The Lee County Solid Waste Budget consists of fees collected from garbage

collection and fees collected at the Lee County Transfer Station. Other revenue sources include interest income, sales income, and governmental revenue. Total budget for Lee County Solid Waste Management is approximately \$3,312,000 for fiscal year 2023 - 2024.

#### 2.4.5 Pea Ridge Recycling Rubbish Site

The privately owned Pea Ridge Class I Recycling Rubbish Site (formerly North Mississippi Recycling Solutions) began operations in 2015. The facility located on County Road 3067 in Lafayette County provides approximately 22.5 acres of disposal area within a 39.8-acre property located south of Oxford near the existing City of Oxford transfer station. The facility consists of a Class I rubbish landfill and a processing facility for recycling. Class I rubbish material is accepted for disposal and waste material, mainly construction debris, is processed and separated for recycling. These recyclable goods primarily consist of concrete for crushing and wood product for chipping. Cardboard and acceptable plastics are transferred to the City of Oxford recycling center. The operation of the Pea Ridge Recycling Rubbish Site facility meets a need not previously available to Lafayette County as the existing Oxford rubbish landfill does not allow disposal of construction debris.



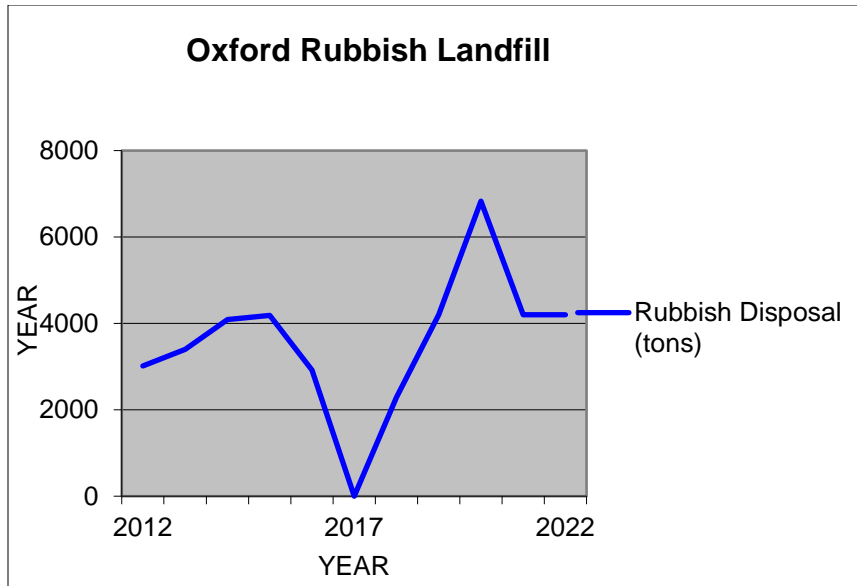
The Pea Ridge Rubbish Site totaled 150,493 tons of rubbish disposal from 2015 to 2022 with an average of 18,812 tons per year. The Pea Ridge site service area has increased from Lafayette County to now include Calhoun, Lee, Marshall, Panola, Pontotoc, Tate, Union, and Yalobusha Counties. The facility operation complies with local land use and zoning requirements and results in no change in the current outcome of waste disposal in the County.

#### **2.4.6 City of Oxford Rubbish Site**

The City of Oxford Class I Rubbish accepted a total of 62,956 tons of rubbish waste site from 2012 to 2022 with an average of 2,998 tons per year. The low disposal tonnage is a result of the City not allowing commercial waste disposal companies to dump in the rubbish pit and diverting these companies to Three Rivers Regional Landfill in Pontotoc County.

In order for the City of Oxford to keep up with rubbish disposal demands, due to city expansion and the influx of new residents, a new rubbish pit disposal cell was proposed in 2014 and permit modification was approved in 2024. In addition to the new disposal cell the City of Oxford wishes to provide the option of mulching and or composting a portion of the Light Landscaping Waste (LLW) that is currently disposed of in the rubbish pit. Currently approximately 90% of the volume of rubbish being disposed of in the current cell is LLW consisting of leaves, grass clippings, pruning waste, and other yard debris. The City feels the diversion of a large portion of total pit volume away from the disposal area and into a mulching and or composting program would be a benefit to the City for years to come. The proposed mulching and or composting area is inside the current City's rubbish site. The benefits of having a mulching and or composting operation would be decreased volume of rubbish to the disposal cell thereby increasing the life expectancy of the cell and production of material that can be used by the City for beautification projects.

The annual operating expenses for the rubbish pit are part of the Solid Waste Department's annual budget for the City of Oxford. This budget consists of funds



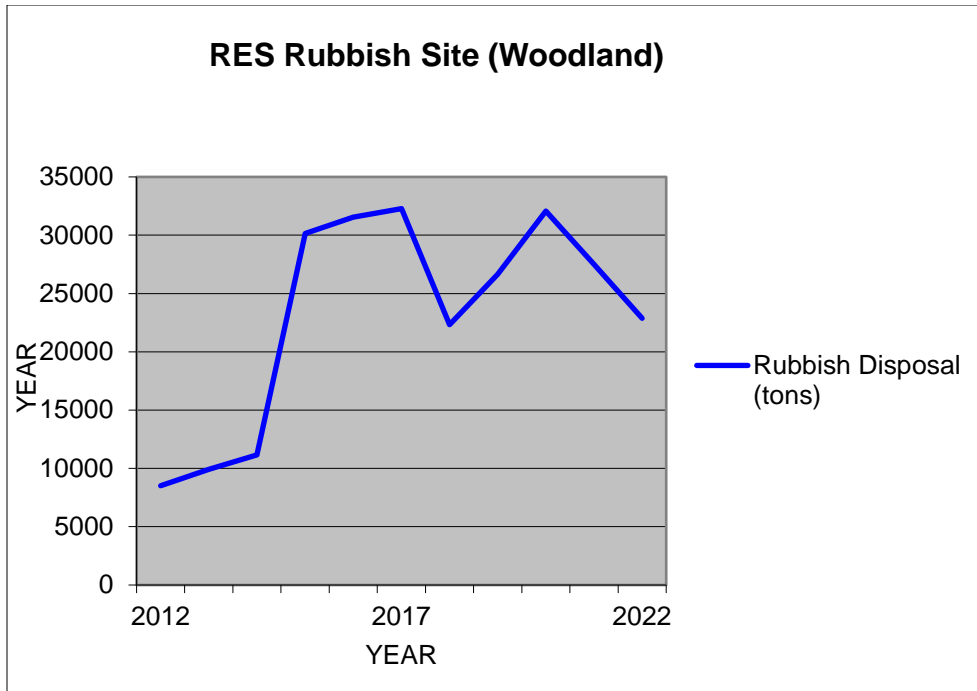
From transfer station tipping fees, monthly solid waste collection fees charged to the City residents businesses, and other state and local funding. The landfill operation is part of the City of Oxford solid waste budget that totals approximately \$1,600,000 annually. There is a transfer station tipping fee of \$40.00 per ton with a \$20.00 minimum charged to customers using the site. The collected fees are added back into the budget for the solid waste department. The existing service area is the City of Oxford, Lafayette County and adjoining counties.

#### 2.4.7 City of Bruce Class II Rubbish Landfill

The City of Bruce Class II Rubbish Site is reportedly inactive having last received waste in 2018 (approximately 136 tons).

#### 2.4.8 RES Class I Rubbish Site

The Resourceful Environmental Services, Inc. (RES) Class I Rubbish Site is located at 2815 Woodland Drive in Pontotoc. The private RES facility totaled 254,987 tons of rubbish disposal from 2012 to 2022 with an average of 23,181 tons per year. The estimated life remaining at the facility was 9 years as reported in the DEQ Annual Report in 2022.



#### 2.4.9 Blueberry Hill Rubbish Disposal

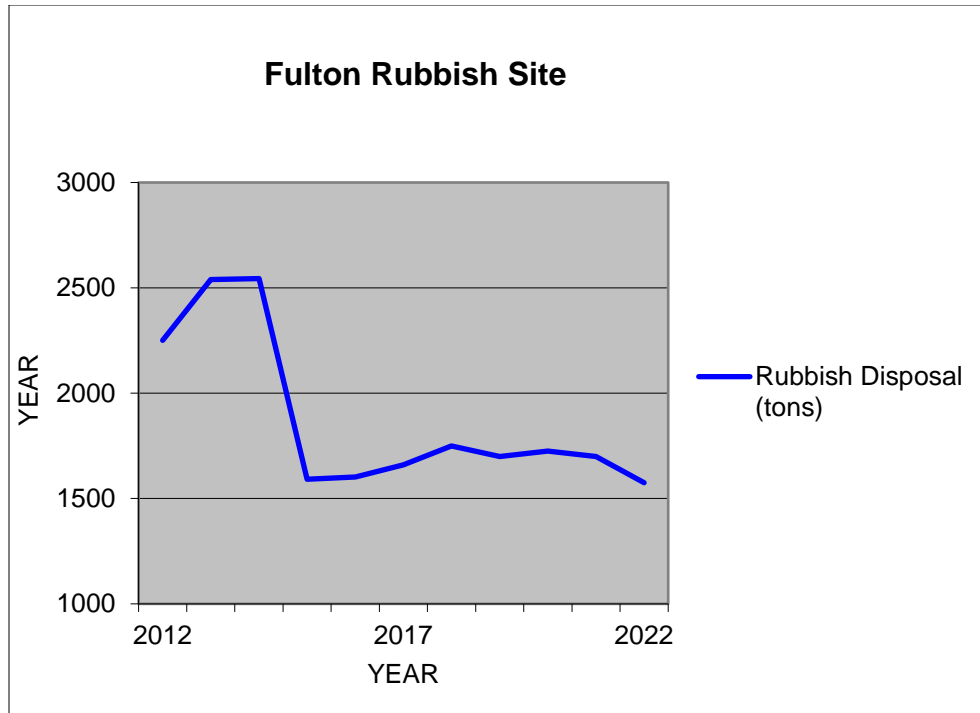
The Blueberry Hill Class I Rubbish Disposal site located on County Road 445 in Vardaman, Calhoun County, is inactive having last received waste in 2015 (approximately 181 tons).

#### 2.4.10 Tilden-Clay Road Rubbish Site

The Tilden-Clay Road Class I Rubbish Site located north of Tilden on Tilden Clay Road in Itawamba County is inactive having last received waste in 2011 (approximately 2,257 tons).

#### 2.4.11 City of Fulton Rubbish Site

The City of Fulton Class II Rubbish Site is located on North Cummings Street in Fulton. The facility totaled 20,638 tons of rubbish disposal from 2012 to 2022 with an average of 1,876 tons per year. The estimated life remaining at the facility was 13 years as reported in the 2022 DEQ Annual Report.



## 2.5 Existing Recycling Programs/Facilities in the Planning Area

There are numerous recycling programs and facilities located throughout the planning area. Specific details of recycling programs can be found in Chapter 4 of this report.

## 2.6 Existing Waste Tire Management Programs

Disposal of waste tires is a large environmental concern and problem across the United States. Tires are problematic because:

- They do not biodegrade
- They collect water and serve as a breeding area for mosquitoes
- They tend to work themselves to the surface if buried whole in a landfill
- They are difficult to extinguish when burning

To address the problem of tire disposal, the TRSWMA contracted MAC's Recyclers (now Liberty Tire Recycling) for proper disposal of waste tires. The TRSWMA has waste tire drop off trailers or bins at each transfer station, the Three Rivers Regional Landfill, and at locations in each Authority county. The public can also drop off waste tires at Liberty Tires

for a \$100/ton fee for passenger tires and a \$150/ton fee for truck tires (based on 2025 rates). Additional information on Liberty Tire Recycling can be found in Chapter 4 of this report. Drop off locations for used tires can be found in Chapter 7 of this report.

Table 2-4 Non-Subtitle D Landfills in the TRSWMA Planning Area

Identification Key (Figure 2-3)	County (Public Status & MDEQ Approved Service Area)	Landfill Name and Contact Information Location Permitted Size and Expected Remaining Life	Rubbish Class	Operating Hours
1	Calhoun Calhoun, Chickasaw, Grenada, Itawamba, Lafayette, Lee, Monroe, Pontotoc, Union, Webster and Yalobusha counties	Blueberry Hill Disposal Site Waste Placement, Inc. (662) 983-0712 County Road 446 Vardaman, MS Section 1, Township 14S, Range 1E	Class I and sweet potato industry waste	Inactive
2	Calhoun	Bruce Class II Rubbish Site City of Bruce (662) 983-5892 Section 13, Township 12S, Range 2W	Class II	Inactive
3	Calhoun	Weyerhaeuser Industrial Landfill Bruce, Mississippi (662)983-6382 Section 7, Township 12S, Range 1W	Industrial	Inactive
4	Itawamba Calhoun, Itawamba, Lafayette, Lee, Monroe, Pontotoc, Prentiss, Tishomingo and Union counties in MS, Franklin and Marion counties in Alabama	Tilden Clay Road Rubbish Site Oxford Landfill Management, Inc. (901) 668-5458 Located north of Tilden on Tilden Clay Road Section 15, Township 10S, Range 9E	Class I	Inactive

Table 2-4 Continued Non-Subtitle D Landfills in the TRSWMA Planning Area

Identification Key (Figure 2-3)	County (Public Status & MDEQ Approved Service Area)	Landfill Name and Contact Information Location Permitted Size and Expected Remaining Life	Rubbish Class	Operating Hours
5	Itawamba (open to in-state and out-of-state customers)	City of Fulton North Cummings Street (662) 862-9616 Section 19, Township 9S, Range 9E 6.58 acres – 4.5 years	Class II	7-3:30, M-F
6	Lafayette Calhoun, Lafayette, Marshall, Panola, Pontotoc, Tate, Union and Yalobusha counties	City of Oxford Rubbish Site Located at Oxford Transfer Station (662) 232-2359 Section 5, Township 9S, Range 3W 19.5 acres – 30 years	Class I	Call first
7	Lafayette Lafayette, Calhoun, Lee, Marshall, Panola, Pontotoc, Tate, Union, and Yalobusha counties	Pea Ridge Rubbish Site County Road 3067, Oxford, MS (662) 816-8601 Section 8, Township 9S, Range 3W 22.5 acres - 13 years	Class I	7-5, M-F 7-12, S
8	Lee Lee County only	TMCO Rubbish Site Birmingham Ridge Rd, Saultillo, MS (662) 869-2151 Section 3/34, Township 7/8S, Range 7E 42.88 acres - 20 years	Class I	7-4:40, M-F

Table 2-4 Continued Non-Subtitle D Landfills in the TRSWMA Planning Area

9	Lee (private industrial use only) Inactive	TMCO Industrial Waste Landfill Birmingham Ridge Rd, Saltillo, MS (662) 869-2151 Section 3/34, Township 8S, Range 5E 4 acres	Industrial	Inactive
10	Lee (City of Tupelo and Lee County use only)	Red Oak Wood Waste/Recycling City of Tupelo (662) 841-6457 Section 8, Township10S, Range 6E 9.5 acres	Class II	CLOSED
11	Lee (Tupelo Water & Light Only)	Tupelo Water and Light Tupelo Glasgow (West) (662) 841-6470 Section 3, Township 10S, Range 5E 2.82 acres – 12.7 years	Class II	CLOSED
12	Lee Liberty Tire Recyclers	Liberty Tire Recyclers Saltillo, MS (662) 869-1860 Section 8, Township 8S, Range 6E 28 acres - 15 years	Class I	8-3:30, M-F

Table 2-4 Continued Non-Subtitle D Landfills in the TRSWMA Planning Area

Identification Key (Figure 2-3)	County (Public Status & MDEQ Approved Service Area)	Landfill Name and Contact Information Location Permitted Size and Expected Remaining Life	Rubbish Class	Operating Hours
13	Lee (City of Tupelo use only)	Tupelo Water & Light - Wondura (662) 841-6457 Section 8, Township 10S, Range 6E 30.6 acres – 20 years	Class II	8-3:45, M-F
14	Lee (City of Tupelo use only)	Tupelo CDF Rubbish Site (662) 841-6457 Section 29, Township 9S, Range 6E 28.47 acres – 11 years	Class II	Inactive
15	Lee (City of Nettleton use only)	Nettleton Rubbish Site No. 1 West City of Nettleton (662) 963-2605 Section 26, Township 11S, Range 6E 7.25 acres - 8 years	Class II	7-4, M-F
16	Monroe	Nettleton Rubbish Site No. 2 South City of Nettleton (662) 963-2605 Section 1, Township 12S, Range 6E 1.5 acres	Class II	Inactive

Table 2-4 Continued Non-Subtitle D Landfills in the TRSWMA Planning Area

Identification Key (Figure 2-3)	County (Public Status & MDEQ Approved Service Area)	Landfill Name and Contact Information Location Permitted Size and Expected Remaining Life	Rubbish Class	Operating Hours
17	Monroe  (Monroe and adjacent counties in Mississippi)	Monroe County Rubbish Site Monroe County Board of Supervisors (662) 369-6654 52076 Highway 8 East Section 23, Township 14S, Range 18W 30.7 acres – 20 years	Class I	7-3:30, M-F
18	Monroe	Amory Landfill, Inc. (662) 256-4886	Class II	Closed
19	Monroe (Private Industry)	FFM, Inc. Rubbish Site (662) 256-9665 Section 9, Township 13S, Range 18W 3 acres	Class II	Private
20	Monroe (Private Industry)	Tronox LLC Hamilton, MS (662) 343-8576 Section 30, Township 15S, Range 18W 4 acres (Landfill #1)	Industrial	Private

Table 2-4 Continued Non-Subtitle D Landfills in the TRSWMA Planning Area

Identification Key (Figure 2-3)	County (Public Status & MDEQ Approved Service Area)	Landfill Name and Contact Information Location Permitted Size and Expected Remaining Life	Rubbish Class	Operating Hours
21	Pontotoc  Calhoun, Chickasaw, Lee, Itawamba, Lafayette, Monroe, Pontotoc, Union counties	Woodland Rubbish Landfill (662) 489-3331  Section 33, Township 10S, Range 4E  25 acres – 100 years	Class I	7:30-3:30,  M-F
22	Pontotoc (City of Pontotoc residents only)	City of Pontotoc Rubbish Site (662) 489-4321  Section 3, Township 10S, Range 3E  7 acres - 21 years	Class II	7-5, M-F 7-12, Sat
23	Union  Alcorn, Benton, Calhoun, Itawamba, Lafayette, Lee, Marshall, Monroe, Pontotoc, Prentiss, Tippah, Tishomingo and Union Counties	New Albany-Pumpkin Center Site City of New Albany (662) 534-1010  Section 18/7, Township 6S, Range 3E  58.3 - 3 years	Class I	8-3:30, M-F
24	Monroe  (Private Industry)	Tronox LLC Hamilton, MS (662) 343-8576 Section 19, Township 15S, Range 18W  42.4 acres (Landfill #2)	Industrial	Private

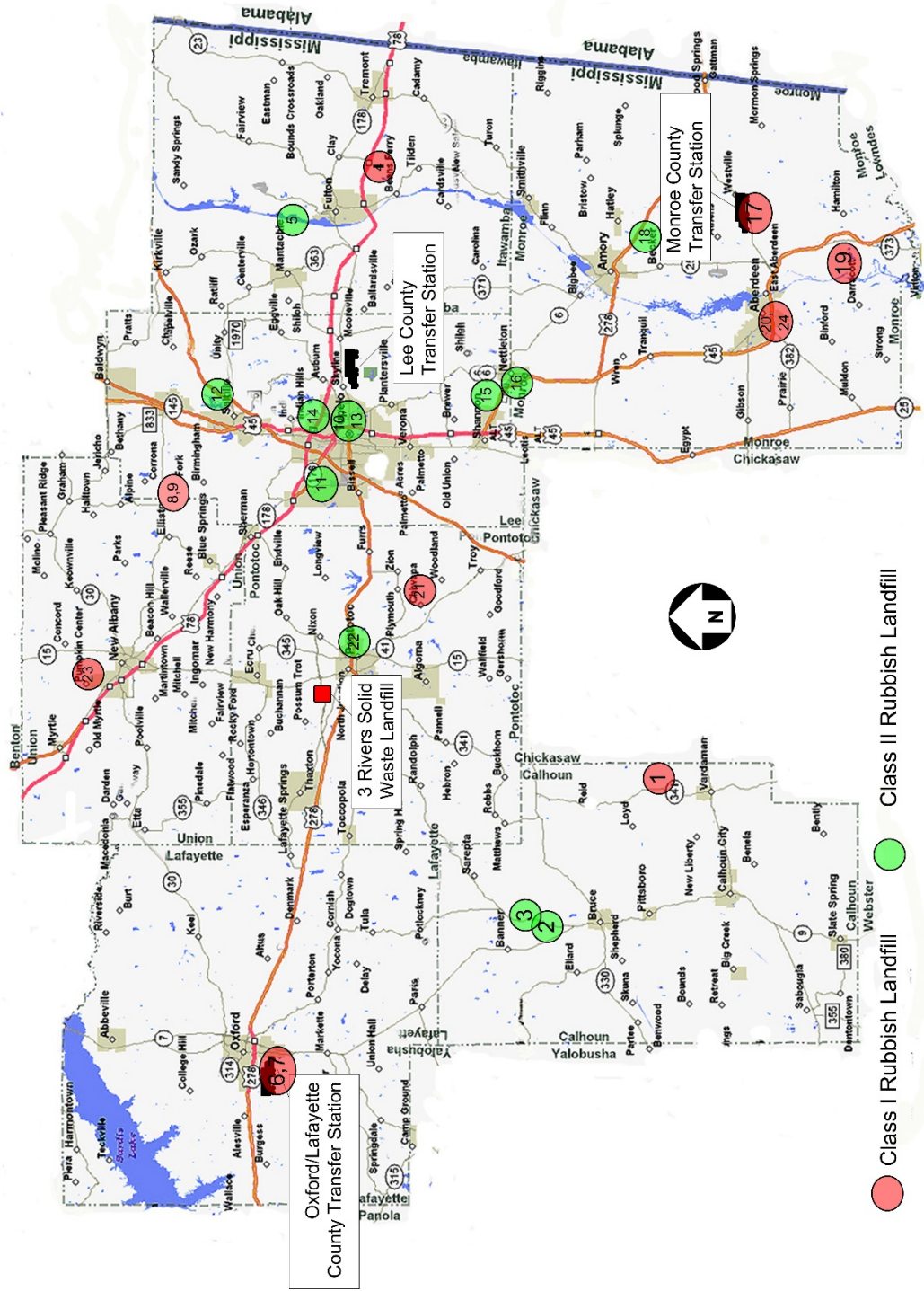


Figure 2-3 Location of Non-Subtitle D Landfills within the TRSWMA Planning Area

## 2.7 Existing Household Hazardous Waste Programs



Household hazardous waste (HHW) items exist in just about every home or office. Although these items are not classified as hazardous waste when purchased, they are later classified as hazardous because they can result in significant environmental problems and pose a threat to human health if disposed improperly. Common products

that can be classified as HHW are listed in Table 2-5.

As illustrated in Table 2-5, many of these products are used in the household on a daily basis. Disposal of these products with regular domestic solid waste may create problems when the waste is placed and compacted in the landfill because their containers may rupture and release hazardous fluids within the landfill.



The TRSWMA will typically organize one or more HHW Collection Days each year. The program is typically partially funded by a MDEQ grant with a portion of the cost funded by the TRSWMA. The TRSWMA typically allocates a portion of the landfill tipping fee for the household hazardous waste program. TRSWMA will contract with a hazardous waste company to ensure that all hazardous materials are stored, packaged, transported, and disposed of properly in accordance with Federal and State regulations.

Some of the cities/towns in the region collect HHW for the HHW Collection Day prior to the event and then transport the HHW to the site for proper packaging and disposal. Residents of Tupelo can bring paints, pesticides and other household chemicals to the Public Works Department located at 604 Crossover Road during normal business hours (7-4:30, Monday-Thursday and 7-11 on Friday). Residents of Tupelo are encouraged to

contact the Tupelo Public Works Department at (662) 841-6457 prior to bringing household hazardous wastes to this location.

## 2.8 Existing Composting & Mulching Facilities in the Planning Area



The City of Tupelo has a composting and mulching operation within the city limits. The compost is made by mixing decaying leaves, decaying grasses, street sweepings, and mulch. The composting operation is located on Commerce Street. The compost is free to Tupelo residents. Mulch, from ground up tree limbs, etc., is

also produced by the City of Tupelo. Tupelo residents can pick up mulch at the North Commerce Street (same location as the compost site).

The City of Pontotoc also has a mulching operation where they collect and grind tree limbs collected within the city limits. Residents can obtain the mulch associated with the collection and mulching of limbs, etc. at the City of Pontotoc Class II Rubbish Landfill. Mulch from this operation is not placed in the Class II Rubbish Landfill.

Pea Ridge Recyclers in Ecu (Pontotoc County) also runs a mulching/grinding operation associated with the wood waste generated from the furniture manufacturing industry. Mulch generated from this wood waste is sold to numerous landscaping companies in the region and to various other companies as feed stock for fuel. Residents may also purchase the mulch on-site.

Table 2-5 Household Hazardous Waste Products ([www.epa.gov/msw/hhw-list.htm](http://www.epa.gov/msw/hhw-list.htm))

**Cleaning Products**

- Oven cleaners
- Drain cleaners
- Wood and metal cleaners and polishes
- Toilet cleaners
- Tub, tile, shower cleaners
- Bleach (laundry)
- Pool chemicals

**Indoor Pesticides**

- Ant sprays and baits
- Cockroach sprays and baits
- Flea repellents and shampoos
- Bug sprays
- Houseplant insecticides
- Moth repellents
- Mouse and rat poisons and baits

**Automotive Products**

- Motor oil
- Fuel additives
- Carburetor and fuel injection cleaners
- Air conditioning refrigerants
- Starter fluids
- Automotive batteries
- Transmission and brake fluid
- Antifreeze

**Workshop/Painting Supplies**

- Adhesives and glues
- Furniture strippers
- Oil or enamel-based paint
- Stains and finishes
- Paint thinners and turpentine
- Paint strippers and removers
- Photographic chemicals
- Fixatives and other solvents
- Lead based paint wastes

**Lawn and Garden Products**

- Herbicides
- Insecticides
- Fungicides/wood preservatives

**Miscellaneous**

- Batteries
- Mercury thermostats or thermometers
- Fluorescent light bulbs
- Driveway sealer

**Other Flammable Products**

- Propane tanks and other compressed gas cylinders
- Kerosene
- Home heating oil
- Diesel fuel
- Gas/oil mix
- Lighter Fluid

## 2.9 Existing Special Waste Management Programs

The term “Special Waste” is frequently used in solid waste management to define waste that is not classified as typical residential or commercial waste. Since there is no known formal definition of “special waste”, this report classifies all non-residential waste and non-typical commercial waste as “Other Waste”. Management programs for Other Waste can be found in Chapter 7 of this report.

## 2.10 Existing Disaster Debris Management Programs

Disaster debris management is typically associated with tornadoes, hurricanes, winter snow and ice storms, and straight-line winds. Management of disaster debris is coordinated by county, city and local utility companies. Disaster debris waste and planning are discussed in detail in Chapter 8 of this report.

## 2.11 Closed Solid Waste Facilities in the Planning Area

There are numerous closed solid waste facilities located within the TRSWMA planning area. Based on a 2005 report from the Mississippi Department of Environmental Quality (State of Mississippi Solid Waste Management Facilities Listing), there are 8 closed landfills, 6 closed rubbish sites, and 2 closed industrial/special waste disposal sites within the TRSWMA planning area. In addition to these facilities listed in 2005, 3 additional rubbish sites have been closed. These closed facilities as of 2024 are identified in Table 2-6.



Based on past solid waste practices across the United States, there are thousands of old and undocumented solid waste facilities across the country that were operated and closed prior to the formation of regulatory agencies (such as EPA and MDEQ). In view of this, there could be hundreds of undocumented closed solid waste facilities (municipal landfills, rubbish

landfills, commercial landfills, and private landfills) located within the TRSWMA planning area. Cities, towns, businesses, small communities, individuals or even tribal activity could have used these undocumented solid waste facilities over the past years within the TRSWMA planning area.

Table 2-6 Documented Closed Solid Waste Facilities within the Planning Area

County	Type of Solid Waste Facility	Name of Facility	Permit Number
Calhoun	Rubbish Landfill	City of Bruce Rubbish Landfill #1	--
Calhoun	Rubbish Landfill	City of Bruce Rubbish Landfill #2	--
Itawamba	Rubbish Landfill	Comer Rubbish Landfill	--
Itawamba	Rubbish Landfill	City of Fulton Class II Rubbish Site	R2-068
Itawamba	Solid Waste Landfill	City of Fulton Sanitary Landfill	SW02901B0230
Itawamba	Solid Waste Landfill	Itawamba County, District 2 Landfill	SW02901B0354
Lafayette	Solid Waste Landfill	Oxford Sanitary Landfill	SW03601B0174
Lee	Industrial Landfill	TMCO Industrial Waste Landfill	SW0410040459
Lee	Solid Waste Landfill	Lee County Sanitary Landfill	SW04101B0101
Lee	Rubbish Landfill	Tupelo Glasgow (West) Rubbish Landfill	R2-100
Lee	Rubbish Landfill	Red Oak Wood Waste/Recycling	R2-074
Monroe	Industrial/Special Waste Landfill	American Colloid Co. Sludge Storage	SW02401A039
Monroe	Industrial/Special Waste Landfill	Kerr-McGee Chem. Corp. Landfill	NO PERMIT

Monroe	Rubbish Landfill	Amory Landfill, Inc.	R2-051
Monroe	Rubbish Landfill	Nettleton Class II Rubbish Site No. 2 South	R2-014
Monroe	Rubbish Landfill	Whitlock Landfill	--
Monroe	Solid Waste Landfill	Monroe County Sanitary Landfill	SW04801B0166
Pontotoc	Industrial/Special Waste Rubbish	Smith Sawmill Class I Rubbish Site	--
Pontotoc	Industrial/Special Waste Rubbish	Washington Furniture Mfg. Disposal Site	--
Pontotoc	Solid Waste Landfill	City of Pontotoc Landfill	SW05801B0100
Union	Industrial/Special Waste Rubbish	C & H Tire Disposal Monofill	NO PERMIT
Union	Solid Waste Landfill	New Albany/Pumpkin Center Landfill	SW017301B0404
Union	Solid Waste Landfill	New Albany/Beacon Hill Landfill	SW07301A0265
Union	Rubbish Landfill	Randy McDaniel Rubbish Landfill	--

## 2.12 Unauthorized Dumping Operations within the Planning Area

In accordance with Section 17-17-3 of the Mississippi Code, an "Unauthorized dump" means any collection of solid wastes either dumped or caused to be dumped or placed on any property either public or private, whether or not regularly used. An abandoned automobile, large appliance or similar large item of solid waste shall be considered as forming an unauthorized dump, but not the careless, scattered littering of smaller individual items such as tires, bottles, cans and etc.

There are no known commercial illegal dumping operations within the TRSWMA planning area. In surveys returned by the counties within the Authority, Itawamba, Monroe, and Union County provided feedback about experiencing illegal dumping of waste such as

furniture, household waste, wood, and tires. Each county within the TRSWMA planning area has a person assigned to enforce unauthorized dumping activities on commercial or individual property. Citizens wishing to report unauthorized dumping activities should contact their county enforcement officer as identified in Table 2-7 based on 2024 MDEQ listing.

Table 2-7 Enforcement Officers for Unauthorized Dumping Activities

County	Solid Waste Enforcement Officer
Calhoun County	Jimmie Dale Hill Calhoun County Solid Waste Department P.O. Box 8 Pittsboro, MS 38951 (662) 415-3117; (662) 983-5938 <a href="mailto:rtillman@calhouncoms.com">rtillman@calhouncoms.com</a>
Itawamba County	Mark Stanford P.O. Box 776 Fulton, MS 38843 (662) 401-4659 <a href="mailto:rjohnson@itawambacoms.com">rjohnson@itawambacoms.com</a>
Lafayette County	Jody Harrison Lafayette Co. Solid Waste Department P.O. Box 1240 Oxford, MS 38655 (662) 234-1707 <a href="mailto:jharrison@lafayettecoms.com">jharrison@lafayettecoms.com</a>
Lee County	Shawn Hairald Code Enforcement P.O. Box 1785 Tupelo, MS 38802 (662) 841-0378; (662) 432-2090 <a href="mailto:shairald@leecomms.com">shairald@leecomms.com</a>

Monroe County	Daniel Williams P.O. Box 578 52076 Highway 8 East Aberdeen, MS 39730 (662) 369-2509 <a href="mailto:dwilliams@monroecomms.com">dwilliams@monroecomms.com</a>
Pontotoc County	No one currently listed by MDEQ
Union County	No one currently listed by MDEQ
Mississippi Department of Environmental Quality	Ethan Mayeu Mississippi Department of Environmental Quality P.O. Box 2261 Jackson, MS 39225 (601) 961-5613
Three Rivers Solid Waste Management Authority	Mr. Doug Wiggins Three Rivers Solid Waste Management Authority 75 South Main Street Pontotoc MS (662) 489-2415

## 2.13 Solid Waste Transported Outside the Planning Area

In accordance with the flow control ordinance adopted by each county and city within the TRSWMA planning area, it is not legal to dispose of Subtitle D solid waste in a Mississippi county located outside the planning area. The only exceptions to the flow control ordinance are:

- Solid waste that can be disposed in a Class 1 or Class 2 rubbish landfill
- Infectious medical waste (See Chapter 7)
- Used motor oil and acid batteries (See Chapter 7)
- Industrial process waste that has been approved for exemption (See Section 2-3 of this chapter)
- Recyclable or reusable materials
- Hazardous or radioactive waste

A copy of the flow control ordinance can be found in Appendix A of this report.

## Chapter 3

# SOLID WASTE COMPOSITION AND QUANTIFICATION

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### 3.1 Characteristics of Existing Waste Stream

Neel-Schaffer, Inc performed a waste stream characterization study as part of the original Three Rivers Regional Solid Waste Master Plan. Data published in the original master plan are summarized in the following sections. Additional waste stream characterization was not performed other than up-dating the original database for changes in industrial make-up of the region and additional data related to recycling activities in the TRSWMA planning area. Existing solid waste management systems are described in Chapter 2 of this document and will be referenced as necessary rather than reproduced in this Chapter. Similarly, recycling and waste reduction programs are presented in Chapter 4 of this document with appropriate data referenced in this Chapter.

### 3.2 Residential Waste Stream Characterization

The composition of the residential portion of the combined waste stream has been relatively consistent for the past decade nationally. Life styles, consumer purchasing habits, and packaging of products have not seen major changes in recent years. Based on these national trends, MDEQ granted permission to utilize the original waste stream composition data generated in the original Three Rivers Regional Solid Waste Master Plan in a May 1, 2006 meeting. The waste characterization performed for the original master plan sorted the residential solid waste into the following seventeen (17) waste categories defined in Table 3-1. Results from the waste composition analysis are presented in Table 3-2.

Table 3-1 Waste Characterization

Newsprint	Black & white, colored ads, handouts, comics and shredded newsprint
Other Paper	Magazines, filler, covers, notebooks, bags, wrappings
Corrugated Cardboard	Cardboard, corrugated paper
Textiles	Clothing, leather, cotton, socks, fur, etc.
Plastic (film)	Plastic wrap, trash liners, kitchen savers, cigarette wrappers
Plastic (rigid)	Molded toys, toothbrushes, utensils
Plastic (recyclable)	HDPE (soda bottles), PET (milk jugs)
Diapers	Disposable diapers
Food Waste	All food products, food waste
Wood/Lumber	Lumber yard stock, furniture, broomsticks, utensils
Yard Wastes	Grass, bedding plants, trimmings, brush
Sweepings	Fine material
Ferrous Metal	Metal containing iron
Nonferrous Metal	Metals except ferrous and aluminum
Aluminum	Pots, pans, cans, utensils, raw and stock material
Glass	All glass
Oversized Bulky Wastes	Large items, bicycles, lawnmowers, appliances

The waste composition for the Three Rivers region as well as comparable waste streams in Mississippi was summarized in the original study in Table 3-2 that is reproduced as follows:

Table 3-2 Residential Waste Stream Composition

Category	Three Rivers % of Waste Stream	Golden Triangle % of Waste Stream	Southwest MS % of Waste Stream	Pine Belt % of Waste Stream
Newsprint	9.5	8.1	6.6	5.7
Other Paper	24.1	22.6	24.2	22.4
Corrugated Cardboard	3.9	3.4	2.1	4.2
Textiles	3.3	3.4	4.3	4.1
Plastic (film)	3.0	5.2	4.7	3.3
Plastic (rigid)	2.5	3.4	4.3	3.7
Plastic (recyclable)	3.1	3.5	2.2	1.5
Diapers	3.0	4.7	5.2	3.5
Food Wastes	9.8	13.0	12.7	7.7
Wood/Lumber	0.6	0.1	0	0.7
Yard Waste	22.5	16.9	14.7	21.9
Sweepings	1.7	0.8	0.7	4.8
Ferrous	4.1	4.7	2.8	4.4
Nonferrous	0	0	2.3	0
Aluminum	1.6	1.7	1.9	1.1
Glass	6.1	8.5	10.6	9.6
Oversized Bulky Wastes	1.0	0.4	0.7	1.4

The characterization was performed for wastes from randomly selected collection vehicles. Recycling activities may bias the above composition in isolated areas where participation in recycling programs is encouraged. As discussed in Chapter 2, two municipalities are encouraging household source separation for curb-side recycling.

All of the residential solid waste generated in the TRSWMA region is delivered to the Three Rivers Regional Landfill at Pontotoc for disposal as mixed solid waste, i.e., no separate components unless the waste comes from a designated recycling center (see Chapter 4). While the potential for enhanced levels of recycling and recovery of such components as

paper, plastic, glass, and aluminum appears attractive, a materials recovery system (MRF) would be required to separate the mixed solid waste into recoverable components. This concept was included in the original master plan for the Three Rivers region.

One of the key elements in the implementation of a MRF would be the availability of markets for materials recovered from commingled solid waste. Where this concept is working successfully (i.e., Memphis and Jackson, TN) recyclables are collected separately and processed at a MRF. In addition, the participation level at the individual recycling centers/locations (see Chapter 4) that send the recovered materials directly into secondary markets may impact the feasibility of a central MRF at the Three Rivers Regional Landfill.

### 3.3 Commercial Waste Stream Characterization

Unlike residential solid waste, the characteristics of the solid waste stream from commercial sources are highly variable, even within similar commercial activities. Commercial solid wastes are associated with stores, restaurants, markets, office buildings, hotels, motels, service stations, etc. Typical waste categories found in the commercial solid waste stream include paper, cardboard, plastics, wood, food waste, glass, metals, and hazardous wastes. As indicated in Chapter 4, numerous commercial units within the Three Rivers region participate in recycling activities that skew the composition of the waste from these sources. A majority of the commercial solid waste in the Three Rivers region is collected and transported by private haulers. The vast majority of this material ends up at the Three Rivers Regional Landfill (see Chapter 5) but a minimal amount is transported out of the region. The recycled material transported out of the region is authorized by the Authority and exempted from the Authority's flow control ordinance.

The original Three Rivers Regional Solid Waste Master Plan did not attempt to characterize the commercial solid waste stream. Commercial solid waste sources were grouped into the following categories for the purpose of estimating the amount of commercial solid waste generated in the region:

- Schools
- Restaurants

- Offices
- Grocers
- Apparel/General Merchandise
- Miscellaneous Retail

The anticipated composition of solid wastes from these categories would include paper, packaging materials (cardboard and plastic), food wastes, textiles, and aluminum cans. The percentage breakdown of each category will be a function of individual recycling projects within each commercial category and each individual entity.

A subset of commercial solid waste is a broad category of wastes known as Construction and Demolition (C&D) wastes. Generated from construction activities (building, renovating, demolishing structures), this waste stream can include a wide variety of components such as lumber, bricks, concrete, asphalt, tile flooring, vinyl siding, insulation, electrical wiring, and unusable white goods such as stoves, refrigerators, etc. Much of this waste stream is diverted to landfills specifically permitted for C & D wastes as discussed in Chapter 7 of this document. As discussed in Chapter 4 of this document, some recovery of recyclable materials does occur at a few C & D locations where a recycling center is also located.

### 3.4 Industrial Waste Characterization

Industrial waste characterization begins with the identification of the industrial make-up of the region. For the Three Rivers region, wood related industrial waste (Furniture, Fixtures, Sawmill, and Wood Related industries) is the largest single industrial waste category. The original master plan study found that the wood related waste accounted for almost 90% of the industrial solid waste identified in the region. This waste stream is typically recycled directly on-site at the generator or sent to a secondary market (see Chapter 4). Very little of the industrial wood waste stream ends up in the Three Rivers Regional Landfill.

Industrial waste other than wood related waste is collected and transported to disposal facilities mostly by private haulers. The majority of the industrial waste in the region ends up in the Three Rivers Regional Landfill; however, an amount that is continuously diminishing with time, has historically been diverted to landfills outside the Three Rivers region. Enacted flow control ordinances (see Chapter 2) at the local level are anticipated

to impact the quantity of industrial solid waste going to the Three Rivers Regional Landfill. However, the exemption provision in the 2006 ordinances continue to allow some quantity of industrial waste to continue to be transported out of the region.

The companies that continue to have a limited exemption from the 2006 flow control ordinances are listed as follows:

Company	Address	City	Zip	Expiration Date
Goodyear Tire	1804 S Green St	Tupelo	38804	1/31/2027
Syntron	2730 Hwy 145 S	Saltillo	38866	1/31/2027
Axiall (Georgia Gulf)	10068 Summitt Dr	Prairie	39756	1/31/2027
Axiall (Georgia Gulf)	705 Hwy 25	Aberdeen	39730	1/31/2027
Mueller Copper Tube	400 Mueller Rd	Fulton	38843	1/31/2027  (Tube Plant Only)
Super Sagless	2071 S. Green St	Tupelo	38804	1/31/2027
Tronox LLC	40034 Tronox Rd	Hamilton	39746	1/31/2027
True Temper	931 True Temper Cir.	Amory	38821	1/31/2027

### 3.5 Solid Waste Quantification – Residential

Solid waste quantity data in terms of pounds per resident per week was applied to 2020 U.S. Census population data to determine total and per capita residential waste generation for each county in the Three Rivers region. The residential component of the waste stream in the Three Rivers region was characterized and quantified based on records maintained by the Authority for the 2023 waste volumes delivered to the landfill from the counties and municipalities. The per capita residential waste quantities for the indicated counties for 2023 are as follows:

- Calhoun 2.23 lbs per person per day
- Itawamba 2.01 lbs per person per day
- Lafayette 2.40 lbs per person per day
- Lee 2.04 lbs per person per day
- Monroe 2.20 lbs per person per day
- Pontotoc 2.07 lbs per person per day
- Union 2.03 lbs per person per day

The total solid waste generated in the Three Rivers region (residential, commercial, and industrial) was estimated based on the 2020 U.S. Census population data and 2023 waste volumes delivered to the landfill.

- Calhoun 3.27 lbs per person per day
- Itawamba 2.78 lbs per person per day
- Lafayette 4.05 lbs per person per day
- Lee 6.17 lbs per person per day
- Monroe 4.56 lbs per person per day
- Pontotoc 5.48 lbs per person per day
- Union 3.87 lbs per person per day

Since the original master plan study, a database has been generated by the State of Mississippi Department of Environmental Quality that contains solid waste generated by planning region each year beginning in 2003. The generation totals for TRSWMA are as follows:

- 2003 – 152,754 tons of MSW
- 2004 – 164,141 tons of MSW
- 2005 – 164,309 tons of MSW
- 2006 – 169,224 tons of MSW
- 2007 – 205,658 tons of MSW
- 2008 – 201,855 tons of MSW
- 2009 – 148,803 tons of MSW
- 2010 – 183,450 tons of MSW
- 2011 – 189,077 tons of MSW
- 2012 – 186,033 tons of MSW
- 2013 – 187,893 tons of MSW
- 2014 – 210,211 tons of MSW
- 2015 – 225,050 tons of MSW
- 2016 – 264,557 tons of MSW
- 2017 – 248,904 tons of MSW
- 2018 – 261,739 tons of MSW
- 2019 – 269,333 tons of MSW
- 2020 – 254,457 tons of MSW
- 2021 – 273,821 tons of MSW
- 2022 – 275,373 tons of MSW
- 2023 – 277,562 tons of MSW

These values represent total (residential, commercial, industrial) solid waste tonnage that was received at the Three Rivers subtitle D landfill.

A survey of waste generation within each county was performed to update the values presented in the original master plan study. The latest data available for all counties are

shown in Tables 3-3 through 3-5 for residential, commercial, and C&D wastes. Any industrial waste was included in the “non-residential” category. The total per capita solid waste production has increased significantly in several of the counties due to the increase in “non-residential” wastes, assumed to be commercial wastes.

Both the original master plan study and this update do not include the recyclable and reused industrial waste produced by the furniture, fixtures, sawmill and wood industries. These industries produce a unique type of waste that is handled separately from regular municipal solid waste.

The per capita generation rates calculated for the 2023 time frame represent the total waste generated within the Planning Area disposed at the Three Rivers Regional Landfill. These values will be used for the projections of total solid waste quantities to be managed in the Three Rivers region (see Chapter 5).

Table 3-3 A Subtitle D Waste Produced within TRSWMA Planning Area (2023)

County	Residential	Non-Residential	Total Tons
Calhoun	5,403	2,507	7,911
Itawamba	8,752	3,396	12,148
Lafayette	24,402	21,454	45,856
Lee	31,079	64,710	95,789
Monroe	13,739	14,732	28,471
Pontotoc	12,019	15,676	27,695
Union	11,768	20,606	32,374
3 Rivers Area	107,162	143,081	250,244

Table 3-3 B Subtitle D Waste Produced within TRSWMA Planning Area (2023)

County	County Distribution, Percent			2020 Population
	% of Total	% Residential	% Non-Residential	
Calhoun	3.3	68.3	31.7	13,266
Itawamba	5.0	72.0	28.0	23,863
Lafayette	18.9	53.2	46.8	55,813
Lee	39.5	32.4	67.6	83,343
Monroe	11.7	48.3	51.7	34,180
Pontotoc	13.3	36.4	63.6	31,184
Union	8.3	51.1	48.9	27,777
3 Rivers Area	100.0	43.4	56.6	269,426

Table 3-3 C Subtitle D Waste Produced within TRSWMA Planning Area (2023)

County	Per Capita Production (lb/day)		
	Residential	Non-Residential	Total
Calhoun	2.23	1.04	3.27
Itawamba	2.01	0.78	2.79
Lafayette	2.40	2.11	4.51
Lee	2.04	4.25	6.29
Monroe	2.20	2.36	4.56
Pontotoc	2.07	3.62	5.69
Union	2.03	1.94	3.97
3 Rivers Area	2.14	2.79	4.93

Table 3-4 A Distribution of Total Solid Waste in TRSWMA Planning Area

County	Total Waste Tons	County % of Total	% Residential of Total	% Non-Residential of Total	% Rubbish of Total
Calhoun	7,910	1.8	68.3	31.7	0.0
Itawamba	12,149	2.8	72.0	28.0	0.0
Lafayette	68,819	15.9	35.5	31.2	33.4
Lee	210,745	48.8	14.7	30.7	54.5
Monroe	39,397	9.1	34.9	37.4	27.7
Pontotoc	55,445	12.8	21.2	37.2	41.6
Union	37,074	8.6	27.7	26.5	45.8
3 Rivers Area	431,538	100	24.4	35.2	43.8

Table 3-4 B Distribution of Total Solid Waste in TRSWMA Planning Area

County	Total Waste Tons	Percent Distribution within County			
		% Residential	% Non-Residential	% Class I Rubbish	% Class II Rubbish
Calhoun	7,910	68.3	31.7	0.0	0.0
Itawamba	12,149	72.0	28.0	0.0	0.0
Lafayette	68,819	35.5	31.2	33.4	0.0
Lee	210,745	14.7	30.7	43.4	11.2
Monroe	39,397	34.9	37.4	27.7	0.0
Pontotoc	55,445	21.2	37.2	41.2	0.4
Union	37,074	27.7	26.5	45.8	0.0
3 Rivers Area	431,538				

Table 3-5 Construction/Demolition Waste Generated within Three Rivers Planning Area

C/D Waste, tons				
2022				
	Class I	Class II	Total	
<b>Calhoun</b>				
City of Bruce		0		
Weyerhaeuser Ind. Landfill	0			
Blue Berry Hill Landfill	0			
Total	0	0	0	
<b>Itawamba</b>				
City of Fulton		1575		
Tilden-Clay Road Rubbish Landfill	18.2			
Total	18.2	1575	1593.2	
<b>Lafayette</b>				
City of Oxford	1901.79		1901.79	
<b>Lee</b>				
Tupelo (Red Oak Wood Landfill)		0		
Tupelo Water & Light		13,553		
Town of Nettleton		755		
Tupelo (Commerce Dump Site)		1,175		
TMCO Industrial Landfill	3410			
TMCO Rubbish Site	86,869			
Mac's Tire Recyclers, Inc.	0			
Total	90279	15483	105762	
<b>Monroe</b>				
F.F.M., Inc.		0		
Town of Nettleton		0		
Amory Landfill, Inc.		0		
Monroe County Solid Waste	10,858			
Total	10858	0	10858	
<b>Pontotoc</b>				
City of Pontotoc Rubbish Landfill		646		
Woodland Rubbish Landfill	27,508			
Total	27508	646	27508	
<b>Union</b>				
City of New Albany	9140		9140	
<b>3 Rivers Area</b>	<b>Total</b>	139705	17704	156763

### 3.6 Solid Waste Quantification – Construction & Demolition

Each county or city within the Three Rivers region provides access to one or more landfill sites for construction/demolition wastes for its citizens. The distribution between Class I and Class II rubbish by county is shown in Table 3-4B and 3-5. The rubbish values were included in Tables 3-4A, 4B, 3-5, and 3-6 to reflect the total per capita waste generation within each county and the region.

## Chapter 4

# RECYCLING AND WASTE REDUCTION PROGRAMS

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### 4.1 Recycling Fundamentals

Recycling is the process of separating a given waste material from the waste stream and processing it so that it may be used again as a raw material for a product, which may or may not be similar to the original product.

Materials that are frequently recycled include:

- Metals - aluminum cans, tin or steel cans, ferrous metals such as steel, and non-ferrous metals such as aluminum, brass, copper, and lead
- Paper – newspaper, cardboard, white office paper, and colored paper such as catalogs, magazines, and phone books
- Plastics – #1 Plastics such as polyethylene terephthalate (PETE) used to make many plastic bottles (such as soda bottles, water bottles, and some food containers), #2 plastics made from clear and colored high-density polyethylene (HDPE) such as milk jugs and detergent bottles, # 6 plastics made from polystyrene (better known as Styrofoam™), bubble wrap and plastic air pillows, and packing peanuts
- Glass – clear glass, brown glass, blue glass, and green glass
- Home/Office Waste – white goods (such as refrigerators, freezers, stoves, washing machines, driers, and air condition units), rechargeable batteries, electronics (computers, TV's, etc.), furniture, and used wooden pallets
- Yard Waste – vegetative (grass clippings and leaves), shrubs, limbs, tree trimmings, and used Christmas trees
- Automotive – used tires, car batteries, used motor oil, and auto bodies



The benefits of recycling are numerous, but the three most important benefits are:

- (a) Recycling protects and expands U.S. manufacturing jobs and increases U.S. competitiveness.
- (b) Recycling conserves natural resources such as timber, water, minerals, and energy along with lowering the air and water pollution associated with harvesting virgin materials.
- (c) Recycling reduces the need for solid waste landfills.

On the local or regional level, reducing the quantity of waste being placed in the landfill is of major interest because it will extend the useful life expectancy of the landfill, which

will ultimately result in lower solid waste disposal cost for businesses, industries, and residents.

## 4.2 Recycling Success Factors

As with any type of program, there are typically numerous factors that influence the degree of success. For recycling, these factors include but are not limited to the:

- Population of the area
- Population density of the area
- Proximity to recycle receptors that produce useable products from recyclable materials
- Number of businesses and institutions (such as schools, hospitals, etc.) in the region
- Proactive political leadership focused on long-term goals
- Expensive solid waste disposal costs
- Public awareness programs for recycling

In the 1980's and 1990's, many states and communities passed recycling legislation that included recycling goals typically ranging from 15% to 80% waste volume reduction. Although many recycling programs have been highly successful, some programs struggle because they attempt to recycle materials that are not marketable or useable in the region. A recycling program for a specific material is considered a success when it completes all five steps of the recycling process. These five steps are:

1. Diversion, storage, and collection of materials from the solid waste stream;
2. Processing and preparation of these materials for the secondary materials market;
3. Sale or donation of the secondary materials;
4. Manufacture of new products using the secondary materials, and;
5. Purchasing or using the recycled product.

As illustrated above, a recycling program for a material is not considered a success until all five steps are complete. Although some degree of recycling can be successful in any community, the type of materials that can be cost effectively recycled will vary from community to community.

Another aspect of recycling is the manner in which recyclable materials are collected. Some communities utilize curbside pickup, while others rely exclusively on drop-off stations. While curbside pickup yields the highest quantity of recyclable materials, this method can be cost prohibitive in rural areas due to the added costs associated with providing separate recycle collection cans along with the added cost of collection/transportation. Most communities that have a successful curbside recycling collection program have population densities greater than 1,000 people per square mile and collection either bi-weekly or monthly. To offset the cost of the curbside recycling, many programs require the purchase of recycling bins/cans or even charge a small monthly collection fee. The City of Oxford and the City of Tupelo provide curbside recycling.

Another component of curbside recycling is with yard waste. According to EPA, yard wastes typically make up 15-25% of the solid waste (by weight) of domestic solid waste, so its removal may be economically attractive to many communities. Once collected, yard waste may be processed into a usable (and marketable) product such as mulch or compost. In the event that collected yard waste is not recycled, it can still be removed from the Subtitle D landfill waste stream and placed in a rubbish disposal landfill at a much lower cost.

Some communities issue special cans for yard waste only. These cans are placed on the curb and are collected (separately from household waste) and transported to a rubbish disposal site or taken to a compost site where the yard waste can be composted and recycled. Although disposing yard waste in a rubbish disposal landfill is not classified as recycling, rubbish disposal facilities are much more economical to operate and maintain and have a much lower environmental risk than Subtitle D (used for the disposal of non-hazardous waste) landfills.

The most popular method for collecting recyclable materials is the drop-off center. Drop-off centers are efficient provided they:

- are strategically located in an area of high traffic flow (preferably near residential areas) with easy entrance/exit access
- have flexible operating hours
- have good directional signage

- have high visibility to encourage public use
- are kept aesthetically clean

Due to the low population density of the TRSWMA planning area, most recycling materials are collected at drop-off recycling locations. Recycling efforts, locations, along with the type of materials collected are described for the seven counties in the TRSWMA planning area and are discussed in detail in the following sections.

### 4.3 Recycling Goals

Mississippi Code § 17-17-225(b) and § 17-17-227(1)(d) established a waste reduction goal of 25 percent. This goal was primarily established upon the onset of the Subtitle D regulations as a mechanism to remove yard waste and to encourage recycling that would reduce the volume of solid waste entering a Subtitle D landfill and increase the useful life of landfills. Waste reduction applies to all solid waste as defined by Mississippi Code 17-17-3(y).

### 4.4 Existing Recycling Facilities in Calhoun County

Calhoun County is the most rural county in the TRSWMA planning area. The county is approximately 587 square miles in area with a population density of 22.60 people/square mile. Business establishments totaled 237 in 2022 based on U.S. census data. Recycling bins are available to residents. They are located across from City Hall, and the materials are transported to Oxford Recycling Facility.

Haworth in Bruce is a major manufacturer of office furniture in the United States.



Haworth has an aggressive recycling program which includes materials such as cardboard, steel, aluminum, white paper, styrofoam, scrap fabric, shrink wrap, scrap foam, used hydraulic fluid, wooden pallets, and plywood. Many of these products are not desirable in landfills because they have very low densities, poor compaction, and could take up significant volume in the landfill.

The majority of the recycling/reuse facilities in Calhoun County are associated with the wood products industry. Weyerhaeuser located in Bruce is the largest recycler/reuser in the TRSWMA planning area. This facility produces softwood lumber and recycles and reuses the majority of its wood waste. The majority of bark is used as boiler fuel, and chips and shavings are sold as a raw material to other types of industry. In 2023, Weyerhaeuser recycled 46,835 tons of wood shavings used for fuel, and 181 tons of metal.

#### 4.5 Existing Recycling Facilities in Itawamba County

Itawamba County is considered to be a rural county with a land area of approximately 532 square miles and a population density of 44.80 people/square mile. With over 23,863 residents, 402 businesses, Itawamba Community College, along with the close proximity of the Tupelo metropolitan area, opportunities for recycling are favorable.

Ferrous metals and tires are collected and processed for recycling at the City of Fulton Rubbish Disposal site. This facility has a tire collection trailer, a drop-off recycling trailer, and a storage area for the collection of ferrous metals and unusable white goods. Collected tires are hauled to Liberty Tire Recycling under an agreement with TRSWMA. Scrap ferrous metals are processed and recycled by SMC Recycling. The drop-off recycling trailer is also frequently taken to public schools in the area for use and educational purposes.



Douglas Waste Paper is a recycling facility located in Mantachie that specializes in cardboard recycling only. Over the last three years, this facility has recycled 7,633 tons of cardboard. In 2024 specifically, Douglass Waste Paper processed 2,643 tons.

Tri State Lumber is a lumber mill located on

the Tennessee-Tombigbee Waterway in Fulton. Within the last five years, Tri State Lumber reused approximately 58,000 tons of their wood waste. In 2024, the mill recycled and reused roughly 13,000 tons of wood waste from their mill to fuel their boiler.

There are two (2) documented recycling facilities within the county. Recycling facilities, locations, contact numbers, and types of materials collected are presented in Table 4-1.

Table 4-1 Recycling Facilities in Itawamba County

Recycling Facility	Materials Collected for Recycling
AutoZone (Customers Only) 1613 South Adams Fulton, MS (662) 862-3870	Used car batteries Used motor oil
Douglas Waste Paper 1720 Highway 178 Mantachie, MS (662) 862-7844	Corrugated cardboard

#### 4.6 Existing Recycling Facilities in Lafayette County



Lafayette County has a land area of approximately 631 square miles and a population density of 88.40 people/square mile. With approximately 55,813 residents, 1,406

businesses, and The University of Mississippi all located in the county, recycling opportunities are favorable. Recycle receptor markets in the Memphis metropolitan area should also have an influence on the success of various recyclable materials.

There are eleven (11) documented recycling facilities within the county. Recycling facilities, locations, contact numbers, and types of materials collected are presented in Table 4-2.



The City of Oxford has a highly active recycling program and operates two drop-off centers and a recycling processing facility. Recycled materials are processed at the Lafayette County recycling processing facility located at the Lafayette County Transfer Station site and sold to a recycle broker. This facility includes a hopper, a clean material recovery facility (MRF), two

bailers (for bailing cans, plastics, paper, and cardboard), a sorter that separates aluminum and steel cans, a trailer for recyclable materials. Necessary improvements for the transfer station are scheduled to take place in 2026.

Oxford Recycling Facility is a recycling facility in Oxford. At this facility, they process cardboard, plastic, metal, wood, green waste, concrete, and asphalt. Oxford Recycling picks up curbside recycling along with drop off locations. In 2021, this facility processed



727 tons cardboard, 262 tons of mix paper, 64 tons of #1 and #2 plastics, and 994 tons of tires.

The City of Oxford provides curbside collection for the majority of the city. This program was initiated in March 2005 and expanded in subsequent years. In FY2021, the combined efforts

of curbside, drop off and recyclable materials from the University of Mississippi, Panola County and Calhoun County netted 1,036.33 tons of recyclable materials. Recycling material is picked up curbside four days each week based on a zone system. Residents

should call the Recycling Center at (662) 232-2745 to find out which zone they live in or visit the web site at <http://www.oxfordms.net/departments/utilities/recycling/46-curb-side-recycling.html>.



In addition to the recycling collection and processing program, the county also collects used tires and scrap metal at the Lafayette County Transfer Station. Tires are collected in a trailer and transported to Liberty Tire Recycling in Saltillo under a Three Rivers SWMA contract. Scrap metal and white goods are collected on site and recycled by a scrap dealer

under a Three Rivers SWMA contract.

Pea Ridge Recycling is a recycling company with facilities in Oxford as well as in Pontotoc. Pea Ridge Recycling's Oxford location is a Mississippi Department of Environmental Quality Certified Class 1 Rubbish Site (Construction and Demolition Debris Landfill). Pea Ridge Recycling offers recycling solutions for cardboard, plastic, metal, wood, green waste, concrete, asphalt, and more. In 2024, Pea Ridge Recycling totaled 61,200 tons of wood recycled and 6,656 tons of scrap metal recycled.

In association with Three Rivers Solid Waste Management Authority and the Mississippi Department of Environmental Quality, a Household Hazardous Waste Day is typically held each spring in Oxford-Lafayette County. While the event is mostly to collect household hazardous waste, electronic waste (E-Waste), batteries, scrap metal, white goods and used tires are also collected. In 2024, approximately 11 tons of E-waste were collected, 3 tons of scrap metal, and 3 tons of used oil and petroleum products along with other hazardous waste.

Table 4-2 Recycling Facilities in Lafayette County

Recycling Facility	Materials Collected for Recycling
AutoZone (Customers Only) 1901 University Avenue Oxford, MS (662) 234-8288	Used car batteries Used motor oil (up to 3 gallons per customer)
Belk Ford/Mercury 447 Highway 6 W Oxford, MS (662) 234-4661	Used motor oil
Beard Auto Parts 2620 W Oxford Loop Oxford, MS (662) 234-3441	Used auto batteries
CARQUEST 107 Courthouse Square Oxford, MS (662) 234-7813	Used auto batteries
City of Oxford 1615 University Ave Oxford, MS (662) 234-7813	Aluminum and steel cans, mixed paper, newspapers, cardboard, and plastics #1 and #2
Lafayette County Drop-Off Site (Lafayette County Residents Only) Molly Bar Road Oxford, MS (662) 232-2745	Aluminum cans, tin or steel cans, newspaper, cardboard, mixed paper, #1 Plastic, #2 Plastic (colored)
Lafayette County Drop-Off Site (Lafayette County Residents Only) Highway 7 Oxford, MS (662) 232-2745	Aluminum cans, tin or steel cans, newspaper, cardboard, #1 Plastic, #2 Plastic (colored)
NAPA Auto Parts 1360 N Lamar Blvd Oxford, MS (662) 234-1611	Used auto batteries
Oxford Recycling Facility County Road 321 Oxford, MS	Aluminum and steel cans, mixed paper, newspaper, cardboard, plastics #1 and #2
Pea Ridge Recycling 32 PR 3067 Oxford, MS (662) 801-2017	Cardboard, plastic, metal, wood, green waste, concrete, asphalt
Wal-Mart (Customers only) 2530 West Jackson Ave. Oxford, MS (662) 234-9131	Used car batteries Used motor oil Plastic bags

## 4.7 Existing Recycling Facilities in Lee County

Lee County is the most populated county in the TRSWMA planning area. The county has a land area of approximately 450 square miles and a population density of 185.2 people/square mile. With approximately 83,343 residents, 2,554 businesses, and a thriving regional medical center, recycling opportunities are highly favorable for this county.



The Lee County Transfer Station is home to a limited recycling program that includes a waste tire and ferrous metal scrap pile. Necessary improvements for the transfer station are scheduled to take place in 2025. This facility receives

municipal solid waste mostly from Lee and Itawamba Counties. As solid waste is dumped on the loading floor, operations staff will often pull out recyclable materials such as ferrous metals and tires from the waste stream. The facility also currently has a ferrous metal scrap pile and a trailer from Liberty Tire Recycling.

There are eleven (11) documented recycling facilities within the county. Recycling



facilities, locations, contact numbers, and types of materials collected are presented in Table 4-3. Many of these recycling centers are specialized facilities that not only receive recyclable materials, but also provide recycled products.

Liberty Tire Recycling in Saltillo is not only a valuable recycler for the TRSWMA planning area, but a regional recycler that serves a large portion of the southeast United States. Liberty Tire Recycling primarily converts used tires to Tire

Derived Fuel (TDF) that is sold to electric power plants as an alternative/supplement fuel source to coal. Within the last three years, this facility had 152,602.20 tons of inbound tires, and in 2024 specifically, the facility received 46,318.70 tons of tires.



The City of Tupelo operates a highly effective yard waste recycling/reuse facility. Yard waste is typically 15 to 25 percent of the total solid waste volume, so its removal from the waste stream can substantially reduce the volume of waste placed in the landfill as well as reduce the amount of money that the City of Tupelo has to pay in solid waste disposal costs. The Compost/Leaf Disposal Site is located on North Commerce Street and accepts yard waste (grass clippings, shrubs, and tree trimmings) from Tupelo residents. The yard waste is chipped and blended to make mulch and processed with street sweepings to make compost. The mulch is mostly shredded wood and bark and is ideal for topping off flowerbeds and other landscaping uses. Compost is an excellent soil additive that is rich in organic and nutrient content - making it suitable for flowerbeds and gardens. These two products are available free of charge to Tupelo residents.

Hunter Douglas is another company in Lee County that has a very aggressive recycling and reuse program. This company has taken some very innovative and creative steps to reuse the packaging of raw materials to package their finished product. In 2024, Hunter Douglas recycled approximately 111 tons of cardboard, 14 tons of office paper, and 13 tons of plastic.

SMC Recycling is a full-service metal processing company serving the Tri-State area. At this facility, they purchase, process and ship ferrous and nonferrous scrap metals to steel mills, foundries and smelters. In 2024, SMC Recycling in Tupelo processed 32,370 pounds of ferrous metal, and 52,311 pounds of non-ferrous metal, plastic, and paper.

In August 2007, the City of Tupelo began a city-wide curbside recycling program that currently serves over 13,000 residential homes. Curb side materials are picked up by Waste Management of Mississippi every other Wednesday. Residents north of Main Street are picked up one week while residents south of Main Street are picked up the following week. To determine pick up dates, residents should contact Waste Management at (662) 844-5523. After curbside pickup the collected recyclable materials are transported to FV Recycling located at 669 Westmoreland Drive for processing.

The Three Rivers Solid Waste Management Authority also typically conducts a Household Hazardous Day in Lee County each spring. As part of the program, electronic waste (E-Waste), scrap metal and tires are also collected. In 2024, approximately 13 tons of electronic waste, 3.5 tons of scrap metal, and 2 tons of used oil and petroleum products along with other hazardous waste were collected at the Lee County event.

Table 4-3 Recycling Facilities in Lee County

Recycling Facility	Materials Collected for Recycling
Advance Auto Parts 1214 West Main Street Tupelo, MS (662) 690-5960	Used car batteries Used motor oil
Auto Lube 402 Carter Ave Tupelo, MS (662) 534-3002	Used motor oil
AutoZone (Customers Only) 801 South Gloster Tupelo, MS (662) 844-6401	Used car batteries Used motor oil (up to 3 gallons per customer)

AutoZone (Customers Only) 3981 North Gloster Tupelo, MS (662) 840-0411	Used car batteries Used motor oil (up to 3 gallons per customer)
Liberty Tire Recycling Old Highway 45 Saltillo, MS (662) 869-1860	Used tires and scrap rubber
FV Recycling 669 Westmoreland Drive Tupelo, MS (601) 408-8420	Mixed paper, aluminum cans, plastics, newspaper, colored paper, white paper and cardboard.
SMC Recycling 1000 Park Lake Drive Tupelo, MS (662) 842-6060	Scrap metal
Jiffy Lube 1081 Cliff Gookin Road Tupelo, MS (662) 840-0234	Used motor oil
Jiffy Lube 2235 West Main Tupelo, MS (662) 840-5154	Used motor oil
Wal-Mart (Customers only) 2270 West Main Tupelo, MS (662) 844-4011	Used car batteries Used motor oil Plastic bags
Wal-Mart (Customers only) 3929 North Gloster Tupelo, MS (662) 840-8401	Used car batteries Used motor oil Plastic bags

\*Some Recyclers did not volunteer information regarding recycling volumes.

#### 4.8 Existing Recycling Facilities in Monroe County



Monroe County is the largest county in the TRSWMA planning area with a land area of approximately 764 square miles. The population density of the county is 44.7 people/square mile. The county has approximately 33,609 residents with approximately 608 businesses. Due to the large land area and moderate population density, recycling opportunities are not expected to be as

successful and widespread as Lafayette and Lee Counties.

The majority of the public recycling occurs at a drop-off recycling center at the Monroe County Transfer Station and at a small drop-off recycling trailer located at the Public Works building in Amory. The Monroe County Transfer Station/Class I Rubbish Landfill maintains two designated locations for public disposal/recycling of used tires, unusable white goods, and ferrous metals. The tires are collected and transferred to Liberty Tire Recycling (See Section 4.7), while the unusable white goods and ferrous metals are collected by SMC Recycling out of Tupelo, MS (See Section 4.7). Necessary improvements for the transfer station are scheduled to take place in 2026.



There are three (3) documented recycling facilities within the county. Recycling facilities, locations, contact numbers, and types of materials collected are presented in Table 4-4.

Table 4-4 Recycling Facilities in Monroe County

Recycling Facility	Materials Collected for Recycling
AutoZone (Customers Only) 1103 Highway 278 East Amory, MS (662) 256-5610	Used car batteries Used motor oil (up to 3 gallons per customer)
AutoZone (Customers Only) 203 Highway 45 North Aberdeen, MS (662) 369-9920	Used car batteries Used motor oil (up to 3 gallons per customer)
Wheel City, Inc. 303 Highway 278 Amory, MS (662) 256-2699	Used tires

## 4.9 Existing Recycling Facilities in Pontotoc County

Pontotoc County is the fastest growing county in the TRSWMA planning area. The county has a land area of approximately 497 square miles and a population density of 62.6 people/square mile. The county has approximately 31,184 residents with approximately 532 businesses. Furniture manufacturing is the largest industry sector in Pontotoc County.



The majority of the public recycling occurs at the Three Rivers Regional Landfill. The drop-off center is located at 342 West Reynolds Street in Pontotoc. This drop-off location collects aluminum cans, tin and steel cans, #1 plastic, #2 plastic, newspaper, mixed paper, and cardboard.

The City of Pontotoc also uses a mobile chipper for limbs, etc. picked up within the city limits. Mulch from this chipping operation is stockpiled at the city's rubbish landfill and is available "free of charge" to city residents.

Pea Ridge Recycling is a recycling company with facilities located in Oxford as well as in Pontotoc (See section 4.6). Pea Ridge Recycling offers recycling solutions for cardboard, plastic, metal, wood, green waste, concrete, asphalt, and more. Pea Ridge also provides mulch for public purchase in Ecu.

The Three Rivers Regional Landfill has a Convenience Center for public disposal/recycling of used tires, unusable white goods, and ferrous metals near the Scale House. The tires are collected and transferred to Liberty Tire Recycling (See Section 4.7) while the unusable white goods and ferrous metals are collected by SMC Recycling out of Tupelo, MS (See Section 4.7). In 2024, approximately 125 tons of white goods and ferrous metals were collected and recycled at the landfill. In addition to white goods, scrap metal and tires, the landfill also collects methane gas from the landfill that is used in a generator to produce electricity and provide heat in a leachate

evaporator. Total methane gas collected and utilized for this renewable energy project in 2024 totaled 96,659,476 standard cubic feet (scf).

There are five (5) documented recycling facilities within the county. Recycling facilities, locations, contact numbers, and types of materials collected are presented in Table 4-5.

Table 4-5 Recycling Facilities in Pontotoc County

Recycling Facility	Materials Collected for Recycling
Advance Auto Parts 253 West Oxford Pontotoc, MS (662) 488-8848	Used car batteries Used motor oil
AutoZone (Customers Only) 220 Highway 15 North Pontotoc, MS (662) 489-0199	Used car batteries Used motor oil (up to 3 gallons per customer)
Pea Ridge Recycling 1300 Pontotoc County Industrial Park Road Pontotoc, MS (662) 488-9108	Cardboard, plastic, metal, wood, green waste, concrete, asphalt
Three Rivers Regional Landfill 1904 Pontotoc Parkway Pontotoc, MS (662) 489-2415	Ferrous metals, unusable white goods, and used tires
Wal-Mart (Customers only) 350 Wal-Mart Circle Pontotoc, MS (662) 489-7451	Used car batteries Used motor oil Plastic bags

#### 4.10 Existing Recycling Facilities in Union County

Union County is the smallest county in the TRSWMA planning area, but also one of the fastest growing. The county has a land area of approximately 415 square miles with a population density of 66.8 people/square mile. The county has approximately 27,777 residents with approximately 537 businesses. Although the county has a moderate

population density, recycling progress is one of the lowest in the TRSWMA planning area.

There are five (5) documented recycling facilities within the county. Recycling facilities, locations, contact numbers, and types of materials collected are presented in Table 4-6.

Table 4-6 Recycling Facilities in Union County

Recycling Facility	Materials Collected for Recycling
AutoZone (Customers Only) 325 Bankhead Street West New Albany, MS (662) 534-0157	Used car batteries Used motor oil (up to 3 gallons per customer)
OmniSource 2245 Highway 178 East Sherman, MS (662) 680-8110	Aluminum cans, tin or steel cans, ferrous metals (steel & iron), non-ferrous metals, and auto bodies
City of Amory 701 South Central Street New Albany, MS (662) 534-1010	Cardboard, paper, plastic, aluminum cans, used tires
Wal-Mart (Customers only) 202 Park Plaza New Albany, MS (662) 534-9374	Used car batteries Used motor oil Plastic bags
Whittington Metal 1097 County Road 56 New Albany, MS (662) 534-0916	Aluminum cans, corrugated cardboard, and scrap metal

\*Some Recyclers did not volunteer information regarding recycling volumes.

#### 4.11 Waste Reduction Efforts in Three Rivers Planning Area

In accordance with § 17-17-227 of the Mississippi Code, each county (or planning area) shall have a strategy for achieving a twenty-five percent (25%) waste reduction goal through source reduction, recycling or other waste reduction technologies. Estimating the recycling rate within the TRSWMA planning area was accomplished by surveying the major industry sectors, haulers, and recycle brokers that operate in the planning area

and comparing the recycle/reuse mass to the total amount of solid waste placed in Subtitle D landfills, industrial landfills, and rubbish facilities within the planning area. The recycling & reuse rate was calculated using the definition of solid waste as defined by Mississippi Code. Mississippi Code § 17-17-3 (y) defines solid waste as

*“Solid wastes“ means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.”*

The waste reduction rate is calculated using the following equation:

$$\text{Waste Reduction \%} = \frac{(\text{Recycle} + \text{Reuse Mass})}{(\text{Recycle} + \text{Reuse Mass}) + \text{Landfill Mass}} (100)$$

The first step in calculating the waste reduction rate was to quantify the mass of solid waste generated within the TRSWMA planning area. This information was obtained from the 2023 Status Report for Solid Waste Disposal Facilities produced each year by the Mississippi Department of Environmental Quality. This report quantifies the tonnage of waste disposed in each type of solid waste disposal facility and also identifies the county of origin. A summary of solid waste production quantities for each county is presented in Table 4-7. These reported quantities do not include solid waste produced and disposed on-site at water and wastewater treatment facilities, community recycling and reuse programs, individual recycling and reuse (such as yard waste composting), industrial recycling and reuse programs, solid waste taken out of state, or illegal dumping.

Table 4-7 2023 Tonnage of Solid Waste Disposed in Permitted Landfills

County	Subtitle D Residential	Subtitle D Non-Residential	Class I Rubbish	Class II Rubbish	Total Tons
Calhoun	5,403	2,507	0	0	7,910
Itawamba	8,752	3,396	18	1,575	13,741
Lafayette	24,402	21,454	1,902	0	47,758
Lee	31,079	64,710	90,279	15,483	201,551
Monroe	13,739	14,732	10,858	0	39,329
Pontotoc	12,019	15,676	27,508	646	55,849
Union	11,768	20,606	9,140	0	41,514
3 Rivers Area	107,162	143,081	139,705	17,704	407,652

Recycle and reuse masses were determined by calling or visiting recycling centers, recycling program coordinators, industries, and recycling brokers that serve the TRSWMA area. A summary of the recycling efforts in the TRSWMA planning area is presented in Table 4-8. These recycling masses are lower than actual numbers because:

- Recycling and reuse efforts by individual residences were not quantified. Many people recycle yard waste in on-site compost piles.
- Some major recyclers would not disclose recycle quantities. Many metal recyclers would not provide or disclose recycling information.
- Many professional tree trimming companies take pulp wood type material to a local lumber company, but do not keep tonnage records.
- The mass of used batteries was not quantified because retail companies seldom keep or compile this information.
- Used motor oil recycling was not quantified because motor oil is classified as a liquid waste.
- Many retailers, such as Wal-Mart, have recycle bins for plastic bags but do not keep up with recycle quantities.
- Some residential recycle programs collect recycled materials but do not quantify masses.
- Many industries reuse materials for packaging etc., but do not quantify the masses they reuse.
- Many companies pay haulers by the load and do not quantify the mass of products.
- Some companies utilize recycle brokers located outside the planning area.

Based on the quantities identified in Table 4-7 and Table 4-8, the 2024 recycling rate for the TRSWMA planning area is approximately 61.8% based on all solid waste (Class 1 landfills, Class 2 landfills, and Subtitle D landfills).

As illustrated in Table 4-8, the lumber industry considerably skews the recycling rates within the TRSWMA planning area. Since many areas in Mississippi and across the United States do not have a significant lumber industry, a better measuring tool for quantifying recycling efficiency may be without the recycling efforts of the lumber industry. Taking out the lumber industry, the recycle rates for the Three Rivers SWMA planning area would be approximately 34.9% based on all solid waste (Class 1 landfills, Class 2 landfills, and Subtitle D landfills) and 57.0% based on only Subtitle D landfills.

Table 4-8 Recycling Summary of TRSWMA Planning Area in 2024

Description of company or market sector	Tonnage Recycled in 2024	% of Total
Municipal Recycling Programs	2,047	0.81%
Scrap Metal recycling by Three Rivers SWMA	125	0.05%
Metal Recycling Companies <sup>(1)</sup>	91,337	36.23%
Tire Recycling (Liberty Tire Recycling, formerly MAC's Recyclers)	46,318.7	18.37%
Hunter Douglass	138	0.05%
Lumber Industry	109,516	43.44%
Douglas Waste Paper	2,643	1.05%
Total in TRSWMA Planning Area	252,124.7	100.00%

(1) Several metal recyclers would not volunteer information

Based on the above calculations, the Three Rivers Solid Waste Management Authority Planning area significantly exceeds the waste reduction goal of 25% established by Mississippi Code § 17-17-227.

#### **4.12 Recycling Strategy in the TRSWMA Planning Area**

As illustrated above, the TRSWMA significantly exceeds the 25% waste reduction goal established by Mississippi Code § 17-17-225(b) and § 17-17-227(1)(d). While the wood products market (furniture and lumber) has reduced in the region since 2005, the amount of curb side collection, E-Waste recycling, beneficial food waste programs and the wood pellet industry has significantly increased since 2005.

On a regional level, it is the Authority's policy to promote "Cost Effective Recycling". Cost effective recycling is defined as a recycling program in which the revenue generated from the recycling products exceeds the capital, operational, maintenance, labor and employee benefits associated with a recycling program. The City of Baldwin, and the City of Fulton both expressed interest in having a recycling program, as they currently do not.

The Authority also recognizes that the majority of planning area is a very rural area and that curb side recycling programs are typically not cost effective in communities that have a population density less than 1,000 people per square mile because the cost of curb side collection (labor and fuel) exceeds the value of the collected products.

#### **4.13 Recycling Needs in the TRSWMA Planning Area**

As illustrated in this Chapter, recycling is alive and well in the Three Rivers SWMA planning area. Areas for improvement (but not necessarily needs) include:

- Improved record keeping of recycling quantities and masses by municipalities, counties and businesses.
- Continued promotion of recycling programs in urbanized areas and schools.
- Continued efforts to increase E-Waste collection and recycling throughout the region.
- Increased visibility of drop off recycling stations. Many drop-off recycling stations are located in low traffic/low visibility areas with poor signage. Improved site

access, visibility, and public awareness would enhance recycling efforts in the region.

- There is a limited amount of yard waste recycling efforts throughout the region. Yard wastes can easily be recycled in residential areas by individually owned and operated compost piles, mulching mowers, and etc. Municipalities could significantly reduce solid waste disposal costs by encouraging yard waste recycling.
- There is a very limited effort to recycle/reuse used computers and other electronic equipment. Collecting these units during household hazardous waste collection days has enhanced the efficiency of electronics recycling/reuse.
- There is limited colored paper and white paper recycling in the region. Increased storage area of bailed colored and white paper would likely enhance recycling efforts and allow municipal recyclers to take advantage of market prices and be more attractive to potential buyers.

**Chapter 5**

**POPULATION AND WASTE QUANTITY PROJECTIONS**

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**5.1 Population Trends and Projections**

This chapter describes the TRSWMA current waste stream characteristics and estimates solid waste quantities over the next 20 years. Once solid waste streams are forecasted, solid waste management programs can be evaluated for short-term and long-term needs. Solid waste quantity projections will be based on population projections and per capita solid waste production rates.

The first step of conducting a population projection is data collection. Data from the 1990, 2000, 2010, and 2020 Census counts were obtained from the U.S. Census Bureau data along with population densities in 2020 for each county in the TRSWMA planning area. Population and population density data are presented for each county in Table 5-1.

Table 5-1 Population Data from the U.S. Census Bureau

County or Area	1990 Population	2000 Population	2010 Population	2020 Population	2020 Population Density (people/mi <sup>2</sup> )
Calhoun County	14,908	15,069	14,962	13,266	22.6
Itawamba County	20,017	22,770	23,401	23,863	44.8
Lafayette County	31,826	38,744	47,351	55,813	88.4
Lee County	65,579	75,755	82,910	83,343	185.2
Monroe County	36,582	38,014	36,989	34,180	44.7
Pontotoc County	22,237	26,726	29,957	31,184	62.6
Union County	22,085	25,362	27,134	27,777	66.8
Three Rivers SWMA Planning Area	215,224	244,440	262,704	269,426	73.5
State of Mississippi	2,573,216	2,844,658	2,951,996	2,961,279	63.1

Based on population density data, the TRSWMA planning area (73.5 people/mi<sup>2</sup>) can be classified as a rural area. Rural areas commonly have straight-line growth rates because they still have adequate land available for development. Highly urbanized communities will usually grow at a decreasing-rate-of-increase because they are comprised of very small lots, smaller houses, zero-lot-line/patio homes, and multi-level apartment homes.

Population projections for each county in the TRSWMA planning area were estimated based on an analysis conducted by Neilsberg Research ([www.neilsberg.com](http://www.neilsberg.com)). Population projections for the entire TRSWMA planning area were estimated by adding the seven counties together. Projections for each county are presented in tabular form in Table 5-2. For those counties with decreasing population growth as indicated below, the population is held steady for MSW projections.

Over the last 20 plus years, between 2000 and 2023, population of Calhoun County decreased by 2,349. In this period, the peak population was 15,034 in the year 2000. The numbers suggest that the population has already reached its peak and is showing a trend of decline. From 2000 to 2023, Calhoun County had an average annual population growth rate of 0.68% per year. Overall, the population shrank 15.62% between 2000 and 2023.

From 2000 to 2023, Itawamba County had an average annual population growth rate of 0.25% per year. Overall, the population grew 5.64% between 2000 and 2023.

From 2000 to 2023, Lafayette County had an average annual population growth rate of 2.22% per year. Overall, the population grew 50.96% between 2000 and 2023. From 2009 to 2010 Lafayette County population grew the most, with an increase of 2,998 people (a 6.73% year-on-year increase).

Between the years 2000 and 2023, the population of Lee County grew year by year for 17 years and declined for 6 years. From 2000 to 2023, Lee County had an average annual population growth rate of 0.40% per year. Overall, the population grew 9.12% between 2000 and 2023. Between the year 2000 and 2023, Lee County's population peaked in year 2019 at 85,674. Between the year 2000 and 2023, Lee County's population was lowest in year 2000 at 75,876.

Between the years 2000 and 2023, the population of Monroe County grew year by year for 5 years and declined for 18 years. From 2000 to 2023, Monroe County had an average annual population growth rate of 0.50% per year. Overall, the population shrank 11.53% between 2000 and 2023. From 2015 to 2016 Monroe County population grew the most, with an increase of 75 people (a 0.21% year-on-year increase). From 2019 to 2020 Monroe County population experienced the most significant decrease, with a decline of 1,152 people (a 3.26% year-on-year decline).

From 2000 to 2010, Pontotoc County's population increased by 3,101 (11.50%). From 2010 to 2020, Pontotoc County's population increased by 1,137 (3.78%). Between the years 2000 and 2023, the population of Pontotoc County grew year by year for 21 years and declined for 2 years. From 2000 to 2023, Pontotoc County had an average annual population growth rate of 0.74% per year. Overall, the population grew 17% between 2000 and 2023.

Between the year 2000 and 2023, Union County's population peaked in year 2019 at 28,711 and was lowest in year 2000 at 25,515. From 2000 to 2023, Union County had an average annual population growth rate of 0.47% per year. Overall, the population grew 10.85% between 2000 and 2023.

Table 5-2 Population Projections for the TRSWMA Planning Area

County or Area	Year 2020	Year 2025	Year 2030	Year 2035	Year 2040	Year 2045
Calhoun County*	13,266	13,266	13,266	13,266	13,266	13,266
Itawamba County	23,863	23,982	24,282	24,592	24,899	25,210
Lafayette County	55,813	62,008	68,891	76,538	85,034	94,473
Lee County	83,343	85,010	86,710	88,444	90,213	92,017
Monroe County*	34,180	34,180	34,180	34,180	34,180	34,180
Pontotoc County	31,184	32,338	33,535	34,776	36,063	37,398
Union County	27,777	28,430	29,098	29,722	30,420	31,135
Three Rivers SWMA Planning Area	269,426	279,214	289,962	301,518	314,075	327,679

\*For Counties experiencing an average annual population decrease (Calhoun and Monroe), the 2020 population was held steady for the purposes of this analysis.

## 5.2 MSW Quantity Trends and Projections

Solid waste data by county is tabulated by the TRSWMA annually. The tons of municipal solid waste generated by each county is presented in Table 5-1. The tons of municipal solid waste generated by each county in the TRSWMA are presented in Tables 5-3 and 5-4. The county generation totals are presented in Table 5-5.

Table 5-3 MSW Tonnage Generated within the TRSWMA Planning Area, 2020-2023

County or Area	2020	2021	2022	2023
Calhoun County	8,660	10,610	9,754	7,911
Itawamba County	11,559	13,266	11,763	12,149
Lafayette County	40,481	45,541	47,252	45,856
Lee County	91,082	95,336	94,724	95,790
Monroe County	25,117	23,133	22,527	28,471
Pontotoc County	32,095	35,415	31,562	32,374
Union County	19,614	20,823	21,350	20,101
Three Rivers SWMA Planning Area	228,608	244,124	238,932	242,652

The total quantity of MSW generated is generally consistent across the four years. Dividing the quantity of 2023 MSW generated by the 2025 population projection developed a MSW generation rate. Solid waste generation rates are typically expressed in the relationship of number of pounds generated per capita per day. The MSW generation rate to be used to forecast future MSW generation by county is presented in Table 5-4.

Table 5-4 MSW Generation Rate by County (lbs per day)

County or Area	MSW Generated (tons)	2025 Population	MSW Generation Rate (pounds per capita per day)
Calhoun County	7,911	13,266	3.27
Itawamba County	12,149	23,982	2.78
Lafayette County	45,856	62,008	4.05
Lee County	95,790	85,010	6.17
Monroe County	28,471	34,180	4.56
Pontotoc County	32,374	32,338	5.48
Union County	20,101	28,430	3.87

The projected quantity of municipal solid waste generated within the TRSWMA is shown in Table 5-5. The data in this table was generated by applying the current MSW generation rate to the forecasted population presented in Table 5-2. Currently, on seven (7) industries have been granted special exceptions to the 2006 flow control ordinance that allows these specific industries to continue to dispose their industrial process waste at another Subtitle D landfill. Any new industrial facility locating within the TRSWMA planning area will be required to dispose of all solid waste to the Three Rivers Regional Landfill.

The solid waste projections presented below in Table 5-5 are based on population projections and solid waste production rates. As previously discussed in Section 5.1, actual solid waste tonnages will vary due to national and regional economic factors. In fact, MSW tonnages at the Three Rivers Regional Landfill have dropped over the past couple of years in response to the sluggish national economy.

Table 5-5 MSW Disposal Forecast for the TRSWMA Planning Area (tons/year)

County or Area	Year 2025	Year 2030	Year 2035	Year 2040	Year 2045
Calhoun County	7,917	7,917	7,917	7,917	7,917
Itawamba County	12,167	12,319	12,477	12,633	12,790
Lafayette County	45,832	50,919	56,571	62,851	69,827
Lee County	95,723	97,638	99,590	101,582	103,613
Monroe County	28,445	28,445	28,445	28,445	28,445
Pontotoc County	31,187	32,341	33,538	34,779	36,067
Union County	20,079	20,551	20,992	21,485	21,990
Three Rivers SWMA Planning Area	241,350	250,130	259,530	269,692	280,649

### 5.3 Non-MSW Quantity Trends and Forecast

Solid waste data is available from the Mississippi Department of Environmental Quality (MDEQ) from their annual Status Report on Solid Waste Disposal Facilities. The non-municipal solid waste facilities report to MDEQ the tons of waste received and whether the waste was received from within the State of Mississippi or from outside the state. Typical non-MSW facilities reported in the annual Status Reports include local Class 1 and 2 rubbish landfills and processing facilities. At the time of this update, no volumes for industrial facilities were available. For the purpose of projecting the quantity of non-MSW generated from the TRSWMA, it was assumed that all of the waste received by the non-MSW facilities was generated from the county that hosts the facility. The quantities of non-municipal solid waste generated by each county in the TRSWMA (2019 – 2022) are presented in Tables 5-6, 5-7, 5-8, and 5-9. The county generation totals are presented in Table 5-10.

Table 5-6 Non-MSW (tons) Received by Facilities within the TRSWMA, 2019

County or Area	Type of Non-MSW Waste		
	Class 1 Rubbish	Class 2 Rubbish	Industrial
Calhoun County	0	0	0
Itawamba County	0	1,700	0
Lafayette County	16,061	0	0
Lee County	70,093	20,540	0
Monroe County	13,936	0	0
Pontotoc County	26,646	437	0
Union County	17,268	0	0
Three Rivers SWMA Planning Area	144,004	22,677	0

Table 5-7 Non-MSW (tons) Received by Facilities within the TRSWMA, 2020

County or Area	Type of Non-MSW Waste		
	Class 1 Rubbish	Class 2 Rubbish	Industrial
Calhoun County	0	0	0
Itawamba County	0	1,725	0
Lafayette County	21,529	0	0
Lee County	80,929	11,092	0
Monroe County	10,821	0	0
Pontotoc County	32,069	619	0
Union County	16,176	0	0
Three Rivers SWMA Planning Area	161,524	13,436	0

Table 5-8 Non-MSW (tons) Received by Facilities within the TRSWMA, 2021

County or Area	Type of Non-MSW Waste		
	Class 1 Rubbish	Class 2 Rubbish	Industrial
Calhoun County	0	0	0
Itawamba County	0	1,700	0
Lafayette County	21,534	0	0
Lee County	86,984	15,483	0
Monroe County	10,858	0	0
Pontotoc County	27,508	646	0
Union County	13,728	0	0
Three Rivers SWMA Planning Area	160,612	17,829	0

Table 5-9 Non-MSW (tons) Received by Facilities within the TRSWMA, 2022

County or Area	Type of Non-MSW Waste		
	Class 1 Rubbish	Class 2 Rubbish	Industrial
Calhoun County	0	0	0
Itawamba County	0	1,575	0
Lafayette County	22,963	0	0
Lee County	91,377	25,227	0
Monroe County	10,926	0	0
Pontotoc County	22,871	200	0
Union County	16,793	0	0
Three Rivers SWMA Planning Area	164,930	27,002	0

Table 5-10 Non-MSW (tons) Received by Facilities within the TRSWMA, 2019-2022

County or Area	2019	2020	2021	2022
Calhoun County	0	0	0	0
Itawamba County	1,700	1,725	1,700	1,575
Lafayette County	16,061	21,529	21,534	22,963
Lee County	90,633	92,021	102,467	116,604
Monroe County	13,936	10,821	10,858	10,926
Pontotoc County	27,083	32,688	28,154	23,071
Union County	17,268	16,176	13,728	16,793
Three Rivers SWMA Planning Area	166,681	174,960	178,441	191,932

The generation rates to be used to forecast future non-MSW generation by county are presented in Table 5-11.

Table 5-11 Non-MSW Generation Rate by County (lbs per day)

County or Area	Non-MSW Received (tons): 2022	2020 Population	Non-MSW Generation Rate (pounds per capita per day)
Calhoun County	0	13,266	--
Itawamba County	1,575	23,863	0.36
Lafayette County	22,963	55,813	2.25
Lee County	116,604	83,343	7.67
Monroe County	10,926	34,180	1.75
Pontotoc County	23,071	21,184	5.97
Union County	16,793	27,777	3.31

The forecasted quantity of non-municipal solid waste generated within the TRSWMA is shown in Table 5-12. The data in this table was generated by applying the current non-MSW generation rate to the projected population presented in Table 5-2.

Table 5-12 Non-MSW Forecasted for the TRSWMA Planning Area (tons/year)

County or Area	Year 2025	Year 2030	Year 2035	Year 2040	Year 2045
Calhoun County					
Itawamba County	1,576	1,595	1,616	1,636	1,656
Lafayette County	25,462	28,288	31,428	34,917	38,792
Lee County	118,995	121,374	123,802	126,278	128,803
Monroe County	10,916	10,916	10,916	10,916	10,916
Pontotoc County	35,288	36,537	37,889	39,292	40,746
Union County	17,174	17,577	17,954	18,376	18,808
Three Rivers SWMA Planning Area	198,731	206,380	214,605	223,543	233,226

The quantity of non-municipal solid waste can vary significantly due to weather events, construction projects such as a highway widening or significant industrial development. Significant hurricanes, storms with high winds, and ice storms to portions of the region can result in higher quantities of fallen trees and damaged homes. The cleanup from these storm events will increase the rubbish quantity. Storm debris management is addressed in Chapter 8 of this report.

## Chapter 6

# THREE RIVERS REGIONAL LANDFILL

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The Three Rivers Regional Landfill (Landfill) is located approximately 2.5 miles northwest of the City of Pontotoc and is readily accessible from Mississippi State Highway 76. The Three Rivers Solid Waste Authority (Authority) owns approximately 692 acres at this site. The initial phase of

the landfill was permitted with three cells and began operation in 1995. The permitted area from the initial phase was approximately 33 acres. The permitted footprint was expanded in 1998 to a total area of approximately 207 acres.

The Landfill is accessible by vehicular traffic. All waste received at the Landfill must be from within the approved service area of the Authority and shall not originate outside the State of Mississippi. The approved service area includes Alcorn, Attala, Benton, Calhoun, Carroll, Chickasaw, Coahoma, Desoto, Grenada, Holmes, Itawamba, Lafayette, Lee, Leflore, Lowndes, Marshall, Monroe, Montgomery, Panola, Pontotoc, Prentiss, Quitman, Tallahatchie, Tate, Tippah, Tishomingo, Tunica, Union, Winston, and Yalobusha counties.

Solid waste from areas with established flow control ordinances that forbid the transport of solid waste to other landfills shall not be brought to the Three Rivers Regional Landfill.

### 6.1 Landfill Permits

Landfill activities are performed in compliance with a set of permits issued by the Mississippi Department of Environmental Quality (MDEQ). The base permit is the solid waste disposal permit. This permit, number SW0580010427, was originally issued in 1993 and modified in April 1999. The solid waste permit renewal was submitted to

MDEQ in March, 2020 and is currently in the review process at MDEQ. The Landfill has a Title V Air Permit, number 230000042, which will expire December 31, 2025; the permit renewal has been submitted and is currently in the review process at MDEQ. The Landfill also has a NPDES storm water discharge permit that was renewed in 2024 and expires March 31, 2029, number MSS048917. Leachate can be disposed at the Oxford wastewater treatment plant under an NPDES Pretreatment Permit, number MSP090943, which expires in March 31, 2029.

## 6.2 Landfill Funding

The Landfill generates a revenue stream for the Authority based on the per ton tipping fee. Tipping fees, whether collected at the landfill or at a transfer station, revenue from recycling efforts, electrical generation, and renewable natural gas are the only current non-grant-based source of revenue for the Authority. The landfill's tipping fee is set by the Authority to cover all expenditures for the Authority; including landfill operation, cell construction, landfill closure, landfill post-closure expenses, various capital improvement projects, legal and engineering services, funds for equipment/facility replacement, and other events such as household hazardous waste collection days and recycling. The tipping fee is evaluated in the summer of each year (using conservative projected MSW tonnages) when the next years FY budget is prepared. The tipping fee is adjusted as needed to ensure that the Authority will have adequate revenue to fulfill its financial and environmental obligations. A breakdown of the landfill's tipping fee for FY 2024/2025 is presented in Table 6-1.

Table 6-1 Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
Operations	\$ 10.46	Fee paid to Landfill Operator for operating scale house, landfill operations and day-to-day management of the landfill. This fee may be adjusted annually based on changes in the Consumer Price Index.
Fuel Surcharge	\$ 0.24	The landfill operations contract is based on an off-road fuel price of \$2.40/gal. The fuel surcharge is set aside to adjust the tipping fee for increases or decreases in fuel prices.

Table 6-1 (Continued) Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
Debt Service	\$ 0.52	This is the amount of the tipping fee that is allocated to pay off the bonds used to finance the landfill.
Capital Expansion	\$ 3.85	These funds are set aside in long-term and short-term interest-bearing accounts and are used for paying for capital improvement projects such as landfill cell construction, road paving, scale house replacement, anticipated for the landfill. This fee is evaluated each year and is based on a 10-year updated Capital Improvement Plan.
Closure/Post Closure	\$ 0.85	This portion of the tipping fee is set aside in an interest-bearing account for closure and post closure activities. Closure and post closure activities are not part of the Capital Expansion budget described above. Closure/Post Closure expenses are evaluated annually and adjusted during the FY budgeting process.
State Tax	\$ 1.00	Under current state law, TRSWMA must pay the State/MDEQ a \$1.00/ton tax for every ton of solid waste that crosses the scale at the Landfill.
Three Rivers PDD	\$ 0.83	This portion of the tipping fee is allocated to reimburse the expenses of the Three Rivers Planning Development District that provides administrative, management, technical support and billing support to the TRSWMA.
Host County	\$ 1.35	This portion of the tipping fee is allocated to offsetting the tipping fee for Pontotoc County residents. Under the initial agreement of the TRSWMA, the host county would receive a 50% discount in tipping fee for hosting the Three Rivers Regional Landfill.
Taxes	\$ 0.38	This portion of the tipping fee is allocated to paying host county property taxes.

Table 6-1 (Continued) Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
Legal Fees	\$ 0.20	This portion of the tipping fee is allocated to paying for legal services associated with the day-to-day operations of the TRSWMA.
Engineering Fees	\$ 0.10	This portion of the tipping fee is allocated to paying outside professional engineering services associated with the day-to-day operation of solid waste management activities.
HHW Collection Day	\$0.34	This portion of the tipping fee is allocated to funding activities associated with Household Hazardous Waste Day activities.
Administration	\$0.70	This portion of the tipping fee is allocated to paying for insurance, audit, software maintenance, internet, supplies, etc.
Leachate Disposal	\$ 2.05	This portion of the tipping fee is allocated to paying for leachate disposal.
Transfer Station Fund	\$ 0.33	This portion of the tipping fee is allocated to paying for maintenance of the 3 transfer stations.
Total Tipping Fee	\$23.20	

The Landfill is constructed in cells that are portions of the phases identified in the permit documents. Cell construction consists of activities such as excavation, placement of compacted clay liner, placement of geosynthetics, placement of leachate drainage materials, installation of a leachate collection system, surrounding site work, and other various items. Other capital improvements may be made at the Landfill independent of cell construction. Part of the Landfill utilizes an active landfill gas collection system with a blower/flare system, gas-to-energy electric generator, and gas fueled leachate evaporator. Many of the gas recovery wells and the blower/flare system were installed prior to regulatory requirements in an attempt to reduce the release of methane gas from the landfill and to reduce odors.

In an effort to minimize sudden increases and decreases in the future construction component of the tipping fee, a new funding model was developed in FY 2010 and is updated annually. This funding model identifies and forecasts various future construction activities (such as new cell construction, new scales, road paving, new leachate tanks, etc.) over a 10-year period. Revenue from the Capital Expansion line item is invested in dedicated long-term and short-term interest-bearing accounts. To keep the funding model current, the Authority updates the model each summer during the annual budgeting process. The future construction component of the tipping fee is adjusted annually to maintain a positive balance in the future construction accounts over the next ten years.

Landfill closure and post closure construction activities include site grading and shaping, placement of a low permeability earthen material, placement of a geomembrane liner, placement of a vegetative soil, various site activities, installation of gas management systems, along with ground water monitoring, subsurface gas monitoring and management, seeding, mowing, leachate disposal and other permit requirements.

Considering the financial liability associated with closure and post closure activities and the fact that no tipping fee revenue funds will be available once the Landfill is closed, a Closure/Post Closure Model was developed for the Landfill. The Closure/Post Closure Model is very complex that allows for annual adjustments that reflect updated construction costs, inflation rates, interest rates, methane gas revenue projections, gas management replacement expenses, leachate management expenses along with other activities associated with on-site environmental monitoring. The Closure/Post Closure Model is evaluated in the summer of each year for preparing the next fiscal year budget. A more detailed description of the Closure/Post Closure Model is presented in Chapter 10.

### 6.3 Landfill Life Expectancy and Expansion

Under the current solid waste permit, the Landfill has a gross airspace (the volume between the top of the leachate collection layer and base of the final cover) of 23 million cubic yards. Landfill life projections have used a compaction density of 1,200 pounds per cubic yard (does not include a 20% allowance for daily cover) prior to 2007, a

compacted density of 1,350 pounds per cubic yard after October 1, 2008, and a compaction density of 1,600 pounds per cubic yard after October 1, 2017 to date, and a total available volume of 23 million cubic yards. If the Landfill operator consistently achieves a significantly greater compaction density, then the Landfill life will be longer. If this or future operators do not achieve this density, the landfill will have less capacity than estimated and a shorter useful life.

The Landfill began operating in 1995. Based on the data available, the Landfill has utilized approximately 24.9 million cubic yards of air volume through 2024. If flow control is completely effective in directing all municipal solid waste (MSW) to the Three Rivers Regional Landfill, the Authority will place approximately 14.2 million tons in the landfill through the year 2045, the length of the study period for this Solid Waste Management Plan. Additionally, with flow control as implemented in 2007, it is estimated that the Landfill will reach capacity in the year 2057.

The Authority has significant available air space for solid waste disposal within the permitted footprint. The Authority will need to continue to effectively manage the construction of new landfill cells and routinely evaluate compaction densities to ensure that the permitted air volume is utilized efficiently.

## 6.4 Leachate Collection, Treatment, and Disposal



A leachate collection system is required by Subtitle D regulations to remove liquid waste from the Landfill. The accumulation of leachate greater than 12 inches above the base of the Landfill is prohibited by regulation. The risk of liquids migrating through the landfill liner is neutralized by the removal of liquids from the Landfill. Leachate is collected within the leachate collection layer placed above the barrier liner of each landfill cell. Eight-inch perforated HDPE piping is installed within the leachate collection layer to drain the leachate to a sump for withdrawal from the landfill cell. Leachate collection sumps are located at the lowest elevations in each cell. Submersible pumps

have been installed to remove leachate from the sumps to maintain less than 12 inches of liquid height within the sand underdrain layer. The leachate is pumped from the sumps into a force main system which routes the leachate into the leachate evaporator or leachate storage tank.



The current leachate storage tank area consists of one 250,000 gallon glassed fused steel ground storage tank. Secondary containment is utilized around the storage tank area to contain potential releases. This facility provides leachate storage for the active and inactive life of the facility.

Leachate treatment and disposal is accomplished through two mechanisms. The Authority has authorization and approved plans for recirculation of leachate into the Landfill. In addition, leachate may be routed to a leachate evaporator for destruction. Produced solids are removed and placed in the landfill. For times when the leachate evaporator is out-of-service or storage tank capacity is exceeded, leachate is transported to the City of Oxford Wastewater Treatment Plant for disposal under the requirements of an NPDES permit.

## 6.5 Landfill Gas Collection, Treatment, and Disposal

In the fall of 2008, the Authority completed the construction of a gas management system for a portion of the Landfill. The gas management system consisted of



numerous gas collection wells, gas collection pipelines and valves and a high-tech blower/flare facility. The blower/flare system was designed to accommodate long-term capacities and includes automatic data logging of gas flows, gas temperatures, methane

content, and oxygen content. These facilities were installed in advance of the regulatory

requirements of solid waste and air regulations in attempt to minimize the release of greenhouse gases to the environment and to minimize odors generated by the Landfill.

Landfill gas, comprised mainly of methane and carbon dioxide with some non-methane organic compounds, is generated from the decomposition of solid waste. Current solid waste regulations allow for passive venting of landfill gas into the atmosphere until the non-methane organic compounds (NMOC) exceed 34 megagrams per year. NMOC concentrations exceeded this limit in 2021 and a Landfill Gas Collection System Design Plan (GCCS) dated September 15, 2022 was submitted to MDEQ. The GCCS currently consist of fifty (50) extraction wells. This gas collection system operates under a



vacuum, pulling landfill gas from closed landfill sections to a central location away from the landfill footprint. At this point, the collected gas is being utilized to power a gas-to-electricity generator and a leachate evaporator and may be flared as needed. In 2024, approximately 293,091,202 cubic feet (ft<sup>3</sup>) of landfill gas

was extracted by the collection system. Of this, approximately 75,339,642 ft<sup>3</sup> was utilized by the generator, 21,319,834 ft<sup>3</sup> was utilized by the leachate evaporator, and 104,728,590 ft<sup>3</sup> was routed to the flare. At some time in the near future, the gas will likely be utilized as a biogas to energy project (RNG – Renewable Natural Gas) that will enable the Authority to market the gas for its energy potential.

## 6.6 Environmental Monitoring

As per the solid waste permit, ground water and landfill gas monitoring are conducted to ensure that pollutants are not migrating from the Landfill. Ground water is monitored to detect if leachate has migrated through the landfill liner and is migrating from the site. Landfill gas monitoring wells are used to determine if landfill gas is migrating through the subsurface. Gas migration is a potential danger as it can move through the sub-surface and collect in nearby structures, allowing for methane accumulations and a potentially explosive atmosphere.

The ground water monitoring system consists of 6 ground water monitoring wells. These wells are sampled every six months and ground water monitoring reports are generated from the data. Ground water will be sampled and tested every six months throughout the active life of the Landfill and throughout the post-closure time. The ground water testing results provide the basis for a statistical analysis to determine if the Landfill is impacting the subsurface in any way.

Methane monitoring has been in place since the beginning of Landfill operations. Methane monitoring is accomplished through the sampling of a total of 8 monitoring probes. Methane monitoring is performed quarterly with the results submitted to MDEQ within 60 days of the monitoring event. If the monitoring results indicate the presence of methane gas in any well at a level exceeding the lower explosive limit at the property line or 25% of the lower explosive limit in any facility structure, the Authority will immediately take steps to protect human health and the environment.

## 6.7 Ancillary Solid Waste Management Units

The Landfill currently has three ancillary solid waste storage areas. The first is an area for the collection of tires. The tires collected in this area are removed and processed by Liberty Tire of Saltillo. The second ancillary unit is a scrap metal area. The third facility is a convenience station that consists of roll-off containers. The roll-offs are utilized by local/small vehicle customers for MSW trash disposal. The primary purpose of the convenience station is to prevent small vehicles from having to travel to the working face of the landfill that also reduces their time at the Landfill.

The Authority provides a liquid waste processing facility at the Landfill. Although disposal of liquid wastes is prohibited, a solidification/stabilization unit can convert liquid



wastes into a solid waste by adding bulking agents (such as saw dust, clays, and other liquid adsorbing agents). Once solidified, the waste can be classified as a solid waste and can be disposed in the Landfill provided the wastes satisfies all requirements as described in Chapter 7 of this document.

In addition to the above, the Landfill also has a scale house and associated truck scales that are used to quantify the amount of solid waste that a customer disposes at the Landfill. The scale facilities provide a dedicated scale for entering vehicles and a dedicated scale for exiting vehicles. The scale system decreases check-in and check-out times along with providing some redundancy/reliability for ticketing and billing.

## 6.8 Closure

The purpose of landfill closure is to secure either the entire Landfill or a portion of the Landfill for long-term stability after the owner has completed the placement of solid waste in that area. The Authority has an approved closure and post-closure plan on file with MDEQ. The permit application documents state that the largest area of a landfill unit ever requiring a final cover at any given time during the active life of the Landfill is 20 acres. Therefore, it is intended that the Authority execute multiple closure events over the life of the Landfill. The intent of this condition is that the Authority operates the landfill in a manner that limits the environmental liability by limiting the area of the Landfill that needs to be closed at any given time. Currently, the Authority has approximately 87 acres of landfill that will require a final cover to be installed in the future. The closure activity for the landfill includes the placement of the final cap, the gas extraction wells (if they have not already been installed), and construction of any final access roads.

The purpose of the final cap on the Landfill is to provide an impermeable barrier over the in-place solid waste to limit the downward migration of liquid into the solid waste, thus minimizing the generation of leachate. The cover design for the Three Rivers Regional Landfill was presented and approved as part of the permit application. The approved cap is as follows:

- Eighteen inches of low permeability earthen material;
- A geomembrane liner with a minimum thickness of 20 mil;
- Eighteen inches of soil capable of sustaining vegetative growth; and
- A landfill gas extraction system comprised of extraction wells and gas conveyance piping to the landfill gas collection and control system.

The landfill cap cross section was revised and approved by MDEQ during the 2010 permit renewal to include twelve inches of soil capable of sustaining vegetative growth rather than the initially approved eighteen inches. The Authority will need to be diligent during the 30-year post closure monitoring period and repair period to ensure that erosion rills and washout channels are repaired and reseeded in a timely manner as there will be less protective material above the geomembrane liner.

The permit documents allow for the submittal of proposed alternative landfill cover systems for approval to the Mississippi Department of Environmental Quality. The permit application documents provide plans for the construction activities for closure including the construction of site roads, access roads to the top of the Landfill, and other appurtenant items. Once a section of the Landfill has the final cap installed and certified by MDEQ, the 30-year post closure care time period begins for that section. It is possible, depending on the filling sequence for the latter stages of the Landfill, that portions of the Landfill could be well into the post closure period, or have the post-closure completed, as waste is still being placed in the Landfill.

## 6.9 Post Closure

The purpose of the post closure care period is to provide maintenance of the closure system, landfill gas extraction system, and leachate collection system until the biological activity within the Landfill has stabilized the organic mass. This period is codified by regulatory practice as being 30 years. The primary concern in maintaining the final cap is the repair of the vegetative soil layer. Significant erosion of this layer can lead to erosion or degradation of the barrier layer, which could allow rainwater into the solid waste or allow for solid waste to be exposed to vectors. The on-going maintenance of the gas and leachate extraction systems prevents the build-up of either gas pressure or excessive leachate levels. A gas build-up could result in a blowout of the final cap. Excessive leachate levels may lead to migration of the leachate through the liner, resulting in a ground water contamination issue and mitigation.

Post-closure activities will include the maintaining vegetative cover on the Landfill; repairing any erosion areas on the landfill; maintaining the leachate collection, removal, and disposal system; maintaining the landfill gas collection, removal, and disposal

system; continued ground water monitoring; continued methane monitoring; and all record keeping components. Each closed section is considered stabilized 30 years after the closure activities are certified by MDEQ.

## 6.10 Landfill Audits and Reporting

To ensure that the Landfill is being maintained and operated in accordance with the performance requirements of the operations contract, numerous inspections, surveys and audit reports are performed. Specific auditing and reporting requirements are discussed below:

**Monthly Landfill Inspections** – As part of the operations contract, TRSWMA personnel will conduct a monthly inspection of the Landfill operations and make specific notes relating to building maintenance, grass cutting and landscaping, dust control, road conditions and litter control at the Landfill and on Highway 76 near the Landfill. The inspection report is presented at each monthly Authority meeting.

**Monthly Landfill Report** – The landfill operator provides a written report at each monthly Authority meeting. The Landfill Report documents MSW tonnage brought to the landfill each month and compares the monthly tonnage to the previous month's tonnage and last year's tonnage. The report also tracks monthly trends and year-to-date tonnage projections. The Landfill Report also addresses any regulatory inspections, equipment inventory, staff training, fuel usage, and leachate recirculation and leachate disposal volumes.

**Compaction Reports** – Under the current landfill operations contract, the operator is required to survey the landfill twice a year and determine actual compaction densities. These surveys are necessary to demonstrate that the landfill is achieving compaction densities greater than 1,600 lb/yd<sup>3</sup> as required by the operations contract. The landfill operator at the Authority meeting presents results from the compaction surveys.

**Annual Report** – MDEQ requires that each landfill supply an annual report that identifies how many tons of MSW was placed in the landfill along with the origin of all MSW placed in the landfill. After MDEQ compiles the results from all landfills, the Authority will conduct a review to determine how much MSW generated within the

seven-county planning area was placed in other Subtitle D landfills. This review is typically conducted in the fall of each year and is presented to the Authority at a monthly meeting. This report has proven to be the best tool to demonstrate the effectiveness of the flow control ordinance.

**Annual Facility Inspection** – The TRSWMA also conducts an annual inspection of all solid management facilities. Any facilities that need replacing, upgrading or repair are noted and considered for placement on the 10-year CIP list.

**Greenhouse Gas Reporting Program (GHGRP)** – The TRSWMA participates in the GHGRP (codified at [40 CFR Part 98](#)) that requires reporting of greenhouse gas (GHG) data and other relevant information from large GHG emission sources, fuel and industrial gas suppliers, and CO<sub>2</sub> injection sites in the United States. Subpart HH applies to MSW landfills that accepted waste on or after January 1, 1980, and generate methane in amounts equivalent to 25,000 mt CO<sub>2</sub>e or more per year. This category includes emissions from the landfill, landfill gas collection systems, and destruction devices for landfill gases (including boiler, engines, and flares). This data can be used by businesses and others to track and compare facilities' greenhouse gas emissions, identify opportunities to cut pollution, minimize wasted energy, and save money. States, cities, and other communities can use EPA's greenhouse gas data to find high-emitting facilities in their area, compare emissions between similar facilities, and develop common-sense climate policies.

## 6.11 Facility and Equipment Needs

The Landfill is operated by Waste Connections under a 10-year contract that expires September 30, 2028. All equipment needs are provided and maintained by the contract operator. The contract operator provides the equipment required in the Operations section of the permit application.

Several of the appurtenant structures to the Landfill, such as the office, shop, fuel storage area, and scales are within the permitted landfill footprint. Although these facilities are within the permitted footprint, these facilities will be beyond their useful lives once that portion of the Landfill will need to be in active use.

## Chapter 7

# MANAGEMENT OF OTHER WASTE

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This chapter of the solid waste management plan is written for all residential, commercial and industrial users that live and work within the TRSWMA planning area and have questions as to where they can properly dispose of unique waste. The objective of the chapter is to provide solid waste producers with disposal options that are cost effective, convenient and complies with all state and federal regulations.

### 7.1 Construction and Demolition (C&D) Waste



Construction and demolition (C&D) wastes are generated from the construction and renovation of homes and buildings. Also included are wastes resulting from development activities, including land clearing and demolition of buildings. C&D wastes may consist of a variety of materials that can include any of the following:

- Scrap lumber, saw dust, broken lumber, and cabinets
- Waste soil, bricks, mortar, concrete, stones, and asphalt
- Tile flooring, ceiling tiles, ceramic tile, porcelain plumbing fixtures, carpet, and carpet padding
- Vinyl siding, insulation, and dry wall (sheet rock)
- Roofing paper and shingles
- Electrical wiring, circuit boxes, outlets/switches, piping, and climate control duct work
- Unusable white goods such as stoves, heaters, washers, dryers, air conditioning units, hot water tanks, freezers, refrigerators, and dish washers
- Yard waste such as trees, branches, shrubs, fencing, and waste soil

The majority of the C&D wastes listed above can be handled without any special precautions. However, there are numerous items that may be damaging to construction workers and to the environment. Special precautions that should be made in the removal/disposal of C&D wastes include:

- Freon and oils should be removed from refrigerators and air conditioning units prior to disposal.
- Objects painted with lead-based paint have been classified as household hazardous waste and may be disposed in a Subtitle D landfill as long as the material is associated with the renovation of a residential dwelling (63 FR 70233, 70241; December 18, 1998). EPA defines a household as residential housing inclusive of single-family homes, multiple family dwellings such as condominiums, apartments, duplexes, dormitories, bunkhouses, hotels, crew quarters, campgrounds, picnic grounds, and day-use recreational areas.
- Lead based paint disposal from non-residential properties will be classified as a hazardous waste and should not be disposed in a Subtitle D Landfill, Class 2 Rubbish Landfill or a Class 1 Rubbish Landfill.
- Many older buildings may contain tile flooring, ceiling tiles, insulation, siding, and roofing shingles that contain asbestos. Subtitle D Landfills can accept asbestos containing materials as long as they do not contain airborne transportable particles. Disposal landfills should be notified well in advance so that they can prepare for the proper disposal practices necessary to handle asbestos containing wastes.



Disposal cost for C&D wastes are highly variable throughout the TRSWMA planning area. Disposal fees are typically most economical at Class II Rubbish Landfills followed by Class I Landfills. A Subtitle D landfill will typically be the most expensive disposal location for C&D wastes. Contact information for Class I and Class II Rubbish Landfills can

be found in Section 2.4 of this report. Acceptable C&D wastes disposal options are identified in Table 7-1. Contractors should also make every effort to recycle materials where possible and feasible.

It should also be noted that the burning of C&D waste is not permitted in most incorporated areas. In accordance with Section § 17-17-9 of the Mississippi Code, the open burning of rubbish shall be permitted only under controlled circumstances where disposal at an appropriate landfill is not feasible.

Table 7-1 Disposal Options for C&D Wastes

<b>Material</b>	<b>Class I Rubbish Landfill</b>	<b>Class II Rubbish Landfill</b>	<b>Subtitle D Landfill</b>	<b>Handled as a Hazardous Waste</b>
Construction and demolition debris, such as wood, metal, etc.	X		X	
Brick, mortar, concrete, stone, and asphalt	X	X	X	
Residential materials containing lead-based paint			X	
Non-residential materials containing lead-based paint				X
Cardboard	X		X	
Natural vegetation such as tree limbs, stumps, and leaves	X	X	X	
Asbestos containing materials that do not have any airborne particles			X	
Asbestos containing materials that are loose and airborne				X
Thermostats containing mercury switches				X
Appliances (other than refrigerators and air conditioners) which have had the motor removed	X		X	
Furniture	X		X	
Plastic, glass, crockery, and metal, except containers	X		X	
Sawdust, wood shavings, and wood chips	X		X	

## 7.2 Yard Waste

Yard waste includes materials generated by lawn and yard care and landscaping activities. Items classified as yard waste include grass clippings and leaves, brush, tree and shrub trimmings, tree trunks, logs, limbs, and natural Christmas trees. Yard wastes tend to be bulky and take up significant volume. Disposal of yard wastes in order of preference are:



- Recycled on-site by the use of mulching mowers, chippers, and compost piles
- Recycled off-site by making compost and mulch
- Disposal at a Class I or Class II Rubbish Landfill
- Disposal at a Subtitle D Landfill

In most areas in the TRSWMA planning area, the local government will pick up yard waste on a scheduled or appointment basis. Rural areas may have to call their local supervisor or transport the yard waste to a suitable Class I or Class II Rubbish Landfill or to one of the three transfer stations. The transfer stations in Lafayette and Monroe Counties each have a Class I Rubbish Landfill located on-site.



It should also be noted that the burning of yard waste is not permitted in most incorporated areas. In accordance with Section § 17-17-9 of the Mississippi Code, the open burning of rubbish shall be permitted only under controlled circumstances where sanitary landfilling and rubbish landfilling is not feasible.

There are only two counties within the planning area that offer services for yard waste. Lee County offers door to door brush pick up as needed. This collection service is paid for by county funds. Union County offers door to door collection as needed as well as a drop off locations in New Albany for tree debris. This collection service is paid for through fees.

### 7.3 Household Hazardous Waste



Household Hazardous Waste (HHW) can be defined as any household waste material that would be classified as a hazardous waste if it came from a business or industry. In accordance with 40 CFR 261.4 (b), household wastes are exempt from the hazardous waste regulations. Hazardous substances from business or industry

are not exempt, and must comply with the storage, transportation, treatment, and disposal requirements of the hazardous waste regulations.

Generally speaking, a substance can be considered hazardous if it can catch fire at low temperatures, react or explode when mixed with other substances, is corrosive, or toxic. HHW is not desirable in a Subtitle D landfill because it may ignite at the landfill or produce toxic gasses, and it can potentially form a toxic/hazardous leachate that could contaminate local ground water supplies. Hazardous substances are specifically defined as follows:

- **Corrosive.** A chemical, or its vapors, that can cause deterioration or irreversible alteration in body tissues at the site of contact and deteriorate or wear away the surface of a material. Household items that fall into this category include but are not limited to oven cleaners, drain cleaners, toilet cleaners, tub and tile cleaners, bleach, battery acid or used batteries, and brick cleaners.



- **Flammable.** A substance that can be ignited under almost all temperature conditions. Household items that fall into this category include but are not limited to propane tanks, kerosene, home heating oil, diesel fuel, gasoline, gas/oil mix, lighter fluid, fuel additives, starter fluids, motor oil, and aerosol hairsprays.

- **Irritant.** A substance that causes soreness or inflammation of the skin, eyes, mucous membranes, or respiratory system. Household items that fall into this category

include but are not limited to liquid ammonia, bug sprays, adhesives and glues, paint thinners and paint strippers.

- **Toxic.** A substance that may cause injury or death upon ingestion, absorption, or inhalation. Household items that fall into this category include but are not limited to antifreeze, lead based batteries, paints and stains, bug sprays, herbicides and insecticides, and mercury thermostats or thermometers.

Section § 17-17-439 of the Mississippi Code established a “Right - Way - To - Throw - Away Program” that is designed to ensure the proper collection and management of hazardous materials from households, farms, schools, and small businesses. The program is administered by the Mississippi Department of Environmental Quality and requires each household hazardous waste program to:

- Register and be approved by MDEQ
- Each program must maintain and submit records in accordance with MDEQ guidelines
- Determine the types of household hazardous waste to be handled in the program
- Provide adequate storage facilities for household hazardous waste

The TRSWMA routinely applies for and receives grants from the Mississippi Department of Environmental Quality (MDEQ) to conduct household hazardous waste collection days. The household hazardous waste collection days are advertised in the local newspapers and the TRSWMA website. Typical household hazardous waste products as defined by EPA are listed in Table 2-2. In 2024, 978 vehicles passed through the designated collection areas in Tupelo and Oxford. A total of 68.2 tons of chemical waste were collected. Non-chemical wastes collected included 3 tractor trailer loads of tires, ½ flatbed trailer of batteries, 5.3 tons of used oil and petroleum products, and 24 tons of computer and television related waste.

# Three Rivers Household Hazardous Waste Collection Days

**Saturday, March 22, 2025 8 a.m. - 3:00 p.m.**  
**MSU Agricenter at Verona**  
**5395 Highway 145 South, Verona, MS 38879**

**Saturday, March 29, 2025 8 a.m. - 3:00 p.m.**  
**Lafayette County Multipurpose Arena**  
**70 FD "Buddy" East Parkway, Oxford, MS 38655**  
**(Near Hwy 6 & CR 406)**

Free collection and disposal to all residents in Lee, Pontotoc, Itawamba, Monroe,  
 Calhoun, Lafayette, and Union Counties.

**No commercial or agricultural waste will be accepted,  
 only household hazardous waste. Helium Tanks not accepted.**

- Aerosols
- All Purpose Cleaners
- Ammonia
- Anti-Freeze
- Brake Fluids
- Batteries
- Barbecue Lighter Fluid
- Chlorine Bleach
- Computer/Electronic Waste
- Detergents
- Disinfectants
- Drain Opener
- Engine Fluids
- Fertilizers
- Furniture Polish
- Gasoline
- Gas Additives
- Glass Cleaner
- Glues
- Herbicides
- Insecticides
- Moth balls
- Motor Oil
- Oven Cleaner




- Paints/Paint Thinner
- Pesticides
- Photographic Chemicals
- Propane Cylinder Tanks
- Rodent Poisons
- Silver Polish
- Pool Chemicals
- Stains
- Tires (25 Maximum)
- Toilet Bowl Cleaner
- Turpentine
- TV'S
- Water Sealant
- Old Appliances - (Freezers, Washers, Dryers, Air Conditioners, Compressors, and Water Heaters)
- Florescent Bulbs
- Metals
- Old Prescriptions

**Sponsored by:**  
 Three Rivers Solid Waste Management Authority  
 Three Rivers Planning & Development District  
 City of Oxford-Lafayette County  
 Mississippi State University Extension Service  
 Mississippi Department of Environmental Quality  
 Lee County  
 Waste Connections

For more information, call (662) 489-2415

**Do NOT bring: \*\* Helium Tanks, Sofas, Roofing Shingles, any other household trash, biological or infectious materials, explosives, radioactive materials, or unknown substances\*\*.**

Table 7-2 Household Hazardous Waste Products

|  EPA Brochure | Disaster Response |

LIST OF COMMON HOUSEHOLD HAZARDOUS WASTE ITEMS

CLEANING PRODUCTS

- Oven cleaners
- Drain cleaners
- Wood and metal cleaners and polish
- Toilet cleaners
- Tub, tile, shower cleaners
- Laundry bleach
- Chemical pool cleaners

AUTOMOTIVE PRODUCTS

- Motor oil
- Fuel additives
- Carburetor and fuel injection cleaners
- Air conditioning refrigerants
- Starter fluids
- Automotive batteries
- Transmission and brake fluid
- Antifreeze

LAWN AND GARDEN PRODUCTS

- Herbicides
- Insecticides
- Fungicides/wood preservatives

INDOOR PESTICIDES

- Houseplant insecticides
- Moth repellents
- Mouse and rat poisons and baits
- Flea repellents and shampoos
- Bug sprays
- Cockroach sprays and baits
- Ant sprays and baits

WORKSHOP/PAINTING SUPPLIES

- Adhesives and glues
- Furniture strippers
- Oil or enamel based paint
- Stains and finishes
- Paint thinners and turpentine
- Paint strippers and removers
- Photographic chemicals
- Fixatives and other solvents

OTHER FLAMMABLE PRODUCTS

- Propane tanks and other compressed cylinders
- Kerosene
- Home heating oil
- Diesel fuel
- Gas/oil mix
- Lighter fluid

OTHER PRODUCTS

- Batteries
- Mercury thermometers or thermostats
- Fluorescent light bulbs
- Driveway sealers

## 7.4 White Goods

White goods can be classified as unusable appliances such as refrigerators, dish washers, washing machines, dryers, hot water tanks, freezers, and air conditioners. Most communities in the TRSWMA planning area have programs that will pick up such items. Residents wishing to dispose of white goods should remove the doors from refrigerators and freezers and contact their local Public Works Department or call the county supervisor for details related to white goods disposal.

The TRSWMA maintains and administers a contract with a recycling company that collects and recycles white goods from the TRSWMA planning area. Drop off locations for unusable white goods are identified in Table 7-3. White goods are also collected and processed at the Household Hazardous Waste Day events.

Table 7-3 Drop-Off Locations for White Goods

<b>County</b>	<b>Location</b>	<b>Contact Information Operating Hours</b>
Calhoun	County Maintenance Building Highway 9 Pittsboro, MS	(662) 412-3137 7-5, M-F
Itawamba	Fulton Rubbish Disposal Landfill North Cummings Street Fulton, MS	(662) 862-4929 7-3:30, M-F
Lafayette	Lafayette County Transfer Station County Road 321 Oxford, MS	(662) 232-2323 7-3:30, M-F 7-11, Saturday
Lee	Lee County Transfer Station 281 County Road 1282 Tupelo, MS	(662) 844-2003 7-5, M-F 7-12, 2 <sup>nd</sup> & 4 <sup>th</sup> Saturdays
Monroe	Monroe County Transfer Station 52076 Highway 8 East Aberdeen, MS	(662) 369-6654 7-3:30, M-F
Pontotoc	Three Rivers Regional Landfill 1904 Pontotoc Parkway Pontotoc, MS	(662) 488-0444 7-5, M-F 7-12, Saturday

## 7.5 Pesticide Container Management

Pesticide container management refers to the safe disposal or recycling of agrichemical containers. Agrichemical containers are generated by farms across the country and require special consideration during disposal. These containers usually contain trace amounts of concentrated pesticides or herbicides that could potentially be harmful to local water sources.



The State of Mississippi requires counties that produce a significant quantity of agrichemical containers (20,000 or more) develop a pesticide container management program if they do not already have one in place. The Pesticide Container Management Program has two parts, the first part is a pesticide container recycling program, the second part is a triple rinse procedure. Triple rinsing is used to properly clean and prepare empty pesticide containers for disposal. Once rinsed, holes are placed in the container to prevent water from pooling.

The Authority contacted agrichemical suppliers in the region, such as Nutrien Ag Solutions and Scruggs Farm Supply, regarding agrichemical containers. They typically refill drums and totes that are returned to them in good condition. Damaged containers are picked up by the manufacturer and repaired for future use.

Table 7-4 provides an estimation of pesticide containers generated in each of the counties within the Authority Region during 2024. As shown, only Monroe County exceeded the 20,000-container threshold in the Region.

Table 7-4 2024 Pesticide Container Generation in the Authority Region

County	Cotton (acres)	Soybean (acres)	Corn (acres)	Estimated Agrichemical Containers*
Calhoun	11,237	26,522	6,786	19,564
Itawamba	5,952	9,059	616	8,371
Lafayette	4,706	7,337	1,325	6,871
Lee	7,351	42,789	2,109	18,575
Monroe	9,432	34,355	10,479	20,640
Pontotoc	6,890	24,667	2,212	13,612
Union	2,601	25,669	488	9,140
Region				110,617

Source: USDA Farm Service Agency 2024 Crop Acreage Data ([www.fsa.usda.gov](http://www.fsa.usda.gov))

\* The estimation of agrichemical containers was made based on multipliers provided by MDEQ. The multiplier for the acres of cotton is 1.00 per acre. The multiplier for the acres of soybean and corn planted is 0.25 per acre.

## 7.6 Computers & Electronic Goods

Computers are rapidly becoming the most commonly disposed electronic product. There are several national computer recycling/donation companies that accept old computers. Dell computers offers free computer recycling for on-line customers and will even provide a 10% off coupon on software & peripherals when donating workable computers to the Cristina Foundation which provides computers to disabled and economically disadvantaged children and adults. Other computer manufacturers provide computer recycling for a nominal fee. Computer recycling and donation information can be found in Table 7-5. The Salvation Army will also accept working computers in Tupelo, Fulton, Pontotoc, New Albany, Calhoun City, and Oxford.

For the past couple of years, the TRSWMA has been collecting computers and other electronics at Household Hazardous Waste Days. Residents are encouraged to save unusable electronics for the Household Hazardous Waste Day events or make arrangements with one of the programs identified in Table 7-5.

Table 7-5 Computer Recycling and Donation Information

Company or Program	Contact Information	Terms and usage
Dell Computers	1-800-915-3355 <a href="http://www.dell.com">www.dell.com</a>	Free with new computer purchase.
The National Cristina Foundation	(203) 863-9100 <a href="http://www.cristina.org">www.cristina.org</a>	Foundation provides computer technology to people with disabilities, students at risk and economically disadvantaged persons. Dell Computers will also provide new computer buyers with a 10% off coupon for software & peripherals when donating used computers to the Cristina Foundation
Computers for Kids, Inc.	(203) 591-1714 <a href="http://www.c4k.org">http://www.c4k.org</a>	This program receives older, obsolete computer equipment and upgrades it to meet today's basic computing needs. Items for donation are shipped to Computers 4 Kids.

## 7.7 Used Tires

The disposal of whole tires is an environmental problem across the United States because the tires become a breeding ground for mosquitoes, tend to migrate to the surface in a landfill when buried whole, and they can be difficult to extinguish when burning.

Many communities will collect tires placed at the curb. TRSWMA maintains several used tire collection trailers within the planning area. The used tire trailers are transported to Liberty Tire in Saltillo for recycling and proper disposal. Drop-off locations for used tires are identified in Table 7-6.

Retail stores that sell tires are required by law to collect and dispose of used tires associated with the purchase of new tires. Most retail stores will transport the tires to a tire recycling facility. Residents within the TRSWMA planning area can drop off used tires at any location identified in Table 7-6 free of charge. Used tires are also collected at the Household Hazardous Waste Day event.

Table 7-6 Drop-Off Locations for Used Tires

<b>County</b>	<b>Location</b>	<b>Contact Information Operating Hours</b>
Calhoun	County Maintenance Building Highway 9 Pittsboro, MS	(662) 412-3137 7-5, M-F
Itawamba	Fulton Rubbish Disposal Landfill North Cummings Street Fulton, MS	(662) 862-4929 7-3:30, M-F
Lafayette	Lafayette County Transfer Station County Road 321 Oxford, MS	(662) 232-2323 7-3:30, M-F 7-11, Saturday
Lee	Lee County Transfer Station 281 County Road 1282 Tupelo, MS	(662) 844-2003 7-5, M-F 7-12, 2 <sup>nd</sup> & 4 <sup>th</sup> Saturdays

Table 7-6 (Continued) Drop-Off Locations for Used Tires

<b>County</b>	<b>Location</b>	<b>Contact Information Operating Hours</b>
Lee	Liberty Tire Old Highway 45 Saltillo, MS	(662) 869-1860 7-3, M-F
Monroe	Monroe County Transfer Station 52076 Highway 8 East Aberdeen, MS	(662) 369-6654 7-3:30, M-F
Pontotoc	Three Rivers Regional Landfill 1904 Pontotoc Parkway Pontotoc, MS	(662) 488-0444 7-5, M-F 7-12, Saturday
Union	City of New Albany 701 South Central Street New Albany, MS	(662) 534-1010 7-3:30, M-F

### 7.7.1 Prairie Recyclers, Inc.

The Prairie Recycling facility, to be located at 10019 Warehouse Road in Prairie, Mississippi is comprised of an approximately 28,800 square-foot structure on approximately 6.5 acres in Section 3, Township 15 South, Range 6 East. The modification to the Solid Waste Management Plan was approved November 17, 2023. The facility permitting is underway. All processing activities will occur inside the structure. The operation can process approximately 1,700 tires per day. Following processing, repurposed components are shipped to road construction sites across the United States or delivered to Delta Energy in Natchez, Mississippi. The service area includes 33 counties in northern Mississippi.

## 7.8 Used Motor Oil and Acid Batteries

Used motor oil and batteries are undesirable in Subtitle D landfills because of the high concentration of organics, lead, and acids that may accidentally seep into the groundwater supplies. Most retailers that sell motor oil and oil changing companies will accept and recycle used motor oil. Retailers of automotive batteries are required by law

to accept trade-in batteries from customers. A complete listing of oil and battery recyclers can be found in Section 4 of this report.

Used motor oil and other automotive fluids (brake fluid, transmission fluid, antifreeze, and etc.) are also collected at the Household Hazardous Waste Day event.

## 7.9 Medical Solid Waste

Medical solid waste is generated by hospitals, clinics, medical facilities, doctors' and dentists' offices, animal hospitals, and funeral homes. Medical solid wastes are classified in three categories: infectious medical waste, non-infectious medical waste, and radioactive waste. In most medical facilities, it is common practice to segregate waste at the source.

The counties that make up the Authority are within the service area of Stericycle, (previously GreenServ) which is a regionally-based medical waste disposal company with a facility located in Batesville in Panola County (outside the Authority region). Prior to sterilization at the facility, accepted waste is classified as infectious medical waste. Sterilized waste is classified as non-infectious medical waste and is approved for disposal in a Subtitle D landfill. Waste sterilization occurs in an autoclave (boiler system/sterilizer/compactor container). The autoclave vessel is designed, fabricated, tested and certified in accordance with the ASME Boiler and Pressure Code, Section VIII, Division I, for unfired pressure vessels. The vessel is designated for full vacuum. Operating pressures are approximately 38-40 PSI at a temperature of approximately 275° F. The processing time is at least 30 minutes. Stericycle maintains a Quality Assurance/Quality Control program at all times. Processing equipment is regularly serviced and maintained to assure adequate treatment of wastes and to prevent downtime of the facility. All waste is processed within 72 hours of arriving at the facility. All waste processing occurs indoors.

Within the planning area, there are approximately seven (7) hospitals, seventy-five (75) various medical facilities, forty-four (44) dentist offices, twenty-five (25) animal hospitals, and thirty-eight (38) funeral homes. Each of these facilities is a medical waste producer in the Three Rivers planning area and generated wastes are primarily handled by Stericycle.

**Infectious Medical Waste** includes solid or liquid waste that may contain pathogens. Infectious medical waste must be treated by an approved incinerator or sterilization process (autoclave) in accordance with the Mississippi Department of Health standards prior to disposal. Once treated, the waste is no longer classified as an infectious medical waste. Infectious medical wastes may include but not be limited to:

- Wastes resulting from the care of patients and animals that have diseases that can be transmitted by blood or body fluid
- Cultures and stocks of infectious agents including specimen cultures, culture collection devices, and petri dishes
- Blood and body fluids
- Pathological wastes such as tissues, organs, body parts, and body fluids that are removed during surgery and autopsy
- Contaminated carcasses, body parts, and bedding of animals that were exposed to pathogens
- All discarded sharps (hypodermic needles, syringes, pipettes, broken glass, scalpel blades) which have come into contact with infectious agents

**Non-infectious Medical Waste** is defined as all waste generated in the direct patient care, diagnostic or research that is non-infectious but aesthetically repugnant if found in the environment. Solid waste in this category can be disposed in a Subtitle D landfill.

**Radioactive Medical Waste** is produced at most medical facilities and typically associated with x-ray and cancer treatment. Radioactive wastes are regulated by the Nuclear Regulatory Committee (NRC) and are not allowed in any Subtitle D landfill.

## 7.10 Municipal Water/Wastewater Sludge

Sludge generated from water treatment plants and wastewater treatment plants is frequently discarded at Subtitle D landfills. In the TRSWMA planning area, there are no known water treatment plants or wastewater treatment plants that routinely dispose of sludge to a Subtitle D landfill.

The Northeast Mississippi Regional Water Supply District (NEMRWSD) is the only drinking water plant in the planning area that produces solid waste. This facility is located in Itawamba County near Peppertown and produces sludge from the sedimentation basins and filter backwashing. The water treatment plant utilizes sludge

drying lagoons to separate the solids and liquids and land applied the dried solids on-site. There is a very large area available for dried sludge disposal on-site and no long-term plans are needed for locating or identifying off-site disposal locations. In the event that the land applied sludge needs removed from the water treatment plant site, it may be suitable to use as a daily cover at a landfill because it consists of mostly fine sand and silt removed in the treatment process.

There are numerous wastewater lagoons and mechanical wastewater treatment plants in the Three Rivers SWMA planning area. Lagoons typically do not produce wastewater sludge that will require off-site disposal. Some lagoon systems may utilize preliminary treatment systems (bar screens and grit removal facilities) that will produce solid waste. These wastes are typically conveyed to a dumpster and hauled to a Subtitle D landfill for disposal.

Wastewater lagoon systems that do not have preliminary treatment units (bar screens and grit removal) will over time have sediment accumulations that may require removal. In the event that the sludge is not disposed on-site or land applied at a permitted application site, the sludge may be disposed at a Subtitle D landfill provided it satisfies the same requirements of sludge disposal for mechanical wastewater treatment plants described below.

Mechanical wastewater treatment plants will typically produce solid waste from the preliminary treatment facilities (bar screens and grit removal system) along with biological waste activated sludge on a daily basis. The solids collected from the preliminary treatment systems can be processed and conveyed to a dumpster which can be transported to a landfill. Biological sludge must be treated, processed, and dewatered to be classified as a solid waste. In the TRSWMA planning area, all mechanical plants utilize sludge treatment lagoons, which do not require any off-site disposal. However, it should be noted that in the future, some sludge treatment lagoons will require emptying, which will likely require off-site disposal by either land application or disposal at a Subtitle D landfill. In the event that a Subtitle D landfill is utilized, the wastewater sludge must satisfy the following requirements:

- Must be biologically stable and satisfy the requirements of the 503 Sludge Regulations

- Must demonstrate that the sludge cannot be classified as a hazardous waste
- Must not have any free liquid in accordance with the Paint Filter Liquids Test (EPA Method 9095)

Considering that there are no wastewater sludges that have ever been disposed in a landfill in the TRSWMA planning area, there are no demanding needs that merit quantification of sludges at each mechanical wastewater treatment plant, sludge lagoon, or wastewater pond in the planning area. In order to verify the wastewater sludge disposal needs in the TRWSMA region, a survey of the POTW facilities was conducted during April of 2025. The purpose of the survey was to identify and evaluate the municipal wastewater sludge management conditions and needs in the Region. Thirty-three (33) facilities were identified with the TRSWMA region owned by twenty-four (24) entities. The surveys were intended to identify sludge/residual management and disposal, capacity and sludge generation rates, remaining capacity, remaining in-service years, and off-site disposal needs for the twenty- (20) year planning period. Based on the results of this survey, only one (1) off-site disposal future need was identified for the planning period. A copy of the 2025 survey questionnaire is provided below.

**THREE RIVERS SOLID WASTE MANAGEMENT AUTHORITY  
MUNICIPAL WASTEWATER TREATMENT FACILITIES  
SLUDGE DISPOSAL NEEDS**

SURVEY

**Contact Information**

Facility Owner: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Phone: \_\_\_\_\_  
FAX: \_\_\_\_\_  
Email address: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
  
Signature: \_\_\_\_\_  
Signature of person who completed survey          Date

**Current Treatment Facility**

Facility Name: \_\_\_\_\_  
Location: \_\_\_\_\_  
Year placed into operation: \_\_\_\_\_  
NPDES Permit No.: \_\_\_\_\_  
Permitted Flow: \_\_\_\_\_ MGD  
Average Daily Flow: \_\_\_\_\_ MGD  
Type: \_\_\_\_\_ Activated Sludge, Advanced Waste Treatment  
\_\_\_\_\_ Hydrograph Control Release Lagoon  
\_\_\_\_\_ Continuous Flow Lagoon  
\_\_\_\_\_ Other (Briefly Describe Below)  
\_\_\_\_\_  
\_\_\_\_\_

**Sludge/Residuals Management & Disposal**

\_\_\_\_\_ On-Site Treatment / Storage Lagoons  
\_\_\_\_\_ Dewater and Landfill, On-Site  
\_\_\_\_\_ Dewater and Landfill, Off-Site  
\_\_\_\_\_ Other (Briefly Describe Below)  
\_\_\_\_\_  
\_\_\_\_\_

**Treatment / Storage Lagoons**

Total Capacity: \_\_\_\_\_ (Indicate Volumetric Units)  
Rate of Sludge Generation: \_\_\_\_\_ (Indicate Volumetric Units)  
Fraction of Capacity Used: \_\_\_\_\_ Percent  
Fraction of Capacity Remaining: \_\_\_\_\_ Percent  
Years in Service \_\_\_\_\_  
Years Remaining \_\_\_\_\_

Return completed survey to: James. R. Spencer, RPG  
Due May 1, 2025 Cook Coggin Engineers, Inc.  
703 Crossover Road  
Tupelo, MS 38801

March 27, 2025

In the event that a wastewater sludge lagoon needs to be emptied, the wastewater treatment plant will likely hire an outside contractor that will bring in a trailer mounted sludge thickener and sludge dewatering equipment (such as a belt press) that will process the sludge to the criteria established above prior to transporting the sludge to the Three Rivers Regional Landfill. In addition to the landfilling option, land application of the biosolids may be considered. The land application of biosolids enhances both the water retention characteristics and the fertility of the farmland, which in turn improves growth and productivity of the target crops. The land application of biosolids relies on a combination of the microbial degradation of the complex biosolid constituents into components that can then be extracted from the soil matrix for plant use or be incorporated into the organic and mineral fractions of the soil, and direct utilization of wasted constituents by vegetation. Post land application, vegetative crops will be eventually harvested and/or removed from the site. The efficiency of this process is dependent upon a complex set of factors involving soil chemistry, waste composition, and the concentration of constituents, as well as the land application rate, and local climate. Successful land application sites are those which are designed and managed in such a manner as to avoid negative impacts such as anaerobic conditions, noxious odors (hydrogen sulfide etc.), long-term soil damage (accumulation of metals etc.), and releases to air, groundwater, and surface waters.

Regardless of the type of wastewater sludge disposal option used, proper disposal will be the responsibility of the sludge generator.

## 7.11 Septic Tank Sludge

Sludge from residential septic tanks should be hauled to a wastewater treatment facility for proper treatment and processing. Septic sludge not delivered and processed at a wastewater treatment plant must meet the same requirements as sludge from a mechanical wastewater treatment plant as described above prior to disposal in a Subtitle D Landfill. At this time, there are no known companies that transport septage/wastewater sludge to any Subtitle D landfill in the planning area.

Residents that need sludge emptied from their septic tanks should contact one of the liquid waste pumping and hauling companies identified in Section 7.12 of this chapter.

## 7.12 Industrial Sludge

Many industries in the TRSWMA planning area have wastewater treatment facilities that produce either chemical sludge, biological sludge, or a combination of chemical and biological sludge. Prior to disposal into a Subtitle D landfill, the producer of the sludge must clearly demonstrate the following:

- The industry must fill out the Industrial Process Waste Profile as required by the Mississippi Department of Environmental Quality (MDEQ). This form can be obtained at MDEQ's web site.
- The industry must document that the sludge is not classified as a liquid waste by successfully passing the Paint Filter Liquids Test (EPA Method 9095).
- The waste sludge shall be biologically stable.
- Must demonstrate that the sludge is not classified as ignitable in accordance with 40 CFR 261.21
- Must demonstrate that the sludge is not corrosive in accordance with 40 CFR 261.22
- Must demonstrate that the sludge is not reactive in accordance with 40 CFR 261.23
- Must demonstrate that the sludge is not toxic in accordance with 40 CFR 261.24
- Must demonstrate that the sludge does not contain any polychlorinated biphenyls (PCBs)

At this time there are no records of industrial sludge being disposed at a Subtitle D landfill within the TRSWMA planning area.

## 7.13 Residential and Commercial Bulk Liquid Waste

Liquid wastes are never allowable in a Subtitle D landfill because of the potential to generate leachate. Residential liquid waste from food/beverages should be discarded in the sanitary sewer system whenever possible. Bulk liquid wastes from commercial or industrial applications are not allowed in a Subtitle D landfill. Commercial and industrial liquid wastes can be solidified and disposed in a Subtitle D landfill provided they meet the same requirements of an industrial sludge. Some haulers of residential and commercial bulk wastes are identified in Table 7-7.

Table 7-7 Septic and Liquid Waste Haulers

<b>Name</b>	<b>Address</b>	<b>Phone No.</b>
C&D Plumbing	20448 Egypt Rd Aberdeen, MS 39730	662-386-0518
Fowlkes Plumbing & Pumping	110 Hwy 6, Amory, MS 38821	662-256-9972
Custom Service Company LLC	269 CR 1553, Baldwyn, MS 33824	662-678-6094
4A Septic Tank Service	146 Spencer Rd, Fulton, MS 38843	662-862-4403
Harrison Septic Tanks	978 State Hwy 30 E New Albany, MS	662-534-0741
Jack Edwards' Septic Tank Service	1413 CR 107, New Albany, MS	662-534-6688
Nelson Services	Northeast, MS	662-401-4383
Mid-South Septic Tank Service LLC	270 CR 445 Oxford, MS 38866	662-234-8721
Freeman Jetting Service Inc	828 Brentwood Cove Oxford, MS 38655	662-236-1163
Bill's Plumbing	Oxford, MS 38655	662-816-6118
Mahan Roland Plumbing	Oxford, MS 38655	662-234-9774
Michael Construction & Septic Tank Service	200 CR 162, Oxford, MS 38655	662-234-7135
Roto Rooter	303 Edinburg Way Oxford, MS 38655	662-205-5840
Bill's Septic Tank Service	Auburn Rd Tupelo, MS 38801	662-231-1941
C&D Plumbing	Tupelo, MS 38801	662-841-7868
Plumbing Doctor	1303 Nelle St Tupelo, MS 38801	662-842-8898
Roto Rooter	157 Fenco Dr, Tupelo, MS 38801	662-205-5840
Sonny T's Plumbing	Tupelo, MS 38801	662-871-5693

## 7.14 Non-Hazardous Industrial/Commercial Waste

Non-hazardous industrial and commercial waste makes up approximately 66% of the solid waste generated in the TRSWMA planning area. Industrial/Commercial users should carefully review the composition of their solid waste and determine if a component can be segregated economically, recycled, or disposed in a Class I Rubbish Landfill in lieu of a Subtitle D Landfill.

Most Industrial and commercial business will contract with a solid waste hauler that will pick up dumpsters on a specified schedule and deliver the solid waste to one of the three transfer stations or directly to the Three Rivers Regional Landfill located north of Pontotoc. Businesses may also haul their solid waste to a transfer station or directly to the Three Rivers Regional Landfill.

## 7.15 Waste Metals

Waste metals are valuable resources that are recyclable. TRSWMA maintains several drop-off locations for scrap metals. There are also numerous private metal recyclers located within the TRSWMA planning area. Locations and contact information on metal recyclers can be found in Table 7-8. Potential customers of these companies are recommended to call the facility prior to delivering recyclable metals.

Table 7-8 Metal Recyclers in the Three Rivers SWMA Planning Area

<b>County</b>	<b>Company address</b>	<b>Phone Number</b>
Itawamba	TRSWMA Drop-Off Site North Cummings Street Fulton, MS	(662) 862-4929
Lafayette	TRSWMA Drop-Off Site Lafayette Transfer Station Molly Bar Road Oxford, MS	(662) 232-2745
Lafayette	Pea Ridge Recycling 32 PR 3067 Oxford, MS	(662) 801-2017
Lee	TRSWMA Drop-Off Site Lee County Transfer Station 281 County Road 1282 Tupelo, MS	(662) 844-2003
Lee	SMC Recycling 1000 Park Lake Drive Tupelo, MS	(662) 842-6060

Pontotoc	OmniSource 2245 Highway 178 East Sherman, MS	(662) 680-8110
Pontotoc	Pea Ridge Recycling 1300 Pontotoc County Industrial Park Road Pontotoc, MS	(662) 488-9108
Union	Whittington Metals 1097 County Road 56 New Albany, MS	(662) 534-0916

## 7.16 Waste Wood and Scrap Lumber

Waste wood and scrap lumber are two types of waste produced in the furniture manufacturing industry. These waste materials can be disposed in landfills or reused to make mulch, particleboard, or fuel for boilers. The most economical disposal options for wood waste in order of preference are:

1. Recycling or reuse by processing the wood to make mulch, particle boards, wood pellets for wood burning stoves, or fuel for boilers
2. Disposal in a Class 1 Rubbish Landfill
3. Disposal in a Subtitle D Landfill

Acceptable disposal locations for wood waste are presented in Table 7-9.

### 7.16.1 Akers Railroad Tie Processing Facility

Railroads manage more than 200,000 miles of track in the United States, with more than 600 million crossties currently in use, based on survey data from the Rail Tie Association. (Smith, Stephen T., 2018 Railroad Tie Survey, available at <https://www.rta.org/assets/docs/RTASponsoredResearch/Environmental/201949%20Tie%20Survey%20Report%20Final.pdf>.) Most crossties are made from treated wood and must be regularly replaced due to decay or wear. More than 20 million rail ties are replaced each year. When removed from service, rail ties are generally first evaluated for reuse in landscaping or agricultural purposes. Remaining ties have traditionally been disposed of in landfills or are burned as fuel for energy.

In 2016, EPA revised the *List of Categorical Non-Waste Fuels* to allow Creosote-Treated Rail Ties to be burned as fuel in highly-regulated boilers and following clear

guidelines. A follow-up revision allowed Other-Treated Rail Ties (specifically copper naphthenate, borate, or combinations with/without creosote) to be similarly burned for energy recovery. EPA's Non-Hazardous Materials and Waste Management hierarchy ranks various management strategies from most to least environmentally preferred. Landfilling is the least environmentally preferred option, and placing used rail ties in landfills takes up valuable space and eventually increases methane greenhouse gas emissions from the decomposition of those landfilled ties. On the other hand, energy recovery from burning ties as categorical non-waste fuel in regulated boilers is a renewable energy source and reduces methane greenhouse gas emissions from landfills.



The Akers Railroad Tie Chipping Facility assists in the process to move ties from the railway network, chip to size appropriate for combustion, and transports them to a nearby paper mill in Tennessee that is permitted to use such ties as fuel. The Akers

facility is located at 935 South Main Street, Amory, Mississippi. The facility, located on an approximately 8-acre property, is leased from the Itawamba Mississippian Railway. The disposal/management area comprises approximately 1.6 acres.

Akers receives used creosote-treated railroad ties (CTRT) and other-treated railroad ties (OTRT) by rail (gondola rail car) from its Class 1 railroad customers. The subject railroad ties have been designated by the US Environmental Protection Agency under 40 CFR Part 241 as non-hazardous secondary material/categorical non-waste fuels when combusted. The out-of-service ties are provided mainly from Mississippi rail locations, but the chipper facility will accept in-specification ties (*i.e.*, CTRT and OTRT that fall under the categorical non-waste fuel exemption) from locations economically connected by rail to the site. These source areas include sites in Mississippi, Alabama, Tennessee, Louisiana, Arkansas, Kansas, Texas, Oklahoma, and Georgia. At the site, the ties will be chipped and then shipped out by truck on a daily basis to be used as fuel at the Packaging Corporation of America (PCA) facility in Counce, Tennessee.

The chipper yard operates one chipper with the capacity to process up to 20 tons of material per hour. The chipper is powered by a 1050-HP diesel engine. The railroad ties are unloaded from the rail cars upon arrival in a designated area. The chipper is operated on average 4 hours, but up to 8 hours, per day. The chips are loaded onto trucks and shipped out on a daily basis. Approximately 5,000 to 10,000 ties may be staged on-site (whole) at any given time (14.5 ties weigh 1 ton). In accordance with MDEQ guidance for chipping facility operations, staging piles are limited in height to 12 feet. In general, chipped ties will not be staged on site for more than one day.

Table 7-9 Waste Wood and Scrap Lumber Recycling and Disposal Facilities

<b>County (Public Status)</b>	<b>Landfill Name and Contact Information</b>	<b>Facility Type</b>
Monroe (private)	Akers Railroad Tie Chipping Facility 935 South Main Street Amory, MS	Recycle used railroad ties by chipping and transporting to TN facility for fuel source.
Lafayette (open to residential use)	City of Oxford Rubbish Site Located at Lafayette County Transfer Station (662) 232-2359	Class I Rubbish Landfill
Lafayette (open to public)	Pea Ridge Recycling Rubbish Site 32 PR 3067, Oxford, MS (662) 801-2017	Class I Rubbish Landfill
Lee (open to public)	TMCO Rubbish Site Birmingham Ridge Rd, Saultillo, MS (662) 869-2151	Class I Rubbish Landfill
Monroe (open to Public)	Monroe County Rubbish Site Monroe County Bd of Supervisors (662) 369-6654	Class I Rubbish Landfill
Pontotoc (open to public)	Woodland Rubbish Landfill (662) 489-3331	Class I Rubbish Landfill
Union (open to public)	New Albany Pumpkin Center Site City of New Albany (662) 534-1010	Class I Rubbish Landfill
Pontotoc (open to public)	Three Rivers Regional Landfill 1904 Pontotoc Parkway Pontotoc, MS (662) 488-0444	Subtitle D Landfill

## Chapter 8

# DISASTER DEBRIS WASTE AND PLANNING

### 8.1 Characterization of Disaster Debris



Natural disasters associated with tornadoes, winter snow and ice storms, straight-line winds, and remnants of hurricanes occur every few years in the planning area. Types of debris associated with each storm are identified in Table 8-1.

Table 8-1 Disaster Debris Disposal Options

Type of Natural Disaster	Type of Disaster Debris	Preferred Disposal Options
Tornadoes and Hurricane remnants	Demolition waste Trees and limbs Scrap metals	Class I, Class II, and Subtitle D Landfills Class II and Class I Landfills Recycling, Class I, and Subtitle D Landfills,
Winter snow and ice storms	Trees and limbs	Class II, Class I, and Subtitle D Landfills
Straight line winds	Trees and limbs Demolition wastes	Class II, Class I, and Subtitle D Landfills Class II, Class I, and Subtitle D Landfills

An earthquake could also occur in the area, but it is unlikely to result in catastrophic damage due to the distance from the New Madrid fault. The Oxford/University of Mississippi area appears to have the highest potential for earthquake damage because it is the most western metropolitan area in the planning area with several tall masonry structures. Although the New Madrid fault is still active, it has not produced any catastrophic quakes since 1811 and 1812 (over 200 years) and the probability of significant earthquake damage is so low that it is not practical to plan for debris removal.

## 8.2 Disaster Debris Planning

The most likely type of natural disaster that could impact the planning area is tornadoes, straight-line winds and winter ice storms. Straight-line winds and tornadoes will produce the most significant disaster debris and will typically be isolated on a community or neighborhood level. Considering the type of storm and the inability of



anyone to predict where a tornado or straight-line wind may hit, it is impractical for any community to plan for solid waste disposal facilities for this type of natural disaster.

Ice storms are known to occur in north Mississippi every few years. Disaster debris associated with ice storms are typically limited to broken limbs and trees that fall onto power lines, roads and roofs. Cleanup after an ice storm is typically slow because restoring utilities and opening up roads for utility workers will typically be the first response activity.

Regardless of the type of storm event that may occur, the debris generation rates may be so high that they overwhelm removal equipment and could possibly exhaust the capacity of rubbish landfills and city/county workers. Depending on the magnitude of the natural disaster, assistance (manpower and equipment) from utility companies across the region are frequently dispatched to help restore utilities in impacted communities. Communities stricken by natural disasters should also contact the local Emergency Response Coordinator for the county along with contacting the Mississippi Emergency Management Association (MEMA). Contact numbers for local and state emergency officials are listed in Table 8-2.

Table 8-2 Emergency Directors in the Three Rivers SWMA Region

County	Contact Person	Telephone Number
Calhoun	Randy Skinner	(662) 983-0257
Itawamba	Patrick Homan	(662) 862-5600
Lafayette	Steve Quarles	(662) 234-5667
Lee	Lee Bowdry	(662) 432-2950
Monroe	Tracy Pharr	(662) 369-3683
Pontotoc	Allen Bain	(662) 509-8585
Union	Curt Clayton	(662) 534-1992
MEMA	Stephen McCraney	(601) 933-6362

Planning for disaster debris is very difficult because there are only six (6) Class I and five (5) Class II rubbish landfills that are open to the public within the TRSWMA planning area. This equates to one rubbish landfill for every 346 square miles and the probability of a natural disaster (such as a tornado) hitting near a rubbish landfill is very low. Considering that it is simply not practical to build new rubbish landfills to accommodate local disaster debris disposal, the use of short-term/temporary facilities for Class I and Class II rubbish landfills will likely be necessary. Guidelines for building and operating emergency temporary facilities for Class II and Class I rubbish facilities are presented in Sections 8.3 and 8.4 respectively.

Each community and county should evaluate locations for temporary staging areas and



alternate and secondary disposal sites as part of their emergency response plans. Guidelines for establishing, operating, maintaining, and closing emergency temporary solid waste staging areas are presented in the following sections.

In addition to disaster debris management, communities will also face some challenges with the collection of residential solid waste after an event. Residential solid waste collection can be challenging after a storm event due to lack of available workers and

poor street/road access to neighborhoods. Guidelines for residential solid waste collection and disposal are presented in Section 8.5.

### 8.3 Emergency Temporary Facilities for Class II Debris Disposal

Depending on the magnitude of the natural disaster, temporary storage and staging areas for debris (trees, limbs, brush, brick, mortar, and concrete) may be necessary prior to transportation to sites for ultimate disposal. Recommended guidelines for establishing, selecting, operating, and maintaining temporary Class II debris facilities include:

- Temporary debris sites should be located in areas with convenient access and entry for easy drop-off and collection. These temporary areas could be a nearby park, vacant property, median of the road, other nearby public property or the road itself.
- A fire lane shall be maintained around the temporary facility at all times
- Local governments should supervise temporary storage and staging areas to ensure that only Class II debris are allowed in the facility. If chipping facilities are to be used to grind up wood waste, the debris waste should be segregated to prevent possible equipment damage.
- Burning of vegetative waste should not be practiced without permission from the Mississippi Department of Environmental Quality (MDEQ).
- Within 48 hours of establishing an emergency temporary facility, the local government should submit a written notification to MDEQ at P.O. Box 2261 Jackson, Mississippi 39225 that contains the following information:
  - A description of the nature of the disposal operation
  - A description of the physical address which identifies the temporary facility (street address and GPS coordinates if available)
  - A local contact person and contact information
- Upon closure of the temporary facility, all remaining debris (including wood chips and ashes) shall be removed to an appropriate disposal site.

### 8.4 Emergency Temporary Facilities for Class I Debris Disposal

In the event that a natural disaster destroys many residential and non-residential structures, debris wastes associated with building materials may require temporary

staging facilities prior to disposal in an approved disposal site. Recommended guidelines for establishing, selecting, operating, maintaining, and closure of temporary Class I facilities include:

- Within 48 hours of establishing an emergency temporary facility, the local government should submit a written notification to MDEQ at P.O. Box 2261 Jackson, Mississippi 39225 which contains the following information:
  - A description of the nature of the disposal operation
  - A description of the physical address which identifies the temporary facility (street address and GPS coordinates if available)
  - The proposed final disposal site for the wastes
  - A local contact person and contact information
- Temporary debris sites should be located in areas with convenient access and entry for easy drop-off and collection. These temporary areas could be a nearby park, vacant property, median of the road, other nearby public property or the road itself.
- A fire lane shall be maintained around the temporary facility at all times
- Local governments should supervise temporary storage and staging areas to ensure that only Class I and Class II debris are allowed in the facility. Household garbage, household chemicals, and food waste shall be transported directly to a Subtitle D landfill. Dumpsters designated for Subtitle D waste are recommended at temporary storage sites.
- Recyclable materials such as unusable white goods, scrap metals, and bulk deliveries of plastics and paper should be recycled when possible.
- Building wastes that contain asbestos, lighting ballasts and lamps, thermostats, electronic and electrical equipment should be segregated and stored separately and disposed at a Subtitle D landfill.
- Burning of vegetative waste should not be practiced without permission from the Mississippi Department of Environmental Quality (MDEQ).
- Upon closure of the temporary facility, all remaining debris (including wood chips and ashes) shall be removed to an appropriate disposal or recycling facility.

## 8.5 Emergency Temporary Facilities for Household Garbage Disposal

During a natural disaster, most solid waste equipment and manpower initially will be dedicated to debris removal necessary to open traffic flow and to restore utilities. Household waste will tend to accumulate at residences until services (electrical, water, and sewer) are restored. If dumpsters are available (or can be temporarily borrowed from government and business) they could be placed at subdivision entrances or nearby public areas for residential uses until regular solid waste pickup routes are restored.

## **Chapter 9**

# **FINANCING OF SOLID WASTE SYSTEMS**

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This chapter discusses how solid waste management units across the TRSWMA planning area are funded and financed.

### **9.1 Funding for Residential Collection**

In accordance with state law, the county or city must provide solid waste collection for all single-family residential dwellings. The majority of the residential waste is collected by the individual counties or local municipal government. There are three cities in the TRSWMA planning area that contract with private companies. Specific details of residential solid waste collection can be found in Chapter 2 of this report. Funding for residential solid waste collection is based on monthly user fees throughout the planning area. User fees are evaluated and adjusted each fall during the annual budgeting period. Fees collected are utilized to pay for solid waste collection equipment, labor, fuel, and routine maintenance and replacement of equipment and facilities.

Private companies at a negotiated fee typically collect multi-family dwellings, such as apartment complexes. In some cases, the County will pick up these at a negotiated fee.

### **9.2 Funding for Commercial and Institutional Collection**

For the most part, private companies at a negotiated fee provide commercial and institutional collections. In some cases, counties will provide commercial and institutional collection from roll-offs or drop-off containers at a negotiated price.

### **9.3 Funding for Transfer Stations**

The TRSWMA manages the collection and transportation of wastes from the transfer stations located in Monroe County, Lee County and Lafayette County. The Authority provides/manages the transportation contracts and supplies the walking floor trailers for each transfer station while the perspective County provides the labor and other equipment to operate and maintain the transfer station.

Each transfer station includes a scale where customers are weighed prior to and after delivering the waste to the tipping floor. Customers that utilize the transfer station are billed for actual tonnage delivered at a flat \$/ton rate that includes the tipping fee at the Landfill, transportation fee from the transfer station to the Landfill, O&M fee for the transfer station and maintenance and replacement fee for the walking floor trailers. Tipping fee rates vary between the three (3) transfer stations due to the differences in distance between the transfer station and the Three Rivers Regional Landfill. The replacement fee is evaluated annually by the Authority and is utilized to provide funds for the maintenance and replacement cost of the walking floor trailers. At the present time, \$2.00/ton from the transfer station tipping fee is budgeted for future trailers.

The TRSWMA administers a hauling contract with a private trucking company that transports the waste from the transfer station to the Three Rivers Regional Landfill. This contract is competitively bid and includes unit prices for each trip from the transfer station to the Landfill. Unit prices are adjusted annually based on changes in the Consumer Price Index. Unit prices are also adjusted monthly based on the monthly average of diesel fuel. At the present time the Authority's hauling contract is with Bell & Sons Trucking.

## 9.4 Public Costs of Solid Waste Management Systems

The public costs and means of financing those costs of the local solid waste management systems for each participating local government in the jurisdiction of the Regional Authority is the responsibility of the individual local governments. There are seven (7) counties within the Regional Authority that provide management of municipal solid wastes in the region and five (5) municipalities within those counties operating independently of the county governments. Detailed information regarding the solid waste management revenue and expenses for these local government entities is provided below. Anticipated revenues for local solid waste management total \$22,986,485.75 for 2024. The financing mechanisms providing these funding revenues include user fees (91.6%), ad valorem taxes (0.8%), other governmental sources (7.3%), and miscellaneous sources (0.2%). The anticipated costs for operating and maintaining the solid waste management systems in the region total \$17,238,626.44 in 2024. These

operating costs include personnel services (36.5%), contractual (41.6%), debt service (3.7%), capital outlay (5.7%) and miscellaneous expenditure (0.3%).

An evaluation of the adequacy of the financing mechanisms to cover the costs of the solid waste management systems in the region indicates that revenues exceed expenses by \$5,747,859.31 in 2024. A closer look of the individual government entities indicates that Calhoun County, Itawamba County, Pontotoc County, Fulton, and New Albany experienced shortfalls in 2024. Whenever a shortfall is experienced by a local system, funds are made available from other sources within that entity's operating budget. This may include monetary transfers from the general fund, redirection from other budgeted items, or an increase in millage rates or user fees. Each government entity operates independent of the TRSWMA regarding operating budgets.

Table 9-1 Revenues for Local Solid Waste Management (2024)

<u>Community</u>	<u>Total Revenue</u>
Calhoun County	\$700,000.00
Itawamba County	\$1,500,000.00
Fulton	\$461,217.75
Lafayette County	\$2,683,795.00
Oxford	\$1,750,000.00
Lee County	\$3,312,000.00
Tupelo	\$4,100,000.00
Monroe County	\$3,893,000.00
Pontotoc County	\$1,839,446.00
City of Pontotoc	\$450,000.00
Union County	\$1,418,000.00
New Albany	\$879,027.00

Table 9-2 Expenditures for Local Solid Waste Management (2024)

<u>Community</u>	<u>Total Expenditures</u>
Calhoun County	\$750,000.00
Itawamba County	\$1,700,000.00
Fulton	\$514,111.44
Lafayette County	\$2,670,000.00
Oxford	\$1,600,000.00
Lee County	\$3,312,000.00
Tupelo	\$4,100,000.00
Monroe County	\$1,917,365.00
Pontotoc County	\$1,936,800.00
City of Pontotoc	\$425,000.00
Union County	\$1,400,000.00
New Albany	\$913,350.00

## 9.5 Landfill Operational Costs

The TRSWMA has contracted the operation of the Landfill to an outside vendor, selected through a “Request for Proposal” procedure. The contract is a Master Services contract that will enable the Authority to issue Work Assignments on an as-needed basis for the duration of the contract. The contract will expire on September 30, 2028. Operational fees for the Landfill are adjusted each year based on the Consumer Price Index and the average cost of off-road diesel.

The Landfill generates a revenue stream for the Authority based on the per ton tipping fee. Tipping fees, whether collected at the Landfill or at a transfer station, and revenue from recycling efforts and electrical generation are the only non-grant-based source of revenue for the Authority at this time. The tipping fee is set by the Authority to cover all expenditures for the Authority; including landfill operation, cell construction, landfill closure, landfill post-closure expenses, various capital improvement projects, legal and engineering services, funds for equipment/facility replacement, and other events such as

household hazardous waste collection days and recycling. The tipping fee is evaluated in the summer of each year (using conservative projected MSW tonnages) when the next years FY budget is prepared. The tipping fee is adjusted as needed to ensure that the Authority will have adequate revenue to fulfill its financial and environmental obligations. A breakdown of the tipping fee for FY 2024/2025 is presented in Table 9-3.

Table 9-3 Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
Operations	\$ 10.46	Fee paid to Landfill Operator for operating scale house, landfill operations and day-to-day management of the landfill. This fee may be adjusted annually based on changes in the Consumer Price Index.
Fuel Surcharge	\$ 0.24	The fuel surcharge is set aside to adjust the tipping fee for increases or decreases in fuel prices.
Debt Service	\$ 0.52	This is the amount of the tipping fee that is allocated to pay off the bonds used by the Authority.
Capital Expansion	\$ 3.85	These funds are set aside in long-term and short-term interest-bearing accounts and are used for paying for capital improvement projects such as landfill cell construction, road paving, scale house replacement, anticipated for the landfill. This fee is evaluated each year and is based on a 10-year updated Capital Improvement Plan.
Closure/Post Closure	\$ 0.85	This portion of the tipping fee is set aside in an interest-bearing account for closure and post closure activities. Closure and post closure activities are not part of the Capital Expansion budget described above. Closure/Post Closure expenses are evaluated each year and adjusted during the FY budgeting process.

Table 9-3 (Continued) Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
State Tax	\$ 1.00	Under current state law, TRSWMA must pay the State/MDEQ a \$1.00/ton tax for every ton of solid waste that crosses the scale at the Landfill.
Three Rivers PDD	\$ 0.83	This portion of the tipping fee is allocated to reimburse the expenses of the Three Rivers Planning Development District that provides administrative, management, technical support and billing support to the TRSWMA.
Host County	\$ 1.35	This portion of the tipping fee is allocated to offsetting the tipping fee for Pontotoc County residents. Under the initial agreement of the TRSWMA, the host county would receive a 50% discount in tipping fee for hosting the Three Rivers Regional Landfill.
Taxes	\$ 0.38	This portion of the tipping fee is allocated to paying host county property taxes.
Legal Fees	\$ 0.20	This portion of the tipping fee is allocated to paying for legal services associated with the day-to-day operations of the TRSWMA.
Engineering Fees	\$ 0.10	This portion of the tipping fee is allocated to paying outside professional engineering services associated with the day-to-day operation of solid waste management activities.
HHW Collection Day	\$0.34	This portion of the tipping fee is allocated to funding activities associated with Household Hazardous Waste Day activities.
Administration	\$0.70	This portion of the tipping fee is allocated to paying for insurance, audit, software maintenance, internet, supplies, etc.
Leachate Disposal	\$ 2.05	This portion of the tipping fee is allocated to paying for leachate disposal.

Table 9-3 (Continued) Tipping Fee Breakdown for FY 2024/2025 (Adjusted Annually)

Tipping Fee Component	Tipping Fee, \$/ton	Basis for Component
Transfer Station Fund	\$ 0.33	This portion of the tipping fee is allocated to paying for maintenance of the 3 transfer stations.
Total Tipping Fee	\$23.20	

Although Table 9-3 provides an overview of funding to operate and maintain the Three Rivers Regional Landfill, several components merit additional discussion which are presented below:

**Funding for Capital Expansion**

In an effort to minimize significant fluctuations in the future construction component of the tipping fee, a new funding model was developed in FY 2010. This new funding model identified and forecasted various future construction activities (such as new cell construction, new scales, road paving, new leachate tanks, etc.) over a 10-year period. Revenue from the Future Construction line item is invested in dedicated long-term and short-term interest-bearing accounts. To keep the funding model current, the 10-year model is updated each summer during the annual budgeting process. The future construction component of the tipping fee is updated annually for inflation, short-term interest rates and long-term interest rates. The model is adjusted annually based on the updated 10-year future construction budget requirements and the tipping fee allocation adjusted to a level that maintains a positive balance in the future construction accounts over the next 10 years.

The TRSWMA is investigating the opportunities to develop revenue stream from the landfill gas generated from the decomposition of the organic solid waste (RNG – Renewable Natural Gas). This can be accomplished by the selling of the landfill gas to a third party for refinement or other use. This potential revenue stream will be available as long as the Landfill is generating gas from organic decomposition. However, the quality and quantity of the product will vary significantly over time. A portion of this revenue stream may be allocated to the Closure/Post Closure Fund.

## **Closure and Post-Closure Costs**

As a condition of the solid waste permit from the Mississippi Department of Environmental Quality (MDEQ), the TRSWMA is required to establish and maintain a fund to pay for the cost of closure of active and/or completed sections of the Landfill in case of cessation of operation by the owner and for post-closure maintenance and monitoring of the closed areas for thirty (30) years after closure. This requirement provides the MDEQ the funds if it is necessary for a third party (as opposed to the owner) to close and maintain the Landfill. Estimates of the cost of closure and post-closure are typically provided by consulting engineers retained by the permittee and are subject to adjustment on a periodic basis due to inflation, deflation, and changes in technology or applicable laws or regulations. The creation of a closure/post-closure fund may be viewed by the owner as a sinking fund from which to withdraw funds for closure construction and post-closure expenses. The assessment of the existing fund was analyzed from both perspectives.

The closure/post-closure fund is presently funded by an assessment of \$0.85 per ton of waste received at the Landfill. These values are reviewed and adjusted annually to determine the adequacy of the closure/post-closure fund. The estimated costs of closure and post-closure activities were reviewed as the basis for evaluating the adequacy of the present funding levels. Considering that law requires the financing of the closure and post closure fund, a financial model was developed to simulate current and future costs associated with closure and post closure activities.

Closure of the Landfill will include capping with a composite (soil and geosynthetic) final cover and construction of stormwater management features, erosion controls, and upgrades to the landfill gas management system. Due to the size of the Landfill (currently permitted at 207 acres), there will be times when the Landfill will have portions of the landfill in the active mode (receiving solid waste), closure mode, and in the post closure mode. Items funded by the Closure/Post Closure fund include:

- Construction of an 18" soil infiltration layer
- Installation of 40-mil textured LLDPE geomembrane over the top deck portions the landfill. Geomembrane is not required on the side slopes of the landfill.

- Installation of a double-sided drainage geocomposite over the LLDPE geomembrane on the top deck of the landfill.
- Construction of a 12” vegetative layer on top of the infiltration layer (slopes) and the drainage geocomposite (top deck).
- Construction of stormwater diversion berms and letdown pipes on the capped landfill.
- Construction of miscellaneous stormwater management and erosion and sediment controls including riprap outlet protection, ditch matting, seeding, and fertilizer.
- Engineering, Project Management, Surveying, and Construction Quality Control / Quality Assurance
- Annual post-closure inspection to evaluate the facility condition and identify necessary maintenance.
- Perimeter fence maintenance
- Groundwater sampling, analytical testing, and reporting
- Stormwater sampling, analytical testing, and reporting
- Perimeter methane probe sampling
- Cap maintenance, erosion repairs, regrading, and re-seeding.
- Stormwater conveyance and collection system maintenance and repairs.
- Leachate collection, treatment, and disposal.
- Mowing of the closed landfill.
- Landfill gas collection and control system (GCCS) operation and maintenance.
- Air permit fees.

The Three Rivers Regional Landfill is currently estimated to provide disposal capacity until approximately 2057. The active life of the Landfill may change depending on growth in the region and recycling activities. The post closure period will last for 30 years after the Landfill is closed. Due to the many variables associated with closure and post closure revenue, a financial model was developed to forecast closure and post closure income sources and expenditures. The financial model enables the Authority to

track and forecast revenue and expenses and to make annual adjustments for the following parameters:

- Interest rate on invested income
- Inflation rate
- Annual tonnage of solid waste received at the Landfill
- Contributions from the tipping fee
- Construction and maintenance activities associated with the landfill gas management system
- Contributions from the sale of landfill gas (RNG, electrical generation and leachate evaporation)
- Closure and post closure expenditures (time forecasted)

## 9.6 Household Hazardous Waste Program

Limited Household Hazardous Waste Programs (HHW) have occurred in the region in the past and were generally funded by matching grants from the Mississippi Department of Environmental Quality. The TRSWMA tipping fee allocates a portion of the tipping fee for “HHW Collection Day events”. Funds from the MDEQ are also solicited each year to supplement the Authority funds. Funding for HHW activities is evaluated and budgeted each year in the tipping fee.

## 9.7 Funding for Curbside Recycling

The City of Oxford and the City of Tupelo are the only two communities that provide curbside recycling to residents. The City of Oxford funds their program by an appropriation from the city budget. Residents of Tupelo pay a monthly fee that averages approximately \$1.35/resident. Collection fees for Tupelo are adjusted for economic conditions and changes in fuel prices.

## 9.8 Funding for Other Authority Expenses

In addition to the above listed items, part of the tipping fee is also allocated to fund other miscellaneous operating expenses. These expenses are budgeted and adjusted each year and include but are not limited to:

- Debt retirement for active bonds

- Mississippi Solid Waste Tax (currently at \$1.00/ton)
- Advalorem taxes (Host County Agreement)
- Leachate disposal fees (cost shared with operations contractor)
- Title V fees (air emissions fee paid to Mississippi Department of Environmental Quality)
- Host County Fees (Residents of Pontotoc County only pay 50% of the normal tipping fee)
- A management fee paid to the Three Rivers Planning & Development District. The Planning District provides employees associated with the day-to-day management (including billing) of all solid waste management activities within the TRSWMA planning area.
- Legal, auditing and engineering fees
- Liability insurance for TRSWMA.
- Trustee Fees

## 9.9 Funding for Rubbish Landfill Operations

Funding for the construction, maintenance and day-to-day operation of private and government owned rubbish landfills are borne entirely by the owner of the rubbish landfill.

All of the privately owned rubbish landfills charge a tipping fee based on established billing units that are typically by the cubic yard or by the ton. Some privately owned rubbish landfills also negotiate disposal prices by the job.

Government owned rubbish landfills are financed through local taxes and/or by unit prices charged to the customer.

## Chapter 10

# SOLID WASTE NEEDS ASSESSMENT

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The purpose of this Chapter is to identify the various solid waste needs within the TRSWMA planning area. While there are numerous needs within the region, not all needs are equal and have different levels of importance. Some needs and concerns were identified through the surveys that were provided to each county and municipality. In view of this, this Chapter establishes categories of needs based on the urgency and degree of need. The Categories are presented below:

- Category 1** This is a solid waste management need that is urgently needed to be addressed in order to comply with a permit condition, state or federal law. Category 1 needs that have a projected capacity shortfall are required to have an implementation schedule in accordance with Mississippi Code § 17-17-225(d) and § 17-17-227(1)(h). Examples of a Category 1 need would be a community that did not provide residential solid waste collection or a rubbish landfill that is about to exhaust its capacity.
- Category 2** This is a solid waste management need that would be nice to have, but is not necessary to comply with a permit condition, state or federal law. A Category 2 need is essentially a “desired” need. Examples of Category 2 needs could include the construction of a new rubbish landfill that will more confidently serve local residents or providing a concrete pad under white goods collection area. In accordance Mississippi Code § 17-17-225(d) and § 17-17-227(1)(h), Category 2 needs do not require an implementation schedule.
- Category 3** This is a solid waste management need that merits additional study and is not directly related to any state or federal law. Example of a Category 3 need would be for a community to evaluate reducing residential garbage collection from twice a week to once a week or to evaluate the possibility of changing the type of equipment used to pick up residential solid waste. In accordance Mississippi Code § 17-17-225(d) and § 17-17-227(1)(h), Category 3 needs do not require an implementation schedule.

This chapter also divides up needs into sections so that local governments can clearly locate and identify solid waste needs within their jurisdiction. For example, there are some needs that are best handled on a region wide basis while other needs may be directed toward a specific county.

## 10.1 Three Rivers SWMA Planning Area

The Three Rivers Solid Waste Management Authority (TRSWMA) provides the umbrella organization for solid waste management activities within the Three Rivers Planning Area. The umbrella type management structure provides the Authority the ideal mechanism to coordinate solid waste management issues on a systems wide basis. While the Authority does not have the legal authority to regulate the actions of a county, city or private business, the Authority is in a position to provide guidance and direction for addressing area wide initiatives. Needs for the entire region are identified in Table 10-1.

Table 10-1 Needs for the Entire Planning Area (administered by the Authority)

Category	Description of Solid Waste Management Need
Category 1	There are no known Category 1 needs that need addressing at this time.
Category 2	The Authority should continue maintaining a current copy of the Solid Waste Management Plan on their web site ( <a href="http://www.trpddd.com/gov/downloads">www.trpddd.com/gov/downloads</a> ) so that all residents and industry can have access to the report.
Category 2	Authority currently uses Paradigm software to invoice and track landfill customers. Updates are provided by Paradigm on a systematic basis. Authority should continue evaluating system on an annual basis.
Category 2	The Authority shall continue to manage and administer trucking contracts for the three (3) transfer stations. Current contract is a 3-year contract with the option for 3 additional 1-year extensions with Bell and Sons Trucking.
Category 3	The Authority should pursue funding avenues for providing educational services associated with recycling, waste minimization efforts, yard waste programs and illegal/roadside dumping. Three Rivers team members regularly speak to area schools, civic organizations, and local governments regarding solid waste management in the region.

## 10.2 Three Rivers Regional Landfill

This section of the report is dedicated and applicable only to the Three Rivers Regional Landfill located near Pontotoc.

Table 10-2 Needs Assessment of the Three Rivers Regional Landfill

Category	Description of Solid Waste Management Need
Category 1	The Authority needs to continue to address permit renewals for the solid waste permit, storm water permit, Title V air permit, and the pretreatment permit for leachate disposal as required by MDEQ.
Category 2	The Authority shall continue to effectively manage the existing landfill gas collection system consisting of a flare, electric generator, and leachate evaporator.
Category 2	The Authority shall continue annually reviewing the effectiveness of flow control through audits of the MDEQ Annual Reports and other available resources.
Category 2	The Authority shall continue to develop and implement long-range Capital Improvement Projects for the landfill. Capital improvement projects are considered annually, budgeted accordingly, and approved by the Authority Board.

### 10.3 Calhoun County

Calhoun County, like all of the governmental entities within the TRSWMA region, has some solid waste issues that are unique to the county and others which are common with other members of the TRSWMA. Based on a site survey in the county and discussions with solid waste management personnel in the county, solid waste management issues that need evaluating are identified in Table 10-3.

Table 10-3 Needs Assessment for Calhoun County

Category	Description of Solid Waste Management Need
Category 1	The City of Bruce has closed the rubbish disposal landfill. Under Mississippi Code 17-17-5, the County is obligated to provide rubbish disposal for the citizens in the County. The City should work with the County to develop and plan to meet the need by December 31, 2026.
Category 2	The County should continue to conduct an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as necessary.
Category 2	In the event that Blueberry Class 1 Landfill is formally closed, the Owner shall provide all closure activities to MDEQ in accordance with the Class 1 permit.

## 10.4 Itawamba County

Itawamba County and the City of Fulton are strategically located on the Tennessee-Tombigbee Waterway that has prime growth potential for industrial development. Specific solid waste management needs are identified in Table 10-4.

Table 10-4 Needs Assessment for Itawamba County

Category	Description of Solid Waste Management Need
Category 1	There are no known Category 1 needs for Itawamba County.
Category 2	The County should continue conducting an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as necessary.

## 10.5 Lafayette County

Lafayette County is one of the more comprehensive counties in the Three River's region in solid waste management. Areas that should be evaluated at the county level are identified in Table 10.5.

Table 10-5 Solid Waste Needs for Lafayette County

Category	Description of Solid Waste Management Need
Category 1	The Lafayette County Transfer Station is in need of renovation. Plans have been completed and submitted for funding. Work should be completed by December 31, 2026 dependent upon funding.
Category 2	The County should continue conducting an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as necessary.

## 10.6 Lee County

Lee County is the most developed county within the TRSWMA planning region with a large industrial and medical base. Solid waste management needs for the county are identified in Table 10-6.

Table 10-6 Solid Waste Needs for Lee County

Category	Description of Solid Waste Management Need
Category 1	The Tupelo Wondura Class II Rubbish Landfill is nearing capacity. An expansion of the landfill is currently underway and should be completed by December 31, 2025.
Category 1	The Lee County Transfer Station is in need of renovation. Plans have been completed and submitted for funding. Work should be completed by December 31, 2025 dependent upon funding.
Category 2	The County should continue conducting an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as necessary.

## 10.7 Monroe County

Recycling in Monroe County may be improved by relocating the recycling drop-off facility to a heavily traveled location and adequately identify the property. Within the county, some of the other issues that should be considered by the local government are as follows:

Table 10-7 Solid Waste Needs for Monroe County

Category	Description of Solid Waste Management Need
Category 1	Monroe County Class 1 Rubbish Landfill reported 5 years of remaining life in 2018. The County purchased approximately 65 acres of adjacent property in 2019. Modification of the Solid Waste Management Plan for additional 61 acres was approved by MDEQ on June 29, 2021. The permit application was approved by MDEQ on March 7, 2022. An expansion cell is currently under construction and should be completed by July 31, 2025.
Category 1	The Monroe County Transfer Station is in need of renovation. Plans have been completed and submitted for funding. Work should be completed by December 31, 2026 dependent upon funding.
Category 1	Monroe County has exceeded the 20,000-pesticide container threshold in 2024. The County should develop a Pesticide Container Management Program by December 31, 2026.
Category 2	The County should continue conducting an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as necessary.
Category 2	The City of Aberdeen expressed a concern regarding the proper disposal of bulky waste and tires and should explore providing a drop-off location.

## 10.8 Pontotoc County

There are very few solid waste management needs in Pontotoc County because most solid waste management facilities are centrally located to the Three Rivers Regional Landfill. Solid waste management issues within the county are presented in Table 10-8.

Table 10-8 Solid Waste Needs for Pontotoc County

Category	Description of Solid Waste Management Need
Category 1	There are no known Category 1 needs for Pontotoc County.
Category 2	The County should continue conducting an annual inspection of the solid waste maintenance building and associated equipment and make repairs/replacements as needed.
Category 3	The City of Pontotoc should study the possibility of converting some of the recently closed wastewater lagoons to Class 2 Rubbish facilities as needed. Although these old lagoons will not likely provide a 20-year life expectancy, the available volume and structure of these abandoned lagoons are well suited for rubbish disposal and efficient use of otherwise unusable property.

## 10.9 Union County

Union County has the opportunity to be a fast-growing county due the Toyota plant operations in Blue Springs along with other suppliers/industry in the area. Although it is difficult to predict how much residential and industrial growth will occur in the county, it is clear that some new or expanded solid waste facilities and programs will need to be implemented in the future with the Toyota factory production. Specific solid waste needs for Union County are identified in Table 10-9.

Table 10-9 Solid Waste Needs for Union County

Category	Description of Solid Waste Management Need
Category 1	The existing Class I Rubbish landfill (Pumpkin Center) is nearing capacity. A new location may be required to meet permitting requirements. This is the only rubbish landfill in the County and Mississippi Code 17-17-5 requires that each county provide rubbish disposal for the citizens in the county. The City is considering additional land for the rubbish landfill and plans to move forward in order to continue to provide rubbish disposal for citizens. An expansion or new location should be developed by December 31, 2026.
Category 1	The County does not have a Solid Waste Enforcement Officer. Budget limitations have been an area of concern in the past. The Board of Supervisors should address this topic and can work with the Authority to inquire about a MDEQ Grant by June 30, 2026.
Category 2	Blue Springs indicated a desire in the survey responses to add a recycling program. The city should open discussions with New Albany and Union County to work out a cooperative effort.

# **Appendix A**

## **Flow Control Ordinance**

**RESOLUTION DECLARING NECESSITY OF  
REQUIRING MANDATORY FLOW OF MUNICIPAL SOLID WASTE  
WITHIN BOUNDARIES OF  
THREE RIVERS SOLID WASTE MANAGEMENT AUTHORITY**

WHEREAS, the Three Rivers Solid Waste Management Authority (the "Authority") is a political subdivision of the State of Mississippi and regional solid waste management authority created under the provisions of Sections 17-17-301 through 17-17-319 of the Mississippi Code of 1972, as amended;

WHEREAS, the Authority operates a regional solid waste landfill in Pontotoc County Mississippi, as defined by Section 17-17-305(w) of the Mississippi Code of 1972, as amended;

WHEREAS, the Authority has operated the landfill since April, 1995 in accordance with the Three Rivers Regional Solid Waste Management Plan (the "Solid Waste Plan") adopted and amended by the Authority and the various counties and municipalities comprising the Authority and approved by the Commission on Environmental Quality in 1992 and amended in December, 2005;

WHEREAS, at the time the Authority was created and at the time the Solid Waste Plan was adopted, there were no permitted Subtitle D landfills within the boundaries of the Authority or outside the Authority in the State of Mississippi, that met the proposed or final Subtitle D Regulations and none were in existence on April 12, 1991 at the time Section 17-17-319 of the Mississippi Code of 1972 was adopted;

WHEREAS, the Solid Waste Plan specifically found that a single regional solid waste management landfill was needed for the disposal of all municipal solid waste generated within the Authority's boundaries and thereby demonstrated in writing that use of any other solid waste disposal facility other than the Authority's regional landfill would be inconsistent with the Solid Waste Plan;

**WHEREAS**, in February, 1992, the Authority selected a site in Pontotoc County, Mississippi, to permit and construct a regional solid waste management landfill designed to meet the disposal needs for the counties and municipalities comprising the Authority;

**WHEREAS**, the Authority has determined that no additional Subtitle D solid waste landfills have been built within the geographic boundaries of the Authority;

**WHEREAS**, the Authority has determined that the utilization of any other municipal solid waste management facility, other than the Authority's landfill for the disposal of municipal solid waste within the geographic boundaries of the Authority would be inconsistent with the Solid Waste Plan;

**WHEREAS**, Section 17-17-319 of the Mississippi Code of 1972, authorizes the Authority to enact a mandatory flow ordinance, if the Authority determines that the mandatory flow of municipal solid waste within its boundaries is necessary to ensure the viability of the Authority's landfill;

**WHEREAS**, for purposes of this Resolution, the term "Municipal Solid Waste" shall mean any nonhazardous solid waste resulting from the operation of residential, commercial, governmental, industrial, or institutional establishments except waste generated from oil field exploration and production waste, sewerage sludge, rubbish which is disposed of in a Class I Rubbish Site or a Class II Rubbish site and recycled material.

**WHEREAS**, for purposes of this Resolution, the term "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of RCRA. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals;

iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

**WHEREAS**, for purposes of this Resolution, the term "Solid waste" means any garbage, or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permit under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

**WHEREAS**, for purposes of this Resolution, the term "Municipal solid waste management facility" means any land, building, plant, system, motor vehicles, equipment or other property, whether real, personal or mixed, or any combination of either thereof, used or useful or capable of future use in the collection, storage, treatment, utilization recycling, processing, transporting or disposal of municipal solid waste, including transfer stations, incinerators, sanitary landfill facilities or other facilities necessary or desirable.

**WHEREAS**, the Authority has determined that the mandatory flow of municipal solid waste within its boundaries is necessary to ensure the viability of the Authority's landfill for the following reasons: (1) Currently over thirty-three percent (33%) of all municipal solid waste generated within the Authority's geographic boundaries is being taken outside the region for

disposal; (2) over forty percent (40%) of the municipal solid waste currently disposed of at the landfill consists of non-residential waste which is subject to being taken elsewhere and any change in circumstances which would result in a portion of that waste stream being taken elsewhere would significantly affect the viability of the landfill; (3) the Authority will incur certain fixed expenses in the future which will be mandated by state and federal law and it is necessary to ensure the viability of the landfill that a waste stream be guaranteed to cover these anticipated fixed expenses; (4) due to its operation as a landfill designed to afford residents of the region affordable garbage disposal, the loss of any municipal solid waste would have a disproportionate impact on the Authority budget and would adversely affect the viability of the landfill;

**WHEREAS**, the Authority has further determined that there is a need to exempt certain industrial solid waste from the mandatory flow requirement to assist existing industry in the region with limiting potential liability exposure under federal law, namely the "cradle to grave" liability arising under the Resource Conservation and Recovery Act ("RCRA").

**NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:** the Authority hereby determines that the mandatory flow of municipal solid waste to the Authority's solid waste landfill in Pontotoc County, Mississippi, by any person generating municipal solid waste within the geographic boundaries of the Authority is necessary to ensure the viability of the Authority's landfill in Pontotoc County, Mississippi, and each county and municipality within the Authority's jurisdiction, is directed to comply with this resolution pursuant to Section 17-17-319 of the Mississippi Code of 1972 to adopt an ordinance requiring that all municipal solid waste generated within the boundaries of each county or municipality shall be disposed of at the Authority's landfill in Pontotoc County, Mississippi.

**BE IT FURTHER RESOLVED** that notwithstanding anything herein to the contrary, this Resolution shall not be applicable to any solid waste disposed of by a generator of industrial solid waste within the region which has provided for the collection, transportation and disposal of its solid wastes either directly or by contract for at least ten (10) consecutive years or since the inception of the generator within the region if less than ten (10) years immediately prior to enactment of the member ordinance at a single municipal solid waste management facility

**BE IT FURTHER RESOLVED** that a generator of industrial solid waste within the region which meets the criteria for this exemption shall seek a permit confirming this exemption from the Authority pursuant to a procedure established by the Authority. The permit for an exemption shall be valid for five (5) years from the date of issuance and may be reissued for consecutive five (5) year periods as long as the generator continues disposal in the same single municipal solid waste management facility.

**BE IT FINALLY RESOLVED** that any generator of industrial solid waste which locates within the region after the effective date of the applicable ordinance shall comply with the mandatory flow requirements set forth herein and shall not be entitled to this exemption.

Upon motion duly made by Commissioner Rick Faucette and seconded by Commissioner Carl Cadden, and following discussion, the foregoing Resolution is hereby duly adopted upon the following vote of the members of the Board of Commissioners of the Three Rivers Solid Waste Management Authority:

Commissioner Ronnie Bell	voted: <u>AYE</u>
Commissioner Howard Boozer	voted: <u>AYE</u>
Commissioner Carl Cadden	voted: <u>AYE</u>
Commissioner Tom Cooper	voted: <u>AYE</u>
Commissioner Rick Faucette	voted: <u>AYE</u>
Commissioner Bobby Jones	voted: <u>AYE</u>
Commissioner Tim Kent	voted: <u>AYE</u>
Commissioner Raymond Patterson	voted: <u>AYE</u>
Commissioner Bill Rutledge	voted: <u>AYE</u>
Commissioner Paul Walker	voted: <u>ABSENT</u>
Commissioner Martha Martin	voted: <u>AYE</u>
Commissioner Kevin Payne	voted: <u>ABSENT</u>
Commissioner Alonzo Sykes	voted: <u>ABSENT</u>
Commissioner Russ Heard	voted: <u>AYE</u>

The motion having received the affirmative and unanimous vote of the members present, the Chairman declared the motion carried and the resolution adopted on this the 19th day of September, 2006.

**THREE RIVERS SOLID WASTE  
MANAGEMENT AUTHORITY**

By:   
**Ronald E. Bell, Chairman**

ATTEST:

\_\_\_\_\_  
 Carl Cadden, Secretary

Jackson 1284800v.3

## **Appendix B**

Board Resolution Regarding  
Comprehensive Update  
Of the Solid Waste Management Plan

## **Appendix C**

Mississippi Department of  
Environmental Quality Approval

## **Appendix D**

### Procedure for Modifying the Three Rivers SWMP

# **PROCEDURE FOR MODIFYING THE THREE RIVERS SOLID WASTE MANAGEMENT AUTHORITY SOLID WASTE MANAGEMENT PLAN**

## **INTRODUCTION**

This document was developed to serve as a guide for the procedure to modify the Three Rivers Solid Waste Management Authority (Authority) Solid Waste Management Plan (SWMP). Potential modifications to the SWMP may originate from entities such as private individuals, commercial businesses, industries, or local governments within the Authority. The Mississippi Department of Environmental Quality (MDEQ) publication, "Guidance For Modifying a Solid Waste Management Plan" (attached hereto), provides detailed steps that must be completed in order to modify the Authority's SWMP.

## **INITIATING A MODIFICATION TO THE SWMP**

1. Applicant shall submit a formal request using MDEQ's *Applicant Request Form* (attached hereto) and supporting documentation to the Authority for review. Along with the aforementioned request, the applicant shall pay to the Authority a \$1,000.00 initial deposit for a SWMP minor modification or a \$5,000.00 initial deposit for a SWMP major modification. Said deposit shall be utilized by the Authority to fund any necessary engineering, legal, consulting, or other documented administrative expenses related to the applicant's request to modify the SWMP. The Authority may require an additional deposit from the applicant if said modification expenses exceed the amount of the initial deposit. Any applicant deposit not ultimately expended by the Authority for said modification expenses shall be refunded to the applicant at the close of the SWMP modification process. The Authority shall consult with MDEQ to determine if the applicant's request to modify the SWMP qualifies either as a minor or major modification.
2. In addition to the formal request, the applicant shall acquire a resolution from the local governing Board (County or Municipal) that has jurisdiction over the area where the applicant's project is sited and present said resolution to the Authority for consideration. Said resolution shall serve as documentation requesting the Authority to initiate the process of evaluating the project and modifying the SWMP. This shall be the first resolution from the local governing board to be followed by a second resolution following the public hearing process.
3. Applicant must provide a determination of need to the Authority for any new or expanded solid waste management facility proposed for inclusion in the SWMP. The determination of need shall include, at a minimum, the following items:
  - a. Verification that the applicant's project meets the needs identified in the approved SWMP taking into account quantities of solid waste generated and the design capacities of existing facilities;
  - b. Certification that the applicant's project complies with local land use and zoning requirements, if any;

- c. Demonstration, to the extent possible, that the operation of the applicant's project will not negatively impact the current waste reduction strategy of the Authority;
    - d. Certification that the proposed service area of the applicant's project is consistent with the SWMP;
    - e. A description of the extent to which the applicant's project is needed to replace other facilities listed in the SWMP.
4. Applicant shall demonstrate that the proposed project is financially sustainable by documenting the following:
  - a. Estimated planning, design, and construction expenses;
  - b. Estimated operational expenses;
  - c. Estimated closure and post closure expenses;
  - d. Funding mechanism for (a) through (c) described immediately above.
5. The Authority shall review and duly consider the proposed modification of the SWMP at a regularly scheduled meeting (meetings are normally scheduled the second Tuesday of each month). The Authority shall review and consider such issues as the need for the facility, consistency of the proposed modification with the goals of the approved SWMP, local siting issues, and other potential issues considered significant by the Authority. Upon approval, the Authority will issue a resolution in support of the proposed modification.

## **PUBLIC PARTICIPATION**

The Authority must conduct a public participation process (except in the case of a SWMP minor modification) that provides for the meaningful involvement of the general public. A public notice must be developed by the applicant that describes the proposed planning modification, establishes a public comment period, specifies where documents may be reviewed, provides a mechanism for receiving written comments, and provides notice of the mandatory public hearing where additional comments may be received. The public notice must be presented to the Authority for review and approval prior to publication. The date and time of the public hearing must be coordinated with the Authority.

In addition to the public hearing, the Board of Supervisors of each adjacent county and owners of contiguous property must be notified in writing of the proposed SWMP modifications. These notifications shall be prepared by the applicant and sent at the time of the public notice publication and shall include an actual copy of the public notice. Written notifications to contiguous landowners must be sent by certified mail.

Written or verbal public comments relative to proposed SWMP modifications should be documented and presented to the Authority for review and consideration. Applicants should be aware that the Authority may choose to approve, alter, or deny proposed SWMP modifications based upon information or comments received during the public participation process.

## **WRITTEN MODIFICATIONS TO THE PLAN PREPARATION**

A written description of the proposed solid waste management facility, existing facility modification, or other proposed change must be prepared by the applicant and presented to the Authority for review and consideration. This description must be prepared as modified pages

intended for insertion or replacement in the official copies (hard copy and electronic copy) of the SWMP maintained by the Authority and MDEQ. Details of the required content are provided in the MDEQ guidance document referenced herein. Maintenance of the SWMP is the responsibility of the Authority; therefore, the applicant must coordinate with the Authority for preparation of the modified document and MDEQ submittal requirements.

## **FORMAL RESOLUTIONS**

Following the 30-day comment period and associated public hearing, the Authority shall act upon the request to modify the SWMP. Prior to consideration by the Authority, the applicant must acquire a second resolution from the local governing Board (County or Municipal) in support of the proposed modification indicating that all written and public comments were reviewed and considered. Upon receipt and review by the Authority, the Authority shall act to approve the proposed modification through issuance of a second resolution with consideration of all public comments. The formal resolutions from the local governing Board (County or Municipal) and the Authority granting SWMP modification approval shall be adopted within 90 days of the public hearing date. Upon completion, a signed and certified copy of the resolutions shall be made a part of the submittal to MDEQ.

The Authority may act to deny the proposed SWMP modification due to the consideration of public comments or other information received during the public participation phase of the modification process. MDEQ will be notified by the Authority of the proposed modification denial should such occur.

## **SUBMITTAL REQUIREMENTS**

Once approved by the Authority, a formal request to modify the SWMP shall be submitted to MDEQ. Applicant shall provide the Authority with all required documentation for the preparation of the MDEQ submittal. The submittal shall include two copies of the following:

1. The completed *Local Government Request Form* and/or cover letter requesting that MDEQ consider the proposed modifications to the SWMP;
2. The original and any revised copies of the *Applicant Request Form* signed by the applicant including the demonstration of need and any additional documents or supplemental information;
3. The revised page(s) of the SWMP including relevant facility information and a description of the determination of need for any new or expanded facility;
4. The public notice including certified proof of publication;
5. The summary statement of public comments received and/or a transcript of the public hearing. Where public comments were received, this should also include a written statement describing how these comments were ultimately considered;
6. The letters notifying adjacent counties of the SWMP modifications;
7. For new or expanded facilities, the letter to contiguous property owners and copies of the signed, certified mail delivery receipts and any returned certified mail item that are refused or otherwise undeliverable; and
8. The signed and certified Authority resolution approving the proposed modification and confirming that the determination of need for any new or expanded facilities has been considered and approved.

Throughout this process, it is the applicant's responsibility to keep the Authority informed of the modification status, to provide all required documentation to the Authority for review and approval, and to meet deadlines established by MDEQ. The estimated time frame to complete the process from request to the Authority for the proposed SWMP modification through MDEQ approval of the modification (if deemed a major modification) is six to nine months.