PORTER-HIGGINBOTHAM
ENGINEERING, INC.

The Marion County
Solid Waste Management Plan
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DRAFT

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CHAPTER 1: INTRODUCTION

1.1 HISTORIC OVERVIEW

In 1989, the Alabama State Legislature passed Act 89-824 governing solid waste management in the State of Alabama. This Act, codified in the Alabama Solid Wastes Disposal Act, Code of Alabama 1975, §22-27-40 through §22-27-48, required the Director of the Alabama Department of Environmental Management (ADEM), and cities and counties of the State of Alabama to develop and adopt comprehensive Solid Waste Management Plans (SWMP or "Plan") which forecast and describe the management of solid waste generated within a local government's jurisdiction over a minimum 10-year period. This SWMP is to be utilized as a "roadmap" on how to manage solid waste facilities and services in the local jurisdiction by addressing all items required by the Alabama Solid Wastes Disposal Act.

As a result of Act 89-824 and additions to the Alabama Solid Wastes Disposal Act (later revised and now called the Solid Wastes and Recyclable Materials Management Act or SWRMMA), each county was originally required to develop and submit a SWMP to ADEM for approval in 1990. The requirements also call for each county to periodically submit an updated Plan that covers the management of solid waste generated in their jurisdiction for the next ten-year period (minimum). An ADEM-approved SWMP is required before a county or municipality can grant local approval on matters related to solid waste management within their jurisdiction and is also required to be eligible for recycling grant funds. Municipalities within each county have the option of adhering to the County's SWMP or "opting out" of the county's plan by developing and submitting their own plan to ADEM. At this time, all municipalities in Marion County have elected to be covered by the County's SWMP.

Marion County has retained Porter Higginbotham Engineering, Inc. (PHE) to update their SWMP. The *Marion County Solid Waste Management Plan - 2024* addresses the concerns of the Solid Wastes and Recyclable Materials Management Act and meets the requirement for each government's SWMP to be periodically updated.

1.2 PURPOSE OF REPORT

The purpose of this Solid Waste Management Plan is to provide for the management of solid waste within the political jurisdiction of Marion County for the period of 2025 to 2034. This Plan will address aspects of solid waste management such as generation, collection, transportation, and disposal, as well as recycling and composting, and will have general applicability for the circumstances and situations that may affect solid waste management in Marion County. In particular, the SWMP will address the following issues required by Code of Alabama 1975, §22-27-47, as applicable:

- Descriptions and explanations of the general origins and weight or volume of solid waste (household, commercial, industrial, construction/demolition, and special wastes) currently generated within the jurisdiction's boundaries.

- Current methods of collection and transportation of solid waste within the jurisdiction.
- Identification and descriptions of facilities where solid waste is currently being disposed of or processed, with estimated remaining capacities of these facilities, including municipal solid waste (MSW) landfills, Industrial landfills, Construction/Demolition (CID) landfills, incinerators, and recycling centers.
- Identification and descriptions of current and/or planned recycling programs and the impact such recycling programs have on generated waste in the jurisdiction.
- Address the requirements of the federal Resource Conservation and Recovery Act, Subtitle D and explain those actions the jurisdiction should take to assure proper management of its waste under these requirements.
- Descriptions of current and/or planned procedures for the identification, elimination, and prevention of unauthorized dumps in the jurisdiction.
- Descriptions of the general origin and weight or volume of solid waste that is expected to be generated annually in the jurisdiction for the next ten (10) years.
- Provisions for the development or expansion of solid waste management systems that are consistent with the needs of the jurisdiction, while considering planning, zoning, population and development estimates, economics of jurisdiction and the protection of air, water, land, and other natural resources.
- Identification of current and proposed future agreements between the jurisdiction and other units of local governments and/or authorities for the joint use or operation of solid waste facilities.
- Identification of current and proposed future contractual agreements with private operators of collection, processing, transportation, and/or disposal facilities for solid waste.
- Identification of proposed solid waste processing, disposal or recycling facilities, considering the needs of the area, the proximity to transportation routes and large solid waste generators, the cost and availability of public services, public health, safety and environmental impacts, and the social and economic impacts a proposed location would have on the affected community.
- If applicable, an explanation of why a jurisdiction proposes to utilize a solid waste facility outside its jurisdiction.

1.3 PLANNING PERIOD

All solid waste projections will be based on the planning period of January 1, 2025 - December 31, 2034. **For reporting purposes, this SWMP shall expire January 1, 2035.**

1.4 METHODOLOGY

This Update generally follows a format required by ADEM with its purpose being to develop a comprehensive Solid Waste Management Plan by addressing the collection, transportation, processing, disposal, and recycling of solid waste in the County. The report is outlined in the Table of Contents and addresses all concerns for a completed Solid Waste Management Plan. The heading of each section includes the addressed task required by the Code of Alabama 1975, §22-27-47.

The historical data utilized in this report was compiled for the record year 2023. Preparation of the Marion County Solid Waste Management Plan included:

- Meetings with ADEM to determine format and methodology of data to be included in the SWMPs.
- Identification and designation of cities and incorporated areas to be included in the SWMP.
- Review of previous Solid Waste Management Plans.
- Location and identification of existing solid waste facilities (landfills, transfer stations, recycling centers, etc.).
- Review of Alabama State Legislative documentation.
- Review of Environmental Protection Agency (EPA), Alabama Department of Environmental Management (ADEM) and local regulations governing solid waste management.
- Review of population data.
- Formal data collection and personal interviews with county personnel, contract haulers, private solid waste facility owners and operators, and local municipality personnel.

1.5 MARION COUNTY MUNICIPALITIES

The following is a listing of the eight (8) municipalities currently participating in the Marion County SWMP:

Town of Bear Creek
Town of Brilliant
City of Guin
Town of Gu-win
Town of Hackleburg
City of Hamilton
Town of Twin
City of Winfield

Although small portions (by population) of the Town of Glen Allen and the City of Haleyville are located in Marion County, the majority populations of these municipalities are in other counties and therefore not included in this SWMP. It is anticipated that these municipalities will be covered by the Fayette County and Winston County SWMPs, respectively. A portion of the City of Winfield is located in Fayette County, but since the majority of Winfield is in Marion County, this entire municipality will be covered by the Marion County SWMP.

1.6 LOCAL AND MUNICIPAL APPROVAL OF SOLID WASTE FACILITIES AND SERVICES

A local government must be subject to or covered by an approved SWMP in order to provide local approval of solid waste facilities and services within that jurisdiction. Unless a municipal government specifically elects to "opt out" of their County's SWMP, they are considered to be included in the County's Plan. As of January 2025, all municipalities listed above have elected to be covered by the Marion County SWMP.

The municipal governments of Marion County may grant local approval of solid waste management facilities and services within their municipal limits (not including the police jurisdiction) if the municipality follows all federal, state, and local requirements related to the management of solid waste in Marion County. If a municipality does grant local approval of solid waste management facilities or services, the applying entity is not required to also obtain local approval from the Marion County Commission.

1.7 PUBLIC HEARING

As required by Alabama Law, a public hearing was held to solicit comments on the Marion County Solid Waste Management Plan prior to its approval and adoption by the County Commission. Notice of the public hearing was given in a local newspaper at least thirty (30) days before the hearing date. Draft copies of the SWMP were made available to the public prior to the hearing. *A copy of the public notice, public hearing sign-in sheets and the minutes of the public hearing are included in Appendix B. No comments were received during the public comment period or the public hearing.*

1.8 COUNTY COMMISSION RESOLUTION

As required by Alabama Law, the Marion County Solid Waste Management Plan was adopted through a resolution by the County Commission prior to submittal to the Alabama Department of Environmental Management. *A copy of this Resolution is included in Appendix C.*

1.9 DEFINITIONS

A list of terms commonly used in the field of solid waste management is included for general information [2,6]:

- **Buffer Zone** - Neutral area serving as a protective barrier separating two conflicting forces. An area that minimizes the impact of pollutants on the environment or public welfare. For example, a buffer zone is established between a composting facility and neighboring residents to minimize odor problems.
- **Buy-Back Center** - A facility to which individuals bring recyclables in exchange for payment.
- **Commercial Waste** - Waste materials originating in wholesale, retail, institutional, or service establishments, such as office buildings, stores, markets, restaurants, hotels, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.

- **Commingled Recyclables** - Two or more recyclable materials collected together (i.e. not separated). In some types of collection programs, recyclable materials may be commingled, as long as they do not contaminate each other. For example, glass and plastic can be commingled, but glass and oil cannot.

- **Composting** - The controlled biological decomposition of organic solid materials (i.e. grass clippings, food waste and lawn debris) under aerobic conditions.

- **Construction/Demolition (CID) or Inert Landfill** - A discrete area of land or an excavation that receives construction/demolition waste, and or rubbish and/or water treatment (alum) sludge, foundry waste meeting ADEM Rule 335-13-4-.26(3), and that is not a land application unit, surface impoundment, or injection well as those terms are defined in this (ADEM) Rule.

- **Construction and Demolition** Waste - Materials resulting from the construction, remodeling, repair, or demolition of buildings, bridges, pavements, and other structures. Such wastes include masonry materials, sheet rock, roofing waste, insulation (not including asbestos), scrap metal, and wood products. Uncontaminated concrete, soil, brick, waste asphalt paving, ash resulting from the combustion of untreated wood, rock, and similar materials are excluded from this definition.

- **Corrugated Paper** - Paper or cardboard having either a series of wrinkles or folds, or alternating ridges and grooves.

- **Cover Material** - Material, either natural soil or geosynthetic material, used in a landfill to impede water infiltration, landfill gas emissions, and bird and rodent congregation. It is also used to control odors and make the site more visually attractive. Landfills have three forms of cover: daily cover, intermediate cover, and final cover.

- **Drop-Off Collection** - A method of collecting recyclable or compostable materials in which the materials are taken by individuals to collection sites, where they deposit the materials into designated containers.

- **Ferrous Metals** - Metals derived from iron. They can be removed from commingled materials using large magnets at separation facilities.

- **Garbage** - Putrescible animal and vegetable waste resulting from handling, preparation, cooking, and consumption of food, including, but not limited to, waste from markets, storage facilities, handling and sale of produce and other food products and excepting such materials that may be serviced by garbage grinders and handles as household sewage.

- **Groundwater Monitoring Well** - A well placed at an appropriate location and depth for taking water samples to determine groundwater quality in the area surrounding a landfill or other site.

- **Hazardous Waste** - Waste material that exhibits a characteristic of hazardous waste as defined in RCRA (ignitability, corrosivity, reactivity, or toxicity), is listed specifically in RCRA 261.3 Subpart D, is a mixture of either, or is designated locally or by the state as hazardous or undesirable for handling

as part of the municipal solid waste and would have to be treated as regulated hazardous waste if not from a household.

- **Household Hazardous Waste (Special Definition and Guidance)** - Household hazardous waste (HHW) is any material (gas, liquid, or solid) from a home that may pose a health threat to people, animals, or the environment if handled or disposed of improperly. HHW is corrosive, flammable, toxic, or reactive, and comes from everyday products used in the home, yard, or garden. Common examples include paint, household cleaners, motor oil, pesticides, pool chemicals, products containing mercury (fluorescent bulbs, mercury thermometers) and various chemicals. Because households produce these wastes in limited quantities they are not regulated as hazardous wastes under federal and state laws.

  Household hazardous waste items should never be poured on the ground, in a stream, or in a storm drainage system. If a resident has HHW that needs to be disposed of, it is recommended they contact their local government to see if the community sponsors a Household Hazardous Waste collection program. The resident can also contact their solid waste collection agency or local landfill for guidance on proper disposal of HHW. If no HHW collection program is available, residents should follow the recommendations made in ADEM's brochure "Household Hazardous Waste - Practical Management for Every Home" (Available online at: http://adem.alabama.gov/programs/water/nps/take/householdHW.pdf). Recycling or finding someone who can use the material is recommended first, but if this is not possible, recommendations include solidifying liquids using cat litter, sawdust or other absorbent material, followed by placing in a leak resistant bag or container before taking it to a disposal facility.

- **Household Waste** - Any solid waste, including, but not limited to, garbage, trash, and sanitary waste in septic tanks derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day use recreation areas. Sanitary waste in septic tanks shall be considered as household waste only when it is disposed of in a landfill or unauthorized dump.

- **Incinerator** - A facility in which solid waste is combusted.

- **Industrial Landfill** - A discrete area of land or an excavation that receives industrial solid waste and may in addition receive construction/demolition waste and/or rubbish.

- **Industrial Waste** - Materials discarded from industrial operations or derived from manufacturing processes and that are not regulated as a hazardous waste.

- **Illegal or Unauthorized Dump** - Any collection of solid wastes either dumped or caused to be dumped or placed on any public or private property, whether or not regularly used, and not having a permit from ADEM. Abandoned automobiles, large appliances or similar large items of solid waste shall be considered as forming an unauthorized dump within the meaning of this Division. The careless littering of a relatively few, smaller individual items such as tires, bottles, cans, and the like shall not be considered an unauthorized dump, unless the accumulation of the solid waste poses a

threat to human health or the environment. An unauthorized dump shall also mean any solid waste disposal site which does not meet regulatory provisions of this Division.

- **Leachate** - Liquid that has percolated through solid waste or another medium and has extracted, dissolved, or suspended materials from it. Because Leachate may include potentially harmful materials, leachate collection and treatment are crucial at municipal waste landfills.

- **Leachate Collection System** - A network of pipes or geotextiles/geonets placed at low areas of the landfill liner to collect leachate from a landfill for storage or treatment. Flow of leachate along the liner is facilitated by the use of a soil drainage blanket or geonet.

- **Liner** - A system of low-permeability soil and/or geosynthetic membranes used to collect leachate and minimize contaminant flow to groundwater. Liners may also absorb or attenuate pollutants to further reduce contamination.

- **Methane** - An odorless, colorless, flammable, explosive gas produced by municipal solid waste undergoing anaerobic decomposition. Methane is emitted from municipal solid waste landfills.

- **Municipal Solid Waste (MSW)** - MSW means household waste, commercial solid waste, nonhazardous sludge, conditionally exempt small quantity hazardous waste, and industrial solid waste.

- **Recycling** - Any process by which materials are collected, separated, recovered, stored, or processed and reused or returned to use in the form of raw materials or products, but does not include the use of materials as a fuel, or for any use which constitutes disposal.

- **Residential Waste** - Waste generated in single- and multiple-family homes.

- **Roll-Off Container** - A large waste container that fits onto a tractor trailer that can be dropped off and picked up hydraulically.

- **Rubbish** - Non putrescible solid wastes, excluding ashes, consisting of both combustible and non-combustible wastes. Combustible rubbish includes paper, rags, cartons, wood, furniture, rubber, plastics, and similar materials. Noncombustible rubbish includes glass, crockery, metal cans, metal furniture and like materials which will not bum at ordinary incinerator temperatures, not less than 1600-degree F. Uncontaminated concrete, soil, brick, waste asphalt paving, ash resulting from the combustion of untreated wood, rock, yard trimmings, leaves, stumps, limbs, and similar materials are excluded from this definition.

- **Solid Waste** - Any garbage, rubbish, construction or demolition debris, ash, or sludge from a waste treatment facility, water supply plant, or air pollution control facility, and any other discarded materials, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or community activities, or materials intended for or capable of recycling, but which have not been diverted or removed from the solid waste stream. The term "solid waste" does not include recovered materials, solid or dissolved materials in domestic

sewage, solid or dissolved material in irrigation return flows, or industrial discharges which are point sources subject to the National Pollutant Discharge Elimination System permits under the Federal Water Pollution Control Act, as amended, or the Alabama Waste Pollution Control Act, as amended; or source, special, nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, as amended. Also excluded from this definition are land applications of crop residues, animal manure, and ash resulting exclusively from the combustion of wood during accepted agricultural operations, waste from silvicultural operations, or refuse as defined and regulated pursuant to the Alabama Surface Mining Act of 1969.

- **Solid Waste Management** - The systematic control of solid waste including its storage, processing, treatment, recovery of materials from solid waste, or disposal.

- **Source Reduction** - The design, manufacture, acquisition, and reuse of materials so as to minimize the quantity and/or toxicity of waste produced. Source reduction prevents waste either by redesigning products or by otherwise changing societal patterns of consumption, use, and waste generation.

- **Special Waste** - Those wastes requiring specific processing, handling or disposal techniques as determined necessary by the Department which are different from the techniques normally utilized for handling disposal. Examples of such waste types may include but are not limited to mining waste; fly ash; bottom ash; sludges; friable asbestos; industrial waste; liquid waste; large dead animals or large quantities of dead animals; and residue, medical waste, foundry waste, petroleum contaminated wastes, municipal solid waste ash, or contaminated soil and water from the cleanup of a spill.

- **Subtitle D** - The solid, nonhazardous waste section of the Resource Conservation and Recovery Act (RCRA) of 1976.

- **Tipping Fee** - A fee charged for the unloading or dumping of material at a landfill, transfer station, recycling center, or waste-to-energy facility, usually stated in dollars per ton. (Sometimes called a disposal or service fee.)

- **Transfer Station** - A permanent facility where waste materials are taken from smaller collection vehicles and placed in larger vehicles for transport, including truck trailers, railroad cars, or barges. Recycling and some processing may also take place at transfer stations.

- **White Goods** - Large household appliances such as refrigerators, stoves, air conditioners, and washing machines.

- **Yard Trimmings** - Leaves, grass clippings, prunings and other natural organic matter discarded from yards and gardens. Yard trimmings may also include stumps and brush, but these materials are not normally handled at composting facilities.

CHAPTER 2: SOLID WASTE GENERATION

Section 22-27-47(b)(l): Describe and explain the general origin, and weight or volume of solid waste currently generated within the jurisdiction's boundaries.

2.1 MUNICIPAL SOLID WASTE GENERATION

In some instances, household waste is commingled with commercial waste during collection and transportation; therefore, specific records for residential and commercial solid waste volumes or weights are not possible. In these cases, factors are used to determine specific solid waste amounts for each classification.

According to EPA's document "Municipal Solid Waste in the United States: 2010 Facts and Figures", when residential and commercial wastes are commingled, it is estimated that residential waste constitutes 55 to 65 percent of total MSW generation, with commercial waste constituting 35 to 45 percent of the total (4). However, Marion County is a largely rural county with a much smaller commercial component than typical. Therefore, for purposes of this report, residential solid waste generated in Marion County will be calculated at 80 percent of the total MSW production and commercial solid waste will be calculated at 20 percent of the total solid waste production when these wastes are commingled.

2.1.1 Household Waste Generation

Household waste, such as garbage and trash, is collected from residences in Marion County by various methods, with the Marion County Solid Waste Department providing residential collection services in the unincorporated portions of Marion County, as well as residential and some commercial collection in the smaller municipalities in the county. The remaining municipalities either use a private contractor or provide their own residential collection services. According to survey results, **approximately 7,450.04 tons of household waste** was reported as being generated in Marion County in 2023. This total has not yet been updated with data from the City of Hamilton.

Table 2-1 presents a summary of the municipalities, estimated population served, collection agency, amount of household waste collected, and the calculated per capita generation rate. The waste generated is totalized on the last line and an average household per capita generation rate is calculated using the total population for the County.

TABLE 2-1

HOUSEHOLD WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
Bear Creek	1056	Town of Bear Creek Sanitation Department	288.20	0.79	1.50
Brilliant	830	Town of Brilliant Sanitation Department	289.71	0.79	1.91
Guin	2147	City of Guin Sanitation Department	923.05	2.53	2.36
Hackleburg	1438	City of Hackleburg Sanitation Department	445.57	1.22	1.70
Hamilton	6952	City of Hamilton Sanitation Department			
Winfield	4869	City of Winfield Sanitation Department	1696.73	4.65	1.91
Gu-Win, Twin, Unincorporated Marion County	11952	Marion County Solid Waste Department	3806.78	10.43	1.75
Marion County Totals	29244		7450.04	20.41	1.40

Source: The information in this Table was provided by the solid waste collection agency and/or disposal site.
TPY = Tons Per Year, TPD = Tons Per Day, PCD = Pounds Per Capita Per Day

2.1.2 Commercial Waste Generation

Commercial solid waste in the county is typically collected by the Marion County Solid Waste Department, the municipality, or by private collection agencies. In 2023, approximately **1,862.51 tons of commercial waste** was reported as being generated in Marion County. This total has not yet been updated with data from the City of Hamilton.

Table 2-2 presents a summary of the municipalities, estimated population served, collection agency, amount of commercial waste collected, and the calculated per capita generation rate. The waste

generated is totalized on the last line and an average per capita commercial generation rate is calculated using the total population for Marion County.

TABLE 2-2
COMMERCIAL WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
Bear Creek	1056	Town of Bear Creek Sanitation Department	72.05	0.20	0.37
Brilliant	830	Town of Brilliant Sanitation Department	72.43	0.20	0.48
Guin	2147	City of Guin Sanitation Department	230.76	0.63	0.59
Hackleburg	1438	City of Hackleburg Sanitation Department	111.39	0.31	0.42
Hamilton	6952	City of Hamilton Sanitation Department			
Winfield	4869	City of Winfield Sanitation Department	424.18	1.16	0.48
Gu-Win, Twin, Unincorporated Marion County	11952	Marion County Solid Waste Department	951.70	2.61	0.44
Marion County Totals:	29244		1862.51	5.10	0.35

Source: The information in this Table was provided by the solid waste collection agency and/or disposal site.
TPY = Tons Per Year, TPD = Tons Per Day, PCD = Pounds Per Capita Per Day

2.1.3 Municipal Solid Waste Generation

By combining the Household Waste and Commercial Waste, the total amount of Municipal Solid Waste (MSW) generated can be calculated. In 2023, approximately **9,312.55 tons of MSW** was reported as being generated in Marion County. This total has not yet been updated with data from

the City of Hamilton. This equates to an overall municipal solid waste generation rate of 1.74 lbs/capita/day.

2.2 CONSTRUCTION/DEMOLITION (C/D) WASTE GENERATION

Construction and demolition (*C/D*) wastes are typically generated by the construction, remodeling, repair or demolition of structures, roads, sidewalks, utilities, etc. Other inert material such as yard wastes (i.e. leaves, limbs, grass clippings) may also be considered as *C/D* waste. Since these wastes are relatively inert materials and *C/D* landfills do not have to meet the strict design standards required for municipal household wastes, many municipalities and private entities operate their own *C/D* landfills.

In 2023, approximately **950.38 tons** of construction/demolition (*C/D*) waste was reported as being generated in Marion County. This total does not include data from the City of Hamilton. Table 2-3 presents the estimated population served, the collection agency, the amount of *C/D* waste collected, and the calculated per capita generation rate. The waste generated is totalized on the last line and an average per capita *C/D* generation rate is calculated using the total population for Marion County.

TABLE 2-3

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
Brilliant	830	Waste Management	0	0	0
Guin	2147	Waste Management	0	0	0
Winfield	4869	Waste Management	950.38	2.60	1.07
Bear Creek, Gu-Win, Hackleburg, Hamilton, Twin, Unincorporated Marion County	21398	Marion County Solid Waste Department/ Waste Management	0	0	0
Marion County Totals	29244		950.38	2.60	1.07

Source: The information in this Table was provided by the solid waste collection agency and/or disposal site.
TPY = Tons Per Year, TPD = Tons Per Day, PCD = Pounds Per Capita Per Day

2.3 INDUSTRIAL WASTE GENERATION

An industrial landfill is typically owned and operated by the specific industry for which it is permitted. As such, the 3M Company Guin Industrial landfill located in Guin, Alabama only receives waste from their industry. Most waste generated from other businesses that might be considered industrial is primarily commercial-type waste. Therefore, these waste volumes may be included in the commercial waste totals reported in Section 2.1.2. According to survey results, approximately **3,438.3 tons of industrial waste** was reported as being generated and disposed of in Marion County in 2023.

TABLE 2-4

INDUSTRIAL WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
3M Company Plant – Guin, Marion County, AL	2147	3M Company Guin Industrial Landfill	3438.3	9.42	8.78
Marion County Totals	29244		3438.3	9.42	0.64

Source: The information in this Table was provided by the solid waste collection agency and/or disposal site.
TPY = Tons Per Year, TPD = Tons Per Day, PCD = Pounds Per Capita Per Day

2.4 SPECIAL WASTE GENERATION

"Special waste" primarily consists of waste which is not regulated as hazardous waste and has physical or chemical characteristics, or both, that are different from municipal, demolition, construction, and wood wastes and which potentially requires special handling. Examples include contaminated soil, raw animal manure, incinerator ash, industrial or manufacturing process waste and sludge, wastewater and water treatment plant sludge and large quantities of dead animals. Because of the random nature of Special Wastes, quantities of these types of waste are difficult to estimate. According to survey results, no collection agency or facility reported handling or disposing of any Special Waste generated in Marion County in 2023.

CHAPTER 3: SOLID WASTE COLLECTION AND TRANSPORTATION

Section 22-27-47(b)(2): Identify current methods of collection and haulage (transport) of solid waste within the jurisdiction.

3.1 GENERAL

Unincorporated Marion County, as well as all eight municipalities participating in the county's Plan, requires mandatory participation in a solid waste collection program. The solid waste generated in Marion County is typically collected by the Marion County Solid Waste Department, individual municipalities, or private haulers (contractors) and then transported to an appropriate landfill or transfer station.

3.2 MUNICIPAL SOLID WASTE (HOUSEHOLD AND COMMERCIAL)

A listing of each participating municipality in Marion County and its 2023 method of municipal solid waste collection and haulage is presented below.

3.2.1 Service Areas

Bear Creek - Bear Creek requires mandatory garbage collection for its residential and commercial customers. Residential curbside collection was provided weekly by the Town of Bear Creek and Waste Management in 2023. Residential waste was compacted during collection and taken to the Winston County Transfer Station in Haleyville, Alabama or the Waste Management Transfer Station in Vernon, Lamar County, Alabama depending on the collection agency.

Brilliant - The Town of Brilliant provides mandatory curbside garbage collection for its residential and commercial customers (very few commercial customers). Curbside service was provided once a week for residential customers and twice a week for commercial customers. The waste was compacted during collection and transported to the Winston County Transfer Station in Haleyville, AL.

Guin - The City of Guin Sanitation Department provides mandatory curbside garbage collection for its residential and some commercial customers. Curbside service was provided once a week for residential customers and 2 - 3 times a week for commercial customers. Waste Management also provided commercial solid waste collection services in the city in 2023. The waste collected was compacted during collection and transported to either the BFI - Little Creek Transfer Station in Guin or the Waste Management Transfer Station in Vernon, Lamar County, depending on the collection agency.

Gu-win - The Marion County Solid Waste Department provided mandatory curbside garbage collection for Gu-win's residential and commercial customers on a weekly basis. The waste was compacted during collection and transported to the BFI - Little Creek Transfer Station in Guin.

Hackleburg – The City of Hackleburg provides weekly mandatory curbside garbage collection for its residential customers after purchasing their own solid waste vehicle recently. The Marion County

Solid Waste Department served the City of Hackleburg's commercial customers. The waste was compacted during collection and transported to either the Little Creek Transfer Station in Guin, AL or the Winston County Transfer Station in Double Springs, AL, depending on the collection agency.

Hamilton - The City of Hamilton Street Department provides mandatory curbside garbage collection for its residential customers on a weekly basis. The residential waste was compacted during collection and transported to the Little Creek Transfer Station in Guin. The Marion County Solid Waste Department, Waste Management and Republic Services (Allied Waste) provided commercial solid waste collection services in the city in 2023. The commercial waste was compacted during collection and transported to either the Winston County Transfer Station in Haleyville, the BFI - Little Creek Transfer Station in Guin, or the Waste Management Transfer Station in Vernon, Lamar County, depending on the collection agency.

Twin - The Marion County Solid Waste Department provides mandatory curbside garbage collection for Twin's residential and commercial customers on a weekly basis. The waste was compacted during collection and transported to the Little Creek Transfer Station in Guin.

Winfield - The City of Winfield Sanitation Department provides mandatory curbside garbage collection for its residential and commercial customers on a weekly basis. Waste Management also provided commercial solid waste collection services in the city. The waste collected was compacted during collection and transported to either the Winston County Transfer Station or the Waste Management Transfer Station in Vernon, Lamar County, depending on the collection agency.

Unincorporated Marion County and Other Municipalities - The Marion County Solid Waste Department provided mandatory garbage collection for the unincorporated areas of Marion County (as well as several other small municipalities listed above). The waste was compacted during collection and transported to the Winston County Transfer Station, the Little Creek Transfer Station, or the Franklin County Landfill, depending on the area of collection.

3.3 CONSTRUCTION/DEMOLITION SOLID WASTE

Construction/demolition (C/D) wastes are typically collected and transported to a *C/D* landfill by a private homeowner, municipality, or contract hauler. Homeowners and businesses typically transport *C/D* material to a landfill or transfer station by pick-up truck, dump truck or trailer.

3.3.1 Private Haulers

Franklin County Land Management, Inc. (Permit #30-04) received C/D waste generated within Marion County. The Hamilton Sanitation Department is the only municipality that used this private landfill to dispose of C/D waste. The exact tonnage for C/D waste disposed of by Marion County at this landfill was not attainable.

The B&B Tire Landfill is the only other landfill receiving *C/D* waste generated from within Marion County. Tires and similar materials were typically delivered to the landfill by private hauling contractors.

3.4 INDUSTRIAL SOLID WASTE

The 3M Company in Guin, Marion County, AL has an Industrial Solid Waste (ISW) landfill specifically permitted for the disposal of solid waste generated by that industry. The industrial solid waste is typically collected and transported to the ISW landfill by that industry.

Most waste generated from other businesses that might be considered industrial is primarily commercial-type waste and may be collected and transported to an MSW landfill along with other residential and commercial solid waste.

3.5 SPECIAL WASTE

Special waste is typically collected and transported to a Municipal Solid Waste (MSW) landfill by either a municipality, county, business, or contract hauler. Various methods are used for the transport of Special Wastes but typically involve dump trucks or appropriate containerization (i.e. drums) and transport in trucks or tractor trailers. According to survey results, no collection agency or facility reported handling or disposing of any Special Waste in Marion County in 2023.

CHAPTER 4: SOLID WASTE FACILITIES

Section 22-27-47(b)(3): Identify and describe the facilities where solid waste is currently being disposed or processed and the remaining available permitted capacity of such facilities and the capacity which could be made available through the reasonable expansion of such facilities. The plan shall also explain the extent to which existing facilities will be used during the life of the plan and shall not substantially impair the use of their remaining capacity.

4.1 MUNICIPAL SOLID WASTE LANDFILLS

Municipal Solid Waste (MSW) Landfills typically receive household and commercial solid waste from municipalities, businesses, private homeowners, and contract solid waste haulers. Although several MSW landfills in Alabama are permitted to service Marion County, only two were being used in 2023 for the disposal of municipal solid waste generated in the County. Another landfill located in Mississippi was also used for Marion County-generated solid waste disposal in 2023. It is anticipated that these facilities will continue to be utilized during the life of this Plan except for the BFI Pineview Landfill that is expected to close in 2025.

4.1.1 BFI Pineview Landfill (Permit #64-11)

The BFI Pineview Landfill, located at 2730 Bryan Road, Dora, Walker County, Alabama is designated to accept municipal solid waste from Blount, Cullman, Fayette, Jefferson, Marion, Shelby, Tuscaloosa, Walker and Winston Counties in Alabama. This landfill is owned/operated by Republic Services. The permitted volume of the Pineview Landfill is 1,500 tons of solid waste per day. In 2012, approximately 340,000 tons of solid waste was disposed of in this landfill. This landfill is projected to close in 2025 and data for the 2023 calendar year concerning total tonnages of solid waste collected and disposed of was not attainable.

"Reasonable expansion" activities at the Pineview Landfill include constructing additional disposal cells that have already been permitted. A lateral expansion of the landfill could include 215 acres south of the currently permitted area. Taking into consideration the reasonable expansion activities and the 2012 disposal rate of 340,000 tons per year, approximately 40 years of disposal capacity remain at this landfill.

4.1.2 Waste Management Prairie Bluff Landfill Mississippi (Permit#: SW00901B0302)

The Pecan Grove Landfill, located at 1649 Hwy. 15 North, Houston, Mississippi, is designated to accept municipal solid waste, rubbish and certain special waste. This landfill is owned/operated by Waste Management. In 2012, approximately 128,573 total tons of solid waste was disposed of at this landfill. The total tons of solid waste disposed of at this landfill in 2023 was unattainable. Considering the 2012 disposal rate, approximately 140 years of disposal capacity remain at this landfill; therefore, there are currently no expansion plans for this landfill.

4.1.3 Franklin County Landfill (Permit #30-05)

The Franklin County Landfill, located at 6525 County Road 524, Russellville, AL, is considered an industrial landfill designated to accept nonhazardous commercial and demolition waste and rubbish. However, information has been acquired while compiling data for this solid waste plan that more than one solid waste collection agency within Marion County has been using this landfill for municipal solid waste disposal. Examples of solid waste collection agencies using the Franklin County Landfill for disposal include the Marion County Solid Waste Department, (1969.23 tons of municipal solid waste in 2023), as well as the Hackleburg Sanitation Department in previous years. An exact total tonnage for municipal solid waste disposed of at this landfill from all collection agencies within Marion County using this landfill was unattainable.

4.2 CONSTRUCTION AND DEMOLITION LANDFILLS

Although there are several Construction/Demolition (C/D) landfills in Alabama which are permitted to serve the Marion County area, only two (2) were used in 2023 for the disposal of C/D material generated in Marion County. It is anticipated that these facilities will continue to be utilized during the life of this Plan.

4.2.1 B&B Tire Landfill (Permit #05-07)

The B&B Tire Landfill located in Blount County is designated to accept *C/D* waste (tires, tire parts, conveyor belts and rubber parts) from the State of Alabama. In 2013, the permitted service area was extended to include the states of Georgia, Mississippi, Tennessee, and Kentucky. The Permittee is James E. and Barbara L. Adams and the permitted volume for this landfill is 500 tons per day. In 2023, approximately 60,615.8 tons of C/D waste was disposed at this landfill. Of that total, 27,596.18 tons represented out of state collections and 33,019.62 tons represented in state collections for the 2023 total.

4.2.2 Franklin County Land Management, Inc. (Permit #30-04)

The Franklin County Land Management landfill is designated to receive C/D waste from commercial and industrial businesses in Alabama. The exact total tonnages of C/D solid waste collected at this landfill from Marion County was not attainable. The only municipality in Marion County that utilizes services from this landfill is the Hamilton Sanitation Department. As an estimate, it was recorded that approximately 6 tons of C/D solid waste is collected three to four times per week from the Hamilton Sanitation Department for disposal at this landfill.

4.3 INDUSTRIAL LANDFILLS

There is currently one (1) Industrial Landfill located in Marion County. These types of facilities typically dispose of non-MSW solid waste that is generated by that particular industry.

4.3.1 3M Company - Guin Industrial Landfill (Permit #47-06)

The 3M Company - Guin Industrial Landfill located in Guin, Marion County, AL is designated to accept waste from the 3M Company Plant in Guin, Alabama only. The permitted capacity for this landfill is 50 tons per day and the type of waste disposed of consists of non-hazardous and inert manufacturing by-products, paper, office trash, floor sweepings, and construction/demolition waste.

Three phases are planned for this landfill to fill an existing depressed area of ground, with each phase being filled above the former phase (Phase 1 in bottom, followed by Phase 2 above Phase 1, and Phase 3 on top bringing the level of the landfill up to grade with the surrounding area). It is estimated that at least 40 years of disposal capacity remain available to 3M Company at this landfill.

4.4 SOLID WASTE TRANSFER STATIONS

Three (3) Transfer Stations were used to process and consolidate solid waste generated in Marion County in 2023.

4.4.1 BFI - Little Creek Transfer Station

The BFI - Little Creek Transfer Station, also known as the Twin Transfer Station, is located at 775 County Highway 83, Guin, Marion County, Alabama. This Transfer Station is owned/operated by Republic Services and consists of a compactor with an adjoining container system. The capacity of this station is 100 tons per day. In 2023, approximately 7,606 tons of solid waste was processed at this facility and taken to BFI Pineview Landfill in Walker County for disposal.

4.4.2 Winston County Transfer Station

The Winston County Transfer Station, also called the Haleyville Transfer Station, is located at 834 Sam Letson Industrial Road in Haleyville, Winston County, Alabama. In 2012, approximately 2,623.85 tons of solid waste was processed at this facility and taken to the BFI Pineview Landfill in Walker County for disposal. Updated data for the total tonnages of solid waste processed at this facility in 2023 was unattainable.

4.4.3 Waste Management- Vernon Transfer Station

The Waste Management - Vernon Transfer Station is located at 395 12th Street, Vernon, Lamar County, Alabama. The capacity of this station is 300+ tons per day and approximately 15,000 tons were processed in 2023. Data for Marion County alone was not attainable, so this number represents the total tonnage of solid waste processed at this facility from all counties that the Vernon Transfer Station collects solid waste for. The solid waste processed at this facility is taken to the Waste Management Prairie Bluff Landfill in Houston, Mississippi for disposal.

4.5 INCINERATORS

There are currently no solid waste incinerators located in Marion County; however, the decision to construct an incinerator in the jurisdiction shall remain a valid solid waste management option available to the County.

CHAPTER 5: RECYCLING

Section 22-27-47(b)(4): Provide a description of current or planned recycling programs and an analysis of their impact on waste generated within the jurisdiction. Particularly regarding recycling, the plan shall describe and evaluate:

- Potential benefits of recycling include the potential solid waste reduction and the avoided cost of municipal waste processing or disposal.
- Existing materials recover operations and the kind and weight or volume of materials recycled by the operations, whether public or private.
- The compatibility of recycling with other waste processing or disposal methods used in the jurisdiction including methods of collecting recyclables.
- Options for cooperation or agreement with other jurisdictions for the collection, processing, and sale of recyclable materials.

5.1 GENERAL

Waste minimization and recycling efforts, which ultimately decrease the amount of solid waste deposited into landfills, are important aspects of solid waste management. In areas with adequate recyclable markets, typical recyclable materials include:

- **Plastics** - plastic containers (type 1 or type 2 milk, soap, juice, water, etc.), grocery sacks (type 2 or 4); and other plastics (toys, plastic hangers, baskets, etc.)
- **Glass** - unbroken glass containers, bottle glass
- **Metals** - ferrous (steel and tin food containers, scrap metal); non-ferrous (aluminum, brass, copper)
- **Paper** - white office paper, corrugated cardboard, newspapers, phone books, mixed paper (dry magazines and packing, junk mail)
- **White Goods** - large household appliances (washing machines, refrigerators, heat pumps, air conditioners)
- **Batteries** - dry cell, rechargeable, automotive, button, lead-acid
- **Motor oil**
- **Tires**
- **Computers, printers, cartridges, and computer accessories**
- **Building Materials**
- **Cell Phones**
- **Polystyrene Packing Material ("Peanuts")**

5.2 BENEFITS OF RECYCLING

The benefits of recycling efforts include:

- Reduces the amount of solid waste that is being handled and processed by solid waste collectors.
- Reduces the amount of waste that requires disposal, therefore reserving valuable landfill space for those materials that must be disposed of in landfills.
- Reduces the amount of materials such as white goods, tires and motor oil that may otherwise end up in the environment, groundwater, or waterways.
- Reduces energy use and associated pollution and greenhouse gas emissions.
- Saves valuable resources such as raw materials and natural resources which are used in the production of materials that could be recycled.
- Reduces overall cost for municipal waste processing and disposal. Provides business and job opportunities.

5.3 CURRENT RECYCLING PROGRAMS

There are several governmental and private entities in Marion County that actively participate in recycling. By offering these recycling programs, valuable landfill space and natural resources that are used in the production of these materials are saved. In addition, the cost to process or dispose of this solid waste has been avoided due to the materials being recycled. The method of collecting recyclables and its compatibility with other waste processing or disposal methods is described below.

5.3.1 Municipal Recycling Programs

The City of Winfield provides a citizen drop-off bin for the collection of cardboard, mixed paper and aluminum. In 2023, approximately 77.35 tons of cardboard and mixed paper were collected and sold by the City of Winfield for further processing/recycling. No totals were attainable for the collection and recycling of aluminum.

5.3.2 Private Industry

5.3.2.1 Retail or Grocery Industry Programs

Several retail and grocery stores in Marion County currently recycle items such as plastic bags, corrugated cardboard, rechargeable batteries and used motor oil. The material is typically picked up at each store location by various private recyclers. Since records of recycled amounts are not typically kept at each store, no attempt was made to quantify the amount of these items recycled in Marion County.

5.5 PLANNED RECYCLING PROGRAMS

Although there are no additional recycling programs currently planned for Marion County or its municipalities, each government recognizes the benefits and need for recycling efforts in their jurisdiction and the option to start a recycling program shall remain available to the jurisdictions throughout the planning period of this SWMP.

5.6 JOINT VENTURES FOR RECYCLING

There are currently no recycling joint ventures between Marion County and any other private operator, unit of government, or non-profit organization for the collection, processing, or sale of recyclable materials. Each governmental entity (i.e. County, municipalities, schools, etc.) in Marion County recognizes the benefits and need for recycling efforts in the County; therefore, the option to enter into or change recycling joint ventures in the future shall remain available to each jurisdiction throughout the planning period of this SWMP. It is also recognized that multi- jurisdictional recycling programs are beneficial in increasing participation in recycling while decreasing overall costs, so the option to enter into multi-jurisdictional agreements shall also remain available to each entity covered by the SWMP.

5.7 IMPACT OF RECYCLING ON WASTE GENERATED

According to survey results, at least 100 tons of materials were removed from the waste stream through recycling efforts in Marion County in 2012. Marion County began an e-cycling program in 2013 which will add to these quantities each year. Additional materials are being recycled by various entities in the county, but records of these quantities were unavailable.

Through these recycling efforts, the overall tonnage of solid waste disposed of in a landfill has been reduced, thereby conserving valuable landfill space and natural resources that are used in the production of these materials. Waste management costs (collection, transportation, processing, and disposal) are also reduced by removing these materials from the waste stream.

CHAPTER 6: RCRA SUBTITLED REQUIREMENTS

Section 22-27-47(b)(5): Address the requirements proposed under Subtitle D of the federal Resource Conservation and Recovery Act, 42 USC. Section 6941 as amended and identify and explain those actions the jurisdiction should take to assure proper management of its wastes under these requirements.

6.1 RCRA SUBTITLED REQUIREMENTS

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA was enacted in 1976 to:

- Protect human health and the environment from the potential hazards of waste disposal.
- Conserve energy and natural resources.
- Reduce the amount of waste generated.
- Ensure that wastes are managed in an environmentally sound manner.

Enacted in 1984, the Subtitle D amendment to RCRA deals with nonhazardous solid waste management and designates the state and local governments as the primary planning, permitting, regulating, implementing, and enforcement agencies for the management and disposal of household and industrial or commercial non-hazardous solid wastes. Minimum nationwide standards have been developed under Subtitle D that include specific requirements for the proper design and operation of MSW landfills and other solid waste disposal facilities. These requirements include location restrictions, facility design (liner, leachate collection, run-off controls, etc.) and operating criteria, groundwater, and landfill gas monitoring requirements, corrective action requirements, financial assurance requirements, and closure and post-closure care requirements. Most states (including Alabama) have adopted these criteria into their state solid waste management programs. In addition to the minimum federal criteria, states may also impose requirements that are more stringent than the federal requirements.

6.2 JURISDICTIONAL ACTIONS TO ASSURE PROPER MANAGEMENT OF SOLID WASTES

Marion County and all eight municipalities require mandatory residential solid waste collection. All municipal solid waste is disposed of in an MSW landfill that has been designed in accordance with Subtitle D regulations. One of Marion County's employees also acts as the County's Solid Waste Officer to assist in enforcing local, State and Federal regulations related to solid waste management.

CHAPTER 7: UNAUTHORIZED DUMPS

Section 22-27-47(b)(6): Propose procedures for the identification and elimination of unauthorized dumps in the jurisdiction:

7.1 PROCEDURES FOR IDENTIFYING UNAUTHORIZED DUMPS

Unauthorized or illegal dumps are typically reported by citizens, County employees, or law enforcement personnel. Marion County actively investigates illegal dump sites and prosecutes illegal dumps in accordance with Alabama's Criminal Littering statute, 13A-7-29. This law provides for a "rebuttable presumption" of guilt for those whose names appear in the garbage on some official document, such as a utility bill or tax record. Suspects are interviewed to allow them an opportunity to explain why their name was in the refuse prior to charges being filed. Suspects are also encouraged to clean up their site in return for non-prosecution or the recommendation of a lighter sentence from the judge.

7.2 PROCEDURES FOR THE ELIMINATION OF UNAUTHORIZED DUMPS

County personnel are used to clean up most unauthorized dump sites when found. Once a problematic area has been cleaned, fencing or other barriers and/or "No Dumping" signs are typically installed. County deputies also patrol problematic areas to discourage illegal dumping.

Marion County has also received grants from ADEM's Solid Waste Fund (SWF) Site Remediation Program to clean up and properly dispose of tires and other illegally dumped material.

CHAPTER 8: SOLID WASTE GENERATION PROJECTIONS

Section 22-27-47(b)(7): Describe and explain the general origin and weight or volume of solid waste reasonably expected to be generated within the jurisdiction annually during the next 10 years. The assessment shall describe the primary variables affecting this estimate and the extent to which they can reasonably be expected to affect the estimate.

8.1 GENERAL

Historically, nationwide per capita municipal solid waste generation rates increased steadily from 1960 (2.68 lbs/capita/day) to 1999 (4.65 lbs/capita/day), essentially leveled off between 1999 and 2005, and have decreased slightly or remained steady each year since then, resulting in a 2010 national estimate of 4.43 lbs/capita/day (S)· Source reduction, increased recycling participation and the slow economy have contributed to the reduction in generation rates since 1999. According to the EPA document, The Decision Makers' Guide to Solid Waste Management, Vol. II, when estimating future solid waste generation quantities, "unless there is information to the contrary, it is best to assume no change in the generation rate and to develop future projections based on population projections alone"(2)· Based on this statement, the per capita solid waste generation rates calculated in Chapter 2 will be used in conjunction with population projections to estimate future solid waste quantities for the planning period of this SWMP.

8.2 POPULATION ESTIMATES

Current population estimates were obtained using data from the U.S. Census Bureau and the University of Alabama's Center for Business and Economic Research (CBER) (J)• According to the U.S. Census Bureau, the "covered areas" of Marion County had a 2010 Census population of 31,446. Since CBER only estimates future population changes for counties and not municipalities, the estimates given for Marion County will be applied to the municipalities and used to estimate municipal populations for 2012 through the end of the SWMP planning period.

TABLE 8-1

CBER Population Projections

Service Area	Est. Change,	Est. Change,	Est. Change,
Marion County (CBER)	-0.79%	-0.79%	-0.79%

CBER typically estimates county populations using five-year intervals, currently from 2010 to 2040. These estimates were used to determine yearly population totals by evenly distributing the five-year change across

each year of the time period. Using this methodology, CBER estimates that the population of Marion County will decrease an average of 0.15% per year between 2010 and 2015, an average of 0.23% per year between 2015 and 2020, and 0.33% for each year between 2020 and 2025. Applying these percentages to each of the covered municipalities in Marion County results in the projected populations shown in Table 8-2 on the following page.

8.3 ESTIMATED WEIGHT OR VOLUME OF SOLID WASTE GENERATED ANNUALLY

The current per capita solid waste generation rates calculated in Chapter 2 are used in conjunction with the estimated municipal populations from Table 8-2 to calculate projected household, commercial, C&D, and Industrial waste quantities for the planning period of this SWMP. These estimates are shown in Tables 8-3 through 8-6. Since there was no Special Waste reported as being generated in Marion County in 2012, and the fact that these types of waste are difficult to estimate or predict, there are no Special Waste quantities projected for the planning period of this SWMP. However, Special Wastes may be generated and/or disposed of in Marion County periodically throughout the next ten-year period.

It should be noted that population data is generally not a reliable measure of future commercial and industrial solid waste production rates since population growth or decline is not a direct measure of growth and decline in the business sector. However, since there are no long-range economic projections available from the Regional Planning Commission, this is the only method available for estimating future commercial and industrial solid waste generation. Additionally, businesses and industries continually investigate techniques and technology to reuse and recycle waste products which are generated by their core processes.

TABLE 8-2

Marion County Population Projections By Jurisdiction

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bear Creek	1062	1068	1074	1080	1086	1092	1098	1104	1110	1116	1122
Brilliant	828	826	824	822	820	818	816	814	813	811	809
Guin	2132	2117	2102	2087	2072	2057	2042	2028	2013	1998	1983
Gu-win	144	145	145	146	147	147	148	149	149	150	151
Hackleburg	1441	1444	1447	1450	1453	1455	1458	1461	1464	1467	1470
Hamilton	6914	6877	6840	6803	6767	6730	6693	6656	6619	6582	6545
Twin	358	358	358	358	358	358	358	357	357	357	357
Winfield	4876	4883	4889	4896	4902	4909	4915	4922	4928	4935	4941
Unincorporated Marion County	11329	11298	11266	11235	11204	11172	11141	11110	11078	11047	11016
Marion County Total	**29084**	**29015**	**28946**	**28877**	**28808**	**28739**	**28670**	**28600**	**28531**	**28462**	**28393**

Source: Population data was derived from U.S. Census Bureau and University of Alabama Center for Business and Economic Research (CBER) data.

TABLE 8-3

Marion County Household Solid Waste Projections By Jurisdiction

Jurisdiction	Waste Generation Rate (Lbs/Cap/Day)	Household Waste Generated (Tons/Year)									
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bear Creek	1.86	360	359	359	358	357	356	355	355	354	353	352
Brilliant	2.40	362	361	361	360	359	359	358	357	357	356	355
Guin	2.97	1154	1151	1148	1146	1143	1140	1138	1135	1132	1130	1127
Hackleburg	2.12	557	558	559	560	561	562	563	564	565	566	567
Hamilton												
Winfield	2.39	2121	2116	2110	2105	2099	2094	2089	2083	2078	2072	2067
Gu-Win, Twin, Unincorporated Marion County	2.20	4758	4750	4742	4734	4725	4717	4709	4700	4692	4684	4675
Marion County Total		**9313**	**9296**	**9279**	**9262**	**9245**	**9228**	**9211**	**9194**	**9177**	**9160**	**9144**

Note: Waste generation rates were derived in Chapter 2.

TABLE 8-4

Marion County Commercial Solid Waste Projections By Jurisdiction

Jurisdiction	Waste Generation Rate (Lbs/Cap/Day)	Commercial Waste Generated (Tons/Year)										
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bear Creek	0.00	0	0	0	0	0	0	0	0	0	0	0
Brilliant	0.00	0	0	0	0	0	0	0	0	0	0	0
Guin	0.00	0	0	0	0	0	0	0	0	0	0	0
Gu-Win	0.00	0	0	0	0	0	0	0	0	0	0	0
Hackleburg	0.00	0	0	0	0	0	0	0	0	0	0	0
Hamilton	0.00	0	0	0	0	0	0	0	0	0	0	0
Twin	0.00	0	0	0	0	0	0	0	0	0	0	0
Winfield	1.07	950	948	945	943	940	937	935	932	930	927	924
Unincorporated Marion County	0.00	0	0	0	0	0	0	0	0	0	0	0
Marion County Total	1.07	**950**	**948**	**945**	**943**	**940**	**937**	**935**	**932**	**930**	**927**	**924**

Note: Waste generation rates were derived in Chapter 2.

TABLE 8-5

Marion County Construction/ Demolition Solid Waste Projections By Jurisdiction

Jurisdiction	Waste Generation Rate (Lbs/Cap/Day)	Construction/ Demolition Waste Generated (Tons/Year)										
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Hamilton	0.00	0	0	0	0	0	0	0	0	0	0	0
Winfield	1.07	950	950	949	949	948	948	947	947	946	946	945
Marion County Total	0.18	**950**	**950**	**949**	**949**	**948**	**948**	**947**	**947**	**946**	**946**	**945**

Note: Waste generation rates were derived in Chapter 2.

TABLE 8-6

Marion County Industrial Solid Waste Projections By Jurisdiction

Jurisdiction	Waste Generation Rate (Lbs/Cap/Day)	Industrial Waste Generated (Tons/Year)										
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Guin	8.84	3438	3430	3422	3413	3405	3397	3389	3380	3372	3364	3355
Marion County Total	0.65	**3438**	**3430**	**3422**	**3413**	**3405**	**3397**	**3389**	**3380**	**3372**	**3364**	**3355**

Note: Waste generation rates were derived in Chapter 2.

8.4 VARIABLES THAT MAY AFFECT WASTE GENERATION ESTIMATES

Several variables exist that may affect the future solid waste quantities predicted above.

8.4.1 Population Trends

As previously mentioned, only countywide growth rates are available to project future population estimates in Alabama municipalities. Since a municipality's growth rate does not necessarily duplicate countywide growth rates, it is reasonable to assume that there will be several municipalities whose future population counts will differ from those estimated for the planning period of this SWMP. This would affect the future waste generation amounts proportionally to the population differences.

8.4.2 Municipal Solid Waste Variables

The calculated per capita household and commercial waste generation rate factors were used to calculate the projected household waste amounts for the planning period of this Solid Waste Management Plan. One assumption affecting these estimates is that the per capita waste generation rate remains constant over the planning period. Greater economic growth with concurrent job and income growth could result in more waste being generated through increased consumer spending. Conversely, if recycling programs become more widespread and/or more effective in diverting waste from disposal, then the amount of MSW generated would decrease.

8.4.3 Construction/Demolition Waste Variables

Construction/Demolition (C/D) waste quantities are primarily driven by the economy and weather. Fluctuations in the economy, especially in residential housing and commercial office construction, have a large effect on CID waste generation. A growing economy almost always results in additional demand for new or renovated residential and commercial buildings. This activity would result in an increase in the amount of CID waste generated in the future.

Additionally, severe weather can cause considerable damage to trees and buildings, especially in disaster areas, resulting in a short-term increase in CID waste for disposal. Cleanup following storms typically lasts for one to two months but can last for several months or even years in severe cases. This disaster waste is very hard to predict or quantify and could have a significant effect on future CID waste generation.

8.4.4 Industrial Waste Generation Variables

Estimates of future industrial waste quantities based on current generation rates and population projections are highly speculative. As in municipal waste generation, greater economic growth with concurrent job and income growth could result in more industrial waste being generated through increased need for consumer goods. Additionally, since many industries continually investigate techniques and technology to reuse and recycle waste products generated by their core processes, future industrial waste generation amounts could vary significantly from those calculated in this report.

8.4.5 Special Waste

Because of the random nature of Special Wastes, quantities of these types of waste are difficult to estimate. Volumes of special waste that would be disposed of in an MSW landfill tend to be small; therefore, changes in future amounts of special waste are not expected to significantly affect the total amounts of solid waste generated in Marion County in the future.

CHAPTER 9: DEVELOPMENT OR EXPANSION OF SOLID WASTE MANAGEMENT SYSTEMS

Section 22-27-47(b)(8): Provide for the development or expansion of solid waste management systems in a manner that is consistent with the needs of the area, taking into account planning, zoning, population and development estimates, and economics of the jurisdiction and the protection of air, water, land and other natural resources.

9.1 GENERAL

Proper solid waste management requires an integrated approach to addressing the needs of the jurisdiction while being protective of public and environmental health, safety, and welfare.

9.1.1 SOLID WASTE DISPOSAL NEEDS OF THE AREA

The current or projected solid waste disposal need for the County can be reasonably assessed by evaluating the remaining disposal capacity for those landfills currently serving Marion County (see Chapter 4). Although there currently appears to be adequate solid waste disposal capacity available to Marion County for the duration of this SWMP, a jurisdiction may decide it would be advantageous to site a landfill or processing facility in Marion County due to collection, transportation and/or disposal costs, host government benefits (i.e. fees, taxes, etc.), increased control over solid waste management decisions, or other unforeseen issues. Therefore, the option to site a future landfill (either MSW, Industrial or CID), solid waste processing facility, recycling facility, or other similar facility shall remain available to the jurisdiction throughout the planning period of this SWMP.

9.1.2 PLANNING AND ZONING CONSIDERATIONS

Planning and Zoning is the principal means for the county to guide its future growth and achieve a logical pattern of land use and development for the county. Some of the generally accepted, specific objectives of Planning and Zoning are:

- To conserve the taxable value of land and buildings.
- To prevent overcrowding of land and buildings.
- To control pollution, noise, dust, smoke, vibration, odor, flashes of light or danger of explosion.
- To lessen or avoid congestion in the public streets.
- To promote the public health, safety, comfort, morals, and general welfare of the public and the community.

The Planning and Zoning Department or Commission typically ensures that all new development meets specific guidelines and requirements related to the adequacy of roads, parking, traffic flow, setbacks, drainage, utilities, etc. Any proposed solid waste transfer stations, disposal facilities or processing facilities shall also be located in areas that are appropriately zoned for each type of facility.

9.1.3 LOCAL ECONOMICS AND POPULATION/ DEVELOPMENT ESTIMATES

The entire nation has been significantly affected by an economic downturn over the past several years and Marion County has certainly followed this trend. While slight economic growth is starting to occur, it is not expected to increase to the extent that it would significantly impact solid waste management systems and remaining disposal capacities in the area during the life of this SWMP. In addition, future CBER population trends indicate that the population of Marion County is expected to decrease over the next ten-year period.

Even considering the information presented above, unforeseen circumstances during the next ten years may lead to the need for additional solid waste disposal or processing facilities in the County due to increased population or commercial development. The County may also wish to consider locating solid waste processing or disposal facilities within its jurisdiction due to host government benefits (i.e. fees, taxes, etc.) that would be received from these types of facilities.

9.1.4 PROTECTION OF AIR, WATER AND NATURAL RESOURCES

State and Federal Regulations regarding the siting, design, construction and operation of solid waste processing and disposal facilities are in place to protect air, water and natural resources. These Regulations which safeguard against health, safety and environmental concerns involve:

- Buffer zones
- Minimum separation from groundwater
- Storm water run-on/run-off Liners, if applicable
- Leachate collection systems, if applicable
- Gas monitoring systems, if applicable
- Daily cover of solid waste

In regard to landfills, the use of properly installed cover material greatly reduces landfill odors and wind-blown debris. In addition, groundwater is less likely to become contaminated due to the installation of clay liners, geotextile fabric and leachate collection systems. Creeks, streams, and other environmentally sensitive areas are protected from excessive stormwater runoff through the use of detention or retention ponds. By following ADEM and EPA guidelines, safeguards against health, safety, and environmental concerns can be achieved while protecting air, water, land, and other natural resources.

9.2 CONSIDERING HOST GOVERNMENT APPROVAL FOR PROPOSED NEW OR EXPANDED SOLID WASTE FACILITIES

The Marion County Commission shall consider approval of proposed solid waste facilities or services in unincorporated Marion County. A municipal government which is subject to and covered by the County's

SWMP may consider and grant local approval of solid waste management facilities and services within their municipal limits only. If the municipality does grant local approval of solid waste management facilities or services, the applying entity is not required to also obtain local approval from the County Commission. If requested, proposed facilities to be located within a municipality's limits will only be considered by the County Commission after the Commission is petitioned by the City/Town Council to approve said facility/site and an appropriate review fee is negotiated.

Appendix A contains the application that must be submitted by a proposed solid waste facility when requesting host government approval. An Application Fee equal to 20 percent of the application or permit fee required by ADEM will be required to be submitted with the application (unless waived by the host government) and the entity proposing the solid waste facility shall supply the information requested in the application. It is important to note that neither the County nor its municipalities will be reviewing the application for technical compliance with Subtitle D requirements. This level of technical review is reserved for ADEM. Instead, the host government shall provide a review by whatever method it deems necessary to assure the proper management of solid wastes generated within its jurisdiction.

CHAPTER 10: JOINT USE OF SOLID WASTE FACILITIES

Section 22-27-47(b)(9): Identify any current agreements between the jurisdiction and other units of local government or public authorities for the joint use of solid waste processing or disposal facilities and evaluate the need for and feasibility of entering joint agreements in the future.

10.1 CURRENT AGREEMENTS

There are currently no agreements between Marion County (or its municipalities) and any other unit of local government or public authority for the joint use of solid waste processing or disposal facilities.

10.2 EVALUATION OF NEED FOR FUTURE JOINT USE AGREEMENTS

Marion County does not currently anticipate the need for joint agreements with any other unit of local government or public authority. However, in the event of an emergency such as a natural disaster, or any other unforeseen need, the participating jurisdictions may enter into joint agreements with other units of local government or public authorities to accommodate solid waste processing and/or disposal needs throughout the life of this SWMP.

CHAPTER 11: PRIVATE COLLECTION, PROCESSING, AND/OR DISPOSAL CONTRACTS

Section 22-27-47(b)(J0): Identify any current contractual agreements with private entities for the collection, processing or disposal of solid waste and evaluate the need for and feasibility of entering into such agreements in the future.

11.1 CONTRACTS WITH PRIVATE SOLID WASTE CONTRACTORS

There are currently no agreements between Marion County and any private entity for the collection, processing, or disposal of solid waste.

11.2 EVALUATION OF NEED FOR FUTURE AGREEMENTS WITH PRIVATE SOLID WASTE CONTRACTORS

The municipalities listed above foresee the need to continue entering into contractual agreements with private entities for the collection of solid waste in their jurisdiction. Therefore, contractual agreements for solid waste collection services will most likely vary throughout the life of this Plan.

CHAPTER 12: SITING FOR SOLID WASTE PROCESSING OR DISPOSAL FACILITIES AND RECYCLING PROGRAMS

Section 22-27-47(b)(II): Identify the general location within a county where solid waste processing or disposal facilities and recycling programs may be located, and identify the site of each facility if a site has already been chosen. In identifying general locations for facilities in the plan, each jurisdiction shall consider at least the following:

a. The jurisdiction's solid waste management needs as identified in its plan;

b. The relationship of the proposed location or locations to planned or existing development, to major transportation arteries and to existing state primary and secondary roads.

c. The relationship of the proposed location or locations to existing industries in the jurisdiction or state that generate large volumes of solid waste and to the areas projected by the state or local regional planning and development commission for development of industries that will generate solid waste;

d. The costs and availability of public services, facilities and improvements which would be required to support a facility in this location and protect public health, safety and the environment,

e. The potential impact a facility in the proposed location or locations would have on public health and safety, and the potential that such locations can be utilized in a manner so as to minimize the impact on public health and safety; and

f. The social and economic impacts that a facility at the proposed location would have on the affected community, including changes in property values, community perception and other costs.

12.1 GENERAL

When siting solid waste processing, disposal or recycling facilities, a balance must be struck between the need for environmentally sound waste disposal capacity and recycling ability and the concerns of local citizens and municipalities. Siting factors to consider include public health and safety, accessibility, drainage, soils, proximity to groundwater and surface water, potential for surface subsidence (underground mining or karst topography), hauling distance and adjacent land use.

12.1.1 Specific Requirements and Considerations

In the consideration of future facilities, the jurisdiction shall consider the following specific items. The jurisdiction shall determine if these items have been addressed in a logical and complete manner.

1. **The consistency of the proposal with the jurisdiction's solid waste management needs as identified in its SWMP**. In considering future facilities, the SWMP should be reviewed to determine if the proposed facility fills a need as described in the Plan or fills a need not existing at the time of the Plan's preparation. These considerations should be evaluated by the jurisdiction early in the process.

2. **The relationship of the proposal to local planned or existing development, to major transportation arteries and to existing state primary and secondary roads.** The proximity of a proposed solid waste project to existing or planned major transportation routes is crucial. All solid waste facilities are dependent upon good roads to facilitate access to and from.

   Additionally, the type of facility dictates the required proximity. Transfer stations should be located near major arteries as the haul trucks operate best on highways. Recycling centers should be located for ease of access by the public, bearing in mind that material haul trucks need access as well. Landfills are best located in rural or industrial areas, hidden from view of the general public, yet not too far from major arteries and primary state roads so haul and collector trucks can have adequate access.

3. **The location of a proposed facility in relationship to existing industries in the state that generate large volumes of solid waste, or the relationship to the areas projected for development of industries that will generate solid waste.** Ideally, a facility intended to service an industry should be located as close as possible to the industry. This is sensible from a cost standpoint, but it also minimizes the impact on the community and public health and safety. Absent that, it should be located near major arteries or primary state roads in an appropriate area of the jurisdiction (see Item 2. above).

4. **Costs and availability of public services, facilities and improvements required to support a proposed facility and protect public health, safety, and the environment.** A solid waste facility or recycling facility will require certain public services as a minimum. Water service is vital for fire protection, sanitation, and housekeeping. Water service can be public water system extensions or on-site wells. Sewage treatment facilities close at hand are convenient for leachate and wash down water treatment as well as sanitation treatment. If these are not close by, then liquid wastes will need to be captured and hauled to the facilities or sewer extensions constructed. Alternatively, on-site treatment can be considered.

5. **The potential impact of a proposed facility on public health and safety, and provisions made to minimize the impact on public health and safety.** The proposed facility plan should address transportation safety by evaluating existing roads and traffic controls with proposed upgrades; wastewater, leachate and washdown water capture, transport and treatment must be addressed; stormwater and erosion control systems must be adequately designed and detailed to protect surface and groundwater resources; and adequate safeguards to prevent contamination of air and water resources, nuisance odors, and aesthetic eyesores must be considered. Finally, provisions to minimize or prevent the public from coming in contact with solid waste must be provided (access control).

6. **The social and economic impacts of a proposed facility on the affected community, including changes in property values, and social or community perception.** Social impacts of a proposed solid waste facility or recycling center can be difficult to quantify. The jurisdiction shall evaluate a proposed project's location, impact on public safety and public facilities, and shall also consider the opinions and concerns of community representatives and the general public. Economic impact positives such as jobs and revenue shall be weighed

along with possible negative perceptions.

12.2 SITING FOR FUTURE SOLID WASTE PROCESSING OR DISPOSAL FACILITIES

The Marion County Commission, or its municipalities, will determine if future landfills, processing facilities or recycling facilities will be sited in their jurisdiction. If a new facility is determined to be needed during the planning period of this SWMP, the items described above shall be considered to determine the best location for that facility. Locations near major transportation routes such as Interstates and U.S. Highways would be important to the selection of a possible area. The expansion of an existing facility would best occur on site if possible.

12.3 CURRENTLY PROPOSED SOLID WASTE PROCESSING/DISPOSAL OR RECYCLING FACILITIES

There are no known proposed solid waste processing, disposal or recycling facilities planned for Marion County. However, due to collection, transportation and/or disposal costs, or other currently unforeseen issues, the option to site future solid waste processing facilities, disposal facilities, or recycling facilities in Marion County shall remain available to the County and the jurisdictions within the County.

CHAPTER 13: UTILIZING SOLID WASTE FACILITIES OUTSIDE THE JURISDICTION

Section 22-27-47(b)(l 2): For any facility expected to serve the jurisdiction's future needs that is located or is proposed to be located outside the jurisdiction, the plan shall explain in detail the reasons for selecting such a facility.

13.1 FACILITY USE OUTSIDE OF JURISDICTION

Since there are no MSW or CID landfills located in Marion County, all solid waste generated within the county is currently disposed of outside of its jurisdiction (with the exception of Industrial Waste generated by 3M - Guin).

Several municipalities utilize private companies to collect residential and/or commercial solid waste in their jurisdiction. Some of these companies also operate their own solid waste facilities and therefore transport the waste to their facility (landfill or transfer station) for ultimate disposal. The decision on which facility to use is made by the collection agency and is typically based on economics, as well as the ease of transportation to a facility.

REFERENCES

(1) Website, Alabama State Legislature: www.legislature.state.al.us/CodeofAlabama/1975/coatoc.htm, Section 22-27-47.

(2) USEPA, August 1995. Decision Makers' Guide to Solid Waste Management, Volume II. EPA530-R-95-023, and ADEM Admin. Coder. 335-13-1-.03.

(3) U.S. Census Bureau and Center for Business and Economic Research, The University of Alabama, Fall 2012.

(4) USEPA, December 2020. Municipal Solid Waste in the United States: 2018 Facts and Figures.

(5) Website, Alabama Department of Environmental Management (ADEM) Landfill Lists: MSW: www.adem.state.al.us/programs/land/landforms/MSWLFMasterList08-I 1.pdf

CID and ILF: www.adem.state.a1.us/programs/land/landforms/CDILFMasterList08-I.pdf

(6) ADEM Admin. Coder. 335-13-1-.03 Definitions. Revised December 13, 2021.