Sponsor: Koonce

RESOLUTION

WHEREAS, the Alabama Solid Wastes & Recyclable Materials Management Act (SWRMMA) of the CODE OF ALABAMA 1975, as amended, §22-27-47, requires cities and counties to periodically submit a minimum 10 Year Solid Waste Management Plan to address solid waste management within their jurisdiction; and

WHEREAS, the City of Florence (City) has elected to opt out of the Lauderdale County Solid Waste Management Plan (SWMP) and will submit its own SWMP to the Alabama Department of Environmental Management (ADEM); and

WHEREAS, the City has retained the engineering firm of LaBella Associates to prepare the required SWMP; and

WHEREAS, a public hearing was held on January 23, 2025, preceded by the required public comment period to receive input and citizen comments and concerns, if any, which were consolidated into the development of the completed plan; and

WHEREAS, the Solid Waste Management Plan must be adopted by resolution of the City Council before submission to ADEM.

NOW, THEREFORE, BE IT RESOLVED that the City Council of Florence hereby approves and adopts the City of Florence 2025 Solid Waste Management Plan and that this Solid Waste Management Plan will serve as the basis for solid waste management within the City of Florence from the date of adoption through December 31, 2035, unless amended prior to that date.

BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF FLORENCE, ALABAMA, that the Mayor is hereby authorized to sign any necessary documentation to effectuate the approval or implementation of the Plan.

ADOPTED this _____day of _____, 2025.

_____

_____

_____

_____

_____

_____

CITY COUNCIL

APPROVED this _____ day of _____, 2025.

_____
MAYOR

ADOPTED & APPROVED this _____ day of _____, 2025.

_____
CITY CLERK - TREASURER

Prepared for:
City of Florence
P.O. 98
Florence, AL 35631

Prepared by:
LaBella Associates
528 Mineral Trace
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LaBella
Powered by partnership.

Solid Waste Management Plan
City of Florence, Alabama

JANUARY 2025

Project No. 2244436

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1.0 INTRODUCTION

1.1 Historic Overview

In 1989, the Alabama State Legislature passed Act 89-824 governing solid waste management in the State of Alabama (see Appendix A). 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 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 (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. 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.

Exercising its right to "opt out" of the Lauderdale County SWMP, the City of Florence, Alabama has retained LaBella Associates, D.P.C. (LaBella) to develop their required ten year update. The City of Florence Solid Waste Management Plan - 2025 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 Update is to provide for the management of solid waste within the political jurisdiction of the City of Florence for the period of 2025 to 2035. This plan will address aspects of solid waste management such as generation, collection, transportation, disposal, recycling, and illegal dumps. This Update will have general applicability for the circumstances and situations that may affect solid waste management in the City of Florence. 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. Please note that the solid waste generation tonnages provided in this SWMP typically refers to the weight of materials as they enter the

waste management system after recycling has taken place. To obtain a true solid waste generation rate, the recycling tonnages should be added to the current generation totals.

- 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 permitted capacities and remaining capacities of these facilities, including municipal solid waste (MSW) landfills, Industrial landfills, Construction/Demolition (C/D) 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 illegal 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 City. 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 record year 2023. Preparation of the City of Florence Solid Waste Management Plan included:

- Identification and designation of the incorporated area 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 City of Florence personnel, contract haulers, private solid waste facility owners and operators, and local municipality personnel.

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

1.6 Public Hearing

As required by Alabama Law, a public hearing was held to solicit comments on the City of Florence Solid Waste Management Plan – 2025 prior to its approval and adoption by the City Council. 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 the

Appendix.

1.7 City Council Resolution

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

1.8 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 (C/D) 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 mire 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 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 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. 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 ADEM Administrative Code – Division 13.

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 noncombustible 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 burn 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.

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, pruning and other natural organic matter discarded yards and gardens. Yard trimmings may also include stumps and brush, but these materials are not normally handled at composting facilities.

2.0 SOLID WASTE GENERATION

Section 22-27-47(b)(1): 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

Municipal solid waste generally consists of non-hazardous solid waste generated in households and in commercial environments.

2.1.1 Household Waste Generation

The City of Florence Solid Waste Department collects household waste such as garbage and trash from residences in the corporate city limits. According to survey results, approximately 10,854 tons of household waste was generated in the City of Florence in 2023. Table 2-1 presents a summary of the estimated population served, collection agency, amount of household waste collected, and the calculated per capita generation rate.

TABLE 2-1

HOUSEHOLD WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
City of Florence:	41713	Florence Solid Waste Department	10,854 TPY	29.74 TPD	1.50 PCD

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

2.1.2 Commercial Waste Generation

Commercial solid waste in Florence is also collected by the city's Solid Waste Department. In 2023, approximately 16,324 tons of commercial waste was generated by commercial businesses in the City of Florence. Table 2-2 presents a summary of the estimated population served, collection agency, amount of commercial waste collected, and the calculated per capita generation rate.

TABLE 2-2

COMMERCIAL WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
City of Florence:	41713	Florence Solid Waste Department	16,324 TPY	44.72 TPD	2.25 PCD

Source: The information in this Table was provided by the solid waste collection agency.
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 27,178 tons of MSW were reported as being generated in the City of Florence. This equates to an overall municipal solid waste generation rate of 3.75 lbs/capita/day. Please note that this generation rate represents the amount of solid waste actually disposed of in a landfill and does not include the amount that was generated, but then recycled.

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 waste (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.

2.2.1 Municipal Collections/Disposal of C/D Waste

In 2023, approximately 15,080 tons of construction/demolition (C/D) waste was disposed of in the City's C/D Landfill. Please note that this generation rate represents the amount of solid waste actually disposed of in a landfill and does not include the amount that was generated, but then recycled.

Yard waste such as leaves, grass clippings and brushes is also collected by the Florence Street Department. Some of the yard waste is disposed of in the City's C/D landfall; however, the leaves are composted separately. Records of the total tonnage of leaves composted are not readily available. White goods are also collected, but these items are recycled by the City (see Section 5 for more information on Recycling).

TABLE 2-3

CONSTRUCTION/DEMOLITION WASTE GENERATION

Service Area	2023 Population	Collection Agency/Solid Waste Disposal Site	Waste Generation Rate		
			TPY	TPD	PCD
City of Florence	41,713	City of Florence	15,080	41.32	2.08

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

2.3 Industrial Waste Generation

Waste Connections and PBS, Inc. are the only collection entities reporting Industrial Waste collection services in Florence in 2023. According to survey results, Waste Connections reported collecting 20,233 tons of industrial waste in Florence in 2023. Some of this waste may actually be considered as primarily commercial or C/D type waste that was generated in an industrial setting.

Table 2-4 presents a summary of the service area, the estimated population served, the disposal site, the amount of industrial waste collected, and the calculated per capita generation rate.

TABLE 2-4

INDUSTRIAL WASTE GENERATION

Service Area	2023 Population	Solid Waste Collection Agency	Waste Generation Rate		
			TPY	TPD	PCD
City of Florence	41,713	Waste Connections and PBS, Inc.	20,233	55.43	2 .79

Source: The information in this Table was provided by the solid waste collection agency and/or the 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.

There was no Special Waste reported as being generated in the City of Florence, nor did any landfill report disposing of any Special Waste in their landfill that was generated in Florence.

3.0 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 Municipal Solid Waste (Household and Commercial)

The City of Florence Solid Waste Department provides residential and commercial garbage collection services within the corporate city limits. Residential garbage collection is provided once per week in carts furnished by the City. Commercial collection services are provided up to six times per week using roll-out garbage carts or 4, 6, or 8 cubic yard dumpsters. The waste collected is taken to the North Alabama Transfer Station where it is compacted with other waste and then transported to the Buck Run Landfill in Walnut, Mississippi for disposal.

3.2 Construction/Demolition Solid Waste

Construction/demolition (C/D) wastes are typically collected and transported to a C/D landfill by the municipality, the generator of the waste or by a contract hauler. Other inert material such as yard waste may also be taken to a C&D landfill for disposal. Homeowners and businesses typically transport C/D material to a landfill or transfer station by pick-up truck, dump truck or trailer. Contract haulers typically use roll-off containers for the collection and transport of C/D wastes.

3.2.1 Municipal Collections

In addition to picking up residential trash (i.e. bulky items, furniture, appliances, etc), the City of Florence Street Department also picks up yard waste on a weekly basis in residential areas. The yard waste is taken to the city's landfill for disposal. The leaves are composted separately and either used at the landfill or given away to residents at no charge. With the exception of white goods (which are recycled), all other C/D solid waste collected by the city is transported to the City of Florence C/D Landfill for disposal.

3.2.2 Generator

The City of Florence currently has a C/D landfill that they allow residents to use free of charge for the disposal of inert waste. This material is delivered to the landfill by the resident.

3.2.3 Private Haulers

Waste Connections and PBS, Inc. provide roll-off dumpster rentals for the collection and disposal of C/D waste generated in the City of Florence. The material collected is disposed of at either the City of Florence C/D Landfill or the North Alabama Transfer Station in Florence.

3.3 Industrial Solid Waste

Some waste reported as Industrial Solid Waste may actually be commercial or C/D type waste that was generated in an industrial setting. In some instances, this waste is collected and transported to

an MSW landfill along with other commercial solid waste.

Waste Connections and PBS, Inc. reported using various sized roll-off containers for hauling industrial waste generated in the City of Florence. The collected waste was transported to either the Lauderdale County Transfer Station located at the Underwood Landfill in Lauderdale County or to the Waste Connections Transfer Station. Waste collected at the Lauderdale County Transfer Station is transported to the BFI Waste Morris Farm Landfill in Lawrence County, Alabama for disposal, while the Waste Connections Transfer Station waste is transported to Buck Run Landfill in Walnut, Mississippi.

3.4 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. Roll off containers may also be used in the collection and transport of special wastes.

There was no Special Waste reported as being disposed in the city limits of Florence.

4.0 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 General

According to survey results, two MSW landfills and two C/D landfills were used for the disposal of solid waste generated in the City of Florence in 2023. In addition, two transfer stations were also used to process solid waste that was generated in the city. It is anticipated that these facilities will continue to be utilized during the life of this Plan; however, other facilities may be used in the future as needed to ensure sound solid waste management practices for the City of Florence.

4.2 Municipal Solid Waste Landfills

4.2.1 Buck Run Landfill (MS Permit No. SW700010433)

The Buck Run Landfill is an MSW landfill located at 2941 County Road 302, Walnut, Mississippi. This landfill is permitted and operated by Waste Connections of MS. In 2023, approximately 379,325 total tons of municipal solid waste was disposed of at this landfill. Of this total, approximately 27,427.83 tons (7.2%) were generated in the City of Florence.

This landfill consists of lined landfill cells with an estimated remaining life of 14 years; however, the site has ample acreage available for future expansion which provides approximately 35 years of disposal capacity.

4.2.2 BFI Morris Farm Landfill (ADEM Permit #40-08)

The Morris Farm Landfill, located at 4 County Road 418, Hillsboro, Lawrence County, Alabama is designated to accept municipal solid waste from Colbert, Franklin, Lauderdale, Lawrence, Limestone, Madison, and Morgan Counties in Alabama. This landfill is owned/operated by Republic Services. The permitted volume of the landfill is 1,500 tons of solid waste per day. Approximately 250,000 to 350,000 tons of solid waste is disposed of in this landfill each year.

"Reasonable expansion" activities at the Morris Farms Landfill include constructing additional disposal cells that have already been permitted. A lateral expansion of the landfill would not be required to construct these cells. Taking into consideration these reasonable expansion activities, approximately 40 years of disposal capacity remain at this landfill.

4.3 Construction and Demolition (C/D) Landfills

One C/D landfill is currently being used for the disposal of construction, demolition and other inert

solid waste generated in the City of Florence.

4.3.1 City of Florence Landfill (Permit No. 39-05)

The City of Florence Landfill, located at 29485 County Road 14, Florence, Alabama, was originally permitted, constructed and operated as a municipal solid waste landfill until 2012. The landfill also has several unlined cells that are used for the disposal of Construction/Demolition and other inert waste. Although MSW operations ceased in 2012, the landfill remains operational as a C/D landfill and is still owned and operated by the City of Florence. The permitted service area for the landfill is the City of Florence and it is permitted to receive 250 tons per day of C/D waste.

In 2023, approximately 15,080 tons of C/D waste were disposed of in the City of Florence Landfill. Approximately nine or ten years of capacity remains available in the existing C/D cell for the disposal of C/D waste generated in Florence. Future on-site operations and expansions will provide approximately 15+ years of capacity at this landfill.

4.4 Industrial Landfills

There are currently no Industrial Landfills in operation inside the city limits of Florence; however, the option to construct an industrial landfill in the jurisdiction shall remain a valid solid waste management option available to the City, if so desired. The Underwood Landfill in Lauderdale County is permitted to accept some inert Industrial waste. All reported industrial waste collected in the city limits of Florence in 2023 was disposed of in either the BFI Morris Farm MSW Landfill in Lawrence County, Alabama, the Buck Run Landfill in Walnut, Mississippi, or the Underwood Landfill in Lauderdale County, Alabama.

4.5 Solid Waste Transfer Stations

The City of Florence is evaluating the possibility of constructing and operating a solid waste transfer station during the 10-year planning period covered by the SWMP. The City has selected a site on Starkey Drive in the Industrial Park, and is currently working on the design of the facility. Once completed, the required approval and permitting processes will be undertaken for this new transfer station. Currently, all municipal solid waste that is collected in Florence is being taken to the North Alabama Transfer Station located at 5450 Hwy 157 North in Florence, AL. All industrial waste collected in Florence is currently being taken to the Lauderdale County Transfer Station located at 5700 Hwy 157 North, Florence, or to the Waste Connections transfer station discussed below.

4.5.1 North Alabama Transfer Station

The North Alabama Transfer Station is privately owned, but leased by Waste Connections, Inc. All solid waste received at the transfer station is hauled to the Buck Run MSW Landfill in Walnut, Mississippi by Competitive Waste Systems, Inc., a subsidiary of Waste Connections, Inc. In 2023, approximately 39,463 tons of solid waste was processed at this transfer station and transported to the Buck Run Landfill for disposal. Of this total, approximately 27,428 tons of solid waste was delivered by the City of Florence, and an additional 12,035 tons were

delivered by other collection agencies (this total may include waste that was generated outside of Florence's city limits).

4.5.2 Lauderdale County Transfer Station

The Lauderdale County Transfer Station is owned and operated by the Lauderdale County Commission. All solid waste received at the transfer station is transported to the BFI Morris Farm Landfill in Lawrence County for disposal. This transfer station operates 5 days a week and processes approximately 100 tons of solid waste per day (25,000 tons per year).

4.6 Incinerators

There is currently no solid waste incinerator located in the City of Florence; however, the decision to construct an incinerator in the jurisdiction shall remain a valid solid waste management option available to the City. It is possible that the City may permit, construct and operate an air curtain incinerator for vegetative debris at some point during the term of this Plan. If so, the appropriate approval and permitting processes will be followed.

5.0 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:

a. Potential benefits of recycling, including the potential solid waste reduction and the avoided cost of municipal waste processing or disposal.

b. Existing materials recovery operations and the kind and weight or volume of materials recycled by the operations, whether public or private.

c. The compatibility of recycling with other waste processing or disposal methods used in the jurisdiction including methods of collecting recyclables.

d. 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

The City of Florence has a very active city-sponsored recycling program. By offering these services, valuable landfill space and natural resources that are used in the production of these materials are saved. The method of collecting recyclables and its compatibility with other waste processing or disposal methods is described below.

5.3.1 Municipal Recycling Programs

City of Florence

The City of Florence's recycling program includes weekly curbside residential pick-up, available commercial pick-up, school pick-up (public and private schools) and drop-off bins which are located at the recycling center at 1200 Terrace Street. The drop-off bins are accessible 24 hours a day, 7 days a week. The types of materials collected for recycling include cardboard, mixed paper, metals, aluminum, #1 and #2 plastics, electronics, motor oil and cooking oil. In 2023, approximately 3,026 tons of these materials were recycled by the City (see Table 5-1 for a breakdown of the material types and quantities). After collection, the materials are sorted and sold to various recycling brokers and end users.

5.3.2 Private Industry Programs

Thornton Iron and Metal Company

Located at 317 Canal Street in Florence, Thornton Iron and Metal Company purchases junk cars and other metals for recycling. Repeated attempts to get tonnages of these materials recycled in 2023 was unsuccessful.

Grocery, Retail and Home Improvement Industry

Several supermarkets, retail, and home improvement stores in Florence currently recycle plastic bags, batteries and/or corrugated cardboard. The material is typically picked up at each store location by various private recyclers. Since records of recycled amounts are not readily available, no attempt was made to quantify the amount of these materials currently being recycled by this industry in Florence.

Automotive Industry

Numerous automotive service stores in Florence currently recycle used motor oil and automotive batteries. Since records of recycled amounts are not readily available, no attempt was made to quantify the amount of these materials currently being recycled by this industry in Florence.

5.3.3 Other Programs

University of North Alabama

The University of North Alabama also has several drop-off locations distributed around campus for the collection of aluminum, paper, and some plastics. This material is taken to the City of Florence Recycling Center for processing. The total amount of recyclables collected in 2023 by the University is included in the City of Florence's tonnage provided below.

TABLE 5-1

2023 CITY OF FLORENCE RECYCLING

MATERIALS RECYCLED	City of Florence Recycling Dept. (TPY)
Cardboard	1929.24
Mixed Paper	170.21
Aluminum	31.58
Glass	-

Plastic	176.31
Ferrous Metals	18.36
Other Metals	-
Other	700.30
TOTAL, TPY:	3,026

TPY = Tons per year

5.4 Planned Recycling Programs

Since the City of Florence is already well-served by various recycling options, there are currently no other known recycling programs planned in the city. However, expansions or changes to the City's program will be allowed in the future. Other local municipalities or communities will also be allowed to start their own recycling programs in the future and bring the materials to the City of Florence for processing.

5.5 Joint Ventures for Recycling

Lauderdale County and the cities of Killen, St. Florian, Lexington, and Rogersville are allowed to bring their recyclable materials to the City of Florence Recycling Center for processing. No revenue from the sale of these materials is shared with the County or the municipalities.

5.6 Impact of Recycling on Waste Generated

At least 3,026 tons of materials were recycled in the City of Florence in 2023. Due to these recycling efforts, the overall tonnage of solid waste disposed of in a landfill is reduced, thereby conserving valuable landfill space. Solid waste management costs (collection, transportation, processing and disposal) are also reduced by removing these materials from the waste stream.

6.0 RCRA SUBTITLE D REQUIREMENTS

Section 22-27-47(b)(5): Address the requirements proposed under Subtitle D of the federal Resource Conservation and Recovery Act, 42 U.S.C. 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 Subtitle D 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; and
- 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

The City of Florence ensures the proper management of solid wastes in several ways:

- The City provides residential and commercial solid waste collection services in accordance with all applicable solid waste regulations. Participation in residential solid waste collections is mandatory in the city limits.
- All municipal solid waste is disposed of in an MSW landfill that has been designed, constructed and operated in accordance with Subtitle D regulations.
- Residents are allowed to dispose of inert materials at the City's C/D landfill at no charge.

- The City sponsors a city-wide volunteer clean-up day each year. In 2023, approximately 4,200 lbs. of trash/litter were picked up from the roadways and disposed of properly.
- The City enforces local, State and Federal regulations relating to solid waste management, with small claims court and civil court being used as necessary to enforce anti-littering and solid waste regulations.
- The City also offers various recycling and anti-litter educational outreach programs such as field trips to the recycling center and landfill, as well as on-site presentations to schools, assisted living facilities and other organizations.

7.0 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, City employees, or law enforcement officials. The City actively investigates illegal dump sites and prosecutes illegal dumpers 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

The City of Florence Street Department typically cleans up most unauthorized dump sites when found. Once a problematic area has been cleaned, fencing or other barriers and/or "No Dumping" signs can be installed. City police officers can also patrol problematic areas to discourage illegal dumping.

If needed, qualifying unauthorized dumpsites can also utilize ADEM's Solid Waste Fund (SWF) Site Remediation Program to clean up and properly dispose of illegally dumped material.

8.0 SOILD 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 (5). 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. The waste generation rates are summarized in Table 8-1.

TABLE 8-1

WASTE GENERATION RATES

Type of Waste	2023 Waste Totals (TPY)	Estimated 2023 Population	2023 Waste Generation Rate (PCD)
Residential	10,854	41,713	1.50
Commercial	16,324		2.25
Construction/Demolition	15,080		2.08
Industrial	20,233		2.79
Special	None Reported		<1

TPY = Tons Per Year, PCD = Pounds Per Capita Per Day

8.2 Population Estimates and Waste Generation Projections

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) (3). According to the U.S. Census Bureau, the City of Florence had a 2023 Census population of 42,437. Since CBER only estimates future population changes for counties and not municipalities, the estimates given for Lauderdale County will be applied to Florence and used to estimate municipal populations for 2024 through the end of the SWMP planning period. The CBER-derived population changes are presented

in Table 8-2.

TABLE 8-2

CBER POPULATION CHANGES

Population Changes	Est. Change, 2010 to 2020	Est. Change, 2020 to 2030	Est. Change, 2030 to 2040
Lauderdale County (CBER)% Population	+0.92% 93,591	+0.54% 94,074	+1.92% 95,164

Note: The values shown above are rounded to the nearest hundredth. The actual values used in the calculations are more precise.

As shown above, CBER estimates that the population of Lauderdale County will increase an average of 0.092% per year between 2010 and 2020, an average of 0.054% per year between 2020 and 2030, and 0.192% for each year between 2030 and 2040. Applying these percentages to the City of Florence's population, results in the projected populations shown in Table 8-3. As noted above, the percentages given here have been rounded; the actual values used in the calculations for Table 8-3 are more precise.

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 to calculate projected municipal, C&D, Industrial and Special Waste quantities for the planning period of this SWMP (see Table 8-3). Since there was no Special Waste reported as being generated in the City of Florence in 2023, the projected quantities of this type of waste are listed as <1 ton for each year of the planning 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 8-3

FUTURE WASTE GENERATION ESTIMATES

Year	Estimated Population – City of Florence	MSW Projections (TPY)	C/D Projections (TPY)	Industrial Projections (TPY)	Special Waste Projections (TPY)
2023	42,437	27,178	15,080	20,894	<1
2024	42,460	27,193	15,088	20,940	<1
2025	42,483	27,207	15,096	21,026	<1
2026	42,506	27,222	15,104	21,086	<1
2027	42,529	27,236	15,113	21,145	<1
2028	42,552	27,251	15,121	21,205	<1
2029	42,575	27,266	15,129	21,264	<1
2030	42,598	27,280	15,137	21,324	<1
2031	42,680	27,332	15,166	21,383	<1
2032	42,761	27,385	15,195	21,443	<1
2033	42,844	27,437	15,224	21,502	<1
2034	42,926	27,490	15,254	21,562	<1

Waste Generation Estimates are based on the 2023 waste generation rates given in Table 8-1 and future population estimates.

8.4 Variables That May Affect Waste Generation Estimates

Several variables exist that may affect the future solid waste quantities predicted in Section 8.3. These variables are more fully described below.

8.4.1 Population Trends

As previously mentioned, only countywide growth rates are available to project future population estimates in Alabama municipalities. It is reasonable to assume that Florence's population may not track exactly with the countywide growth rates throughout the entire planning period of this SWMP. Changes may also occur throughout the next ten years that cause the actual population change to vary from that predicted by CBER. These occurrences would affect the future waste generation amounts proportionally to the population differences.

8.4.2 Municipal Solid Waste Variables

The calculated household and commercial per capita solid waste generation rate factors were used to calculate the projected municipal solid 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 would result in more waste being generated through increased consumer spending. Conversely, if recycling programs become even more effective in diverting waste from disposal, then the amount of solid waste 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 C/D waste generation. A growing economy almost always results in additional demand for residential and commercial buildings. This activity would result in an increase in the amount of C/D 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 C/D 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 C/D 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

Since the amount of special waste that would be disposed of in an MSW landfill is highly variable from year to year but tend to be small in volume, changes in future amounts of special waste are not expected to significantly affect the total amounts of solid waste generated in the City in the future.

9.0 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. The following issues should be addressed when considering the development or expansion of solid waste management systems.

9.1.1 Solid Waste Disposal Needs of the Area

The current or projected solid waste disposal need for the City can be reasonably assessed by evaluating the remaining disposal capacity for those landfills currently serving Florence (see Chapter 4). Although there currently appears to be adequate municipal solid waste disposal capacity available to Florence for the duration of this SWMP, the City may decide it would be advantageous to site a new City-owned transfer station, add solid waste disposal capacity or site a processing or new recycling facility in Florence 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 currently unforeseen issues. Therefore, the option to change current solid waste management operations, add disposal capacity, or site a new processing or recycling facility, shall remain available to the City throughout the planning period of this SWMP. In addition, the private disposal of future C/D waste shall also remain a valid solid waste management option.

9.1.2 Planning and Zoning Considerations

Planning and Zoning is the principal means for the city to guide its future growth and achieve a logical pattern of land use and development for the city. 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 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 Florence 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.

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 City due to increased population or commercial development. The City 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 sitting, 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 address:

- 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 or weekly cover of solid waste

In regard to landfills, the use of properly installed cover material greatly reduces landfill odors and windblown 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 Florence City Council shall consider approval of proposed new or expanded solid waste facilities in the city. Appendix A contains the application that must be submitted by a proposed new 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 the City will not 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.

10.0 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 existing agreements between the City of Florence and any other units of local government or authorities for the joint use or operation of solid waste facilities.

Although there are no official agreements in place, the City of Florence does allow other entities to bring recyclable materials to their Recycling Center for processing. These entities do not receive any monetary benefit under this arrangement.

10.2 Evaluation of Need for Future Joint Agreements

Florence does not currently anticipate the need for joint agreements between the City and any other unit of local government. However, in the event of an emergency such as a natural disaster, or any other unforeseen need, the City may enter into joint agreements with other units of local government or public authorities to accommodate solid waste collection and/or disposal needs.

11.0 PRIVATE COLLECTION, PROCESSING AND/OR DISPOSAL CONTRACTS

Section 22-27-47(b)(10): 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

The City of Florence currently has a contract with Waste Connections, Inc. to transport and dispose of the municipal solid waste generated in the city limits. Florence's Solid Waste Department delivers the residential and commercial waste that is generated in the city to the North Alabama Transfer Station, which is currently leased from the owner by Waste Connections, Inc. Waste Connections then consolidates this waste with other solid waste and transports it to the Buck Run Landfill in Mississippi for disposal.

11.2 Evaluation of Need for Future Agreements with Private Solid Waste Contractors

Since the City of Florence no longer accepts municipal solid waste at their landfill, it is anticipated that contractual agreements with private entities will continue to be needed in the future for the transport and disposal of municipal solid waste. These contracts are typically bid out (or negotiated) on a periodic basis. Should the City decide to build and operate a transfer station, it may be necessary to enter into contracts for the disposal of waste from this facility.

12.0 SITING FOR SOLID WASTE PROCESSING OR DISPOSAL FACILITIES AND RECYCLING PROGRAMS

Section 22-27-47(b)(11): 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. Siting factors that should be considered 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 need 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 is 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 are considerable. The jurisdiction shall evaluate a proposed project's location, impact on public safety and public facilities, but also shall 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 Florence City Council will determine if future landfills, processing facilities or recycling facilities will be sited in their jurisdiction, or if expansions or modifications to existing facilities which require Host Government consideration will be approved in their jurisdiction. If a new or expanded 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, and near generators of large quantities of solid waste would be important to the selection of a possible area. Proximity to large generators of solid waste would also be a consideration. 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 the City of Florence. 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 Florence shall remain available to the City. In addition, the option to approve an expansion or modification to an existing facility shall also remain available to the City. As discussed earlier, the City of Florence has begun the design of a new transfer station in the City's Industrial Park on Starkey Drive.

13.0 UTILIZING SOLID WASTE FACILITIES OUTSIDE THE JURISDICTION

Section 22-27-47(b)(12): 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

The decision on which facility to take solid waste to is usually made by the transporter of the waste and is typically based on economics and ownership, as well as the location of and ease of transportation to a facility.

Since the City of Florence no longer accepts municipal solid waste at their landfill, all municipal solid waste generated in the City is currently being disposed of in landfills located outside of the local government's jurisdiction. All residential and commercial waste generated in Florence is currently collected by the City's Solid Waste Department and transported to a local transfer station. The operator of the transfer station then transports the solid waste to an MSW landfill in Mississippi for disposal. It is possible upon construction of a transfer station that the City of Florence could buy haul trailers for MSW and contract the hauling, and one day buy tractors and haul the waste itself. Probable locations due to distance would be Republic Services BFI Morris Farm landfill and Decatur/ Morgan County regional landfill.

Since there is currently no Industrial Landfill located in the City of Florence, industrial waste that is collected in the city is currently being taken to a separate local transfer station and then transported to an MSW landfill in Lawrence County, Alabama for disposal. It is possible that this inert waste may be taken to the City's C/D Landfill in the future if the city decides to modify its permit to accept this waste.

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. Code r. 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 2011. Municipal Solid Waste in the United States: 2010 Facts and Figures. EPA-530-F-11-005.

(5) Website, Alabama Department of Environmental Management (ADEM) Landfill Lists: MSW: www.adem.state.al.us/programs/land/landforms/MSWLFMasterList08-11.pdf C/D and ILF: www.adem.state.al.us/programs/land/landforms/CDILFMasterList08-11.pdf

(6) ADEM Admin. Code r. 335-13-1-.03 Definitions. Revised April 3, 2012.

APPENDIX "A"

Application for Host Government Approval

HOST GOVERNMENT APPLICATION
FOR
PROPOSED SOLID WASTE FACILITY IN THE CITY OF FLORENCE

This application is to be filled out and submitted to the City of Florence for consideration of a proposed solid waste facility or the modification of permits for existing facilities (as described in Alabama Code § 22-27-48). Failure to provide all requested information may result in the application being rejected as incomplete. Time frames will begin only after the City has determined that the application is complete.

A. Unless waived by the City of Florence, an Application Review Fee equal to 20% of ADEM's permit fee for the proposed facility will be required to be submitted with the application. The fee shall be made payable to the City of Florence with a written request for host government approval to locate a solid waste facility, or make modifications to the permit of an existing facility (if the modifications require Host Government Approval), within the legal boundaries of the approving jurisdiction. If an application is received for the same facility within 18 months of it being denied or rejected by the local governing body, the Application Review Fee shall be equal to 50% of the ADEM's permit fee.

B. Once an application is determined to be complete, a Public Hearing date will be set. The City of Florence will place a legal advertisement in a local newspaper to run at least one time identifying time and date of a Public Hearing. A Public Notice describing the date and time of the Public Hearing shall also be displayed in an area typically used for governmental public notifications (i.e. City Hall hallway).

C. The advertisement is required to run in the newspaper not less than 30 days and not more than 45 days before the Public Hearing.

D. At least two competent representatives of the proposed facility shall be present at the Public Hearing.

E. The City of Florence will consider the proposal and determine whether to approve or disapprove the site based on all information provided including the considerations set forth in Alabama Code § 22-27-48.

F. The City Council will rule on the completed application within 90 days of its receipt.

G. If any portion of the described review process is found to be in conflict with the requirements of Alabama Code § 22-27-48, or any updated statute, the regulatory requirements shall supersede the requirements of this Plan.

DATE OF APPLICATION SUBMITTAL: _____

1. PROPOSED NAME OF FACILITY: _____

_____

2. APPLICANT:

Name_____

Address_____

_____

Telephone_____

If applicant is a Corporation, list Officers: _____

_____

_____

If applicant is a Partnership, list principals:

_____

_____

Principal Stockholders:

_____

_____

3. PROPOSED FACILITY TYPE:

_____MSW LANDFILL

_____C&D LANDFILL

_____INDUSTRIAL LANDFILL

_____PROCESSING FACILITY (Describe)

_____OTHER (Explain)

_____

_____

4. CONTACT PERSON(S): (if different from No. 2)

Name (1)_____(2)_____

Address _____ _____

_____ _____

Telephone _____ _____

5. LANDOWNER: (if different from No. 2)

Attach a copy of the agreement from landowner giving permission to use site for the intended purpose.

Name _____

Address _____

_____

Telephone _____

6. SITE DESCRIPTION:

a. Location: Township_____Range_____

Section_____1/4 Section(s)_____

b. Attach location map with the site clearly identified. Acceptable maps include a USGS 7.5 or 15 minute series, a county highway map published by the State DOT, or approved equivalent.

c. Attach a legal property description and boundary plat of the proposed facility prepared by a land surveyor.

d. Size of disposal facility (actual area to be utilized) _____acres.

e. Total area of property (if different from d.) _____ acres.

7. ADJACENT LANDOWNERS:

a. Submit a list of all adjacent landowners including name and current mailing address.

b. Submit a map identifying the proposed disposal site and all adjacent landowners listed in (a) above. State the source of your information.

8. WASTE DESCRIPTION:

a. Describe and list all waste streams to be accepted at the facility. Be specific (household

solid waste, wood boiler ash, foundry sand, discarded tires, dried sludge, limbs and stumps, etc.)

_____

_____

_____

_____

b. What is the estimated maximum daily volume of waste to be received at the facility?

_____(indicate tons/day or yd^3/day)

c. What geographic area or specific industry will waste be accepted from? (be specific)

_____

_____

d. Haulage of waste to the facility will be by whom? _____

_____

_____

e. Describe the principle type of transportation vehicle to be used to transport waste:

_____

_____

_____

f. Approximately_____vehicles per day (max.) will be generated as additional traffic on the main collector road to this solid waste facility.

g. Describe all proposed environmental monitoring systems (i.e. groundwater, explosive gas, leachate collection, liner systems). _____

_____

_____

_____

_____

9. SITING STANDARDS:

a. Is the facility located within the 100-year flood plain?

YES _____ NO _____

Provide a current flood insurance rate map with the site identified.

b. Is the facility located so as to protect surface and groundwater?

YES _____ NO _____

Explain on an attached sheet.

c. Is a discharge to surface water proposed that may require an NPDES Permit?

YES _____ NO _____

Explain on an attached sheet.

d. Is a discharge of dredged material or fill material into waters of the state proposed which may require a permit under Section 404 of the Clean Water Act?

YES _____ NO _____

e. The bottom elevation of solid waste shall be a minimum of five feet above the seasonal high groundwater table or bedrock. The minimum depth to (CIRCLE ONE: Bedrock, groundwater) at this site is _____ feet. (Attach map showing location)

f. Are any sink holes, ponds, springs, swamps, streams, or drainage courses located within the disposal area?

YES _____ NO _____

If YES, explain.

_____

_____

_____

_____

g. Identify any airport runway located within 10,000 feet of the site?

_____

_____

h. How many landfills (or similar type facility) are within a ten (10) mile radius of this proposed facility?

_____

_____

i. Does the entrance to the facility meet current standards for sight distance?

_____

_____

j. Will any stormwater runoff be directed to a road right-of-way? If so, describe.

_____

_____

_____

10. GENERAL:

a. Describe how the property boundaries will be clearly and permanently marked.

_____

_____

b. Describe and/or show your planned progression of fill from beginning operation through closure.

_____

_____

_____

c. The life expectancy of the facility is _____ years.

d. How will indiscriminate dumping be prevented (gates, fencing, etc.)?

_____

_____

e. Describe what equipment will be utilized in the disposal operation.

_____

_____

_____

f. Describe what personnel will be utilized in the disposal operation.

_____

_____

The applicant is responsible for compliance with all other requirements identified by applicable statutes and the ADEM Administrative Code.

11. Alabama Code § 22-27-48:

Describe how the proposed facility shall meet each of the criteria set forth in Alabama Code § 22-27-48.

a. The consistency of the proposal with the jurisdiction's solid waste management need as identified in its plan;

b. The relationship of the proposal to local planned or existing development of the absence thereof, to major transportation arteries and to existing state primary and secondary roads;

c. The location of the 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;

d. Cost and availability of public services, facilities and improvements required to support the proposed facility and protect public health and safety and the environment;

e. The impact of proposed facility on public safety and provisions made to minimize the impact on public health and safety; and

f. The social and economic impacts of the proposed facility on the affected community, including changes in property values, and social or community perception.

CERTIFICATION:

I,_____, certify under penalty of law that this document and all attachments submitted are to the best of my knowledge and belief, true, accurate, and complete.

SIGNATURE _____

(Corporate Officer, Partner, Mayor, Chairman, etc.)

_____

(Printed Name and Title)

APPENDIX "B"

Public Notice and Comments

B-1: City of Florence 2025 SWMP Public Hearing – General

B-2: Notice of Public Hearing

B-3: Public Hearing Sign-In Sheet

B-1: CITY OF FLORENCE SWMP PUBLIC HEARING - GENERAL

A public hearing regarding the City of Florence Solid Waste Management Plan, 2024 (SWMP or Plan) will be held on Wednesday, January 22, 2025 to hear public comment on the Draft version of the City's SWMP.

B-2: NOTICE OF PUBLIC HEARING

B-3: PUBLIC HEARING SIGN-IN SHEET

APPENDIX "C"

C-1: Public Hearing Minutes

C-2: Resolution Adopting the 2024 Solid Waste Management Plan

C-1: PUBLIC HEARING MINUTES

C-2: Resolution Adopting the 2024 Solid Waste Management Plan

APPENDIX "D"

ADEM Approval Letter

(INSERT COPY OF ADEM APPROVAL LETTER UPON RECEIPT)