

Solid Waste Management Plan 2008 - 2018

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City of Garden City

Submitted to the Department of Community Affairs (DCA)
Submitted by the City of Garden City

Ecological
Planning
Group





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INTRODUCTION

In an effort to adhere to the rules and requirement of the Georgia Department of Community Affairs (DCA), Minimum Planning Standards and Procedures for Solid Waste Management, The City of Garden City has completed the following Solid Waste Management Plan for the planning period beginning in 2008 and ending in 2018. The City's Solid Waste Plan is defined by the city limit boundaries of Garden City and is illustrated in Figure 1 below.

The jurisdictions within Chatham County are scheduled to have completed their Comprehensive Plan updates in October 2008. The following Solid Waste Management Plan for the City of Garden City is being completed in conjunction with ongoing planning efforts. One goal of the City's Solid Waste Plan is to demonstrate the City's dedication to waste reduction by conducting an assessment of current solid waste practices and activities in the City. That being said, this plan will ultimately lead to a better understanding of how waste is currently being handled in the City.

The Minimum Planning Standards and Procedures have been broken down into five core elements as listed below:

- Waste Reduction
- Collection
- Disposal
- Land Limitation
- Education & Public Involvement

An assessment of each of the solid waste planning elements will be conducted for the City of Garden City. A waste disposal stream analysis and an implementation plan are also included within the contents of this Plan. The waste disposal stream analysis examines current practices and trends in the City and ultimately results in the projection of waste to be disposed of during the planning period of this report. The implementation plan identifies specific activities the City will undertake to achieve the goals set forth in this document.

FIGURE 1 - LOCATION MAP



Person Responsible for the Plan

The person responsible for updating the Solid Waste Management Plan is indicated in the table below:

Contact	Public Works Director
Street	100 Main Street
City	Garden City, GA 31408
Phone	912-966-7777
Fax	912-966-7792

Any questions related to the contents of this plan or to request additional information should be directed to the person listed in the table above.

Planning Area

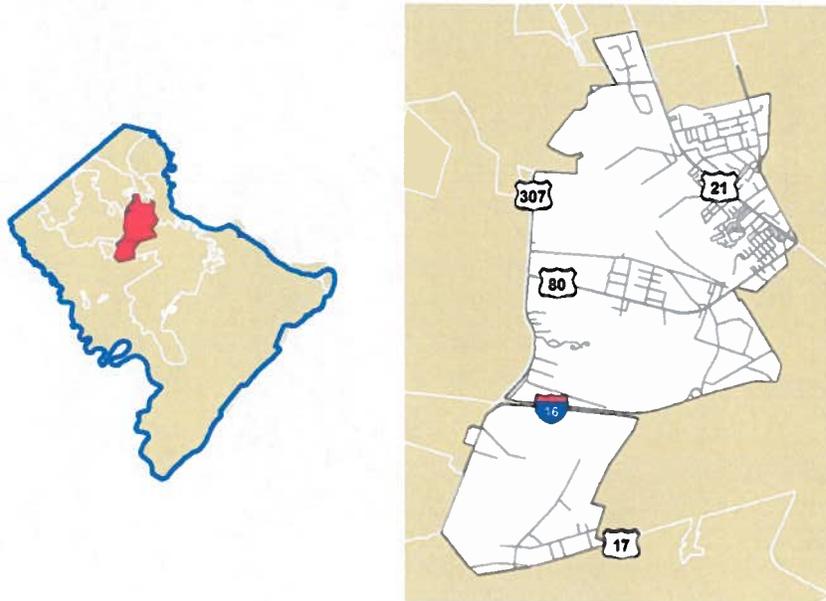
The Solid Waste Management Plan for Garden City covers all areas within the city limits of Garden City. Garden City covers an area of roughly 9,081 acres or 14 square miles and is located in the central part of Chatham County. Garden City accounts for approximately 2.7% of the total land area in Chatham County. Table 2 shows the acreage of each City and total percentage each City accounts for in the County.

Table 2. Area Comparison of Chatham County Jurisdictions

NAME	Total Acreage	Percent of County
GARDEN CITY	9,081.5	2.7%
BLOOMINGDALE	8,901.1	2.7%
POOLER	18,027.0	5.4%
PORT WENTWORTH	10,691.4	3.2%
SAVANNAH	52,299.4	15.7%
THUNDERBOLT	1,014.3	0.3%
TYBEE ISLAND	2,061.1	0.6%
UNINCORPORATED CHATHAM COUNTY	231,819.5	69.4%
VERNONBURG	270.3	0.1%
TOTAL CHATHAM COUNTY	334,165.6	100.0%

Figure 1 illustrates the location of the Garden City planning area within the State of Georgia. The planning area is illustrated in closer detail in Figure 2.

Figure 2. Planning Area



Natural Resources

The City of Garden City contains a unique collection of natural resources. The City has numerous water features that include freshwater forested wetlands, natural and manmade waterways, and the Savannah River. The proper management, consideration, and protection of these resources is important as the City moves forward with development of this Solid Waste Plan.

The City of Garden City is approximately 14 square miles or 9,081 acres and contains an array of natural resources. Due to its location in coastal Georgia and proximity to the Savannah River, the City of Garden City has many low-lying areas and has 17 miles of streams and other natural and man-made waterways within the City. The City contains approximately 3,500 acres of wetlands, which accounts for roughly 37.5% of the total area in the City. A significant portion of the City (roughly 53%) falls within the FEMA 100-year flood zone.

Population

Population growth in Garden City is projected to grow substantially during the planning period of this plan and is a driving factor behind many of the issues and policies outlined within this document.

The City of Garden City has great potential to become a focal point for new development and an affordable alternative to living within the City limits of Savannah. Table 3 shows historical growth trends within the City.

Table 3. Historical Population Trends

Jurisdiction	1980	1990	2000	2005	Increase 1980 - 1990	Increase 1990 - 2000	Increase 2000 - 2005
Garden City	6,895	7,410	10,176	10,459	7.50%	37.30%	2.80%

Source: Department of Community Affairs (DCA), US Census Bureau
City of Garden City Comprehensive Plan

In projecting population over the planning period of the Solid Waste Management Plan, an accurate number for 2005 was used as the basis. The 2005 number for Garden City was obtained from the City's Comprehensive Plans (due to be adopted in October 2008). The 2008 population number used in the table below was calculated by taking the number of Certificates of Occupancy (COs) issued in 2006 and 2007 and multiplying that number by the average household size. That number was added to the 2005 population number and was used as the starting point for the projections.

Table 4. Population Projections

Year	Garden City
2008	11,429
2009	11,772
2010	12,125
2011	12,452
2012	12,788
2013	13,134
2014	13,488
2015	13,853
2016	14,227
2017	14,611
2018	15,005

Seasonal Population Variation

The St. Patrick's Day parade in Savannah is the City's largest celebration and one of the largest St. Patrick's Day events in the United States. The St. Patrick's Day event draws roughly 400,000 visitors each year to the Savannah area. While the St. Patrick's Day event takes place in downtown Savannah, as a first ring suburb to the City, the large draw of visitors does have an effect on Garden City. Hotels in the Garden City area are generally full for the St. Patrick's Day celebration.

The seasonal tourism industry also has the potential for a population increase in Garden City.

Number of Households

According to the U.S. Census, there were 3,981 households in Garden City in the year 2000. The number of households in the City saw an increase of 9.5% from 2000 - 2005. Table 5 compares the number of households in the Garden City and Chatham County as a whole between the years 2000 and 2005. As the table depicts, the number of households in Garden City increased at a faster rate when compared to the county as a whole.

Table 5. Number of Households

Jurisdiction	2000	2005	Percent Change
Garden City	3,981	4,358	9.50%
Chatham County	89,865	94,501	5.20%

Source: Department of Community Affairs (DCA), US Census Bureau, City Comprehensive Plans

Economic Activity

Table 6 provides a classification of employment in the City by type of industry. The percentage is calculated by the number of people employed by a particular industry versus the total civilian employed population. As the table demonstrates, the economy that makes up Garden City, as determined through the 2000 Census, is not dependant on any particular industry type and would therefore be less subject to downturns in a single industry. The major employers in the Garden City include: manufacturing, retail trade, education, health, and social services, arts, entertainment, recreations, and construction. These industries collectively account for nearly two-thirds (64%) of the total employed civilian population.

Table 6. Types of Industries

	Persons Employed	Percent of City
Total Employed Civilian Population	4,722	100.0%
Agriculture, Forestry, Fishing, Hunting & Mining	15	0.3%
Construction	496	10.5%
Manufacturing	814	17.2%
Wholesale Trade	174	3.7%
Retail Trade	633	13.4%
Transportation, Warehousing & Utilities	346	7.3%
Information	50	1.1%
Finance, Insurance & Real Estate	199	4.2%

	Persons Employed	Percent of City
Professional, Scientific, Management, Administrative & And Waste Management Services	320	6.8%
Educational, Health & Social Services	541	11.5%
Arts, Entertainment, Recreation, Accommodation & Food Services	534	11.3%
Other Services	317	6.7%
Public Administration	283	6.0%

Source: Department of Community Affairs (DCA), US Census Bureau, City Comprehensive Plan

Public Involvement During the Planning Process

The City of Garden City has exceeded the minimum requirements for Public Involvement set forth by the DCA. The City held two public hearings and used additional methods to keep the public informed throughout the planning process of this report. The first public hearing was held in June 2008 to introduce the Plan and field questions about the process. Once the preliminary draft was completed, the Solid Waste Management Plan was presented to the City Council to inform residents on the status of the Plan and to provide an opportunity for residents to make suggestions, additions, and revisions. The final public hearing was held in August of 2008 to ask the City Councils to adopt a resolution authorizing the submittal of the draft plan. The additional avenues used by the City to inform residents about the Plan are summarized below.

- **Website.** The City's website contains a page dedicated to the Solid Waste Management Plan. The page was updated on a regular basis and contains the draft plan and corresponding maps.
- **Handouts.** The City also produced a handout (available at City Hall) that provided general information about the Solid Waste Management Plan. The handout was also available at the public meetings. Additional handouts were created to advertise the public hearings.
- **Advertising.** Advertising for the public meetings was done in accordance with the City's policy for public meetings. Meeting agendas were made available to the public at least one week prior to the meetings. The presentation to the City Council was aired on the government channel which allowed for all of the citizens within Chatham County to view the presentation.

A sample of public education materials and meeting agendas from the public hearings are included in Appendix A.

1. WASTE DISPOSAL STREAM ANALYSIS

Amount of Waste Disposed

The table below estimates the total amount of waste disposed of by sector for the City of Garden City. The methodology used to generate the total tonnage of waste for both Municipal Solid Waste (MSW) and Construction and Demolition (C&D) landfills is based on the numbers used in the Georgia Statewide Solid Waste Management Plan for 2005. The statewide tonnage from this plan was used to determine the percent by sector. This number was then applied to Garden City on a per capita basis. Using these numbers, it is estimated that approximately 40% of waste delivered to MSW landfills is generated by the residential sector. The second largest sector contributing waste to MSW landfills is the commercial sector, which accounts for roughly 27%. Industrial, C&D, and Sludge and Biosolids account for 14%, 12%, and 7% respectively.

Table 7. Waste by Sector

Sector	Tons to MSW Landfill		Tons to C&D Landfill	Total Tons	
Residential	4,793	39.30%		4,793	29%
Commercial	3,330	27.30%		3,330	20%
Industrial	1,708	14.00%		1,708	10%
C&D	1,500	12.30%	4,276	5,776	35%
Sludge & Biosolids	866	7.10%		866	5%
Total	12,197	100.00%		16,473	100%

Source: Georgia Statewide Solid Waste Management Plan, 2005

The methodology used to generate the total tonnage delivered to MSW and C&D landfills is discussed in greater detail below.

Unique Conditions / Seasonal Variations

The months during spring and summer typically result in an increase in yard trimmings and leaves that are disposed of in local landfills. In an effort to address this issue, Garden City conducts curbside collection of yard waste on a monthly basis. The City's yard trimmings program is discussed in greater detail in the collection element below.

Waste Generating Disaster

A major disaster has the potential to result in a significant increase in the amount of waste disposed of on an annual basis. However, it is difficult to project the additional amount of waste that would be generated should such a disaster occur. The types of disasters most likely to occur in Garden City are

hurricanes, tornados, and major rain events. The procedures for collection and disposal of waste resulting from disaster are addressed later in the report.

Disposal Rate

Table 8 below compares the estimated disposal rate for Garden City and the State of Georgia as a whole. The City of Garden City calculated the disposal rate by comparing statewide trends with those of the County. The disposal rate for Georgia of 6.39 pounds per day per person was calculated in the Statewide Solid Waste Management Plan. Lacking a better account for disposal patterns in Chatham County, the City has elected to use this number as the basis of calculations in this waste stream analysis.

The adjusted annual tonnage of waste in the state was multiplied by 2000 to convert the tonnage to pounds. The resulting number was then divided by the statewide population and then by 365 to determine the per capita (pounds per day per person) number. Given the population numbers for Garden City and the per capita rate, the annual tonnage was calculated. This number was calculated by multiplying the per capita number (6.39) times 365 to determine pounds per person per year. The resulting number was multiplied by the population and then divided by 2000 to convert pounds to tons.

The City believes the statewide per capita number is consistent with the regional trends and is a good number to use for the basis of the waste projections in this report. It should be noted that the table below is comparing population numbers from the year 2005. The population numbers in the table below used the 2005 population projection for Garden City, which was calculated as part of the Comprehensive Plan.

Table 8. MSW Disposal Rates

Jurisdiction	Tons Per Year	Population	Per Capita (pounds per day)
State of Georgia	10,282,942	8,817,666	6.39
Garden City	12,197	10,459	6.39

Source: Georgia Statewide Solid Waste Management Plan, 2005

It is difficult to determine an exact tonnage for the City of Garden City because collection services are contracted out to Waste Management. When dealing with contracted haulers, loads are generally not differentiated based on jurisdictional boundaries. In many cases, loads being disposed of contain waste from more than one jurisdiction. Consequently, Garden City opted to use the statewide average as the base disposal rate for the purposes of this report.

The City is exploring ways to better identify the source of waste being collected and the methodology for which it is being reported. This may be a difficult task because it will take a great deal of cooperation from the contracted hauler (currently Waste Management) and may require them to alter the way waste gets reported at landfills.

The methodology discussed above was used to determine the disposal rate at C&D landfills. Based on this methodology, an average of 2.24 pounds per person per day of waste is disposed of at C&D landfills in the City. The statewide average was again applied to the City and will be used for later calculations because no accurate datasets are available to indicate a different per capita number.

Table 9. C&D Disposal Rates

Area	Tons Per Year	Population	Per Capita (pounds per day)
Total Tonnage in Georgia	3,604,049.00	8,817,666	2.24
Garden City	4,276	10,459	2.24

Source: Georgia Statewide Solid Waste Management Plan, 2005

Progress Toward Per Capita Reduction in MSW

The most recent Solid Waste Management Plan that related to Garden City was completed in 1992. In this plan, there was no comprehensive data specific to the City with regard to the total quantity of waste disposed. The City collects yard trimmings and participates in programs that aim to reduce the total amount of solid waste being disposed of in MSW landfills. However, based on statewide historical trends and current development patterns within the City, it is unlikely that these programs have led to a significant reduction in MSW waste.

Waste Characterization

The Georgia Statewide Waste Characterization Study conducted by R.W. Beck for the DCA in 2005 breaks down the percentages by type of material disposed of in a MSW landfill for the area covered by Coastal Georgia Regional Development Center (CGRDC). The CGRDC encompasses a 10-county area that includes Screven, Bulloch, Effingham, Chatham, Bryan, Liberty, Long, McIntosh, Glynn, and Camden Counties. The percentages developed in the DCA study were generalized and used to determine the estimated tons per year for Garden City. Please refer to Table 7 above for a breakdown of the total tonnage by sector.

Table 10. Waste Composition Characterization of MSW Disposed

Material	Average Percentage	Tonnage
Paper	39.00%	4,756.84
Plastic	15.90%	1,939.33
Glass	3.50%	426.9
Metal	4.30%	524.47
Organics	28.20%	3,439.56
C&D	6.50%	792.81
Inorganics	2.60%	317.12
TOTAL	100.00%	12,197.02

Source: Statewide Waste Characterization Study, 2005

Projected Waste to be Disposed

The City of Garden City has established a goal of 10% waste reduction over the next ten years. While a quantitative number (10%) is being used as the reduction goal, the focus of reduction efforts during the planning period of the report will be through implementation of a recycling program, yard trimmings recycling, etc.

The estimated 6.39 pounds per person per day was used to project the total tonnage of waste to be disposed of over the 10-year planning period. The City intends to achieve the 10% reduction by reducing total waste disposed of per capita by 1% per year which equates to 0.064 pounds per person per day. The projected tonnage based on this goal is shown in the table below. It is estimated that 160,324 tons of waste from Garden City will be disposed of in MSW landfills over the next ten years.

Table 11. MSW Disposal Projections

	Disposal Rate	Population	Projected Tonnage
2008	6.39	11,429	13,328
2009	6.33	11,772	13,591
2010	6.26	12,125	13,858
2011	6.2	12,452	14,090
2012	6.14	12,788	14,326
2013	6.08	13,134	14,566
2014	6.02	13,488	14,809
2015	5.96	13,853	15,057
2016	5.9	14,227	15,309
2017	5.84	14,611	15,565
2018	5.78	15,005	15,825
TOTAL			160,324

Source: Census Bureau & City Datasets

2. WASTE REDUCTION ELEMENT

Inventory & Assessment of Waste Reduction Programs

Source Reduction Programs

Source reduction refers to the actions and programs a jurisdiction has in place to reduce the amount of waste generated by the consumer. The City of Garden City encourages source reduction by producing informational handouts to residents. The City’s Comprehensive Plan is also promoting the adaptive reuse and infill development of vacant buildings versus demolition and new development.

Recycling Programs & Facilities

The City of Garden City has placed two 12-cubic yard bins at City Hall for the recycling of newspaper and cardboard. There are also drop-off locations and other recycling facilities in Chatham County available to residents of Garden City. These facilities are listed in Table 12 below. The facilities are also illustrated on Figure 3, which can be found in Chapter 5 (Disposal Element).

Table 12. Recycling Facilities / Drop off Sites

Facility Name	Type	Address	Materials Accepted
Pooler Recycling Center	Drop-off Facility	1095 S. Rogers Street	Newspaper, Aluminum, Plastic, Office Paper, Glass, Cardboard
Southeast Paper Recycling Company	Drop-off Facility	10 Hoss Street	Newspaper, Office Paper, Cardboard
Hunter Army Airfield	Drop-off Facility	1412 Blanton Street	Newspaper, Aluminum, Plastic, Office Paper, Glass, Cardboard
Southern Paper Recover, Inc.	Drop-off Facility	1926 West Gwinnett Street	Newspaper, Aluminum, Plastic, Office Paper, Glass, Cardboard
Wilmington Island Landfill	Drop-off Facility	6900 Concord Road	Newspaper, Aluminum, Glass, Cardboard
Savannah Processing, Inc.	Drop-off Facility	190 Gulf Stream Road	Aluminum
FortJen Recycling	Drop-off Facility	102 North Gamble Street	Aluminum
Jarrell's Iron and Metal	Drop-off Facility	400 Magazine Road	Aluminum

Facility Name	Type	Address	Materials Accepted
Savannah Metal Recycling	Drop-off Facility	4520 Tremont Road	Aluminum
City Lot	Drop-off Site	Sallie Mood / Eisenhower	Newspaper
Charvins Market	Drop-off Site	2002 Waters Avenue	Newspaper
Lake Mayer	Drop-off Site	Sallie Mood / Montgomery Crossing Road	Newspaper

Yard Trimmings Programs & Facilities

The City of Garden City conducts curbside collection of yard trimmings on a monthly basis. A total of four fleet vehicles are used by the City for this collection effort. Yard trimmings that are bundled at the curb will be collected. Acceptable yard waste includes grass clippings, leaves, shrubs, brush, tree trimmings, and other vegetative materials generated from general maintenance of yards, lawns, and landscaping.

The yard trimming collected by the City are currently being disposed of at a privately owned site on the west side of Ogeechee Road. This site is being used as a lay down yard by the City for the recycling of dry trash. The City uses a wood chipper to break down the yard trimmings with the resulting mulch being turned over to residents.

Special Materials Recycling

The City of Garden City does not have a formal program for the recycling of special materials. However, the City does collect and properly dispose of items such as tires and liquids that it comes across. The City also participates in the E-recycling program with the City of Savannah. The E-recycling program is an annual event that collects and recycles electronics, paint, used oil, batteries, cell phones, aluminum, and other household goods from residents and businesses in the greater Savannah area.

Assessment of Current Waste Reduction & Recycling Programs

The City of Garden City has a lot of opportunities to improve source and waste reduction in the City. Currently, there are minimal opportunities for recycling available to residents. However, the City met with Waste Management staff during the course of preparing this plan to discuss the potential for the City to implement a curbside recycling program. The City (Waste Management) currently conducts waste collection twice a week for Garden City residents. The potential curb-side recycling program would replace one of the waste collection days with curbside collection of recyclables. Waste Management anticipates that implementation of the recycling program could be done at little to no additional cost to residents of the City. The City plans to continue exploring the option of contracting with Waste Management to provide curbside recycling collection to City residents. In addition, the City

of Savannah has approved a 10-year contract with Pratt Recycling for curbside recycling services. Garden City is going to coordinate with the City of Savannah to see if there is an opportunity for this program to expand into other jurisdictions in the Chatham County.

The lay down yard for dry trash collected in the City leads to an overall reduction in the amount of trash being disposed of by the City at landfills. In addition, recycling this material is also a tremendous cost savings for the City. The City will continue to recycle yard waste in this fashion at the new Public Works Facility and will take a more proactive approach in advertising this service to residents.

The City also offers public education about the benefits of source reduction to residents. Continued implementation and expansion of these elements will be required in order to achieve the 10% reduction goal established as part of this plan. If the City does not take a more proactive approach to waste reduction, it is likely that per capita numbers will increase over the planning period of this report.

Needs & Goals

A 10% per capita waste reduction goal over the planning period of this report has been established. Accomplishing this goal will require the following:

- Provide/Expand available drop-off locations for recyclables and/or bulk items
- Work with the private haulers to track and keep a better record of waste being generated in the City
- Work with Waste Management on implementation of a recycling program
- Encourage participation in recycling through public education
- Encourage source reduction through education
- Encourage reduction of waste through composting
- Explore purchasing composting bins
- Establish recycling drop-off locations

3. WASTE COLLECTION ELEMENT

Inventory & Assessment of Collection Programs

The City of Garden City provides curbside collection services to all residents within the City. This service is contracted to a private vendor and is conducted twice a week. Waste collection fees are subscribed to by residents in the City and included as part of the water utility bills. Residents may also utilize private transfer stations and drop-off locations located in the City and County. Garden City is currently under contract with Waste Management Inc for all residential curbside collection services. Once collected, residential solid waste is unloaded at Savannah Regional Industrial Landfill, located in Port Wentworth, Georgia.

The City of Garden City arranges for commercial collection services through a contract with Waste Management and charges businesses as part of the utility bill. Businesses within the City have the option to select the service that best suits their needs. Businesses have the option for a roll-out cart or a dumpster. Dumpsters are available in different sizes ranging from four cubic yards to 20. Pickup frequency also varies depending on the needs of the given customer. The frequency of pickups ranges from twice a week to daily pickups (five times a week).

C&D waste collection in the City is open competition where the business or developer has the option to select their own hauler. Options for C&D waste are to self-haul waste to a transfer station/landfill or contract services from a private service.

Table 13. Waste Collection Programs

Collection Type	Name of Hauler	Service Provided
Private Hauler	Waste Management	Residential & Commercial Collection

Drop-off Locations & Transfer Stations

Residents in Garden City may also choose to deliver solid waste to various transfer stations that operate in the County. Transfer stations and drop-off locations are discussed in greater detail in the next section on Disposal.

Yard Trimmings & Bulk Item Collection

The City of Garden City conducts curbside collection of yard trimmings on a monthly basis. A total of four fleet vehicles are used by the City for this collection effort. Yard trimmings that are bundled at the curb will be collected. Acceptable yard waste includes grass clippings, leaves, shrubs, brush, tree trimmings, and other vegetative materials generated from general maintenance of yards, lawns, and

landscaping. Yard waste collected is taken to the Savannah Regional Industrial Landfill facility for disposal. Residents are billed for this service as part of the water utility bill.

Garden City does not currently have a formal program in place for the collection of bulk items. The City previously conducted bulk item collection twice a year; but recently stopped providing this service due to lack of resources.

Table 14. Summary of Collection Programs

Type of Collection	Method	Frequency	Name / Operator	Contractual Arrangement
Residential Waste	Curbside	Weekly	Waste Management	Residents charged as part of utility bill
Yard Trimmings	Curbside	Monthly	City of Garden City	Residents charged as part of utility bill
Bulk Item	Not offered by City	N/A	N/A	N/A
Commercial Waste	Front loader / Container service	Determined by customer needs	Waste Management	Charged as part of utility bill

Illegal Dumping / Littering

The City of Garden City has certain areas where illegal dumping occurs, typically in the form of bulk items such as couches, appliances, etc. Due to the industrial activities and truck traffic related to the Georgia Ports Authority, illegal dumping also occurs in the form of tires in certain locations throughout the City. The City of Garden City has a Litter Control Ordinance that prohibits illegal dumping and littering. Defined in the City's Litter Ordinance are types of activities that constitute a violation, enforcement actions, and penalties. The City exercises the power of Code Enforcement to enforce illegal dumping and littering in the City and staffs a fulltime code enforcement officer. The City conducts periodic cleanups of litter throughout the City through the use of Public Works employees and volunteer groups. Public Works employees are also tasked with the periodic cleanups of illegal dumping hot spots. In addition to general code enforcement, the City has plans to install video cameras in illegal dumping hot spots. Installation of these cameras will assist the City in identifying the guilty parties thus reducing the dumping in these areas.

Adequacy of Collection Programs

Garden City has experienced significant population growth since the 1992 Solid Waste Management Plan. While the population in the City is projected to increase even more substantially during the planning period of this report, the City's goal remains the same: providing consistent and efficient collection services to residents of the City. As growth occurs, the City will ensure that they continue to provide collection services to all residents in a manner that is cost effective and resourceful.

The collection services administered by the City ensure that sufficient services are provided to all residents throughout the course of this planning period. It is also important for the City to educate residents with regard to recycling, mulching, and waste reduction programs in order to meet the City's 10% waste reduction goal established for the 10-year planning period of this report.

Contingency Strategy

In the event of a major disaster, the City of Garden City has adopted a Debris Management Plan. The City's Debris Management Plan meets federal and state requirements and has been approved by Federal Emergency Management Agency (FEMA) and Georgia Emergency Management Agency (GEMA).

A major disaster, whether natural or manmade has the potential to produce debris in the form of trees, sand, gravel, building/construction materials, vehicles, personal property, etc. The total quantity and type of debris generated is a function of the location, type of event, magnitude, duration, and intensity. These factors collectively determine the approach the City will take to address the debris problem as well as the associated costs and timeframe for removal. In an effort to be better prepared for such a situation, Garden City has contracted with two private contractors. DRC has been contracted by the City for debris removal and Beck LLC has been contracted for debris monitoring.

In the event of a natural or manmade disaster, the City has created a task force that will convene to identify priorities and formulate a plan of action. Priority areas will be addressed first and include: areas with an immediate threat to public health, fire, police, and ambulance routes, access routes to trauma centers, major arterials, roads to the debris management center/emergency operations site, supply routes, roads to government facilities, communication towers and system access points, utility access routes, and routes to shelters. The City's Debris Management Plan includes a map illustrating the locations of critical facilities and priority areas.

A Task Force has been established in the Debris Management Plan that includes members of City staff and contractors hired by the City. The Debris Management Plan defines the specific responsibilities of all players involved in order to streamline the process of addressing problems areas in the City. The Task Force and City Council will determine the severity of the event and whether collection of debris can be completed within the normal collection schedule. The Task Force's Action Plan will be implemented within 70 hours of the event. Residents will be informed through the City's website and the local news media for changes in services due to the event.

Garden City also has fleet vehicles available should a situation arise. These vehicles would be used to remove debris from high priority areas such as roadways and areas where debris is posing an immediate threat to public health and safety. The City would use the fleet vehicles in addition to the vehicles provided by the contracted haulers in the event the disaster requires such action. In the event that Waste Management becomes unable to collect waste, whether on a temporary basis, or a permanent basis, the City fleet vehicles would be used for routine collection until other arrangements could be made. An estimated two week timeframe has been established for implementation. The City will inform residents through the use of local media types (newspaper & cable channel) as well as posting information to the City's website. Depending on the situation, the City may elect to hire an additional private hauler(s) to assist with collection activities until permanent arrangements are made.

Needs & Goals

The overall goal for Garden City is to provide consistent and efficient collection services to City residents. In order to meet this goal, the following needs have been identified:

- Work with private haulers to ensure steady and reliable collection
- Continue to enforce the Litter Ordinance to address illegal dumping; and evaluate to ensure penalties are consistent in meeting the City's goals
- Work with contracted haulers to better track quantities of waste collected within the City

4. WASTE DISPOSAL ELEMENT

Inventory & Assessment of Facilities Located in the City

Landfills

MSW collected in the City of Garden City is transported to the Savannah Regional Industrial Landfill. This facility is located at 84 Clifton Boulevard in Savannah, Georgia. This facility is privately owned and operated.

According to the EPD database, there are four landfills operating in Chatham County. Table 15 below identifies the MSW and C&D landfills in Chatham County.

Table 15. Landfills

Facility Name	Permit	Waste Accepted	Dominion
Savannah-Dean Forest Rd (SL)	025-051D(SL)	MSW	Public
Chatham Co-Thomas Ave (L)	025-056D(L)	C&D	Public
Superior Landfill & Recycling Center	025-070D(MSWL)	MSW	Private Commercial
Savannah Regional Industrial Landfill, Inc	025-072D(L)(I)	MSW, C&D	Commercial Industrial

Source: Environmental Protection Division (EPD)

Figure 3 illustrates the locations of landfills, transfer stations, recycling centers, and closed landfills within close proximity to Garden City.

Transfer Stations

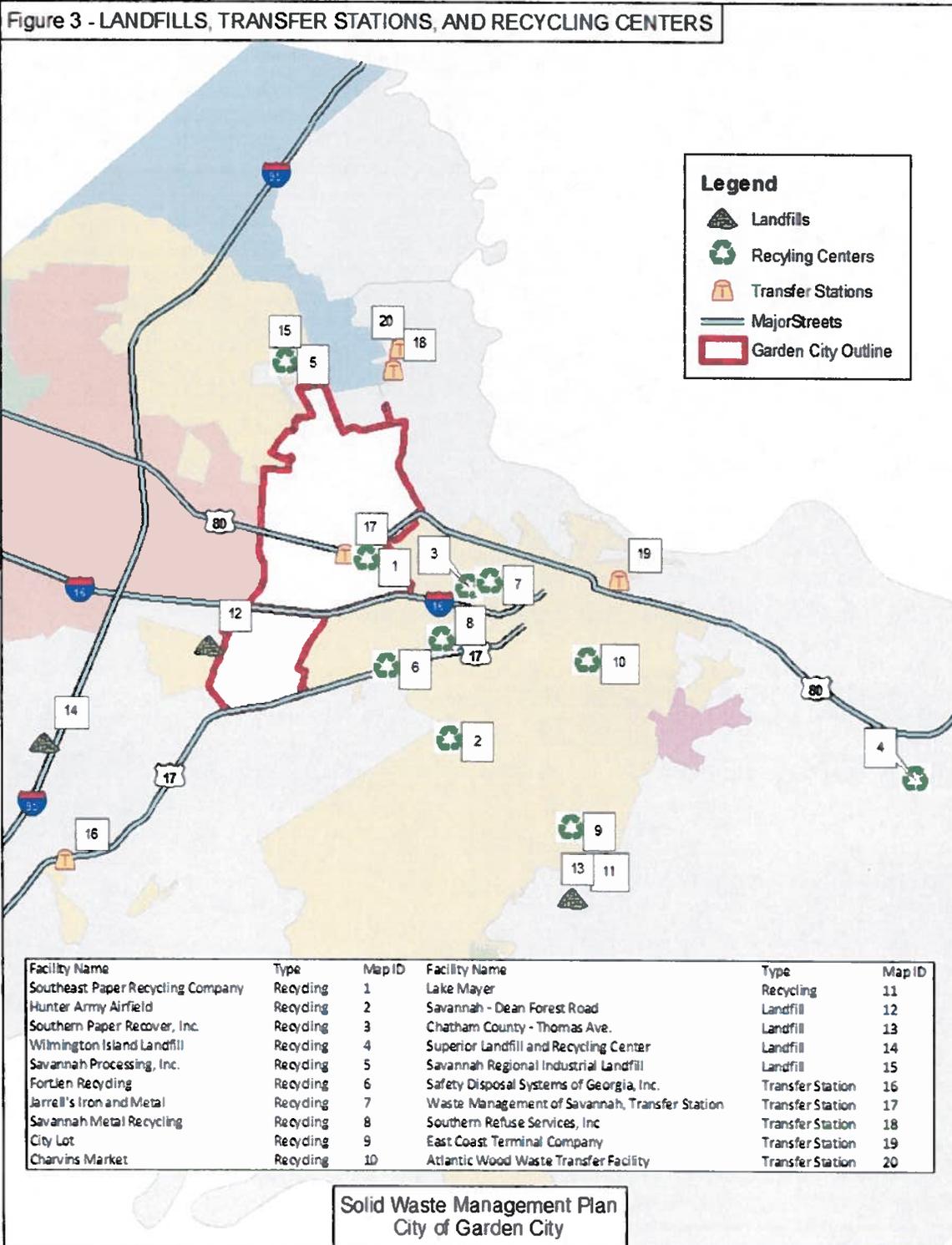
According to the EPD database, there are six transfer stations that operate in close proximity to the City of Garden City. These transfer stations and permit numbers are listed in Table 16 below.

Table 16 - Transfer Stations

Facility Name	Permit Number	Facility Type Description	Mailing	Mailing
Waste Management of Savannah Transfer Station	PBR-025-037TS	Transfer Station	1809 Highway 80	Garden City

Facility Name	Permit Number	Facility Type Description	Mailing	Mailing
Safety Disposal Systems of Georgia, Inc.	PBR-025-26TS	Transfer Station	6043 Ogeechee Road	Savannah
Waste Management of Savannah Transfer Station	PBR-025-37TS	Transfer Station	1809 Highway 80sr 17,	Garden City
Southern Refuse Services, Inc.	PBR-025-38TS	Transfer Station	Grange Road	Port Wentworth
East Coast Terminal Company	PBR-025-41TS	Transfer Station	1 Harbor Street	Savannah
Atlantic Wood Waste Transfer Facility	PBR-025-46TS	Transfer Station	202 Oxford Drive	Port Wentworth

Source: Environmental Protection Division (EPD)



Inventory & Assessment of Disposal Facilities Used by the City

MSW in Garden City is collected by Waste Management and disposed of at the Savannah Regional Industrial Landfill. This facility is projected to have capacity to handle MSW from Garden City throughout the 10-year planning period of this report.

Assurance of 10-Year Capacity

The City of Garden City has received an assurance letter from the Savannah Regional Industrial Landfill stating there is adequate space to accept MSW from the City through the year 2018. The assurance letter from the landfill is based on the City's projected 160,324 tons of waste over the next 10 years (as determined in Chapter 2). Included in Appendix B is the landfill assurance letter from Savannah Regional Industrial Landfill for the City of Garden City.

Contingency Strategy

Natural and/or Manmade Disaster

As stated in the Collection Element above, the City of Garden City has adopted a Debris Management Plan. The City's Debris Management Plan meets federal and state requirements and has been approved by Federal Emergency Management Agency (FEMA) and Georgia Emergency Management Agency (GEMA).

A major disaster, whether natural or manmade has the potential to produce debris in the form of trees, sand, gravel, building/construction materials, vehicles, personal property, etc. The total quantity and type of debris generated is a function of the location, type of event, magnitude, duration, and intensity. These factors collectively determine the approach the City will take to address the debris problem as well as the associated costs and timeframe for removal. In an effort to be better prepared for such a situation, Garden City has contracted with two private contractors. DRC has been contracted by the City for debris removal and Beck LLC has been contracted for debris monitoring.

The City is currently working to establish staging areas for temporary disposal of debris resulting from a natural or manmade event. The staging areas include large parking lots, private property, undeveloped open spaces, and other large sites with adequate acreage to temporarily store debris collected. DRC will be responsible for providing equipment, operators, staff, and general management at the selected staging areas. The existing condition of land used as a Debris Management Site (DMS) will be assessed and returned to its original condition at the end of debris operations. In addition, the City will facilitate any environmental permits and land use variances that may be required to establish a Debris Management Site. The site(s) selected in the event of a disaster will be based on the size requirements for the disaster, the projected quantity of debris, and the proximity to the affected area. The Debris Management Sites will be used until a permanent disposal site (landfill) is identified by the City.

The Task Force established in the Debris Management Plan includes members of City staff and contractors hired by the City. The Debris Management Plan defines the specific responsibilities of all players involved in order to streamline the process of addressing problems areas in the City. The Task Force and City Council will determine the severity of the event and whether collection of debris can be

completed and disposed of as part of the normal collection schedule. The Task Force's Action Plan will be implemented within 70 hours of the event. Residents will be informed through the City's website and the local news media for changes in services due to the event.

Current Landfill is Unable to Accept Waste from the City

There are a number of landfills within a close proximity to the City of Garden City. In the event in which existing facilities are no longer able to accept waste, the City will arrange for temporary disposal at one of these facilities. In addition to the landfills in Georgia, there are additional facilities across the border of South Carolina that could be utilized if such a situation arises.

The City anticipates that there would be a seamless transition in disposal from the perspective of residents since the City contracts collection services with Waste Management. However, the transition from the existing disposal facility to a new, temporary facility would take place with the goal of uninterrupted service to customers. Information would be posted to the City's website and on the local cable channel to inform residents and businesses about the change in service.

Needs & Goals

The principal goal with regard to waste disposal in the City is to ensure there is sufficient capacity to handle the projected waste for the planning period of this report. To achieve this, the following needs have been identified:

- Ensure space is available in local landfills for MSW generated in the City
- Confirm that private haulers contracted by the City are following the goals set forth in this Plan

5. LAND LIMITATIONS ELEMENT

There are a number of different factors that must be taken into consideration when selecting a suitable site for development of new landfills and/or other waste handling facilities. Demographic factors, land use factors, and environmental factors collectively place limitations and pose challenges with regard to finding an appropriate site.

Sites selected for landfills and other related facilities should not diminish the overall quality of life for residents in a community. These sites should also have a minimal impact on the natural environment. The factors discussed in this section are not designed to prohibit development within any of these areas. Rather, this discussion is included to provide guidance and consideration in an effort to minimize the adverse effects that could result from selecting a site.

Natural & Environmental Limitations

This section discusses some of the restrictions with regard to where a solid waste facility can be located within a City based on federal, state, and local policy. The items discussed in this section are illustrated in Figure 4. Unless otherwise specified, the City will follow existing state regulations as they apply to the items defined below.

Water Supply Watersheds

"DNR Rule 391-3-16-.01(7)(c)1 requires that at any location within a small water supply watershed, new solid waste landfills must have synthetic liners and leachate collection systems."

Garden City does not fall within the boundaries of a water supply watershed. Should the boundaries of existing water supply watersheds change in the future to intersect any portion of the City, synthetic liners and leachate collection systems will be required as part of any proposed solid waste landfill, per the DNR rule above.

Groundwater Recharge Areas

"DNR Rule 391-3-16-.02(3)(a) requires that in significant groundwater recharge areas, DNR shall not issue permits for new solid waste landfills not having synthetic liners and leachate collection systems."

Garden City does not fall within the boundaries of any groundwater recharge areas. Should the boundaries of existing groundwater recharge areas change in the future and intersect any portion of the City, synthetic liners and leachate collection systems will be required as part of any proposed solid waste landfill, per the DNR rule above.

Wetlands

"DNR Rule 391-3-16-.03(3)(e) establishes that solid waste landfills may constitute an unacceptable use of a wetland."

"DNR Rule 391-3-4-.05(1)(e) prohibits the development of solid waste landfills in wetlands, as defined by the U. S. Army Corps of Engineers, unless evidence is provided by the applicant to EPD that use of such wetlands has been permitted or otherwise authorized under all other applicable state and federal laws and rules."

The City of Garden City contains roughly 3,500 acres of wetlands, which accounts for nearly 38% of the total land area in the City. Applicable DNR rules will be referenced and applicants will be required to obtain a Section 404 Permit prior to getting a Land Disturbance Permit.

River Corridors

"DNR Rule 391-3-16-.04(4)(h) prohibits the development of new solid waste landfills within protected river corridors."

Garden City does not contain, nor does it fall within the buffer of any protected river corridors.

Protected Mountains

"DNR Rule 391-3-16-.05(4)(l) prohibits the development of new solid waste landfills in areas designated as protected mountains."

There are no protected mountains in the City of Garden City.

Floodplains

"DNR Rule 391-3-4-.05(1)(d) stipulates that any solid waste landfill located in the 100-year floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste so as to pose a threat to human health or the environment."

All applicants proposing development within the 100-year floodplain are required to obtain a Section 404 Permit prior to receiving a Land Disturbance Permit.

Fault Zones, Seismic Impact Zones & Unstable Areas

"DNR Rule 391-3-4-.05(1)(f) focuses on fault areas and requires that new landfill units and lateral expansions of existing landfills not be located within 200 feet of a fault that has had a displacement in Holocene time, unless an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the landfill and will protect human health and the environment."

"DNR Rule 391-3-4-.05(1)(g) prohibits the development of new landfills and lateral expansions of existing landfills in seismic impact zones, unless all landfill containment structures, including existing landfill liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site."

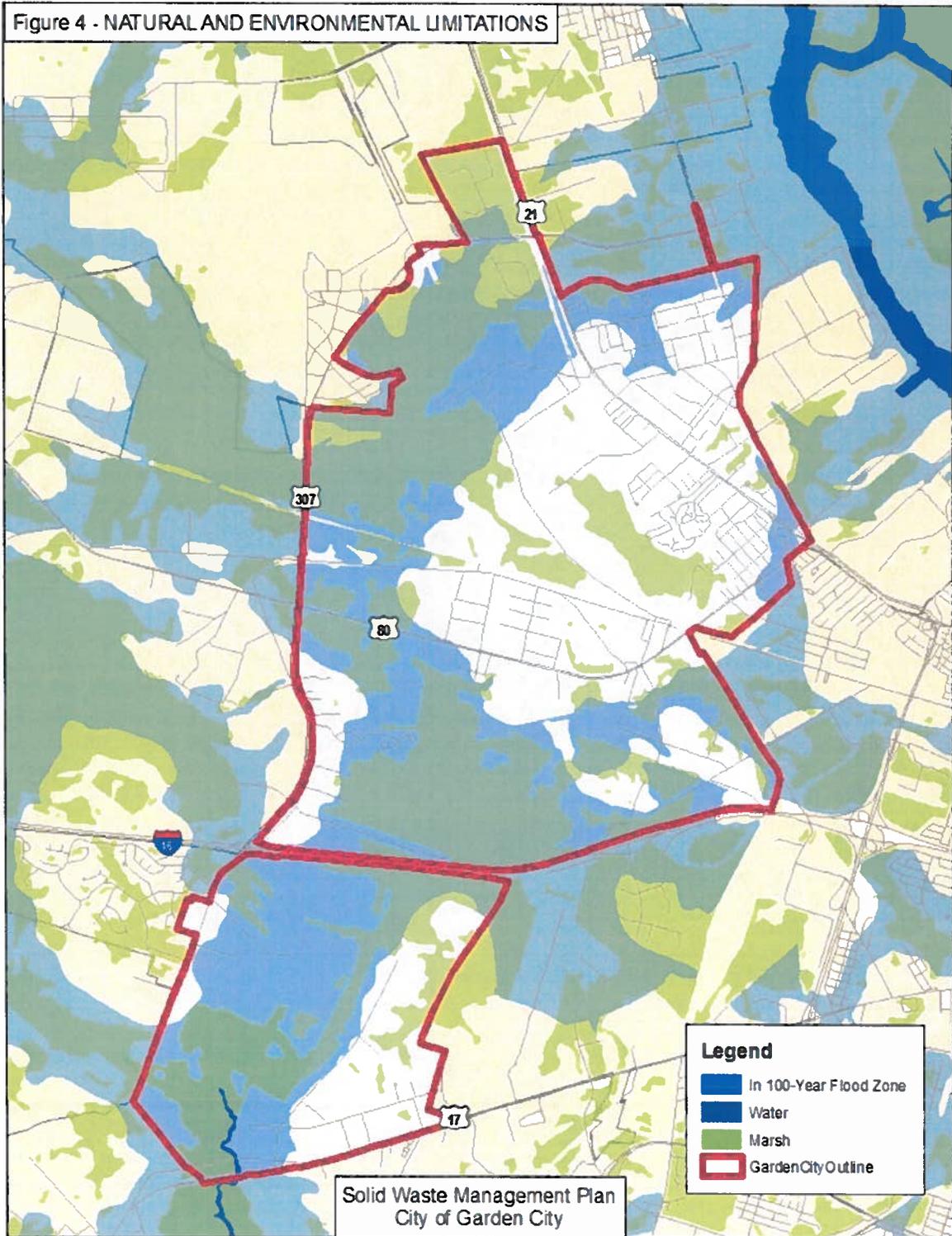
“DNR Rule 391-3-4-.05(1)(h), existing landfills and lateral expansions of existing landfills located in an unstable area must demonstrate that engineering measures have been incorporated into the landfill’s design to ensure that the integrity of the structural components of the landfill will not be compromised.”

An engineer (P.E.) or registered geologist is required to conduct a hydro-geological assessment at the proposed location of any new solid waste disposal facility. The potential for problems to result from development on fault zones, areas susceptible to seismic activity, and unstable ground are evaluated as part of this assessment. The DNR rules for each of these items are listed above.

Significant Groundwater Recharge Areas

“DNR Rule 391-3-4-.05(1)(j) requires new solid waste landfills or expansions of existing facilities within two miles of a significant groundwater recharge areas to have liners and leachate collection systems, with the exception of facilities accepting waste generated from outside the county in which the facility is located. In that case, the facility must be totally outside of any area designated as a significant groundwater recharge area.”

The City of Garden City does not fall within the boundaries of any significant groundwater recharge areas. Should the boundaries of significant groundwater recharge areas change in the future and intersect any portion of the City, synthetic liners and leachate collection systems will be required as part of any existing or proposed solid waste facility within two miles of the recharge area. If the facility accepts waste from outside the county, the facility will not be permitted within the groundwater recharge area, per the DNR rule above.



Land Use & Zoning Limitations

Zoning Restrictions

“DNR Rule 391-3-4-.05(1)(a) requires that the site must conform to all local zoning/land use ordinances, and that written verification of such be submitted to EPD.”

Landfills, recycling collection centers, and transfer stations are permitted in zone I-2 within the city limits of Garden City.

It should be noted, while current zoning classifications may prohibit or limit development of solid waste facilities, the possibility of granting a variance or other exception still exists. As a result, it is important for decisions makers to consider land uses and environmental conditions when reviewing the proposed locations of solid waste facilities.

National Historic Sites

No nationally listed historic sites are located in the City of Garden City.

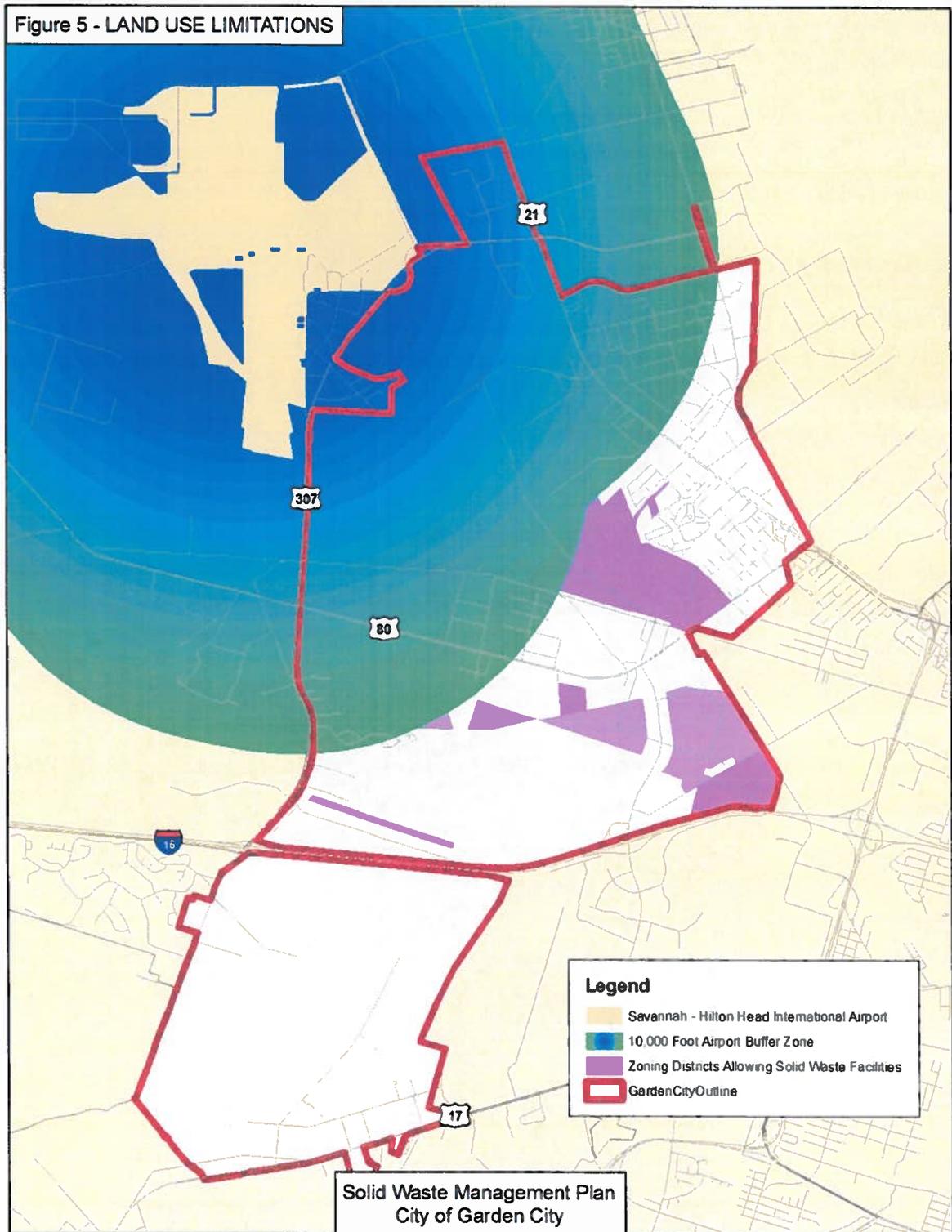
Airport Safety

“DNR Rule 391-3-4-.05(1)(c) requires that new solid waste landfill units or lateral expansions of existing units shall not be within 10,000 feet of any public use or private use airport runway end used by turbojet aircraft or within 5,000 feet of any public use or private use airport runway end used by only piston type aircraft.”

The Savannah/Hilton Head International Airport is centrally located between the Cities of Pooler, Port Wentworth, and Garden City. As a result, an MSW landfill is not permitted within 10,000 feet from the runways of this facility. Lands within Garden City affected by this constraint are illustrated in Figure 5. It should be noted that while solid waste facilities are permitted in the City's I-2 zoning district, waste handling facilities are not permitted in the area that falls within the 10,000 foot airport buffer illustrated below.

Political Subdivisions

According to the Georgia Comprehensive Solid Waste Management Act, it is prohibited to develop an MSW landfill within one-half mile of an adjacent county's border without the approval of the governing authority. Garden City is centrally located in Chatham County and does not fall within a one-half mile radius of any surrounding counties.



* Note: Based on existing environmental and land use limitations, solid waste facilities are only permitted in the areas shown in purple as illustrated above.

Plan Consistency

Prior to the EPD issuing a permit for a new solid waste handling facility the facility or facility expansion must be consistent with the Solid Waste Management Plan. Garden City will use the following to determine if a proposed facility is consistent with the City's Solid Waste Management Plan as well as the community vision as defined in the Comprehensive Plan.

It will be the responsibility of the site owner/operator to submit a written document to the City 60 days prior to filing for a solid waste handling permit. In short, the document must address: (1) how the proposed facility meets the goals and objectives identified in the Solid Waste Management Plan; and (2) the impact the facility will have on the community. These items and the other requirements are listed below.

1. Any proposed facility shall meet the specific goals identified in the Solid Waste Management Plan, specifically the impact on current solid waste facilities, collection, disposal, and existing reduction and recycling efforts in the City.
2. Any proposed facility and its operations plan shall minimize its impact on the community according to the following areas:
 - a. Transportation. The impact to vehicle traffic and public safety around the proposed facility and throughout the City shall not reduce the level of service by more than one letter for all roadways and intersections within 2,000 feet (without improvements).
 - b. Natural & Cultural Resources. The impact of the facility to natural and cultural resources in the City not already covered shall be minimized to the greatest extent practicable.
 - c. Rates. The impact to residential and commercial solid waste management rates shall not cause an increase in collection or disposal rates.
3. Any proposed facility shall provide financial assurance to address potential environmental issues.
4. Any proposed facility shall meet the geographic site limitations defined in this Solid Waste Management Plan.
5. Any proposed facility shall be an allowable use based on existing zoning.

The City Council will hold at least one public hearing on the proposed facility to get feedback from City residents. Notification of the public hearing will be done in accordance with the City's policy. Additionally, the meeting agenda for the hearing will be made available at City Hall and on the City's website one week prior to the hearing. Based on the results of the initial public hearing, City Council can decide whether additional public meetings are necessary. Following the public meeting(s), the City Council will evaluate the proposed facility and all related documentation for consistency with the Solid Waste Management Plan and goals established in the Comprehensive Plan. The applicant will be notified within 30 days regarding the status of the review. The City Council will either determine that the proposed facility is consistent with the Solid Waste Management Plan or document any

inconsistencies. The applicant will have the opportunity to address any inconsistencies and resubmit the application to City Council for review. Once a proposed facility is considered acceptable by the City, the Council will issue a letter to the applicant stating the facility is consistent with the Solid Waste Management Plan.

Needs & Goals

The primary goal for Garden City with regard to land is to make certain that the development of any type of waste handling facility is done in a manner that does not compromise public health and the environment. To achieve this, the following needs have been identified:

- Utilize the Solid Waste Management Plan to ensure potential facilities are sited and operated in a manner that is consistent with the Plan
- Maintain maps with regard to the environmental, land use, and zoning limitations identified in the City
- Ensure that all siting requirements for solid waste facilities are enforced in a manner that is consistent with the Solid Waste Management Plan
- Ensure that any new facilities are compliant with state and federal regulations as well as jurisdictional requirements

6. PUBLIC EDUCATION AND INVOLVEMENT

Inventory & Assessment of Public Education & Involvement

The City of Garden City currently offers the following public education and involvement opportunities for City residents.

Type of Program	Description	Responsible Party / Organization	Schedule / Frequency
E-Recycling	Annual event that consists of the collection and recycling of electronics from businesses and households within the community.	City of Savannah	Annual
Website	The City's website contains information about trash collection, recycling, yard trimming pickup, and other services offered by the City.	City Staff	Ongoing
Informational Brochures	Brochures provide information about City services, waste reduction, upcoming events, recycling programs, yard trimming pickup, litter prevention, illegal dumping, etc.	City Staff	Ongoing
Newspaper	Periodic articles in local publications educate residents about recycling, source reduction, and other programs related to waste reduction.	Savannah Morning News & <i>The Spirit</i>	Periodically

Current programs in the City place the majority of focus on education. The website, newspaper, and brochures are all great methods of providing residents with information. However, there are a number of public involvement opportunities in Chatham County that residents of Garden City could participate in at little to no cost to the City. As the City moves forward with implementation of the Solid Waste Plan, more coordinated approach to public involvement should be pursued in order to facilitate the 10% waste reduction goal established for this plan.

Needs & Goals

The main goal regarding education and public involvement is to inform residents of services related to reduction, recycling, and collection of waste. Achieving this goal requires the following:

- Make information available to residents about services through handouts at public buildings

- Post information about solid waste and waste reduction on the City's website
- Work with City of Savannah and local Non-profit groups to participate in public involvement programs in the area
- Produce an information packet for new residents that includes information about city services (including information about solid waste programs and services)
- Join the Governor's Litter Initiative "Litter. It Costs You" Program

7. IMPLEMENTATION STRATEGY

Summary of Needs & Goals

The needs and goals identified in the waste reduction, collection, disposal, land limitations, and public education and involvement sections are summarized below.

Waste Reduction	
Goal	10% waste reduction over the 10-year planning period of the Solid Waste Management Plan
Needs	Provide/Expand available drop-off locations for recyclables and/or bulk items
	Work with the private haulers to track and keep a better record of waste being generated in the City
	Work with Waste Management on implementation of a recycling program
	Encourage participation in recycling through public education
	Encourage source reduction through education
	Encourage reduction of waste through composting
	Explore purchasing composting bins
	Establish recycling drop-off locations
Waste Collection	
Goal	To provide consistent and efficient collection services to City residents
Needs	Work with private haulers to ensure steady and reliable collection
	Continue to enforce the Litter Ordinance to address illegal dumping; and evaluate to ensure penalties are consistent in meeting the City's goals
	Work with contracted haulers to better track quantities of waste collected
Waste Disposal	
Goal	Ensure there is sufficient capacity to handle the projected waste for the planning period of this report
Needs	Ensure space is available in local landfills for MSW generated in the City
	Confirm that private haulers contracted by the City are following the goals set forth in this Plan
Land Limitations	
Goal	Make certain that the development of any type of waste handling facility is done in a manner that does not compromise public health and the environment
Needs	Utilize the Solid Waste Management Plan to ensure potential facilities are sited and operated in a manner that is consistent with the Plan
	Maintain maps with regard to the environmental, land use, and zoning limitations identified in the City

	Ensure that all siting requirements for solid waste facilities are enforced in a manner that is consistent with the Solid Waste Management Plan
	Ensure that any new facilities are compliant with state and federal regulations as well as jurisdictional requirements
Public Education and Involvement	
Goal	Inform residents of services related to reduction, recycling, and collection of waste
Needs	Make information available to residents about services through handouts at public buildings
	Post information about solid waste and waste reduction on the City's website
	Work with City of Savannah and local Non-profit groups to participate in public involvement programs in the area
	Produce an information packet for new residents that includes information about city services (including information about solid waste programs and services)
	Join the Governor's Litter Initiative "Litter. It Costs You" Program

Implementation Strategy

This section identifies the specific tasks/activities, timeframe for implementation, responsible party, estimated costs and funding source for the items identified in this report. The short-term work program is defined as the first five years of the implementation strategy and is designed to ensure that the City moves forward with the goals and more specifically, the projects identified in this plan. The short-term work program will be submitted to the DCA every five years to demonstrate that the City has implemented the tasks outlined below.

Project	Year Started											Year Completed	Cost Estimate	Funding Sources	Responsible Party	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018					
Waste Reduction																
Work with contracted haulers to develop a way to better record waste collected in the City		X											2009	Staff Time	General Fund	Administrative
Work with contracted haulers to implement a curbside recycling program			X										2010	To be Determined	General Fund	Administrative
Require SW Minimization Plan with new development permits or business licenses		X											2009	Staff Time	General Fund	Administrative

Project	Year Started											Year Completed	Cost Estimate	Funding Sources	Responsible Party
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018				
Write in future contracts to require waste haulers and other facilities to record monthly quantities of waste	When Contract is Up											N/A	Staff Time	General Fund	Administrative
Explore opportunities and locations for the City to provide drop-off locations for recyclables and bulk items			X									2011	Staff Time	General Fund	Planning / Public Works
Promote and advertise available programs related to recycling, yard trimmings, and composting	X	X	X	X	X	X	X	X	X	X	X	2009	Staff Time	General Fund	Administrative
Expand the yard trimmings program to mulch trimmings collected and make them available to residents		X										2009	To be Determined	General Fund	Public Works
Pursue grants related to solid waste reduction. Specifically, look into applying for the GEFA recycling and waste reduction grants			X		X		X		X		X	Ongoing	Staff Time	General Fund	Administrative
Explore site locations for a City run recycling center.			X									2011	To be Determined	General Fund	Public Works

Project	Year Started											Year Completed	Cost Estimate	Funding Sources	Responsible Party	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018					
Waste Collection																
Work with contracted haulers to ensure waste collection is efficient and consistent	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	General Fund	Public Works	
Develop and enforce reporting requirement for haulers contracted by the City		X	X	X	X	X	X	X	X	X	X	2009	Staff Time	General Fund	Planning	
Explore alternative collection methods to increase waste reduction		X										2009	Staff Time	General Fund	Planning / Public Works	
Continue to enforce the City's Litter Ordinance	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Conduct regular clean-ups of areas known to be "hot spots" for illegal dumping	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Waste Disposal																
Ensure that space is available at landfills for waste generated in the City	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Continue to comply with State regulations that deal with facilities operations	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Land Limitations																
Utilize the Solid Waste Management Plan when siting potential facilities	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Administration	

Project	Year Started											Year Completed	Cost Estimate	Funding Sources	Responsible Party	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018					
Update and maintain maps as land use and zoning changes occur	X	X	X	X	X	X	X	X	X	X	X	Update as needed	\$10,000 per Year	General Fund	Planning / Public Works	
Ensure siting requirements are enforced and conducted in a manner consistent with the Solid Waste Management Plan	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Ensure that new facilities are compliant with state and federal regulations	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	
Public Education and Involvement																
Continue to inform residents and businesses of services through educational materials	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Administration / Public Works	
Continue to produce newsletters and flyers promoting recycling, mulching, yard trimming programs, and other waste reduction programs	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Administration / Public Works	
Join the Governor's Litter Initiative "Litter. It Costs You" program		X										2009	\$5,000	General Fund	Planning	
Work with surrounding governments to participate in the Great American	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Planning / Public Works	

Project	Year Started											Year Completed	Cost Estimate	Funding Sources	Responsible Party	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018					
Cleanup																
Work with surrounding governments to participate in the "Bring one for the Chipper" program	X	X	X	X	X	X	X	X	X	X	X	Ongoing	Staff Time	N/A	Public Works	

Plan Updates & Amendments

The City will review the implementation strategy on an annual basis to ensure the short-term work program is on schedule. The implementation strategy and short-term work program will be updated every few years as necessary to account for unforeseen needs and goals that were not identified in the initial Solid Waste Management Plan.

A Resolution to Adopt

WHEREAS, The Georgia Comprehensive Solid Waste Management Act requires county and municipal governments to prepare a local solid waste management plan and periodic update: and

WHEREAS, the City of Garden City, Georgia has compiled, reviewed and modified an update to the Solid Waste Management Plan for Garden City; and

WHEREAS, Garden City, Georgia has complied with the Rules of Georgia Department of Community Affairs Minimum Planning Standards and Procedures for Solid Waste Management (Chapter 110-4-3) including public participation requirements;

NOW, THEREFORE, BE IT RESOLVED by the City Council of Garden City that the document entitled Solid Waste Management Plan 2008 - 2018 be officially approved and adopted.

SO RESOLVED THIS 20th DAY OF October, 2008

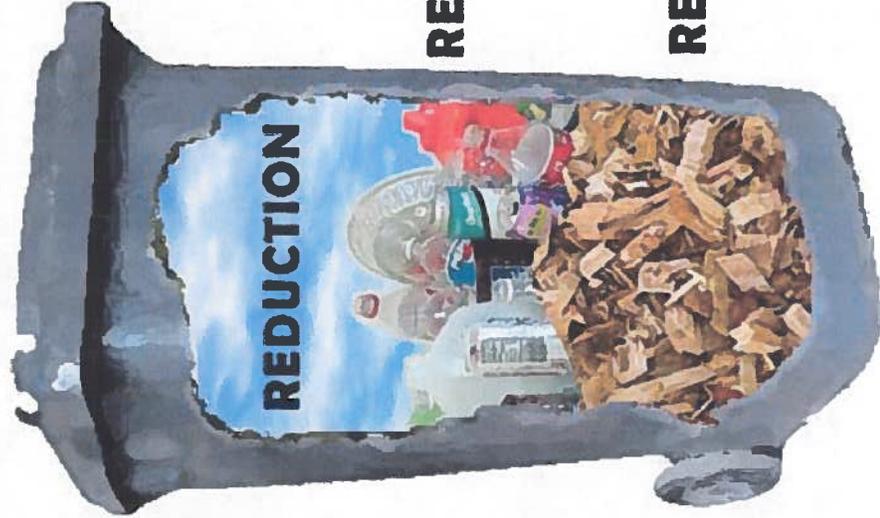
Anthony E. Dunny
(Chief Elected Official)

ATTEST:

Alma Howell
(Witness)

WEST CHATHAM

SOLID WASTE MANAGEMENT PLAN



RECYCLE

REUSE

The City of Garden City is working to complete a West Chatham Solid Waste Management Plan. The purpose of the Plan is to outline how the City will manage solid waste over the next ten years based on population growth, economic circumstances, and other demographic trends.

The Solid Waste Management Plan estimates the amount of waste currently being disposed of in the City. The plan also identifies programs and services that would reduce the amount of waste being transported to and disposed of at landfills.

The plan is broken down into five main elements:

- Waste Reduction
- Waste Collection
- Waste Disposal
- Land Limitations
- Public Education and Involvement

Included in the plan is an inventory and assessment of programs related to each element listed above. The City has identified needs and goals related to each element and how projects will be funded and implemented to achieve these goals.

Public involvement is an integral part of any plan. The Solid Waste Management Plan will be discussed at two public meetings (one in June and another in August). Residents are encouraged to provide input and comments on the plan or about solid waste in general.

Feel free to contact the City for more information.

CITY OF GARDEN CITY

A PUBLIC HEARING INTRODUCING THE SOLID WASTE MANAGEMENT PLAN WILL BE HELD MONDAY, JUNE 16TH, 2008 AT 7:00 PM.

CITY OF GARDEN CITY SOLID WASTE MANAGEMENT PLAN 2008 - 2018

Presented to:
City of Garden City

August 18, 2008



Solid Waste Management Plan

Overview

MINIMUM PLANNING STANDARDS & REQUIREMENTS:

- Waste Disposal Stream Analysis
- Waste Reduction
- Collection
- Disposal
- Land Limitations
- Public Education & Involvement
- Implementation Schedule



Introduction / Waste Stream Analysis

- Planning Area
- Natural Resources
- Population
- Seasonal Population
- Number of Households
- Economic Activity
- Public Involvement During the Planning Process
- Unique Conditions and/or Seasonal Variations (ex. Spring/Fall Yard Trimmings)
- Waste Generating Disasters (Hurricanes, Major Rain Events)
- Types of businesses/industries
- Disposal Rates
- Population Projections



Waste Reduction Element

Recycling Programs



- Currently no formal recycling program.
- Exploring options with Waste Management for curbside recycling program
- Exploring potential to coordinate with City of Savannah's Recycling Program

Yard Trimmings



- Dry trash is being mulched at a site on Ogeechee Road and made available to residents

Collection Element

ASSESSMENT OF COLLECTION PROGRAMS

Type of Collection	Method	Frequency	Name / Operator	Contractual Arrangement
Residential Waste	Curbside	Twice a Week	Waste Management	Residents charged as part of utility bill
Yard Trimmings	Curbside	Monthly	City of Garden City	Residents charged as part of utility bill
Bulk Item	Not offered by City	N/A	N/A	N/A
Commercial Waste	Front loader / Container service	Determined by customer needs	Waste Management	Charged as part of utility bill

CONTINGENCY STRATEGY

Garden City Debris Management Plan

- DRC for debris removal
- Beck LLC for debris monitoring



Disposal Element

ASSESSMENT OF DISPOSAL FACILITIES:

- Landfills

Facility Name	Permit	Facility Type Description	Dominion
Savannah-Dean Forest Rd (SL)	025-051D(SL)	MSW	Public
Chatham Co.-Thomas Ave (L)	025-056D(L)	C&D	Public
Superior Landfill & Recycling Center	025-070D(MSWL)	MSW	Private
Savannah Regional Industrial Landfill, Inc	025-072DL(I)	Industrial Landfill	Commercial Industrial

- Transfer Stations

Facility Name	Permit Number	Facility Type	Address	City
Waste Management of Savannah Transfer Station	PBR-025-037TS	Transfer Station	1809 Highway 80	Garden City

- Contingency Strategy

Garden City Debris Management Plan

- DRC for debris removal
- Beck LLC for debris monitoring
- Staging Areas

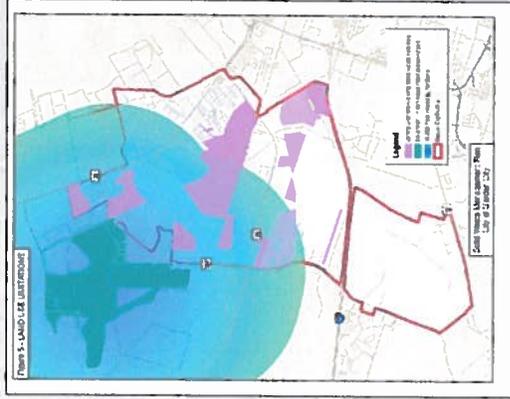
Land Limitations Element

Environmental Limitations:

- 40% of the City is Wetlands
- 50% of the City is in the 100-year FEMA flood zone
- Roughly 17 miles of streams and man-made waterways

Land Use Limitations:

- Zoning – solid waste facilities are currently permitted in the City's I-2 zoning category
- Proximity to Savannah-HH International Airport



Implementation Plan

SHORT TERM WORK PROGRAM

- Brief description of the activity
- Timeframe for undertaking the activity
- Responsible party for implementing the activity
- Estimated cost (if any) of implementing the activity
- Funding sources



TASKS / ACTIVITIES

- Implement curbside recycling program
- Work with Waste Management to develop better record keeping for waste collected in Garden City
- Pursue grants related to waste reduction
- Participate in the "Bring one for the Chipper" program
- Update / maintain land use and zoning maps
- Conduct routine cleanups at illegal dumping "hot spots"
- Develop reporting requirements for contracted haulers



SUPERIOR LANDFILL & RECYCLING CENTER, INC.
A WASTE MANAGEMENT COMPANY

3001 Little Neck Rd.
Savannah, GA 31419
(912) 927-6113
(912) 927-2166 Fax

August 7, 2008

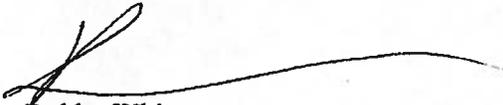
Brian Johnson, City Manager
City of Garden City
PO BOX 7548
100 Main Street
Garden City, Georgia 31408

Dear Mr. Johnson:

This letter serves as a disposal capacity assurance for waste generated by Garden City for 2008 through 2018 at Superior Landfill. The projected tonnage to be disposed of throughout the course of the planning period is 160,324 tons. The Georgia EPD permit number for this facility is 025-070D(MSWL).

We thank Garden City for their business partnership and look forward to providing environmentally sound waste disposal options for the foreseeable future.

Sincerely,
Superior Landfill and Recycling Center



Robby White
District Manager