



**City of Johns Creek
Solid Waste Management Plan
2008 - 2018**

DECEMBER 15, 2008

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Section 1 INTRODUCTION

The Comprehensive Solid Waste Management Act of 1990 requires that each local government in Georgia develop independently, or be included in, a Comprehensive Solid Waste Management Plan. The purpose of solid waste plans is to provide local officials with a long-range “blueprint” regarding the provision of solid waste management services such as collection, disposal, and recycling. This plan represents Johns Creek’s participation in and contribution to Georgia’s solid waste management strategy as set forth in the Solid Waste Management Act of 1990 and Georgia’s Solid Waste Management Plan.

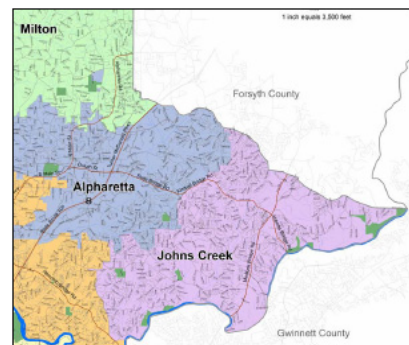
The Solid Waste Management Act requires that each plan:

- Provide for the assurance of adequate solid waste collection capability and disposal capacity within the planning area for at least ten (10) years from the date of plan completion.
- Promote a program to reduce the per capita rate of municipal solid waste disposed in solid waste facilities.
- Identify solid waste handling facilities within the plan’s area as to size and type.
- Identify land areas in the planning area unsuitable for solid waste handling facilities based on environmental and land use factors.

This plan represents the results of the first solid waste planning effort undertaken by Johns Creek since the city was incorporated in 2006. Previously part of unincorporated Fulton County, the city adopted the Fulton County Solid Waste Management Plan (December 2005) as an interim plan. In accordance with the Minimum Planning Standards and Procedures for Solid Waste Management, the City of Johns Creek conducted an initial public hearing on June 2, 2008. A second Public Hearing was conducted on September 22, 2008, prior to submitting the draft plan to the Atlanta Regional Commission (ARC) and the Georgia Department of Community Affairs (DCA) for review and approval.

1.1 PLANNING AREA

The City of Johns Creek, Georgia, is the planning area for this solid waste management plan. With an estimated population of 71,480 residents, Johns Creek is located in northern Fulton County and is one of 13 cities within the county. Johns Creek became a city on December 1, 2006, and encompasses the county’s four original farming communities of Warsaw, Shakerag, Newtown, and Ocee. The city is bound to the west by the cities of Roswell and Alpharetta; to the north by Forsyth County; and to the south by the Chattahoochee River.



1.2 PERSON RESPONSIBLE FOR THE PLAN

The person responsible for the preparation, maintenance, and administration of the solid waste management plan is:

Mr. Ken Hildebrandt, P.E.
 Director of Public Works
 City of Johns Creek
 12000 Findley Road, Suite 400
 (678) 512-3200
 ken.hildebrandt@johnscreekga.gov

1.3 TOPOGRAPHIC INFORMATION/UNIQUE FEATURES

Johns Creek is located within the Piedmont region of Georgia. A topographic map of the Johns Creek area is included in the Appendix. There are no unique land features within the city that would impact the provision of solid waste services.

1.4 POPULATION

Table 1 presents population projections for the City of Johns Creek. In 2000, the population for the area that is now incorporated as Johns Creek was 60,343. The city’s current population (2008) is estimated to be 71,480, an 18.4 percent increase since the year 2000. Population projections contained in the draft *Johns Creek Comprehensive Plan 2009-2030* were reviewed, extrapolated, and incorporated into Table 1. As indicated, the city’s population is projected to increase to approximately 83,333 residents by the year 2018, representing a 16.6 percent increase during the planning period.

TABLE 1 POPULATION PROJECTIONS – CITY OF JOHNS CREEK											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Population	71,480	72,910	74,340	75,770	77,213	78,233	79,253	80,273	81,293	82,313	83,333
<i>Source: City of Johns Creek Comprehensive Plan, 2009 - 2030 (Draft). ESRI Business Analysis. Keck & Wood, Inc.</i>											

1.5 SEASONAL POPULATION VARIATION

There are no significant seasonal variations in the city’s population that would warrant consideration.

1.6 NUMBER OF HOUSEHOLDS

There are an estimated 24,897 households residing in Johns Creek. According to year 2000 Census Bureau data, the majority of the city’s population resides in single-family detached housing units. Of the total housing units, 84 percent are owner-occupied, 12 percent are renter-occupied, and 4 percent are vacant.

1.7 ECONOMIC ACTIVITY

A review of various economic indicators reveals that the City of Johns Creek has a healthy and vibrant economy. Residents of Johns Creek enjoy higher than average incomes, are employed in a wide range of industries, and are not heavily dependent upon any one particular industry. The industries that employ the majority of the city's labor force (33,642) are Services (47 percent), Retail Trade (12 percent), Finance/Insurance/Real Estate (12 percent), and Manufacturing (8.8 percent). There are approximately 1,900 businesses operating in Johns Creek. The following list identifies the city's major employers:

- Ciba Vision
- Fulton County Board of Education
- Atlanta Casualty Group, Inc.
- Kroger Company
- Emory Johns Creek/HCA
- Macy's
- Thomson U.S., Inc.
- World Financial Group, Inc.
- QS America, LLC
- Publix
- Nordson Corporation
- Glenayre Technologies, Inc.
- Novartis Ophthalmics, Inc.
- Perimeter Church, Inc.
- Home Depot, Inc.
- State Farm Insurance
- LifeTime Fitness
- Whole Foods
- City of Johns Creek

Section 2 WASTE DISPOSAL STREAM ANALYSIS

2.1 INVENTORY OF WASTE DISPOSED

Johns Creek's solid waste stream is comprised of residential, commercial, industrial, and construction and demolition (C&D) materials. Since no detailed waste stream characterization data is available for Johns Creek, it is assumed that the city's waste stream composition is similar to that of Georgia as a whole. According to the *Georgia Statewide Waste Characterization Study (2005)*, 59 percent of the municipal solid waste stream is residential and 41 percent is commercial. Data regarding the total tonnage of

solid waste collected in Johns Creek is currently unavailable due to the multitude of private waste haulers operating within the city and the fact that these haulers are not maintaining tonnage data specifically for Johns Creek. The Solid Waste Management Act requires that all municipal solid waste (MSW) landfills report on a quarterly basis to the Georgia Environmental Protection Division (EPD) on the amount of waste they receive from each jurisdiction. A review of recent EPD Landfill Tonnage Reports reveals that the majority of private haulers report tonnage to landfills on a county basis rather than a city basis. As a result, no waste amount data specifically for Johns Creek is available from private haulers, landfills, or EPD. As recommended by the Georgia Department of Community Affairs (DCA), the state average for per capita waste disposal (6.38 pounds per day) will be used for the purposes of estimating and projecting waste amounts in this plan.

2.2 WASTE CHARACTERIZATION

Since there is no local data available regarding the composition of Johns Creek's waste stream, regional (Atlanta Regional Commission) averages obtained from the Georgia Department of Community Affairs (DCA) have been utilized. The results are presented in Table 2.

2.3 UNIQUE CONDITIONS AND/OR SEASONAL VARIATIONS

Johns Creek does not experience any significant seasonal changes in population levels that would significantly impact solid waste amounts.

2.4 WASTE GENERATING DISASTERS

The City of Johns Creek cannot reasonably project the additional amount of waste that might be generated by unknown and unanticipated disasters. Obviously, based on the impact of recent storm events, it can be anticipated that there will be additional waste that would require management. Other elements of this plan outline local contingency plans to address additional waste amounts resulting from unforeseen events.

2.5 PROJECTIONS OF WASTE TO BE DISPOSED

Table 2 presents waste amount and composition projections through the year 2018. These projections represent the amount and composition of solid waste that will likely be disposed in landfills in the absence of increased waste reduction efforts. Assuming that Johns Creek's waste composition is similar to regional averages (Atlanta Regional Commission), the city will need to target reductions in paper, organic, and plastic waste types. Combined, these materials make up over 80 percent of the city's waste stream.

**TABLE 2
ESTIMATED AND PROJECTED WASTE AMOUNTS AND COMPOSITION
CITY OF JOHNS CREEK**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Paper (40%)	33,288	33,872	34,602	35,332	35,917	36,354	36,939	37,376	37,814	38,252	38,836
Plastic (16%)	13,315	13,548	13,841	14,134	14,366	14,541	14,775	14,950	15,125	15,300	15,535
Glass (4%)	3,329	3,387	3,460	3,533	3,592	3,635	3,694	3,737	3,781	3,825	3,884
Metal (6%)	4,993	5,081	5,190	5,300	5,387	5,454	5,541	5,606	5,672	5,738	5,825
Organic (26%)	21,637	22,017	22,491	22,965	23,345	23,631	24,009	24,294	24,579	24,864	25,243
C&D (5%)	4,162	4,234	4,326	4,416	4,489	4,544	4,617	4,674	4,728	4,782	4,854
Inorganic (3%)	2,496	2,540	2,595	2,650	2,694	2,726	2,770	2,803	2,836	2,869	2,913
TOTALS	83,220	84,680	86,505	88,330	89,790	90,885	92,345	93,440	94,535	95,630	97,090
Tons/Day	228	232	237	242	246	249	253	256	259	262	266

Source: Georgia Statewide Waste Characterization Study, 2005. Atlanta Regional Commission (ARC) averages.

2.6 PER CAPITA MSW DISPOSAL REDUCTION GOAL

The waste amounts shown in Table 3 were calculated by applying the per capita disposal rates to population projections contained in the draft *City of Johns Creek Comprehensive Plan 2009 - 2030*. Using 83,220 tons per year as a base waste amount, the table illustrates the projected waste amounts with a **10 percent per capita reduction goal**. As indicated in Table 3, the city's per capita disposal rate is projected to decrease from 6.38 pounds per day in 2008 to 5.74 pounds per day by 2018, a **10 percent decrease**. **Local officials feel a 10 percent reduction goal is achievable due to Johns Creek being a new city (less than two years old) with no prior history of solid waste management planning.** The city will, however, strive for greater reductions during the period as recommendations of this plan are implemented.

TABLE 3 DISPOSAL PROJECTIONS - CITY OF JOHNS CREEK				
YEAR	POPULATION	POUNDS/PERSON/DAY	TONS PER DAY	TOTAL TONS PER YEAR
2008	71,480	6.38	228	83,220
2009	72,910	6.32	230	83,950
2010	74,340	6.25	232	84,680
2011	75,770	6.19	234	85,410
2012	77,213	6.12	236	86,140
2013	78,233	6.06	237	86,505
2014	79,253	5.99	237	86,505
2015	80,273	5.93	238	86,870
2016	81,293	5.87	238	86,870
2017	82,313	5.80	239	87,235
2018	83,333	5.74	239	87,235

Source: Georgia Department of Community Affairs. City of Johns Creek Comprehensive Plan 2009 - 2030 (Draft). Keck & Wood, Inc.

Section 3 WASTE REDUCTION ELEMENT

3.1 INVENTORY OF WASTE REDUCTION PROGRAMS

Being a newly-incorporated city and less than two years old, Johns Creek currently does not provide or sponsor any organized waste reduction programs. However, the citizens of this community have benefited from already existing programs that were established by Fulton County and nearby cities such as recycling programs/drop-off centers and educational programming in the schools located inside of Johns Creek. By virtue of its location within the northern metropolitan Atlanta area, city residents have access to a wide variety of programs operated by area civic and charitable groups; community organizations; neighboring jurisdictions; and private haulers. These include the Morgan Falls “Dick Schmaltz” Residential Recycling Drop-Off Center which is owned by Fulton County and operated by Keep Sandy Springs/North Fulton Beautiful (KSSNFB); the Roswell Recycling Center, owned and operated by the City of Roswell; and curbside recycling programs offered by private haulers serving the area.

It is likely that many commercial, industrial, and institutional establishments within the city have some type of source reduction programs in place. In particular, CIBA Vision, one of the city's largest employers, has their own established in-house waste reduction practices. They are very aggressive in the recycling efforts and will prove to be a model for other businesses in the city. However, while documentation is not readily available to confirm the full scope and presence of other similar waste reduction

practices, the city has included in their work program the need to inventory all business so that any waste reduction practice that exist can be accounted for. Further, this inventory will allow the city to assist those businesses not participating in waste reduction with a best practice template.

3.2 SOURCE REDUCTION PROGRAMS

“Source reduction” is defined as those actions taken to prevent the generation of waste in the first place. With the exception of an office paper and aluminum recycling program in place at City Hall, the City of Johns Creek currently does not provide or sponsor any organized source reduction programs. Johns Creek does make every effort to purchase recycled products and routinely purchases recycled-content paper which has reduced the use of paper kitchen products at City Hall.

3.3 RECYCLING PROGRAMS AND FACILITIES

Although the City of Johns Creek has yet to implement any organized recycling programs or facilities, residents do have access to programs and facilities operated by Fulton County and neighboring jurisdictions. The majority of the private waste haulers that serve Johns Creek residents and businesses offer recycling service as a service option. In addition, many of the city’s schools, churches, and apartment complexes provide and maintain recycling collection bins. Facilities operated by Fulton County that are within a reasonable distance from Johns Creek include the Morgan Falls Residential Drop-Off Center located in the City of Sandy Springs. The Morgan Falls facility accepts a variety of recyclable materials, including paper, aluminum cans, steel cans, glass, books, plastics, and cardboard. By example, the City of Sandy Springs offers additional waste reduction programs such as the FreeCycle Program which can be used by Johns Creek residents. The Roswell Recycling Center, a “recovered materials processing facility” (MRF) located in Roswell, is another option available to Johns Creek residents. The facility accepts most recyclable material, including plastics, paper, glass, books, and cardboard. The Morgan Falls facility and the Roswell Recycling Center accept recyclable material from surrounding jurisdictions. According to the *Georgia Recycling Markets Directory*, there are numerous businesses in Fulton and Forsyth counties that accept recyclable materials. These programs alone demonstrate the availability of facilities and programs in close vicinity to Johns Creek and thereby necessitates the need to include in the city's work program the need to inventory existing waste reduction programs and facilities offered by both the public and private sectors. A listing of these businesses, by county, is included in the Appendix.

3.4 YARD TRIMMINGS PROGRAMS AND FACILITIES

The City of Johns Creek currently does not provide or sponsor any organized yard trimmings diversion programs or processing facilities. Many of the private haulers serving Johns Creek do provide yard trimmings collection as part of their curbside collection programs. The extent of the services will be determined in the private

hauler survey to be conducted later this year. According to EPD data, there are 1,049 inert landfills currently permitted in Fulton, Gwinnett, Forsyth, and Cherokee counties.

3.5 ITEMS REQUIRING SPECIAL HANDLING

The City of Johns Creek currently does not provide or sponsor any organized collection programs or drop-off facilities for special waste items such as appliances, electronics, batteries, paint, and tires. The Roswell Recycling Center accepts these types of material for recycling. The City of Duluth and Gwinnett County also have recycling programs for special waste material. There are also numerous private haulers serving Johns Creek that specialize in the collection and disposition of these items. Due to the high concentration of medical facilities in Johns Creek and the North Fulton area, with numerous hospitals, medical offices, and clinics, bio-hazardous waste is separately collected, sanitized, and macerated through a process called “autoclaving”. At generation rates above 100 pounds per month (common for the Johns Creek-North Fulton area), medical waste is treated separately from MSW collection/disposal systems and is independent of this plan. The generator or a collection service with a Permit by Rule that also handles less than 100 pounds per month of biomedical waste may dispose of the waste at a municipal solid waste landfill permitted to receive the wastes if the landfill will accept it..

3.6 CONTINGENCY STRATEGY

As stated previously, waste reduction and recycling activities within Johns Creek are currently limited to those provided by private waste haulers. In the event of a natural disaster or emergency situation that interrupts waste reduction and recycling services, the city has several options. Since the city currently does not provide these services or operate any related facilities, it would be required to take necessary actions to ensure that service is resumed in a timely manner. This would require close coordination with private haulers serving the city and quick mobilization on the city’s part to facilitate conditions conducive to the safe and efficient collection of disaster-related debris, such as yard waste and other items that cannot be placed in a municipal solid waste (MSW) facility. Due to the city’s geographic location, there are numerous public and private recycling facilities and inert landfills within a 100-mile radius of Johns Creek. The city has the authority to invoke emergency procurement authorization to negotiate services with private haulers and public/private facilities. Under these same emergency procurement provisions, the city could also choose to negotiate directly with firms representing specific commodity markets to provide a collection, transfer, and marketing option on a temporary basis.

3.7 ASSESSMENT OF WASTE REDUCTION PROGRAMS

With the current “open-market” private hauler collection system, the City of Johns Creek has little control over the types and magnitude of recycling and waste reduction programs provided to city residents. As a result, the city has no data on the amount of recyclable materials and yard trimmings diverted from landfills. In order to achieve future waste reduction goals, operational and program improvements will be required.

The City and the Johns Creek Community Association (JCCA) partnered in surveying member neighborhoods on the current levels of service citizens were receiving from their private waste haulers. The survey received great response and the findings illustrated the lack of a consistent level of service, cost, and programs offered to the residential community. These findings demonstrate the need for the city to establish a consistent and adopted level of service and further warrants the need to examine a preferred hauler program with mandatory services and fees that are consistent for all citizens. As a result the city has included the need to explore the need for a preferred hauler with mandatory services and competitive fees in the work program. Additionally, the city has included in the work program the need to hire professional staff (reporting to the Public Works Director) to coordinate and manage the solid waste program for the city.

3.8 NEEDS AND GOALS

Goal: To reduce the per capita amount of waste disposed by 10 percent over the next 10 years.

The City of Johns Creek’s goal is to incrementally reduce per capita disposal rates by 10 percent, from 6.38 pounds per day to 5.74 pounds per day. In order to achieve this goal, the city will need to:

1. Inventory and assess waste reduction practices undertaken by the business community.
2. Compile a listing all public and private recycling programs and activities within the city.
3. Create a recycling program with local schools (public and private) through a “preferred hauler” approach in order to engage school children in recycling practices.
4. Encourage composting of yard waste such as limbs, grass clippings, and leaves.
5. Explore the creation of a bulk waste collection program for all citizens.

6. Develop and adopt a standard level of service for waste reduction in the city.
7. Coordinate with advertisers, including telephone companies, to explore alternate forms of advertising products.
8. Explore an incentive program for local businesses and residents to reduce waste.
9. Create a multi-family recycling program with local complexes and shopping centers through a preferred hauler in order to reduce on-site generated waste.
10. Explore the creation of toxic material (i.e. paint) and electronic recycling program.
11. Provide education materials and training for the community on recyclable products.
12. Develop a mandatory recycling program in order to divert dependency of landfills outside the control of the city.
13. Develop a plan to include the schools, churches, and shopping centers as a capture point for their own generated recyclables.
14. Inventory all businesses to identify already existing recycling programs and account for the same
15. Partner with the local business community to offer recycling on-site for their establishment

Section 4 COLLECTION ELEMENT

4.1 INVENTORY OF EXISTING PROGRAMS

The City of Johns Creek does not provide solid waste collection services. Collection services within Johns Creek are provided by numerous private haulers operating in an open-competition environment. Residents and businesses may choose any private hauler that offers service. Since there are no hauler registration requirements, the exact number of private haulers operating within the city is unknown. In an effort to identify private haulers operating within the city, a listing of haulers known to provide service in the north Fulton County area was generated by the city and a telephone survey was conducted for verification purposes. Major waste haulers identified are listed below.

MAJOR MUNICIPAL SOLID WASTE (MSW) HAULERS OPERATING IN JOHNS CREEK

- Advanced Disposal
8880 Old Federal Road
Ball Ground, Georgia 30101
(770) 887-6663

- Allied Waste/BFI
3045 Hollowell Parkway NW
Atlanta, Georgia 30318
(404) 792-2660

- Community Waste Service
P.O. Box 467
Alpharetta, Georgia 30009
(678) 240-9136

- United Waste
P.O.Box 44066
Atlanta, Georgia 30318
(770) 944-4950

- Waste Management
6970 Main Street
Woodstock, Georgia 30188
(404) 794-6707

To the best of the city’s knowledge, all of the haulers identified reported providing weekly curbside collection service and traditional residential recycling services for items such as paper, glass, and plastic. Many of these haulers offer “back door” collection services upon request. In addition to MSW haulers, there are numerous private haulers that provide collection services for construction and demolition (C&D) waste, appliances, and other special waste types. No data is maintained by these private haulers to document waste amounts diverted from landfills.

4.2 DROP-OFF CONVENIENCE CENTERS/CURBSIDE COLLECTION

No solid waste drop-off centers, transfer stations, or convenience centers are located in Johns Creek. There are, however, several facilities located within a 50 mile radius of the city that provide these services, including the Roswell Recycling Center and the Morgan Falls Drop-Off Center. Private waste haulers provide curbside residential collection services to all of the city’s households.

4.3 YARD TRIMMINGS AND BULK ITEM COLLECTION

Georgia law specifies that effective September 1, 1996, each city, county, or solid waste management authority shall impose restrictions on yard trimmings which are generated in or may ultimately be disposed of in its area of jurisdiction. These restrictions shall include but are not limited to:

- (i) A requirement that yard trimmings not be placed in or mixed with municipal solid waste;

- (ii) A ban on the disposal of yard trimmings at municipal solid waste disposal facilities having liners and leachate collection systems or requiring vertical expansion within its jurisdiction;
- (iii) A requirement that yard trimmings be sorted and stored for collection in such a manner as to facilitate collection, composting, or other handling; and
- (iv) A requirement that yard trimmings be sorted and stockpiled or chipped, composted, used as mulch, or otherwise beneficially reused or recycled to the maximum extent feasible.”

The City of Johns Creek intends to sponsor and provide curbside collection (at least twice per year) of yard trimmings and bulk items such as appliances, furniture, and other household items. Collection services for yard trimmings and bulk items are provided by most of the major private waste haulers operating within the city, including Advanced Disposal, Waste Management, and United Waste. There are numerous other haulers operating within the north Fulton area that collect yard trimmings and discarded household appliances. These include 800 GOT-JUNK, Amerihaul, Just Trash, and Arrow Waste.

4.4 ILLEGAL DUMPING/LITTERING

Illegal dumping is not perceived to be a significant problem in Johns Creek. This is due in large part to the existence of curbside collection programs for household waste, yard trimmings, and special waste items. The city’s Public Works Department routinely picks up litter and other debris within rights-of-way. The city is currently preparing an anti-littering ordinance to be enforced by the Code Enforcement division of the Community Development Department. Littering and other environmental citations are heard in Municipal Court. A copy of the city’s anti-littering ordinance, prepared in compliance with the Metropolitan North Georgia Water Planning District, is included in the Appendix.

4.5 CONTINGENCY STRATEGY/NATURAL DISASTER-EMERGENCY SITUATION

Because of the numerous private haulers serving Johns Creek and the north Fulton County area, there are service options for residents and businesses should one or more haulers discontinue service. The detailed private hauler inventory being undertaken by the city as a separate project will assist residents and businesses in identifying potential waste service providers in the event their service becomes interrupted or discontinued.

In the event of a natural disaster or an emergency situation that would alter current collection and disposal practices, the city would continue using private haulers for collection service. As is currently the case, private haulers would be responsible for locating disposal facilities. The city could contract with one or more private haulers for interim collection services or with another public entity in the form of an

intergovernmental agreement to provide interim collection services. Additionally, in the event of an emergency, the city has the ability (within 24 hours of an event) to alert its citizenry through their E-blast program, newsletter, website, and their 24/7 call center in order to get the information out and to alert the public of its contingency plan.

4.6 ASSESSMENT OF COLLECTION PROGRAMS

Given that the City of Johns Creek is less than two years old and is aggressively working to identify its full scope of services to its citizens as well as establishing levels of service, the city will evaluate its current waste reduction and collection practice. The initial findings of the solid waste survey conducted in partnership with the JCCA points to the fact that there are varying levels of service as well as pricing structure provided to the citizens by a variety of vendors. It is important that the city establish a clear and consistent level of service for all its citizens which goes to the need to develop standards and specifications that the vendors must provide and deliver citywide. Further, the need to explore a preferred hauler is highlighted by the inconsistent pricing structure offered by the various vendors for often times the same service. Therefore, the city has included in its work program the need of the Public Works Director to develop specifications for services as well as exploring a preferred hauler program.

4.7 NEEDS AND GOALS

Goal: *To ensure the efficient and effective collection of solid waste and recyclable materials.*

Goal: *Reduce the number of private haulers operating within the city in order to provide consistent service levels, competitive rate structures, and facilitate infrastructure preservation.*

To achieve the stated collection goals, Johns Creek will need to:

1. Amend the Johns Creek Solid Waste Ordinance in order to:
 - Regulate the collection and disposal rates for both the residential and commercial haulers.
 - Require haulers to report tonnage collected within the city on a quarterly basis.
 - Require haulers to identify specific landfills they use to dispose of waste collected within the city.
 - Explore the fee structure for business license and special fees associated with being a registered “preferred hauler” with the city.

- Enforce the Johns Creek Solid Waste Ordinance and identify key personnel responsibilities.
 - Require the provision of mandatory recycling services by all haulers doing business in the city.
 - Identify specific recycling materials to be collected by each hauler.
2. Require all haulers to provide recycling and yard waste collection services.
 3. Explore a preferred hauler program in order to offer consistent levels of service and fees.
 4. Explore and prepare standards and specifications of service in order to implement a preferred hauler program.
 5. Develop a hauler routing system in order to protect the city's infrastructure from deterioration.

Section 5 DISPOSAL ELEMENT

5.1 INVENTORY OF SOLID WASTE DISPOSAL FACILITIES

No permitted solid waste handling or disposal facilities are located in Johns Creek. Private waste haulers transport solid waste collected within Johns Creek and the north Fulton County area to the landfills identified in Table 4.

TABLE 4 DISPOSAL FACILITIES					
Facility	Location	Permit Number	Waste Accepted	Remaining Capacity (Cubic Yards)	Year Expected to Reach Capacity
Pine Bluff LF	Ball Ground	028-039D (SL)	MSW	49084766	2041
Richland Creek	Buford	067-032D (SL)	MSW	12531275	2015
Eagle Point	Forsyth Co.	058-012D (MSWL)	MSW	2469690	2043

Source: EPD, February 2008.

5.2 ASSURANCE OF TEN YEAR DISPOSAL CAPACITY

Based upon projected capacity, landfills currently being used for municipal solid waste (MSW) have sufficient disposal capacity to adequately serve Johns Creek for the duration of the planning period. Due to market conditions, it is likely that private haulers

serving the Johns Creek area may transport some of the city's waste to facilities other than those listed in Table 4. Although the city has no ability to dictate where waste from the city is delivered for disposal, it has obtained disposal capacity assurance letters from the facilities identified in Table 4. These letters are included in the Appendix. According to EPD data, the Richland Creek facility is projected to reach capacity in 2015. The Pine Bluff and Eagle Point facilities are not projected to reach capacity until 2041 and 2043, respectively.

5.3 CONTINGENCY STRATEGY/NATURAL DISASTER-EMERGENCY SITUATION

In the event that one or more of the landfills used by private haulers for disposal of Johns Creek's waste becomes unavailable, Johns Creek will work cooperatively with haulers to find alternative disposal locations. Specific hauler responsibilities will be outlined in the city's new solid waste ordinance. There are numerous other landfill facilities in the north Georgia area that could be used if needed.

5.4 NEEDS AND GOALS

Goal: *Ensure that the city has a plan in place to ensure that sufficient disposal capacity is available to handle the amount of waste projected to be disposed of over the next 10 years.*

In order to achieve the stated disposal goal, the City of Johns Creek will need to:

1. Develop a contingency plan of alternate landfill sites in order to dispose of the city's solid waste materials.
2. Monitor, on an annual basis, capacity levels of declared landfill sites.
3. Identify businesses that generate hazardous waste. Coordinate such findings with the city's Fire Department and inventory the same.

Section 6 LAND LIMITATION ELEMENT

Population density, zoning, and land use factors, as well as natural environmental limitations limit the amount of land suitable for the development of new solid waste disposal and handling facilities. Facilities such as these should be located in areas where they have minimum adverse effects on the community and the environment.

6.1 NATURAL ENVIRONMENTAL LIMITATIONS

Natural environmental limitations include floodplains, wetlands, water supply watersheds, groundwater recharge areas, river corridors, and protected mountains. Maps illustrating the locations of these limitations in Johns Creek are included in the Appendix.

Floodplains

Georgia Department of Natural Resources (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. The 100 year floodplain is defined as the land area with a 1 percent chance of being flooded every year. The 100 year flood plain is used for planning purposes to assist in identifying land that is not suitable for development.

Wetlands

Georgia Department of Natural Resources (DNR) Rule 391-3-16-.03(3) (e) establishes that solid waste landfills may institute an unacceptable use of 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 that use of the wetland has been permitted or otherwise authorized under all other applicable state and federal laws and rules.

Groundwater Recharge Areas

Georgia Department of Natural Resources (DNR) Rule 391-3-16-.02(3)(a) requires that in significant groundwater recharge areas, GA DNR shall not issue permits for new solid waste landfills not having synthetic liners and leachate collection systems. GA DNR Rule 391-3-4-.05(1)(j) requires that new solid waste landfills or expansions of existing landfills located within two miles of a significant groundwater recharge area have liners and leachate collection systems, with the exception of facilities accepting waste generated from outside the county in which the facility is located. Aquifer recharge areas contain soils with properties that support the recharging of groundwater. In Fulton County, the primary public drinking water source is surface water from the Chattahoochee River and its tributaries, not groundwater.

Water Supply Watersheds

Georgia Department of Natural Resources (DNR) Rule 391-3-16-.10(7) c requires that at any location within a small water supply watershed, new solid waste landfills must have synthetic liners and leachate collection systems. Johns Creek is located within the Chattahoochee River basin.

River Corridors

Georgia Department of Natural Resources (DNR) Rule 391-3-16-.04(4)(h) prohibits the development of new solid waste landfills within protected river corridors. The Chattahoochee River corridor is protected under the Metropolitan River Protection Act

(MRPA), which establishes undisturbed vegetation buffer and impervious surface setbacks from both sides of the river's banks.

Protected Mountains

Georgia Department of Natural Resources (DNR) Rule 391-3-16.05(4)(1) prohibits the development of new solid waste landfills in areas designated as protected mountains. There are no protected mountains within the City of Johns Creek.

Fault Areas

Georgia Department of Natural Resources (DNR) Rule 391-3-4-.05(1)(f) requires that new landfill units and lateral expansions of existing landfills shall not be located within 200 feet of a fault that has had displacement in the Holocene Epoch unless the owner or operator demonstrates to EPD that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment.

Seismic Impact Zones

Georgia Department of Natural Resources (DNR) Rule 391-3-4-.05(1)(g) prohibits that development of new landfill units and lateral expansions in seismic impact zones unless the owner or operator demonstrates to EPD that all containment structures, including liners, leachate collection systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

Unstable Areas

Georgia Department of Natural Resources (DNR) Rule 391-3-4-.05(1)(h) requires owners or operators of new landfill units, existing landfill units, and lateral expansions located in unstable areas to demonstrate that engineering measures have been incorporated in the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted.

6.2 LAND USE AND ZONING LIMITATIONS

Zoning Restrictions

Georgia Department of Natural Resources (DNR) Rule 391-3-4-.05(1) (a) requires that solid waste facility sites must conform to all local zoning/land use ordinances. The City of Johns Creek Zoning Ordinance allows solid waste landfills in certain zoning districts with a Special Use Permit. The ordinance's M-1A Industrial Park and M-1 Light Industrial districts specifically list solid waste landfills as prohibited uses.

National Historic Sites

Municipal solid waste landfills are not permitted within 5,707 yards of a National Historic Site. No such sites currently exist in Johns Creek.

Archaeological Sites

The Archaeological Resources Protection Act of 1979 requires federal agencies or local governments utilizing federal funds to conduct archaeological investigations on lands under their jurisdiction to determine the nature and extent of the protected cultural resource present. No solid waste handling facility should be located so as to negatively impact an area of concentrated or known archeological sites on file with the Georgia Archaeological Site File (GASF). If a facility siting has the potential to impact an area of concentrated or known archaeological sites, then consultation with the State Archaeologist and the State Historic Preservation Office (SHPO) would be required.

Surface Water Intake

According to Georgia Department of Natural Resources (DNR) Rule 391-3-19-.01, solid waste landfills must have engineering modifications such as liners, leachate collection systems, and groundwater monitoring systems if they are located within two (2) miles of a surface water intake for a public source, unless such a site is the only feasible location. The Chattahoochee River serves as the primary water source for Fulton County residents.

Airport Safety

Georgia Department of Natural Resources (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 5,000 feet of any runway planned or used for piston-type aircraft or within 10,000 feet of any runway planned or used for turbo-jet or piston-type aircraft.

Co-Located Landfills

Section 12-8-25.4 of the O.C.G.A. states that no solid waste handling facility, excluding materials recovery facilities and composting facilities, can be sited on a site that falls within a two-mile radius of three or more solid waste landfills (including closed landfills that receive waste on or after June 29, 1989).

Political Subdivisions

The Georgia Comprehensive Solid Waste Management Act prohibits the siting of a municipal solid waste landfill within one-half mile of another county's border without the approval of the jurisdiction's governing authority.

6.3 PLAN CONSISTENCY PROCESS

The requirements that a developer of a new solid waste management facility must fulfill in order to demonstrate that the facility is consistent with the City of Johns

Creek Solid Waste Management Plan are outlined below. It is the responsibility of the facility owner to prove consistency. No proposed facility or facility expansion will be sited without a letter from the City of Johns Creek stating that the facility is consistent with the Solid Waste Management Plan. To determine if a proposed facility or facility expansion is consistent with the Solid Waste Management Plan, an owner/operator of the facility shall:

A. At least 60 days prior to the filing for a solid waste handling permit, or notifying EPD in the case of a solid waste handling facility that is permitted by rule, submit to the local governing authority a written statement documenting the following:

1. How the proposed facility or facility expansion will meet the specific goals and/or needs identified in the Solid Waste Management Plan, specifically what will be:
 - (a) the impact upon the collection capability within the planning area;
 - (b) the impact upon disposal capacity identified within in the planning area: and
 - (c) the impact to the waste reduction and recycling efforts within the planning area.
2. How the proposed facility or facility expansion and its operation will impact the community, specifically what will be:
 - (a) the impact to vehicle traffic and public safety around the proposed facility and throughout the planning area;
 - (b) the impact to the financial viability of the existing solid waste management system within the planning area;
 - (c) the impact to individual and business solid waste management rates;
 - (d) the impact of the proposed facility or facility expansion to other natural or cultural resources within the planning area: and
 - (e) the impact of the proposed facility or facility expansion to the current solid waste management infrastructure within the planning area, both public and private.
3. How the owner/operator of the proposed facility (and any subsequent owner/operators if sold) will satisfy any financial assurance provisions of the SWMP and any local ordinances.
4. That the proper public notification process was followed.
5. That the proposed facility or facility expansion is sited in an area deemed suitable according to the criteria listed in the Solid Waste Management Plan; and
6. That the proposed facility or facility expansion is sited in a location that is consistent with local zoning ordinances.

B. The City of Johns Creek shall review the “Written Statement of Consistency” and shall determine if the proposed facility or facility expansion is consistent with the Solid Waste Management Plan. Within 30 days of making their determination, the City of Johns Creek shall notify the developer whether or not the proposed facility or facility expansion is consistent with the Solid Waste Management Plan. If the proposed facility is not consistent with the Solid Waste Management Plan, the developer may address the inconsistencies and resubmit their request for another review.

6.4 NEEDS AND GOALS

Goal: *To ensure that proposed solid waste handling facilities are consistent with state and local solid waste management plans, as well as other federal, state and local environmental requirements.*

In order to achieve the stated goal, Johns Creek will need to:

1. Adhere to the Johns Creek Comprehensive Plan.
2. Review and amend city zoning ordinance and other regulatory tools in order to comply with the Johns Creek Comprehensive Plan and the Johns Creek Solid Waste Management Plan.
3. Implement the Plan Consistency Process of the Johns Creek Solid Waste Management Plan.
4. Continue to protect environmentally sensitive areas and lands within the city such as but not limited to: Chattahoochee River, Flood plains, Historic Sites, Groundwater Recharge Areas, land governed by the Metropolitan River Protection Act.

Section 7 EDUCATION AND PUBLIC INVOLVEMENT ELEMENT

7.1 INVENTORY AND ASSESSMENT

Although the City of Johns Creek does not currently provide formal education and public involvement programs, city residents have access to a wide range of programs and activities. The city does have the tools in place to provide educational outreach, including the city’s newsletter, website, and e-mail capabilities. The majority of existing programs within the Johns Creek area are provided by Fulton County and neighboring jurisdictions. Programs available to Johns Creek residents include waste reduction, beautification, and litter prevention programs such as Adopt-A-Road, Evergreen Business, Evergreen Schools, Graffiti Hurts, and storm drain stenciling. The county also sponsors annual waste reduction and recycling events such as Bring One for the Chipper, Arbor Day, The Great American Clean-Up, Rivers Alive, and America Recycles

Day. All of these programs are managed and coordinated by North Fulton Keep America Beautiful (KAB).

7.2 NEEDS AND GOALS

Goal: *Educate city residents and businesses in becoming more aware of the need to support and participate in local waste reduction efforts.*

In order to achieve this goal, Johns Creek will need to:

1. Develop a link on the city's website to educate the public on recycling practices.
2. Create a Solid Waste Website for the City of Johns Creek.
3. Require haulers to provide traditional recycling services as a condition to doing business in the city and to provide a list to customers identifying these recyclables.
4. Collaborate with Fulton County Keep America Beautiful affiliate to provide educational materials and training in waste reduction practices.
5. Work with the Fulton County Board of Education, private schools, and local PTAs in order to develop a recycling drop-off site for each school.
6. Prepare information to be included in the city's newsletter and E-blasts on recycling practices and programs inside the city as well as those in surrounding communities.
7. Create and fund a new position to manage the Solid Waste Plan and to report to the Public Works Director.
8. Coordinate the Solid Waste Plan with the Stormwater Management Plan in order to combine efforts where available.
 - Create a link in the Solid Waste Plan website to identify electronic alternatives for established written data bases such as telephone books, coupon books, and advertising flyers.
 - Create a link on the Solid Waste website to list educational resources such as but not limited to: EPA Pay As You Go program, Department of Community Affairs (DCA) established resource list, free recycle programs (www.freecycle.com).
9. Create a Johns Creek Keep America Beautiful affiliate under the direction of the Public Works Director.

10. Work with Home Owners Association groups to provide educational materials, recycling training programs, as well as state and federal resource materials to achieve waste reduction.
11. Educate the public on the practice of recycling and waste reduction.
12. Engage and partner with the school community (public and private) to develop a recycling program.
13. Engage homeowners associations in establishing recycling efforts within their own neighborhoods.

Section 8 IMPLEMENTATION STRATEGY

The work program presented in the Table 5 identifies the various programs and activities the City of Johns Creek will undertake over the next 10 years to achieve the plan's stated goals. Activities programmed for the first five years represent the Short Term Work Program.

**TABLE 5
CITY OF JOHNS CREEK SOLID WASTE MANAGEMENT PLAN
TEN YEAR WORK PROGRAM
2008-2018**

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
AMOUNT OF WASTE														
1. Require private haulers to maintain records of waste and recyclables collected and report information to Public Works quarterly.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
WASTE REDUCTION ELEMENT														
1. Continue to monitor annual incremental reduction percentage in order to achieve 10% waste reduction by 2018.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
2. Reach 10% waste reduction goal.											X	Public Works Dept.	Staff	General Fund
3. Continue source reduction programs at City Hall and other city facilities.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	\$5,000	General Fund
4. Amend Solid Waste Ordinance		X										Public Works/City Attorney	\$2,500	General Fund
5. Conduct inventory of business community waste reduction practices.	X	X			X		X		X		X	Public Works Dept.	Staff	General Fund

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
6. Create and implement “preferred hauler” recycling program in conjunction with local schools.		X										Public Works Dept.	Staff	General Fund
7. Encourage household composting practices.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
8. Develop informational material to educate the public on household composting practices.			X									Public Works Dept.	Staff	General Fund
9. Implement special waste/bulk item collection program.		X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
10. Create recycling program in conjunction with apartment complexes and shopping centers.		X	X									Public Works Dept.	Staff	General Fund/Private Hauler
11. Explore and implement toxic material/electronic items recycling program in coordination with the City Fire Department.		X	X									Public Works Dept.	Staff	General Fund/Private Hauler

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
12. Conduct a citywide citizen survey on waste reduction and collection services.				X		X		X		X		Public Works Dept.	Staff	General Fund
<i>COLLECTION ELEMENT</i>														
1. Explore a “preferred hauler” collection system.		X										Public Works Department	Staff	General Fund
2. Develop specifications for a preferred hauler collection system.			X									Public Works Dept.	\$5,000	General Fund
3. Implement a preferred residential hauler collection system.			X									Public Works Dept.	Staff	General Fund
4. Develop/implement a coordinated collection service routing system.			X									Public Works Dept.	Staff	General Fund
5. Provide educational materials on recyclable materials.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./KAB	\$2,500	General Fund
<i>DISPOSAL ELEMENT</i>														
1. Continue using private landfill facilities for disposal.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./Private Haulers	Private Haulers	Private Haulers

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
2. Work with private haulers in developing a disposal contingency strategy.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
3. Undertake efforts to educate the public on the benefits of recycling and waste reduction.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./KAB	\$3,000	General Fund/KAB
4. Maintain disposal contingency strategy	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff/Private Haulers	General Fund/Private Haulers
LAND LIMITATIONS ELEMENT														
1. Implement and use "Plan Consistency Process" as required	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
2. Review and amend, if necessary, the Johns Creek Zoning Ordinance.		X										Community Development Dept.	\$5,000	General Fund
3. Implement the Johns Creek Comprehensive Plan.	X											Community Development Dept.	Staff	General Fund
4. Protect environmentally sensitive areas through zoning and other regulatory tools.	X	X	X	X	X	X	X	X	X	X	X	Community Development Dept.	\$5,000	General Fund

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
EDUCATION & PUBLIC INVOLVEMENT ELEMENT														
1. Develop, implement, and maintain a solid waste website.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./Operation	\$10,000	General Fund
2. Require private haulers to provide recycling and yard waste services.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
3. Explore the creation of a Johns Creek Keep America Beautiful (KAB) affiliate.		X										Public Works Dept.	\$2,000	General Fund
4. Create a Johns Creek Keep America Beautiful (KAB) affiliate.		X										Public Works Dept.	\$5,000	General Fund
5. Coordinate all educational and public outreach efforts between the JCKAB and the city Solid Waste Coordinator.		X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
6. Implement citywide recycling and yard waste services.		X										Public Works Dept./Private Haulers	Staff	General Fund

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
7. Work with Fulton County Keep America Beautiful (KAB) affiliate.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
8. Work with local schools to develop recycling drop-off programs.		X	X	X	X	X	X	X	X	X	X	Public Works Dept.	Staff	General Fund
9. Include educational information in city publications, including the newsletter and website.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./Operations	\$2,500	General Fund
10. Include links on the city website regarding educational resources at the local, state, and federal levels.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept./Operations	Staff	General Fund
GENERAL														
1. Create and fund new Solid Waste Coordinator position.		X										Operations	\$100,000	General Fund
2. Update Solid Waste Management Plan.	X	X	X	X	X	X	X	X	X	X	X	Staff/Consultant	\$3,000	General Fund
3. Prepare new Solid Waste Management Plan.											X	Staff/Consultant	\$50,000	General Fund/Fees

ACTIVITY	08	09	10	11	12	13	14	15	16	17	18	Responsibility	Cost Estimate	Funding Source
4. Continue required Full Cost Reporting/Solid Waste Surveys	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	\$2,500	General Fund
5. Seek grants to support solid waste management plan implementation.	X	X	X	X	X	X	X	X	X	X	X	Public Works Dept.	\$10,000	GEFA, EPD, DCA

APPENDIX

