



CITY OF LEESBURG

GROWTH MANAGEMENT PLAN
SOLID WASTE ELEMENT

Ordinance #xxxx
Exhibit x
Adopted xxxx

Prepared For:

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CHAPTER VI SOLID WASTE ELEMENT

A. INTRODUCTION

The collection and disposal of solid waste is necessary for the protection of public health, safety and welfare. In 1976, the Federal Government passed the Resource and Recovery Act, which empowered the Environmental Protection Agency (EPA) to regulate hazardous waste and develop minimum standards to dispose of solid waste in landfills. In 1980, the Federal Government passed additional legislation, which empowered the EPA to directly respond to chemical spills or the release of hazardous substances.

Also in 1980, the State of Florida passed the Florida Resource Recovery and Management Act. This Act established hazardous waste definitions, established a permitting system, required monitoring, and provided funds for clean up efforts. In 1988, the Florida Solid Waste Management Act was established. The Act required recycling programs and a reduction of the solid waste stream, as well as banning disposal of specified items in landfills.

State Regulations require that municipal solid waste (MSW) be disposed of in landfills that have a liner meeting state requirements. The liner consists of a layer of densely packed clay or other soil composition that is nearly impenetrable. The liner is necessary to keep harmful compounds from entering the groundwater and potentially contaminating the potable water supply. Landfills created for the purpose of disposing construction and demolition debris (C & D) are not required to be lined. The difference between the two types of solid waste is that the leachate from each type of waste contains different levels of harmful compounds. Specifically, leachate from a C & D landfill contains a minimal amount of harmful substances, while the leachate from a MSW landfill can contain relatively high levels of toxins, requiring any leachate to be contained so as not contaminate the local groundwater supply.

1. Terms and Concepts

Solid Waste is defined as “sludge from a waste treatment works, water supply treatment plant, or air pollution control facility or garbage, rubbish, refuse, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations.” Other definitions applicable to this Element are:

- “Leachate” means the liquid derived from the leaching of buried refuse in sanitary landfills and dumps by percolating water derived from rain. It frequently contains large numbers of inorganic contaminants and high concentrations of total dissolved solids, as well as many organic contaminants.
- “Solid Waste Facilities” means structures or systems designed for the collection, processing or disposal of solid wastes, including hazardous

wastes, and includes transfer stations, processing plants, recycling plants, and disposal systems.

- “Solid Waste Processing Plant” means a facility for incineration, resource recovery, or recycling of solid waste prior to its final disposal.”
- “Hazardous Waste” means solid waste, or a combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality and/or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed of, stored, treated or otherwise managed.

B. SOLID WASTE DATA INVENTORY

1. Operational Responsibility

The City of Leesburg Solid Waste Management Division of the Public Works Department is responsible for the operations and maintenance of the solid waste management services provided to Leesburg residents by the City of Leesburg.

2. Service Area and Predominant Users

a. Service Area

The collection service area for Leesburg includes all residential and non-residential users within the City’s municipal boundaries. Map VI-1 shows the boundary of the municipal service area for solid waste collection.

b. Predominant Users

Presently, the City serves approximately 6,391 residential units and approximately 1,364 commercial customers within the municipal boundaries. Of the 1,364 commercial customers, 736 utilize dumpster service while 628 commercial customers utilize hand collection services. Solid waste that is collected by the City of Leesburg is disposed of at various solid waste disposal facilities which are neither operated nor maintained by the City of Leesburg. These facilities are described in the following section.

The Lake County Resource Recovery Facility and the other facilities that are privately operated, serve the waste disposal needs of the residents and commercial establishments within Lake County as well as customers outside of the municipal boundaries of Lake County. The facilities operated by Lake County, Department of Waste Management Services are by law only allowed to accept waste materials from sources within Lake County.

3. Solid Waste Facilities Inventory

The City of Leesburg does not operate any active solid waste disposal facilities. However, the City does provide long term maintenance care for the closed City of Leesburg Landfill facility. This facility is located off Lucas Street within the City of Leesburg. Operations at this facility ceased in 1997. The City is required to maintain the landfill and to renew the permit on the facility every five (5) years. Associated with the maintenance requirements of the permit, the City maintains a number of monitoring wells at the landfill and to date no contamination issues have been reported.

The disposal of solid waste refuse collected by the City of Leesburg is provided by facilities which are located outside of the Leesburg City limits. Specifically, there are four locations where solid waste from the City can be disposed. These facilities include:

- The Lake County Resource Recovery Facility, Okahumpka, Florida;
- The Lake County Solid Waste Management Facility, Astatula, Florida;
- The Ash Monofill Landfill, Astatula, Florida;
- The Construction and Demolition Landfill, Wildwood, Florida.

Additional information for the above-referenced facilities and the solid waste disposal services they provide for the City of Leesburg is contained in the following text.

a. Lake County Resource Recovery Facility

The Lake County Resource Recovery Facility (LCRRF), owned and managed by Covanta Energy of Lake is located at 3830 Rogers Industrial Park Road in Okahumpka. This is a solid waste processing plant where certain types of solid waste are converted to energy through an incineration process. The facility has a design capacity of 163,000 tons per year or 528 tons per day. Leesburg disposes of the majority of its residential and commercial refuse collections, which consists of solid waste and yard trash, at this location. The majority of the City's waste stream, 98%, is incinerated at this facility.

b. Lake County Solid Waste Management Facility

Lake County operates a "Class I" landfill facility, as permitted by the Florida Department of Environmental Protection (FDEP), named the Lake County Solid Waste Management Facility (LCSWMF), which is located west of S.R. 561 in Astatula, Florida. Leesburg utilizes this facility for yard waste and for a recyclable drop off point. The facility as a whole accepts yard trash, mixed trash, all recyclables and street swept trash. The landfill site has been divided into separate operational phases. Current operations within this 420-acre landfill are confined to the Phase III MSW Cell which is designed to hold 1.5 million cubic yards of solid waste or approximately 900,000 tons of disposal capacity. The completed build out of Phase III will eventually provide Lake County with a total of 11,500,000 cubic yards of waste disposal capacity which provides disposal capacity beyond 2035.

c. Ash Monofill Landfill

The Ash Monofill Landfill also located in Astatula, adjacent to the LCSWMF landfill, is used to dispose of the residual ash that remains after the refuse is incinerated at the Lake County Resource Recovery Facility. There is no anticipated closure date for this landfill as the ash is mined daily and used as cover for the adjacent LCSWMF. County plans are to continue to mine the ash for use as daily cover and then to convert this facility for use as a class I MSW waste disposal.

d. Construction and Demolition Landfill

Leesburg utilizes a Construction and Demolition (C&D) landfill facility located on CR 466A in Wildwood, Florida, which is operated by Hewett Contracting, Inc. for disposal of C & D debris. This facility accepts construction and demolition debris only. The total landfill site is - 80 acres in size. The landfill's life expectancy based upon the current average C & D disposal volumes is approximately 15-years.

4. Collection Services

Leesburg's Solid Waste Management Division, under the Public Works Department, is responsible for coordinating the solid waste collection and disposal for customers within the City limits and newly annexed areas. The City of Leesburg provides collection of all residential and commercial solid waste within its corporate boundaries except for compactors and over-sized roll-off containers (greater than 40 cubic-yard capacity). The City is responsible for the hauling both residential and non-residential solid waste to the Lake County Resource Recovery Facility or to the other solid waste disposal facilities utilized by Leesburg.

As the City of Leesburg does not operate any active solid waste disposal facilities, the City has focused on the quality and frequency of collection services rather than solid waste disposal capacity. The level of service standards provided by the City of Leesburg for residential refuse collection is once-weekly garbage, yard waste, recycling collection and bulk pickup. For commercial refuse collection, Leesburg provides from 1 to 6 pick-ups per week for dumpster service, 3 times per week for hand pick-up, bulk pick-up on request, and once a week cardboard recycling.

Individual commercial and industrial property owners with solid waste compactors or over-sized roll-off containers (greater than 40 cubic yards) are responsible for the collection of solid waste from these containers. These property owners typically contract with private haulers to collect waste from these containers and to dispose of the waste at an appropriate facility.

5. Hazardous Waste

The proper management of hazardous waste is necessary to protect valuable natural resources. Hazardous wastes include batteries, paints, cleaners, pesticides, and poisons. Improper disposal of these items can have a detrimental effect on our environment. For example, chemicals pored down a drain can pollute our drinking water and contaminate wastewater treatment systems. The City of Leesburg does

not have hazardous waste management facilities but rather relies on Lake County to provide these facilities and service. To address this situation, the Lake County Hazardous Waste Department has established various programs, as listed below, to assist citizens with proper disposal.

A Household Chemical Collection Center is located at the Lake County Solid Waste Management Facility in Astatula on C.R. 561 in Tavares, where the County stores hazardous waste materials. In addition to this center, residential drop off facilities are located throughout the County.. The closest drop off center to Leesburg is located at 1200 Jackson Street in Lady Lake. Mobile Unit collections at various locations provide a convenient method of disposing of household hazards. This service is for household hazards collection only and is free to the residents of Lake County. A specific example within the City is a collection box for used batteries, located outside the Leesburg Public Library. The County picks up the batteries for proper disposal.

In addition, the Lake County Department of Solid Waste Management offers programs for Lake County businesses. The Conditionally Exempt Small Quantity Generator (CESQG) is for small businesses that produce no more than 220 pounds or 25 gallons of chemical waste per month. Qualified businesses are urged to participate in this program, which is located at the Household Chemical Collection Center. Disposal fees are based on bid price with the contracted vendor. The service is available every Wednesday and the first Saturday of each month and businesses must preregister to participate. In addition, the County operates the Pollution Prevention Program that also assists businesses with waste. This program gives businesses the opportunity to learn about proper waste disposal, as well as, waste reduction techniques.

The City of Leesburg has an interlocal agreement with the Lake County Fire and Rescue to facilitate control of accidents involving hazardous wastes. The City's Fire Department does employ qualified hazardous materials personnel but does not have the required equipment to provide adequate responses to hazardous material situations.

6. Recycling Program

The City of Leesburg Solid Waste Management Division has implemented a citywide recycling program. The goal of the recycling program was to reduce the amount of solid waste disposed of by the landfill method by 30 percent. The City presently collects and transfers recyclable waste to the LCSWMF located in Astatula where it is separated and processed. To date, the City has exceeded this goal by utilizing the Lake County Resource Recovery Facility (LCRRF) and recycling. Leesburg's recycling efforts include a curbside recycling pick-up program for residential and commercial establishments. Residential customers receive a once per week pick-up of the five basic recyclables while commercial customers receive a once per week cardboard collection.

The County recycles 100% of the tires received at the landfill. The shredding reduces the amount of landfill volume necessary for tire disposal and is recycled for use in mulch, playground equipment and other uses.

In addition, the County provides recycling of yard trash at the LCSWMF. The yard waste is mulched at this landfill and is provided free to anyone who is willing to self-load the mulch.

White goods are accepted at the LCSWMF as well. White goods are appliances such as dishwashers, washing machines and refrigerators. These items are not allowed to be placed in the landfill; rather, they are accepted in the recycling area, where all refrigerants such as freon are recovered from all applicable appliances. The white goods are then picked up and recycled by a scrap metal dealer.

C. SOLID WASTE FACILITY ANALYSIS AND RECOMMENDATIONS

The City of Leesburg will continue to rely on Lake County for providing solid waste disposal facilities. Based upon solid waste volume projections by Lake County, the County's solid waste disposal facilities will have adequate capacity to service the City of Leesburg throughout the planning period. As the City disposes of the majority of its solid waste at the County's facilities, the City is ensured of having adequate solid waste disposal service.. A brief synopsis of future operating capacities of the solid waste disposal facilities utilized by the City of Leesburg is provided below.

1. Solid Waste Surpluses and Deficiencies

a. Lake County Resource Recovery Facility

Lake County is obligated by its operations with Covanta to deliver 163,000 tons per year. Currently, the City incinerates, on average, 22,044 tons per year of municipal solid waste. This amount includes residential and commercial solid waste. Therefore, Leesburg generates approximately 13% of the total annual refuse obligation to the facility. Currently, this facility incinerates approximately 165,000 tons per year.. Given that this is an incinerator facility, the capacity is based on how much refuse the facility can accommodate on a daily and/or annual basis rather than on a finite volume leading to an eventual closing date. In the eventuality that more refuse is generated than can be handled by the facility on a daily or annual basis, the facility could be expanded or a new larger facility could be constructed without the need to acquire as large a piece of land as would be required by a landfill. Based on the present disposal rate at this facility, it is anticipated that the facility will be able to provide solid waste disposal services beyond the end of the planning period in 2035.

b. Lake County Solid Waste Management Facility

Leesburg utilizes the LCSWMF for disposal of mixed trash, recyclables and yard waste. The recyclables are only temporarily stored at the LCSWMF until they are picked up. Yard waste is accepted at the landfill and is mulched. The mulch is provided free to anyone willing to self-load the material. The recyclables generated

by Leesburg and temporality stored at the LCSWMF represents approximately 436 tons per year or about 2% of the total refuse collected by the City.

Current operations within this landfill facility are confined within phase III. The approximate capacity of this phase is 1.5 million cubic yards or approximately 900,000 tons. Future phases of this landfill have an adequate capacity to service the incorporated and unincorporated portions of Lake County. Based upon projected waste disposal volumes, Lake County anticipates a remaining useful life of 30-years for this facility.

c. Ash Monofill Landfill

The Ash Monofill Landfill is adjacent to the LCSWMF. Presently, the operations at this landfill are confined to phase III which is designed to hold 247,000 cubic yards (approximately 308,750 tons) of ash residue. However, the ash is continually being mined for use as cover material for the adjacent LCSWMF. As the ash is removed additional capacity within the ash monofill is produced. Thus, the capacity of the landfill should not diminish over time.

Lake County is planning to convert this facility to a “Class I” landfill in the future. The additional capacity for “Class I” refuse created by this conversion will allow waste to be interred at this facility. The total projected capacity for “Class I” waste at this facility has not as of yet been determined.

d. Construction and Demolition Landfill

Currently, Leesburg hauls approximately 1,112 cubic yards of C & D material to this landfill on an annual basis.

2. Level of Service Standards

Lake County provides disposal facilities for the municipal solid waste generated by the City of Leesburg. As such, planning, construction and maintenance of solid waste disposal facilities is the responsibility of the County and does not require planning or capital outlay by the City of Leesburg. As such, the collection of refuse within the City limits is the only solid waste responsibility of the City. The City has set a level of service standard associated with the frequency of the collection services provided. The level of service standards, as adopted by the City, are as follows:

- Residential: Once per week refuse collection;
Once per week yard waste collection;
Once per week recyclable collection; and
Once per week bulk pickup.
- Commercial: One to six times per week dumpster collection;
Three times per week hand collection;
Once per week cardboard recyclable collection; and
As requested bulk pickup.

This level of service has been deemed to be adequate for the existing conditions and for future planning purposes. No changes in the frequency of collection are anticipated.

3. Solid Waste Collection

With solid waste disposal ensured through Lake County, the City has focused on maintaining and improving on the operations of the solid waste collection service. The current level of service provided to the citizens of Leesburg is sufficient and, as such, no major changes are proposed. However, planned evaluations and refining of current programs will aid in promoting a more efficient solid waste collection service. Efforts to promote recycling and the education of the public on household hazardous waste, combined with convenient programs, such as the battery drop off at the library, would also benefit the community and enhance the overall effectiveness of the solid waste program.

Table VI- 1: City of Leesburg Residential Solid Waste Collection – 2007 to 2010

Description	2007-2008	2008-2009	2009-20010
Number of Residential Customers	6035	6421	6391
Tons of Solid Waste Incinerated (Residential Only)	8097	7457	8047
Tons of Household Recyclables	424	390	408
Tons of Recycled Scrap Metal	76	16	3
Tons of Mulched Yard Waste	0	0	0
Tons of Tires Collected	18	22	10

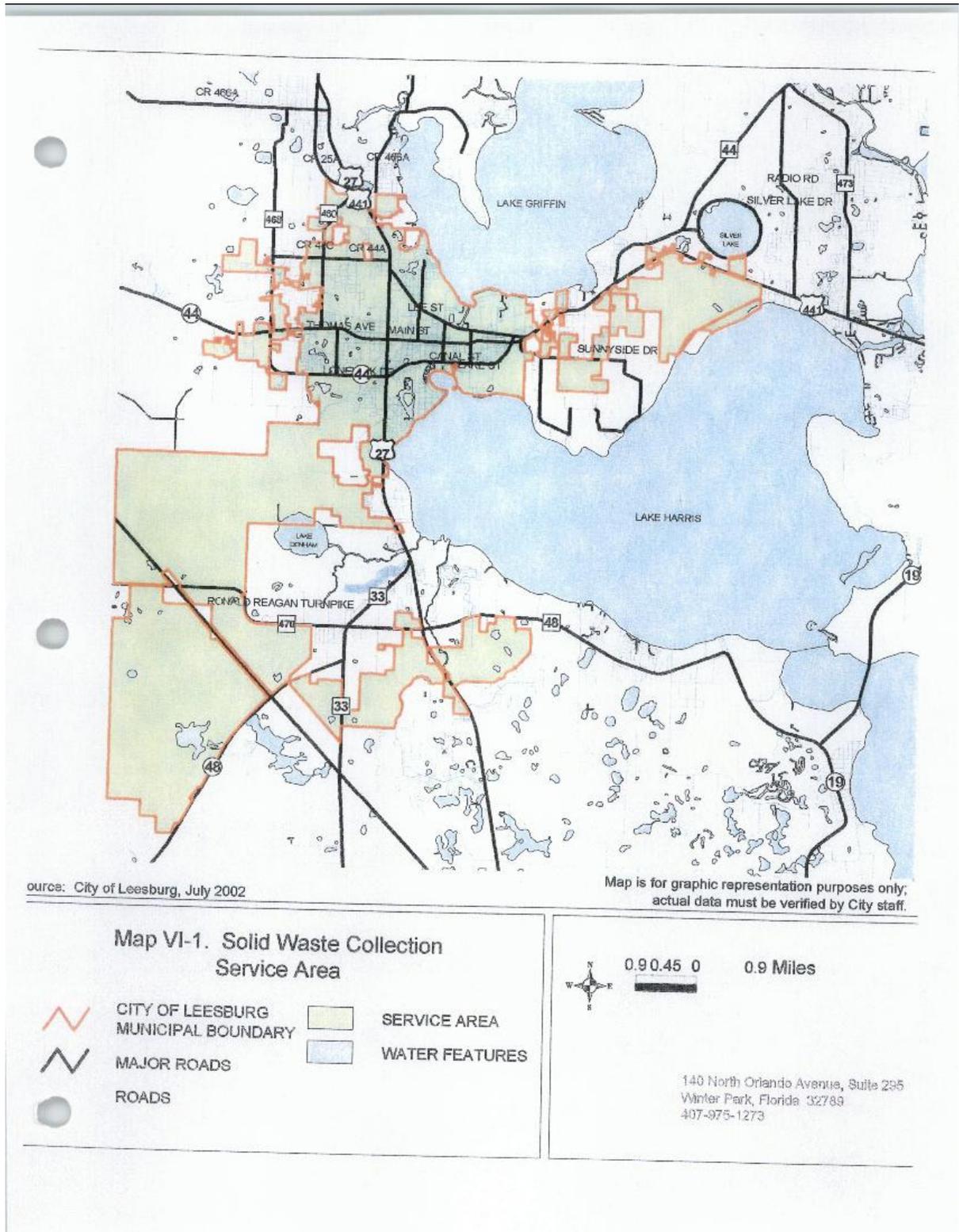
Source: City of Leesburg Solid Waste Management Division – 2011

Table VI- 2: City of Leesburg Commercial Solid Waste Collection – 2007 to 2010

Description	2007 - 2008	2008 - 2009	2009-2010
Hand Commercial Accounts	611	603	608
Dumpster Accounts	745	724	736
Commercial Recycle Accounts	5	6	8
Tons of Hand Collected Solid Waste	855	864	695
Tons of Dumpster Collected Solid Waste	12,550	12,598	13,302
Tons of Collected Recycling (Cardboard)	0	0	15
C & D Debris Collected (cu-yd)	3371	1706	1112

Source: City of Leesburg Solid Waste Management Division – 2011

Map VI- 1: Solid Waste Collection Service Area



GOALS, OBJECTIVES AND POLICIES

GOAL 1: To ensure the efficient and safe disposal of solid waste and to provide collection services for all residential and commercial establishments within the City of Leesburg municipal boundary in order to protect the environment and public health.

Objective 1.1: *Solid Waste Disposal.* The City shall continue to ensure satisfactory and economical solid waste management for all City residents through the 2010 - 2035 planning period.

Policy 1.1.1: The City shall maintain an interlocal agreement with Lake County regarding the safe and economical disposal of solid waste.

Policy 1.1.2: All solid waste disposal contracted or performed by the City of Leesburg shall be operated in a manner that complies with all applicable city, regional, state and federal solid waste disposal standards.

Policy 1.1.3: The City shall continue to provide long term maintenance care for the City of Leesburg Landfill facility and shall continue all required monitoring activities.

Policy 1.1.4: The City shall endeavor to remove and dispose of hazardous waste stored at the City of Leesburg Landfill.

Policy 1.1.5: The City shall secure the integrity of the City of Leesburg Landfill by keeping the gate closed at all times.

Objective 1.2: *Solid Waste Collection.* The City shall continue to provide solid waste collection services to city residential and commercial establishments located within Leesburg's municipal boundary.

Policy 1.2.1: The City will continue to operate and maintain a self-supporting solid waste collection system within the municipal service area.

Policy 1.2.2: The level of service for solid waste collection shall be as follows:

- *Residential LOS:* Once weekly collection of all residential garbage, yard grass, recyclables, and bulk pickup.
- *Commercial LOS:* One to six times per week dumpster service, three times per week hand collection, once per week cardboard recycling, and bulk pickup on request.

Policy 1.2.3: Solid waste collection shall be mandatory for all residential, commercial and industrial land uses within the City corporate limits through the use of contracted haulers and/or the City.

- Policy 1.2.4:** The City shall continue to require individual commercial establishments using compactors or roll-off containers over 40 cubic yards to provide solid waste collection service of these containers.
- Policy 1.2.5:** The City shall continue to monitor complaints regarding residential and commercial solid waste collection by the City and contracted haulers to ensure that the most efficient, orderly, sanitary and environmentally sound service is being provided.
- Policy 1.2.6:** The City shall endeavor to implement programs for the clean up illegal dumpsites in a timely, efficient and environmentally sound manner.
- Policy 1.2.7:** The City shall endeavor to repair or replace all damaged super cans and recycle bins within 24 hours.
- Policy 1.2.8:** The City shall endeavor to replace old and leaking dumpsters and open top roll-off containers with new City owned dumpsters and containers to provide a more sanitary and aesthetic collection system.
- Policy 1.2.9:** The City shall maintain established standard operating procedures for the collection of solid waste within the City.
- Policy 1.2.10:** The City shall evaluate and revise the rate structures in the Code of Ordinances every 5 years.
- Policy 1.2.11:** The City shall conduct an audit of the residential and commercial collection routes for an evaluation of the effectiveness of the routes being served and those commercial hand collection accounts that can be converted to dumpster service every 5 years.
- Objective 1.3:** *Recycling.* The City shall reduce the volume of municipal solid waste disposed of in the County's landfill facilities by maintaining and promoting its recycling program.
- Policy 1.3.1:** The City of Leesburg will promote the efforts of Lake County towards the reduction of the solid waste stream through implementation of a mandatory recycling program and by educating citizen on recycling.
- Policy 1.3.2:** The City shall continue to haul collected recyclables to the Lake County Solid Waste Management Facility in an effort to reduce the overall solid waste stream.
- Policy 1.3.3:** The City shall continue to have a recyclable collection process in place for curbside pickup of newspapers, glass, plastics, tin and aluminum.
- Policy 1.3.4:** The City shall continue to have a collection process in place for curbside pickup of yard waste.

Objective 1.4: *Hazardous Waste.* The City shall coordinate with Lake County to monitor and control the disposal of hazardous wastes in accordance with State law.

Policy 1.4.1: The City will continue to educate its citizens regarding the proper handling and disposal of hazardous wastes.

Policy 1.4.2: The City shall coordinate with Lake County to promote and support the County's Amnesty Day Programs.