

**SOLID WASTE ELEMENT
DATA AND ANALYSIS**

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Introduction

Alachua County provides a variety of solid waste services, including solid waste disposal for all of Alachua County and Gilchrist County. Solid waste collection services are provided to single family residents in the unincorporated area of the county, a portion of which has mandatory collection. Five rural collection centers are available to residents without collection service. County-wide public education programs focus on waste reduction, waste prevention, composting and recycling. The county provides long term care for four closed landfills.

Operational Responsibility

In Florida the responsibility for solid waste disposal rests squarely on the shoulders of counties. Chapter 403.702, Florida Statutes expressly states: *The governing body of a county has the responsibility and power to provide for the operation of solid waste disposal facilities to meet the needs of all incorporated and unincorporated areas of the county.* Historically, counties have met this responsibility by owning and operating Subtitle D landfills, waste to energy plants, incinerators, or some combination thereof. Alachua County has chosen to construct and operate a solid waste transfer station with disposal at a regional landfill located outside the county. Currently the county contracts with the New River Solid Waste Association for disposal at the the New River Regional Landfill in Union County via an interlocal agreement, executed on November 6, 1997. The agreement has an initial ten year term with unlimited renewal in five year increments. The location of the New River Landfill is on **Map 1**.

Existing Service Facilities

Leveda Brown Environmental Park

The solid waste transfer station is at the core of a solid waste services complex known as the Leveda Brown Environmental Park. In addition to the transfer station, the park provides:

- a scalehouse, with inbound and outbound truck weighing scales
- recycling of yard waste and pallets into mulch given away free to the public
- recycling of waste tires into rubber playground mulch and other reusable products
- appliances and white goods are recycled after removal of refrigerants and PCBs.
- a combination education/visitor's center with conference room and administrative offices
- a recovered materials processing facility (recycling center), leased to private enterprise
- a household hazardous waste collection and processing center
- a tractor-trailer maintenance and repair facility
- a pilot-scale food waste composting facility

The solid waste transfer station has a design capacity of 2,000 tons per day or 620,000 tons per year. It serves all of Alachua and Gilchrist Counties, currently accepting about 550 tons per day or 170,000 tons per year.

The location of the Leveda Brown Environmental Park is shown on **Map 1**.

Solid Waste Collection

The County provides collection of solid waste for single family residents in a mandatory area of the unincorporated area. Included in the once-per-week collection is garbage, recyclables and yardtrash. Residents in the mandatory area are assessed for this service based upon the size of their garbage cart, either a twenty, thirty-five, sixty-five or ninety gallon cart. There is no charge for recycling. Yardtrash is limited to ten bags or bundles per resident per week. The mandatory area serves approximately 19,000 households.

For those residents in the unincorporated area, outside the mandatory area, the County operates five rural collection centers that accept garbage, recyclables and a limited amount of household hazardous waste. Residents in the non-mandatory unincorporated area are assessed a flat rate for this service. Residents in this area may elect to subscribe to garbage collection from an exclusive vendor, determined by bid as part of the mandatory collection area vendor selection process. The subscription fee is set at the time of the bid and paid directly to the vendor.

The mandatory area and collection center locations are depicted on **Maps 2 and 3**.

Disposal levels between 1986 and 2000 varied from 0.90 to 0.69 tons per capita as shown in **Table 1**. During this time recycling percentages varied from 2% to 23%. Based on this data and recycling goals the LOS for the plan is 0.73 tons per capita.

Commercial solid waste is collected by private carters on a free enterprise basis.

Waste Alternatives

The County provides a county-wide public education service that focuses on waste prevention, waste reduction, composting and recycling. This service is funded by a non ad-valorem assessment. Each of the municipalities in Alachua County, with the exception of LaCrosse, has elected to impose this assessment, via ordinance, on their residents. This assessment also covers the cost of the county-wide household hazardous waste program and a portion of the rural collection center operations, since the rural collection centers are open to all residents within the county.

The following is a listing of Public Education Programs sponsored by the Division of Waste Management:

- 1) The “Big Blue” curbside recycling promotional campaign: residential, commercial and schools
- 2) Annual Alachua County Recycling Fair: residential, commercial and schools
- 3) North Central Florida Buy Recycled Guide: commercial
- 4) Waste Watcher Reduction Plan: residential, commercial, and schools
- 5) “Buy S.M.A.R.T.” (Saving Money And Reducing Trash): residential
- 6) Reduce-Reuse-Repair: residential, commercial and schools
- 7) “Cindy Possum Saves the Day”, a puppet show for elementary students,

- focusing on source reduction
- 8) 4R's Curriculum Teacher Workshops and Guides: schools
 - 9) "Litter Pal" and "Compost Kid": characters that instruct elementary students on the subject of litter prevention and composting.
 - 10) "Commissioners' Challenge Waste Reduction Awards": commercial
 - 11) "Don't Bag It" lawn refuse and composting for residential, commercial and schools
 - 12) "Waste Watchers at Work", a recycling program for businesses
 - 13) "Alachua County Waste Xchange", an online, internet waste exchange program for citizens and businesses

Recycling

From its inception, the recycling program in Alachua County has relied upon source separation to provide efficient and clean materials for the recycling market. Citizens place recyclables such as glass and plastic containers, aluminum and steel cans, magazines and newspapers in plastic bins and place them at curbside for collection. Businesses and institutions separate cardboard, office paper, metals and other recyclables, which are collected and processed by private vendors. The current recycling rate in Alachua County is 29%. See **Table 2**, "Alachua County Solid Waste Collection and Recycling".

In October, 2001, the Board of County Commissioners adopted Ordinance 01-18, requiring all commercial establishments within the unincorporated area to have a recycling program. The County has been recycling office paper and cardboard from all county facilities since 1991. Aluminum cans and plastic beverage containers were added to the county recycling program in 2001.

A number of other waste reduction and recycling initiatives are being explored by solid waste staff. Those initiatives are detailed in the "Maximizing Waste Prevention and Waste Reduction" report, a.k.a. the "Blue Sky Report" to the Board of County Commissioners, 2001. A copy of the report can be obtained by calling the Division of Waste Management at 352-374-5213.

Closed Landfills

The County's only lined Class I landfill, the Southwest Landfill, was closed in December 1998. Long term care of the Southwest landfill provides monitoring of groundwater and landfill gas. Leachate is collected and treated at the Kanapaha waste water treatment plant. Landfill gas is collected and burned in a flare.

Four other closed, unlined landfills are also monitored for groundwater contamination. They are: the Northeast Landfill and Northeast Auxillary Landfill, both located between Waldo and Gainesville; the Southeast Landfill in southeast Gainesville; and the Northwest Landfill near High Springs. Closed landfills are located on **Map 2**.

Construction and Demolition (C&D) Debris

Construction and demolition debris is a prohibited waste in the lined cell at the New River

Landfill, thus C&D is prohibited at the transfer station. The County relies upon private C&D landfills for disposal of this type solid waste. Currently only one private facility is open to the general public. Two private C&D landfills receive waste from their own operations and a third facility accepts C&D waste at a C&D transfer station on a limited contractual basis. The County will continue to monitor C&D landfill activity and capacity and will take the necessary steps to provide disposal of this segment of the waste stream, should the private sector no longer supply this service.

The County regulates private C&D facilities with requirements based upon site specific conditions, including ground water monitoring and reporting of amounts of debris recycled and disposed.

Household Hazardous Waste (HHW)

Alachua County Environmental Protection Department operates a HHW collection and processing center, located at the Leveda Brown Environmental Park. **Map 1.** The waste is placed in bulk containers and either recycled or disposed in appropriate hazardous waste disposal facilities. The center includes a reuse area for items such as household pesticides, waxes, polishes, fluids and solvents. Paint is processed and given to charitable organizations and private, not-for-profit agencies. The center also collects HHW from the five rural collection centers.

New River Regional Landfill

New River Landfill is located on S.R. 16, near the State Correctional Facility at Starke and is owned and operated by the New River Solid Waste Association. The Association is a consortium of Bradford, Baker and Union Counties. The board of directors is comprised of two county commissioners from each county. Day to day operations are managed by an executive director.

New River policy for accepting out-of-region waste requires there to be 25 years remaining capacity for the three participating counties in addition to any out-of-region waste. Based upon current waste generation projections, that point will be reached at approximately the same time as the end of term (October, 2008) for the interlocal agreement for solid waste disposal between New River and Alachua County. New River is seeking to acquire an additional 300 acres from the State Department of Corrections. If they are successful, New River will have an additional 50 years of capacity. New River has indicated that if they obtain the additional property, they will entertain extending the interlocal agreement with Alachua County. (New River and Alachua County staff are currently working on the terms of an extension.) If not, Alachua County will need to explore disposal options at other regional landfills.

Facility Capacity Analysis by Geographic Service Area

As Table 1 shows, the Leveda Brown Environmental Park and transfer station should have adequate capacity to serve both Alachua and Gilchrist Counties well beyond 2022. Space

limitations at the environmental park will not permit expansion of the transfer station to accommodate more than the design capacity. Should out-of-county disposal remain the county's objective when the transfer station nears capacity, the county should consider building another transfer station, perhaps south of Gainesville, to accommodate growth in that area. A second disposal location may also be advisable. Another option would be to acquire more land adjacent to the park, if available at the time, and construct a second facility there.

The transfer station and other structures within the park are of high quality and are expected to last a minimum of thirty years. The capital cost of the buildings at the facility are amortized over thirty years.

The primary affect on facility capacity is availability of disposal capacity at regional disposal facilities that lie within reasonable distance from the transfer station. There are a number of other regional landfills within reasonable transportation distance. An economic analysis of these options would weigh travel distance and tipping fees at the receiving facility. Greater distances will increase operating costs which may be offset by smaller tipping fees.

In addition to out of county disposal in regional landfills, the County has acquired a 1,600 acre parcel of land known as Balu Forest. Approximately 740 acres of that land is designated as a future solid waste management facility site, should the need arise and no other environmentally acceptable option be found. In the interim, Balu Forest is being managed as an longleaf pine flatwoods natural area.

Table 1

TABLE 2
ALACHUA COUNTY SOLID WASTE
COLLECTION AND RECYCLING
(January 1, 2000 - December 31, 2000)

| Materials Type | Collected Tons | Percent Total Tons | Pounds per Capita per Day | Recycled Tons | | | Percent Recycled |
|----------------------------|----------------|--------------------|---------------------------|---------------|---------|--------|------------------|
| | | | | Public | Private | Total | |
| 1. Minimum 5 Materials | | | | | | | |
| a. Newspaper | 12,043 | 6 | 0.30 | 3,043 | 3,005 | 6,048 | 50 |
| b. Glass | 4,014 | 2 | 0.10 | 2,601 | 1,123 | 3,724 | 93 |
| c. Aluminum cans | 2,007 | 1 | 0.05 | 92 | 405 | 497 | 25 |
| d. Plastic bottles | 2,007 | 1 | 0.05 | 381 | 172 | 553 | 28 |
| e. Steel cans | 2,007 | 1 | 0.05 | 179 | 123 | 302 | 15 |
| 2. Special Waste Materials | | | | | | | |
| a. C&D debris | 48,170 | 24 | 1.21 | 0 | 352 | 352 | 1 |
| b. Yard trash | 26,092 | 13 | 0.66 | 7,426 | 5,599 | 13,025 | 50 |
| c. White goods | 4,014 | 2 | 0.10 | 2,219 | 0 | 2,219 | 55 |
| d. Tires | 4,014 | 2 | 0.10 | 778 | 1,430 | 2,208 | 55 |
| e. Process fuel | NA | NA | NA | | | 0 | 0 |
| 3. Other Waste Materials | | | | | | | |
| a. Other plastics | 14,050 | 7 | 0.35 | 0 | 87 | 87 | 1 |
| b. Ferrous metals | 14,050 | 7 | 0.35 | 12 | 11,636 | 11,648 | 83 |
| c. Non-ferrous metals | 2,007 | 1 | 0.05 | 0 | 1,582 | 1,582 | 79 |
| d. Corrugated paper | 18,064 | 9 | 0.45 | 3,104 | 7,329 | 10,433 | 58 |
| e. Office paper | 6,021 | 3 | 0.15 | 0 | 2,051 | 2,051 | 34 |
| f. Other paper | 18,064 | 9 | 0.45 | 1,678 | 244 | 1,922 | 11 |
| g. Food | 6,021 | 3 | 0.15 | 312 | 251 | 563 | 9 |
| h. Textiles | 4,014 | 2 | 0.10 | 0 | 186 | 186 | 5 |
| i. Miscellaneous | 14,050 | 7 | 0.35 | 196 | 649 | 845 | 6 |
| 4. County Totals | 200,709 | 100.00 | 5.05 | 22,021 | 36,224 | 58,245 | 29 |

Source: Florida Department of Environmental Protection, Certified Recyclers Report

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