

# STRATEGIES TO ENHANCING RECYCLING PARTICIPATION AT MULTIFAMILY PROPERTIES

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## ABSTRACT

In Gainesville, Florida waste generated from multifamily properties represents a significant portion of the solid waste stream. Since the inception of a Mandatory Commercial Recycling Ordinance in 1996, the City of Gainesville Solid Waste Division has tried several strategies to increase recycling participation and the overall tonnage of recovered materials collected from multifamily properties. Implementation of the strategies discussed in this paper resulted in the City raising compliance rates 46% and increasing the annual tonnage of recovered materials collected by 300 tons from 1997 to 2003.

## INTRODUCTION

Achieving and maintaining a successful recycling program at multifamily properties can be difficult for any community, but add in more than 40,000 college-age residents and the task can become overwhelming. Gainesville, Florida is home to not only to the University of Florida, but also to Santa Fe Community College, one of the state's largest community colleges. Nearly half of all Gainesville apartment units are occupied by residents between the ages of 18 and 24. Currently, there are approximately 300 multifamily properties with over 23,000 units located in the City with those numbers growing daily.

The City of Gainesville Solid Waste Division has long been committed to reducing waste and increasing recycling. Gainesville's residential recycling program is now in its tenth year and growing stronger. However, achieving higher levels of recycling participation at multifamily properties has required persistence and originality by the Solid Waste Division.

## BACKGROUND

In November 1996, a Mandatory Commercial Recycling Ordinance (Section 27-85 of the City's Code of Ordinances) was approved by the City of Gainesville Commission. The Mandatory Commercial Recycling Ordinance (MCRO) officially went into effect on January 1, 1997. Section B of the MCRO states that "*All commercially-collected residential units shall establish a recycling program that includes recycling of all designated recyclable materials and is convenient and accessible to residents.*" At that time, old newspapers and used aluminum cans were established as the designated recyclable materials for commercially-collected properties.

A public education and data gathering period was planned for the first year after the inception of the MCRO. This first year consisted of gathering information on the MCRO to multifamily property managers and owners by media usage, mail outs and personal contacts. Also, a database of all commercial properties, including multifamily properties, was put together by the Solid Waste Division staff. The database included not only information on the name, address, and phone number of each multifamily property, but also the number of units, name of solid waste service provider, type of recycling service received, and date of last inspection of the property.

Unfortunately, no enforcement or penalty procedures were established with the passage of the MCRO in 1996. This left Solid Waste Division staff with the responsibility to develop procedures for reaching compliance on a case-by-case basis. Without a standard protocol for enforcement, establishing compliance with the MCRO proved a slow process for the first three years of the program. Over time, a standardized citation letter printed for each individual property not in compliance with the MCRO developed into a "Violation Warning Notice" form that is in use today.

Private collection service providers operate under non-exclusive franchise agreement with the City of Gainesville to provide solid waste collection services to commercial

properties. All multifamily properties in Gainesville receive collection services by private firms. As of December 2004, three firms are providing commercial collection service for multifamily properties in Gainesville, but as many as five separate firms have provided the service in the past.

## **REACHING COMPLIANCE**

In 1999, the City of Gainesville Solid Waste Division set two goals to enhance recycling at multifamily properties. The first goal was to achieve a 90% level of compliance with the MCRO. To achieve this goal, the Solid Waste Division staff worked cooperatively with property managers and owners. Every effort was made to avoid establishing a confrontational relationship with commercial properties. Issuing numerous violation notices and sanctions would have only served to deteriorate efforts to form long-term relationships with property owners and management. To help achieve this goal, Solid Waste Division staff became active members in the local apartment association. This enabled staff to gain familiarity with property managers in a neutral environment where information could more easily be shared and accepted. Also, staff was better equipped to understand the difficulties of being a property manager in a college town. This pleasant working relationship went a long way in persuading property owners and managers into compliance.

The largest multifamily properties were targeted first for inspection. As the inspections of the larger properties where nearing completion, medium and then smaller sized properties were inspected. Each inspection consists of an on-site visit of the property to determine if recycling containers are in place, properly labeled and accessible to tenants. If the property is determined to be in non-compliance, then the property manager on-duty is given a "Violation Warning Notice" giving them a set period (usually 30 days) to fix the problem and achieve compliance with the MCRO. Often no manager or staff is located on-site for the medium and smaller size properties. In these instances, property research is conducted to determine the owners or management company and then the "Violation Warning Notice" is mailed (via Certified Mail) to that individual or company. Currently, property inspections and re-inspections occur randomly, annually and as complaints are received.

## **INCREASE RECYCLING TONNAGE**

The second goal set by the Solid Waste Division was to increase the tonnage of recovered material collected from the solid waste stream generated at multifamily

properties by 10 percent each year. Having more properties in compliance with the MCRO significantly impacted in this effort, but compliance alone was not going to increase the amount of recycling material collected. Container improvements (labeling, placement & selection), tenant education programs, contamination reports and establishing new franchise recycling goals all contributed to increasing the amount of recovered material collected.

## **CONTAINER LABELING**

Proper labeling of recycling containers has proven to be a vital component in a successful recycling program. Without correctly marked or labeled containers, tenants, apartment property staff, and even the recycling collectors can be left in the dark as to what recovered materials belong or don't belong in the containers. Furthermore, properly labeling bins can increase the visibility of the recycling program; thus, encouraging even more recycling participation.

The first wave of inspections revealed that almost every property had at least one or more recycling containers that were poorly marked. Labels were often faded, illegible, peeling off or absent all together. At first, all container marking problems were reported to the individual hauling company providing service for the property for re-labeling. This method did not prove very effective for two reasons. First, labeling recycling bins and recycling roll-off containers was not a high priority item for the hauling companies, which resulted in lengthy delays in getting the containers labeled. Second, this method required properties to be inspected a second or third time and repeated phone calls to make sure the hauler had completed the task of labeling the containers.

A more productive method to handle poorly labeled containers was to simply have a supply of various recycling and "No Garbage" stickers on-hand in the inspection vehicle. This way the identification problem was solved immediately and productive recycling practices could begin at once. This required only a small outlay of funds for recycling stickers by the Solid Waste Division.

Presently, the Solid Waste Division staff makes a strong effort to reach newly placed recycling containers as soon as possible to ensure that the containers are labeled correctly upon arrival. The necessity of properly labeled recycling containers cannot be stressed enough. A multifamily property's recycling program is incapable of succeeding if the users are unable to identify how to abide by the recycling protocols.

## CONTAINER LOCATION

The placement and location of recycling bins or recycling stations on a property is critical in the success of a program. If the recycling containers are placed in the location on the property where nobody ever goes, then tenants will likely be unwilling to make the effort to recycle. Recycling containers must be placed at least as close as the nearest dumpster to the majority of the units on the property.

There is often a debate whether it is better to have recycling containers placed right next to garbage containers or whether it is better to have a separate area exclusively for the recycling bins. Generally, our experience has shown that a recycling collection station near a garbage dumpster area, but not abutting the dumpster, has proven to be effective in minimizing contamination and maximizing recycling tonnage. Every multifamily property is different and placement of the recycling bins may require some trial and error.

## CONTAINER SELECTION

The selection of the type of container used to collect recycling can have a significant impact on the level of success of a multifamily recycling program. Space availability is often a factor in selecting the containers to be used. Many properties have ample space on their property to place one or even two 40-yard, side loading, recycling roll-off containers. For other properties, allowing enough space for even a couple 90-gallon carts can prove difficult. Additionally, certain container types may achieve lower contamination rates than other containers types used.

A majority (over 85%) of the multifamily properties in Gainesville use 90-gallon wheeled carts for collecting recyclables. The 90-gallon carts are very popular due to their low square footage requirements, automatic loading compatibility, and their relatively low contamination rates. The remaining properties either use compartmentalized roll-off containers or a "blue bag" system where recyclables are collected at or near the apartment doorstep.

From 1999 to 2001, the Solid Waste Division worked with haulers to phase out the use of converted dumpsters for the collection of recyclables (bottles & cans) at multifamily properties. These containers have shown to produce two substantial problems. First, the converted dumpsters produced very high contamination levels. Generally, if it looked like a dumpster or smelled like a dumpster, then tenants treated it like a dumpster. Second, the converted dumpsters could easily be dumped

as regular garbage. Replacing these containers assisted in increased recycling participation levels.

## TENANT EDUCATION

A principal impediment to increasing recycling participation at multifamily properties is the lack of incentives for tenants to recycle. Multifamily properties, unlike volume-based residential services, allow essentially unlimited garbage disposal. Tenants have no real financial incentive to reduce waste generation levels. The property management and owners have a financial incentive to reduce their solid waste disposal costs, but tenants pay a fixed amount in their rent whether the waste amount goes up or down. The "trickle-down" theory of rent stabilization is just not powerful enough to encourage tenants to recycle, especially when they are likely to be relocating within a year or less.

With unlimited garbage disposal it has been a real challenge to find incentives to encourage tenants to recycle. Public Education was used as the primary tool to encourage multifamily property tenants to recycle. Multifamily tenant education programs focused on the simplicity of recycling in promotions such as "Recycling is as Easy as 1,2,3." Tenant education programs also utilized environmental messages that pointed out the environmental importance of recycling. Ads in student newspapers, movie slides and involvement at on-campus fairs have been used to get information to tenants. Flyers and door-hangers have also been used to increase recycling awareness. Currently, a pilot program using information magnets is being tested out at selected properties.

Another obstacle to recycling education in Gainesville is the high tenant turnover rate. Due to the high student population, Gainesville has an annual turnover rate of approximately 30% to 50% at multifamily communities. Thus, educating tenants on the location and operation of the recycling program at apartment communities has been an on going battle. Even though a tenant may simply move to another Gainesville property, the recycling program at the new property will likely vary from previous property. Almost no two properties have identical recycling programs.

Starting in the summer of 2000, the Solid Waste Division decided to homogenize the appearance of recycling programs has assisted in overcoming the high turnover rates. By placing generic green and white "Recycle Here" and "Recycle" labels with the recycling logo on the carts, the recycling programs were more visible to the tenants. Therefore, using similar markings and stickers on recycling containers, tenants were now more easily able to locate the recycling containers when changing residences.

## CONTAMINATION REPORTS

Identifying contamination problems at properties is often difficult. Multifamily property inspections are only a fraction of a single staff member's duties. It just was not realistic to be able to inspect every cart each week prior to collection to check for contamination. To overcome this problem, an existing ordinance requiring daily reports from the collection firms was enforced. In addition to reporting garbage related problems, each collection firm was required to submit a daily report of any recycling contamination problems they observed on their daily routes. These reports have greatly assisted in identifying contamination problems. Solid Waste Division staff were now able to take immediate action on reported problems and attempt to prevent any recurrence of the contamination.

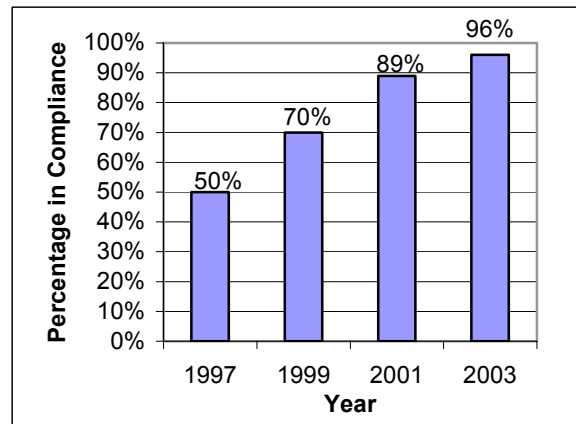
## FRANCHISE RECYCLING GOALS

In addition to public education, new recycling goals for the waste collectors were adopted by the City of Gainesville in September of 1999. Waste collectors were required to meet increasingly higher annual commercial recycling goals based on percent the participation and percent of waste recycled by a set date. Penalties for not achieving the recycling goals by the set dates included financial penalties and possible franchise suspension. The new goals assisted in bringing recycling to the forefront of discussions and yielding commitment from the collection companies to improve recycling participation. While only one private hauling firm has achieved the actual levels set forth in the goals, drastic improvements by the other hauling firms are encouraging.

## MEASURING EFFECTIVENESS OF PROGRAM

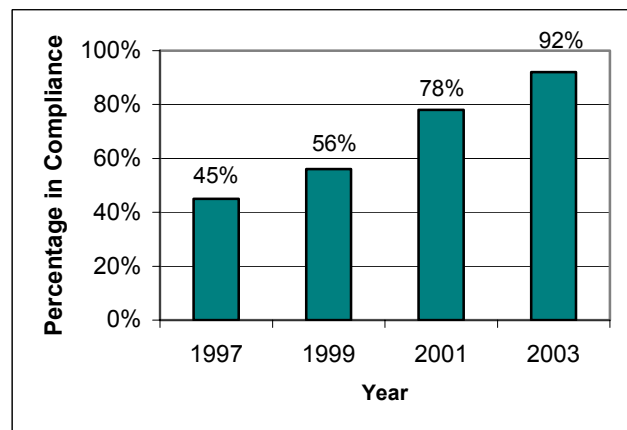
As measured by the extent to which the program meets the goals set forth, the Solid Waste Division has achieved the first goal of compliance with the MCRO.

As shown in **Figure 1** and **Figure 2** there was a steady rise in compliance with the MCRO from 1997 to 2003. **Figure 1** shows the rise in compliance based on the total number of multifamily units for every other year from 1997 to 2003. One multifamily unit consisted of anywhere from a one-bedroom studio occupied by a single resident to a four-bedroom apartment shared by four adult tenants.



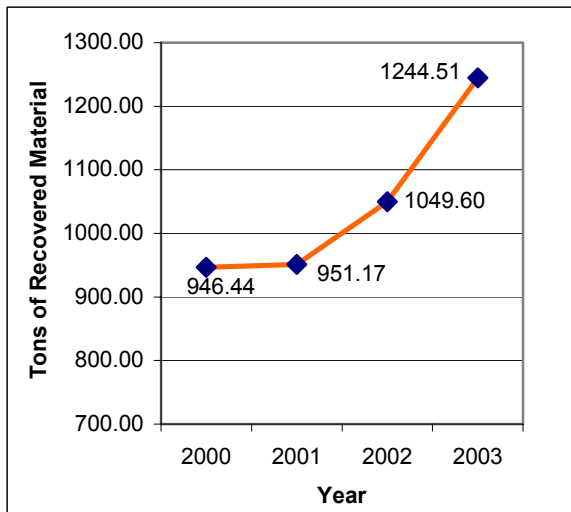
**Figure 1. Percent of the Total Number of Multifamily Units in Compliance with MCRO from 1997 to 2003.**

**Figure 2** shows the rise in compliance based on the total number of multifamily properties for every other year from 1997 to 2003. A single multifamily property ranged from five units per property to a many as 360 units per property.



**Figure 2. Percent of Total Number of Multifamily Properties in Compliance with MCRO from 1997 to 2003.**

The second goal, to increase the tonnage of recovered materials collected by 10% a year, was achieved for the years between 2001 and 2003. As shown in **Figure 3**, the total tonnage of recovered materials collected from multifamily properties did not increase appreciably between 2001 and 2003. However, it should be noted that accurate reporting and recording of recycling data from multifamily properties only began in 2000. The slow start indicates that it took time to gain some momentum. In contrast, **Figure 3** shows a 10.3% and 18.6% increase for the years 2002 and 2003, respectively.



**Figure 3. Estimated Amount of Recovered Material Collected from Multifamily Properties from 2000 to 2003.**

A share of the boost in recycling tonnage (18.6%) between 2002 and 2003 can also be attributed to the annexation of approximated 20 large multifamily properties into the City of Gainesville in October of 2001. However, many of these properties had little or no recycling programs until after they were annexed into the City. By the start of 2002, the majority of the annexed properties were in compliance with the MCRO.

Ideally, the diversion rate would have been preferable in measuring the effectiveness of the program. However, garbage tonnages collected from multifamily properties are not reported separately from the total amount of garbage collected from all commercial customers. Thus, calculating a diversion rate for multifamily properties only was not possible with the given data. Unfortunately, Gainesville is not a large enough community for the private hauling firms to dedicate garbage collection routes exclusively to collecting multifamily properties.

### SUMMARY

The rise in compliance and tonnage were the result of several factors:

- Increased number of inspection and dedication of staff;
- Streamlining citation procedures;
- Increased visibility of recycling containers;
- Better placement of recycling bins;
- Focused tenant education messages;
- Improved contamination reporting;

- Stronger dedication to recycling collection from hauling companies (due primarily to the franchise goals established in 1999); and
- Greater cooperation from apartment property owners and managers.

### CONCLUSION

While the Solid Waste Division recycling goals were achieved, there is still substantially more diversion to be accomplished. The amount of recovered material currently being collected only represents the “tip of the iceberg” of the total amount of potential recovered materials that could be collected. New pilot programs and enhancements to the City’s Mandatory Commercial Recycling Ordinance are on the drawing board to seek even high levels of recycling participation at multifamily properties.