

Florida Department of Environmental Protection  
**Hotel/Motel Waste Reduction Project  
Final Report**

**October 1997 - September 1998**

This information was compiled and written by Matina Wagner  
as a part of the Florida Hotel/Motel Waste Reduction Project



Printed on recycled paper, of course!

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## **ACKNOWLEDGEMENTS**

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Dick Burns, FDEP Pollution Prevention Program  
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Larry Dingman, Amelia Island Plantation  
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Michael Gush, Comfort Suites Maingate  
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## **1.0 Project Description**

During the past twelve months, staff has worked with representatives from the Florida Hotel/Motel Association, local recycling coordinators, solid waste management professionals, the University of Florida's Energy Extension Office, and several volunteer hotel properties to collect, study, and communicate information about waste reduction efforts in the lodging industry. There is still much to do and help is needed to spread the word and encourage this important industry to practice proactive waste reduction.

## 2.0 Overview

Waste prevention is a reduction in the amount and/or toxicity of materials entering the waste stream prior to recycling, treatment, or disposal. It is a strategy which calls for consumers to think first before buying any material or service, evaluating practices and products not only on price and quality but also on durability, reusability, recyclability, and content. It may mean changing the way things are done or how a product is packaged. Waste prevention is a resource management technique that can save industry money while helping the environment. Waste management is a growing issue throughout the world. In Florida, despite aggressive waste management programs and a statewide recycling rate of 40%, over 10 million tons of garbage is still landfilled in Florida annually.

The Florida Department of Environmental Protection wants to encourage the Florida Hotel/Motel Industry to become more knowledgeable and involved in recycling and waste reduction programs. Florida's tourism industries serve an estimated 44 million visitors annually. Over 50% of these visitors are hotel guests during some or all of their vacations. The waste generated by these guests constitutes a large portion of the State's commercial waste stream.

In 1993, the University of Florida Energy Extension Service developed and distributed a kit entitled Managing Wastes in Hotels/Motels. However, the impacts of this project were never determined and currently there is still only minimal information on waste reduction in Florida's Hotel/Motel businesses. In addition, although there is a variety of hotel/motel waste reduction information available nationwide through local and state programs, Florida's Lodging Industry does not have a central source for these materials.

In spring 1997 Ray Moreau, Manager of the Waste Reduction Section, started formulating a plan to attack some of these concerns. He applied to Region IV of the United States Environmental Protection Agency for project funding. In October 1997, EPA granted approximately \$30,000 to initiate the Hotel/Motel Waste Reduction Project. In October 1997, Matina Wagner, was hired part-time to coordinate the project. The project goals (section 2.0) and the project schedule (section 3.0) were mapped out and agreed upon.

FDEP partnered with the Florida Hotel Motel Association to locate candidate properties in the Large (over 400 rooms), Medium (101 to 399 rooms), and Small (up to 100 rooms) categories. The three property's chosen were Amelia Island Plantation in Nassau County, Comfort Suites Maingate in Osceola County, and the Bahama House in Volusia County. These properties were chosen for their dedication to continuous improvement.

Next, an Advisory Group was created, made up of Hotel Representatives, County Recycling Coordinators, Energy Extension Service personnel, FDEP Waste Reduction and Pollution Prevention staff members, Industry Representatives. This advisory group served as a sounding board for reviewing systems, processes, materials, as well as a source for ideas and problem solving.

The Advisory Group reviewed the Managing Wastes in Hotels/Motels kit and made recommendations for updates/improvements. The product of these recommendations is a rewritten copy of the original workbook. In addition, discussions were held with the Florida Energy Extension Service and a plan was formulated for continuous education of the Lodging Industry on resource conservation issues. Pierce Jones of the University of Florida Energy Extension Office continues to seek funding for this project.

The initial audits were performed during the week of December 19, 1997. During these audits, all areas of the three properties were scrutinized. Purchasing, inventory and solid waste/recycling records were reviewed. Staff was interviewed from each area of the hotel by a panel. This panel included the local Advisory Group members, Waste Reduction and Pollution Prevention staff. Next a walk-through of each area of the hotels was performed.

The results of these intensive audits were a set of recommendations for each property broken into specific operating areas, which were distributed in January. Implementation of the recommendations was tracked closely for the next six months. During this period solid waste and recycling generation data was collected. This information is available in the appendix of this report.

As anticipated, the largest and oldest of the three properties, Amelia Island Plantation, had the most opportunities for waste reduction. The smallest facility, the Bahama House, had fewer challenges. The medium sized Comfort Suites Maingate, had only recently been constructed and had built in many of the industry's latest waste reduction innovations.

### **3.0 Project Goals**

#### Goal 1

Refocus and update Florida's past hotel/motel waste reduction efforts, services, and products.

#### Goal 2

Conduct demonstration hotel/motel waste reduction audits on three select properties (small, medium, large).

#### Goal 3

Measure waste stream reduction in the three pilot properties during the grant period to demonstrate the viability and economics of hotel/motel waste reduction in Florida.

#### Goal 4

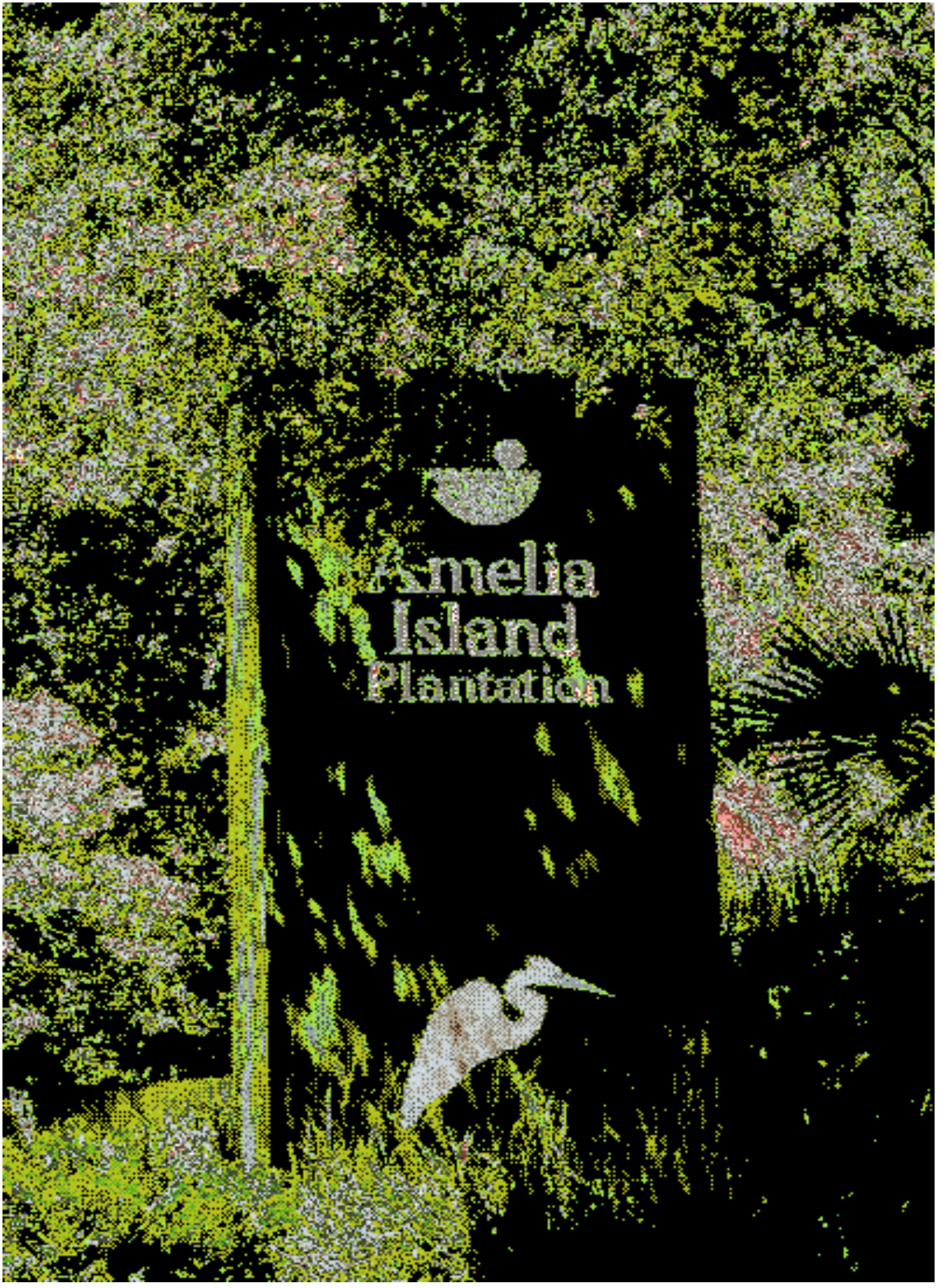
Evaluate, report, and communicate findings on the impact of waste reduction demonstration projects to the Florida hotel/motel and solid waste interests.

#### Goal 5

Develop and update informational resources (newsletter, information sheets, work book, etc.)

## **5.0 Profile of Properties Selected for Pilot Project**

The Florida Hotel/Motel Association made recommendations for hotels that would fit the categories and had demonstrated a progressive management style. In addition to the candidate hotels, the FHMA also suggested several environmentally award-winning properties to act as possible mentors for the project. The FDEP team reviewed the recommendations as well as their geographic locations. After phone interviews, three properties were chosen: Large category - Amelia Island Plantation, medium category – Comfort Suites Maingate, small category – The Bahama House. The properties chosen for the project exhibited enthusiasm and willingness to participate in the year long project. Each property assigned one or more staff representatives to the project.



## 5.1 Amelia Island Plantation

This facility, selected to represent the large property category, is located on Amelia Island just off the northeast coast of Florida. Amelia Island is in Nassau County and the closest Solid Waste Management Facilities are over forty-five miles away in Callahan. Robert McIntyre, Nassau County's Solid Waste Director, served on the project advisory board and assisted throughout this project. The management at Amelia Island Plantation assigned Carol Morris, Director of Training & Development, and Larry Dingman, Manager of Landscape Services, to represent them and serve on the project advisory board.

Amelia Island Plantation has overcome many challenges to become a leader in the waste prevention effort. This Sterling Award winning resort has 700 accommodations, five restaurants, more than 50,000 square feet of meeting space, and three golf courses. The staff at Amelia Island Plantation has made a commitment to the environment, which is evident in their proactive waste reduction and recycling program as well as their interactive guest and employee environmental initiatives. With a staff of more than 1000, the resort, which is spread over 1350 acres, has been evolving for more than twenty years. As a result, communication is a key issue.

The "Green Team" which is made up of representatives from many of the 38 departments, oversees the environmental programs. They meet monthly and spread the word about program changes and results via the employee newsletter, *The Seabreeze*. The staff currently recycles office paper, cardboard, newspaper, magazines, telephone books, aluminum cans, scrap metal, and yard waste. Landscape waste is also being mulched and used as groundcover.

During the project Amelia Island Plantation addressed waste reduction issues ranging from food & beverage, inventory management, purchasing, housekeeping, maintenance, documentation, communication, and training. Implementing forty-four of the fifty-seven recommendations, Amelia Island has improved their documentation procedures and increased their purchase of recovered materials. They have held two employee educational events. The first, a day long Awareness Fair and the other a Hazardous Waste Awareness Workshop. Both events were well attended and participants were very enthusiastic about the information they received. In addition, they have recycled tons of archived files, purged the deadstock from the warehouse, and held a public sale for items that were no longer needed or donated them to local charities.

## **5.2 Comfort Suites Maingate, Kissimmee**

This facility, selected to represent the medium property category, is located in Kissimmee, on U.S. Highway 192 just south of the Walt Disney World Resort Complex. Kissimmee is located in Osceola County and the nearest accessible Solid Waste Management Facilities are less than fifteen miles away but the drive on an average day can take forty five minutes. Danny Scheaffer, Osceola County Recycling Coordinator served on the project advisory board and assisted throughout this project. The management at Comfort Suites Maingate assigned Mike Gush, Assistant Hotel Manager to represent them and serve on the project advisory board.

The Comfort Suites Maingate opened in the fall of 1997 and is fortunate to have many conservation devices and amenities built into its operation. This hotel is a three-story hotel with 250 guestrooms and two small food & beverage locations. A staff of 150 works round the clock shifts, therefore consistent communication is an important factor. The staff currently collects cardboard from the kitchen area, aluminum cans, and plastic six pack rings for recycling.

During the project Comfort Suites Maingate addressed waste reduction issues ranging from food & beverage, purchasing, housekeeping, maintenance, documentation, communication, and training. They have instituted an employee newsletter, including waste reduction information in their staff meetings and employee orientation. Implementing twenty three of the twenty six recommendations, Comfort Suites now has an in-room recycling program, started purchasing recovered materials, improved their training for hazardous waste handling, and is providing ongoing education for their staff on waste reduction issues.

### **5.3 Bahama House, Daytona Beach Shores**

This facility, selected to represent the small property category, is located just south of Daytona Beach. Daytona Beach Shores is in Volusia County, which has a mandatory recycling ordinance. The closest Solid Waste Management Facilities are over twenty miles away in Daytona. Margaret Hodge, Volusia County's Recycling Coordinator served on the project advisory board. The property owner, Oceans Eleven, assigned Libby Gallant, the Hotel's General Manager to represent them and serve on the project advisory board.

Bahama House is a three-year-old high rise hotel on the beach with eighty-seven rooms. With an enthusiastic management staff and less than fifty employees, word spreads quickly. Education has been accomplished by using a staff newsletter, employee orientation, postings on the communication boards, and through regular staff meetings. The employees actively support the waste reduction program and have been very proactive with implementing their ideas. A neighboring environmentally award winning sister property, the Treasure Island Inn, has also mentored this hotel. Bob Davis, Treasurer Island's General Manager has also served on the Project's Advisory Group.

Each guestroom sports a separate recycling container. Cardboard is taken to the Inn for baling while a local vendor picks up commingled recyclables (aluminum/steel cans, plastic/glass bottles, news/office paper). Telephone books are taken to the community drop-off center, old linens and towels are turned into rags, and along with five gallon buckets are reused internally. Bibles are donated to a religious organization. Pool furniture and appliances are repaired or donated. Scrap Metal is collected and taken to a local scrap dealer. Eco-purchasing has become a standard practice, and employee policies are in place to cover everything from handling hazardous waste to procurement of recovered materials. By reducing the waste set out for disposal, Bahama House has been able to reduce their solid waste services and document their savings.

During the project Bahama House addressed waste reduction issues ranging from food & beverage, purchasing, housekeeping, maintenance, documentation, communication, and training. They have instituted a flyer for guest education and include the results of their waste reduction program in routine staff meetings. Implementing sixteen of the twenty two recommendations, Bahama House has begun a buy recycled campaign, which included a notice to all vendors that they were a green property and requesting input on alternative products. They are making a concentrated effort and require justification for any product, which is not environmentally superior.

## 6.0 Findings

Although this study was limited to three hotels there are still some general assumptions that can be made. All three of the properties are progressively managed and actively supported this project, which is the first step in implementing a successful waste reduction project. However, there were issues that were common challenges in all three locations.

*Accessibility to informed assistance.* The representatives admitted needing outside help to research, analyze, and the monitor waste reduction initiatives. Each of the representatives had other management duties and waste reduction was an additional duty that was piled onto their already full plates. Many waste management issues and practices are area and facility specific, therefore there is an ongoing need for preventative inspections by an outside authority. In addition, the hotel representatives seemed to dread contacting waste haulers to negotiate right sizing containers and correcting collection frequencies. Dumpster contracts and collection charges were not well understood and all three properties were picked up on a routine schedule rather than as needed which created at least some unnecessary charges. Volume and compaction considerations had not been considered when sizing or locating waste containers. In addition, the location of property may limit service choices and options.

*The absence of "green" purchasing practices both in products and services.* At the start of the project, there were no standardized policies that gave preference to products manufactured from recovered materials or required life cycle costing. Purchasing agents were not scrutinizing disposal contracts or trying to find the most environmentally sensitive or alternative products to minimize packaging or waste. Implementing eco-purchasing programs in hotels will require major paradigm shifts for managers and purchasing agents.

*Lack of continuous educational opportunities.* Although there is a need for proper handling and material control, especially with special or hazardous wastes, there is no on-going training program for Lodging Professionals on waste reduction issues available within a reasonable geographic distance. This project uncovered problems with the management of both liquid and solid waste, some of which was considered hazardous. One hotel was stockpiling material because they didn't know what to do with them and when they tried to get information from their local authorities it was confusing and contrary. Hotels need to have regular training on materials/inventory management, including purchasing, handling, storage, disposal, and documentation.

*Minimal feedback or education for employees or guests.* In addition, at the onset of the project, each of the hotels had very little consistent employee and guest education or feedback of waste reduction initiatives or their benefits. As soon as the employees and guests were informed about the programs and their benefits, both the volume and quality of recovered materials increased. In addition, awareness of safety issues concerning waste handling has been proven to reduce both liability and disposal costs. It is a fact that hotels have notoriously high staff turnover and to maintain quality, employee education must be both consistent and constant.

*No established industry standards for documenting the value of waste reduction activities.* Materials were disposed of with no thought to economic or environmental impact. There was no central authority for disposal decisions or information. At Bahama House, the general manager realized economic savings after delegating ownership of the solid waste budget to the supervision of an operating area. Further, evaluation of the disposal charges, demonstrated that the closer the waste generation was monitored, the less the hotels cost for disposal. In addition, during the project, all three hotels donated at least some of their unneeded furniture and or equipment to local charities and are eligible to receive tax write-off benefits. The documentation of these successes not only helps to maintain management's interest in the waste reduction efforts but can justify the operational expenses for a proactive waste management program.

## **7.0 Summary**

This grant project scratched the surface of an important issue. It demonstrated that with ongoing advisory assistance, the lodging industry could implement waste reduction programs that achieve results both in minimizing waste and reducing costs. Without a mentoring force though, these programs may fall by the wayside. Waste reduction will take a back seat to the more important business of guest service and hotel operations.

Currently the three pilot hotels have a good general knowledge of waste reduction activities in their industry. The management in the functional areas of each of these properties is now also familiar with the initiatives in their respective areas. There is a high level of support and wide spread enthusiasm for this project. The representatives all agree that as the grant period ends and the information stream dries to a trickle there will be less management emphasis on “waste watching” and this support will fade.

The next steps in the area of hotel/motel waste reduction include:

- Establishing a preventative audit process and long term monitoring at low or no cost to hotel properties
- Coordinating with the University of Florida to create Waste Reduction & Buy Recycled Workshop and training materials
- Documenting and measuring existing Florida Hotel/Motel programs
- Creating easy to access informational and educational materials for Hotel/Motel properties (Audio/Visual and written materials as well as internet accessible documents and data) and publicizing these resources.

## **REFERENCES**

The following people may be helpful in obtaining additional information on pollution prevention, regulatory and other environmental issues relevant to your business:

### **Florida Department of Environmental Protection**

#### Tallahassee Offices

Bureau of Solid & Hazardous Waste 904/488-0300  
2600 Blairstone Road 904/921-8061 fax  
Tallahassee, Florida 32399-2400

Waste Reduction Section (WRS) 904/488-0300  
2600 Blairstone Road 904/921-8061 fax  
Tallahassee, Florida 32399-2400

For additional information on recycling and waste reduction contact:-

Jaime Christoff - Recycling 850/488-0300  
CHRISTOFF\_J@DEP.STATE.FL.US

Matina Wagner - Hotel/Motel Waste Reduction Project 941/424-5646  
matina@gte.net 941/420-8050 fax

#### **Pollution Prevention Information**

For additional information on pollution prevention, see the web site at  
<http://WWW.DEP.STATE.FL.US/WASTE/PROGRAMS/P2/INDEX.HTM>  
or contact:

##### *Administration*

Julie Abcarian, Manager - Pollution Prevention Program 850/921-9227  
ABCARIAN\_J@DEP.STATE.FL.US

##### *Technical Assistance*

John Scarboro, Pollution Prevention Program 850/488-0300  
SCARBORO\_J@DEP.STATE.FL.US

Marc Harris, Pollution Prevention Program 850/921-9231  
HARRIS\_M@DEP.STATE.FL.US

Dick Burns, Pollution Prevention Program 407/295-9451  
BURNS\_R@A1@ORL1

#### **State Regulations Information**

For additional information on hazardous waste, water, and air regulations, see the web site at <http://WWW.DEQ.STATE.FL.US/> or contact:

##### *Air Quality and Regulations*

Lorraine Clark, Small Business Assistance Program 850/488-0300  
Clark\_L@DEP.STATE.FL.US

*Hazardous Waste Storage and Handling Regulations*  
Glen Perrigan, Hazardous Waste Management Section 850/488-0300  
PERRIGAN\_G@DEP.STATE.FL.US

*Used Oils Storage and Handling Regulations*  
Rick Neves, Hazardous Waste Management Section 850/488-0300  
NEVES\_R@DEP.STATE.FL.US

For additional information on hazardous waste, water, and air questions contact:

**Central District Office, Orlando**

3319 Maguire Blvd, Suite 323 407/894-7555  
Orlando, Florida 32803-3767 407/897-2966 fax

*Automotive Emissions*  
Lou Nichols, Air Section 407/893-3333  
NICHOLS\_L@ORL1.DEP.STATE.FL.US

*Air Conditional Service*  
Sheila Schneider, Air Section 407/893-3336  
SCHNEIDER\_S@ORL1.DEP.STATE.FL.US

*Hazardous Waste Storage and Handling Regulations*  
*Used Oils Storage and Handling*  
Bob Snyder, Hazardous Waste Management Section 407/893-7555  
SNYDER\_B@ORL1.DEP.STATE.FL.US

*Painting Issues*  
Pat Washington, Air Section 407/893-3333  
WASHINGTON\_P@ORL1.DEP.STATE.FL.US

**Northeast District (NED)**

7825 Baymeadows Way, Suite B200 904/448-4300  
Jacksonville, Florida 32256-7577 904/448-4366 fax

**Northeast District Branch Office, Gainesville**

Patricia Reynolds 352/333-2850  
Florida Department of Environmental Protection  
101 Northwest 75th Street, Suite 3  
Gainesville, FL 32607

## **Hotline Numbers for Additional Information**

RCRA	800/424-9346
Wetlands	800/832-7828
Storm Water (EPA Region 6)	800/245-6510
OSHA General Information	202/219-8148

### **Solid Waste Information Exchange (SWIX)**

Ray Moreau, Director  
[MOREAURL@aol.com](mailto:MOREAURL@aol.com)

850/986-6280  
850/386-4321

## **Miscellaneous Information**

### **Laser Printer Cartridge Recycling**

Ja-Mar Laser Industries

800/776-3233

### **3M Transparency Recycling**

800/952-4059

### **Tyvek Envelopes**

800/448-9835

### **Toilet Paper Saver**

Dale Lukaart

407/295-7164

### **Six Pack Ring Recycling**

ITW Hi-Cone

1140 West Bryn Mawr Avenue

Itasca, Illinois 60143

www.ringleader.com

Sandy Hammi (itwrecyc@techinter.com)

630/773-3015 fax

630/773-9330

### **Prepared/Unused Food**

Food Chain - Nation Food Rescue Network -

Prepared Food Recovery Program

Jeff Whited, Manager

800/845-3008

### **Second Harvest Food Bank of Central Florida**

2008 Brengle Avenue

Orlando, Florida 32808

Vicki Littell, Second Helpings Manager

407/295-1066

Second Harvest Food Bank - Daytona Beach

Mary Lloyd, Manager

904/257-4499

Jacksonville Area - First Coast Food Runners

Tim Davis, Manager

904/353-3663

### **Steel Can Recycling**

Steel Can Recycling Institute (SCI)

Contact: Suzette Miller

sethomason@aol.com

850/479-7208