



ORANGE COUNTY SOLID WASTE INTEGRATED RESOURCE PLAN

SUMMARY OF CURRENT SITUATION

Prepared for:
Orange County
Environmental Protection Division

Prepared by:

HDR



Your Work, *Simplified.*

March 2011

Table of Contents

	<u>Page</u>
1. Introduction	1
2. Definitions	1
3. Waste Generation	2
3.1. Target Waste Types	2
3.2. Historical Data and Projections	3
4. Current Framework and Management Practices	5
5. Regulatory and Policy Considerations	6
5.1. Existing Regulatory Considerations	6
5.2. State 75% Recycling Goal	7
5.3. Orange to Green	8
5.4. County Comprehensive Plan.....	8
6. Collection	9
7. Transfer.....	14
8. Processing/Disposal.....	14
9. End Markets.....	25
10. Summary of Findings.....	28

List of Figures

	<u>Page</u>
Figure 3-1 Orange County Landfill Class III Waste (FY 1995/96 to 2009/10).....	4
Figure 8-1 Location of Processing and Disposal Facilities	19
Figure 8-2 Typical Distribution of Recycled Material – West Orange Environmental.....	25

List of Tables

	<u>Page</u>
Table 3-1 Examples of Target Waste Types.....	3
Table 3-2 Orange County Landfill and County-Wide Class III/C&D Projections (ton/yr)	5
Table 4-1 Summary of Entities Documented.....	6
Table 6-1 Commercial Haulers and Demolition Companies	11
Table 8-1 Class III and C&D Disposal and Processing Facilities	15
Table 8-2 Origin of Waste at Pine Ridge and Vista Landfills	20

Table 8-3 Pine Ridge Recycling Data (2010)..... 21
Table 9-1 Typical New Products and Uses for Recycled Material..... 25
Table 9-2 Partial List of End-Product C&D Recycle Companies in Central Florida..... 26
Table 9-3 Typical Bulk Density and Material Pricing (2010)..... 27

Disclaimer: This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

1. Introduction

HDR Engineering, Inc. (“HDR”) was retained by Orange County (“County”) to assist with the development of a Solid Waste Integrated Resource Plan (SWIRP). The SWIRP will serve as a strategic planning tool for the management of Class III and Construction and Demolition (C&D) Debris solid waste (target waste types) that is generated within or transported into the County. As a subconsultant to HDR, EPIC Engineering & Consulting Group, LLC (“EPIC”) is responsible for documenting the current situation and system framework regarding generation and management of the target waste types. This report presents the investigations and findings regarding the current situation and system framework.

The management of solid waste typically incorporates methods to collect, transfer, reduce volume, recycle and reuse materials, and dispose of residual waste. This project addresses management of Class III and Construction and Demolition (C&D) Debris solid waste (“target waste types”) in Orange County. The overall goal of this project is to develop a Solid Waste Integrated Resource Plan (SWIRP) that will address management of these materials in a sustainable manner (including short-term and long-term planning) to minimize costs to the community and adverse impacts to the quality of life within the community, and maximize potential benefits such as economic development.

Understanding the current situation regarding waste generation and current management of these materials provides a framework for developing the SWIRP. As a result, this report documents the following information related to the target waste types:

1. Waste generation (historical and future trends), including projections for future rates of generation of these wastes.
2. Inventory of solid waste management facilities within Orange County.
3. Current management practices regarding collection, transfer, processing/disposal and end markets, as well as trends regarding source separation, reuse, recycling, conversion to energy, and disposal.

2. Definitions

The following terms and definitions may be useful for references to terms used in this report. The terms and definitions are as provided in Florida Administrative Code (FAC) Chapter 62-701, and can be found at the following website:

http://www.dep.state.fl.us/waste/quick_topics/rules/documents/62-701.pdf

(14) “Class III waste” means yard trash, construction and demolition debris, processed tires, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, or other materials approved by the Department, that are not expected to produce leachate that poses a threat to public health or the environment.

(15) “Clean debris” means any solid waste that is virtually inert, is not a pollution threat to ground water or surface waters, is not a fire hazard, and is likely to retain its physical and

chemical structure under expected conditions of disposal or use. The term includes brick, glass, ceramics, and uncontaminated concrete including embedded pipe or steel.

(24) “Construction and demolition debris” means discarded materials generally considered to be not water soluble and non-hazardous in nature, including but not limited to steel, glass, brick, concrete, asphalt material, pipe, gypsum wallboard, and lumber, from the construction or destruction of a structure as part of a construction or demolition project or from the renovation of a structure, including such debris from construction of structures at a site remote from the construction or demolition project site. The term includes rocks, soils, tree remains, trees, and other vegetative matter that normally results from land clearing or land development operations for a construction project; clean cardboard, paper, plastic, wood, and metal scraps from a construction project; except as provided in Section 403.707(9)(j), F.S., yard trash and unpainted, non-treated wood scraps from sources other than construction or demolition projects; scrap from manufacturing facilities that is the type of material generally used in construction projects and that would meet the definition of construction and demolition debris if it were generated as part of a construction or demolition project, including debris from the construction of manufactured homes and scrap shingles, wallboard, siding concrete, and similar materials from industrial or commercial facilities and de minimis amounts of other non-hazardous wastes that are generated at construction or demolition projects, provided such amounts are consistent with best management practices of the construction and demolition industries. Mixing of construction and demolition debris with other types of solid waste will cause it to be classified as other than construction and demolition debris.

3. Waste Generation

The first step in documenting the current condition is to identify the source and type of waste (i.e. target waste types) and the amount of material expected to be generated. This section uses available data from previous studies to show historical and projected target waste disposed in Orange County as well as waste generation projections for the target waste types.

3.1. Target Waste Types

Landscaping and clearing, new construction, demolition and remodeling/renovation activities are the primary sources of C&D and Class III waste. Based on information from the US EPA report titled “ESTIMATING 2003 BUILDING-RELATED CONSTRUCTION AND DEMOLITION MATERIALS AMOUNTS”, the estimated amount of building-related C&D materials generated in the U.S. during 2003 are sourced from the following generators:

- Demolition – 49%
- Renovation – 42%
- Construction – 9%

In an FDEP report titled “75% Recycling Goal Report to the Legislature”, delivered in January of 2010, it is stated that according to the county recycling reports submitted to the DEP for 2007:

- 6.1 million tons of C&D was disposed in Florida’s 75 C&D disposal sites.
- C&D constitutes 25% of Florida’s MSW waste stream or 8.2 million tons.

- Currently only 27% or 2.1 million tons of Florida’s C&D is recycled.

Although vegetative debris is part of the waste stream, it has a fairly well developed management and recycling infrastructure and market. As a result, it will be included in some parts of the discussion; however, the focus of the investigations will be on C&D type waste streams. In addition, other specialty wastes, such as tires and waste oil that already have well defined recycling programs will not be included in the investigations.

Based on the activities defined above, significant examples of target waste types for this project are listed in Table 3-1.

Table 3-1 Examples of Target Waste Types

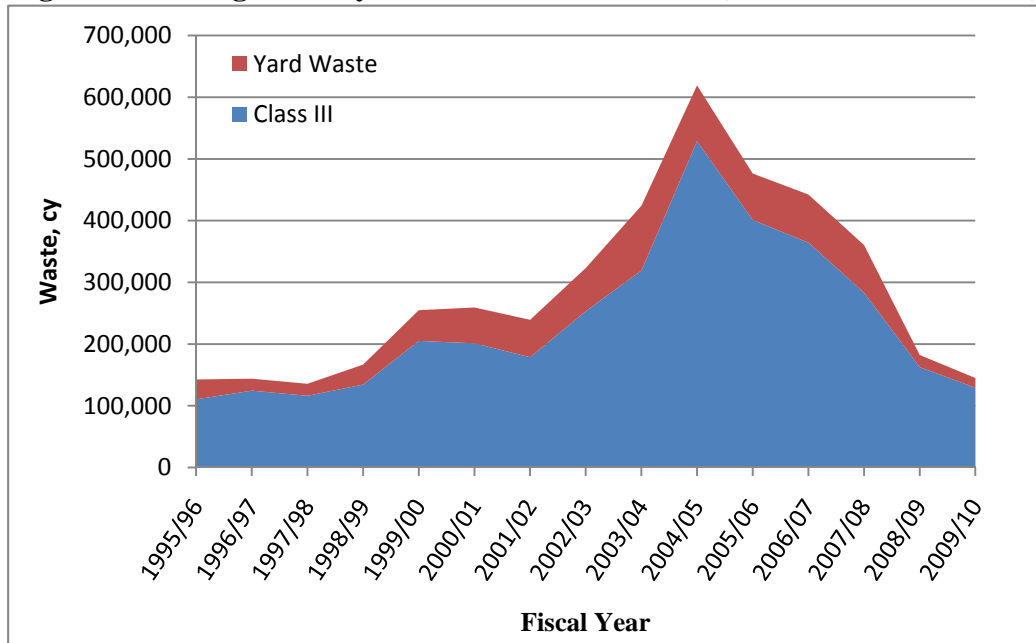
• Asphalt	• Dimensional lumber	• Roofing Material
• Brick	• Plastic Pipe	• Carpeting
• Concrete	• Ceiling tiles	• Dry Wall
• Metals	• Insulation	• Fixtures
• Dirt	• Cardboard	

3.2. Historical Data and Projections

The primary sources of information for historical waste generation and projections were the Orange County Solid Waste Division and the Final Report Solid Waste Master Plan, Orange County Solid Waste Division (SCS Engineers, January 30, 2009).

Historical Class III and C&D information is available for the Orange County Landfill. As shown on Figure 3-1, waste generation increased dramatically between 2002 and 2005, and sustained elevated levels through 2008; however, the current generation rate is similar to the generation rate in the late 1990’s. It should be noted that in late 2004 and early 2005, central Florida was hit by three hurricanes generating large amounts of disaster debris, which impacted the Class III waste tonnage shown in Figure 3-1 below.

Figure 3-1 Orange County Landfill Class III Waste (FY 1995/96 to 2009/10)



As part of the Solid Waste Master Plan (referenced above), Class III and C&D waste projections were developed for the Orange County Landfill and County-Wide. Although the final master plan document is dated 2009, the projections were developed in 2003. As a result, the projections were influenced by the significantly higher waste generation data and increasing trends observed at that time.

Current Class III and C&D waste disposal and processing is significantly lower than the amount projected – for both the Orange County Landfill and County-Wide. Information regarding Class III waste is readily available for the Orange County Landfill; consequently, it was used as a basis for further analysis and adjustment of the County-Wide data.

The actual amount of Class III waste entering the Orange County Landfill in 2010 was approximately 45% lower than the amount projected in 2003. This factor was applied to County-Wide waste amounts to estimate current County-Wide waste disposal rates. The most recent Bureau of Economic and Business Research (BEBR) medium growth rate projections for Orange County were then used to project County-Wide generation through the planning period.

Table 2-2 summarizes the projections through 2050 (both Orange County Landfill and County-Wide), and presents an adjusted projection, as well as a mid-point projection (between the 2003 projection and adjusted projection).

Table 3-2 Orange County Landfill and County-Wide Class III/C&D Projections (ton/yr)

Year	Orange County Landfill Class III Disposal			County-Wide Class III and C&D Generation		
	Actual	Projected	Annual Projected Growth Rate from Prior Period, %	Projected in 2003	Adjusted Projection	Mid-Point Between 2003 and Adjusted
2003	226,587		---		---	---
2004	319,724	256,810	---	1,255,244	---	---
2005	528,983	259,565	1.1%	1,268,709	---	---
2006	401,437	---	---	---	---	---
2007	364,549	---	---	---	---	---
2008	283,486	---	---	---	---	---
2009	162,761	---	---	---	---	---
2010	129,338	288,580	2.1%	1,413,698	633,605	---
2020	---	345,972	1.8%	1,693,229	749,900	1,221,600
2030	---	399,994	1.5%	1,955,102	870,300	1,412,700
2040	---	459,532	1.4%	2,246,112	999,800	1,623,000
2050	---	516,446	1.2%	2,524,302	1,123,600	1,824,000

Notes:

1. Final Report Solid Waste Master Plan, Orange County Solid Waste Division (SCS Engineers, January 30, 2009)
2. The difference between OCL 2010 projected and actual is 45%. This was used to adjust County-Wide projections; then the most recent BEBR medium growth rates for Orange County were used to project generation through the planning period. The most recent growth rates are very similar to the growth rates used for the 2003 projections. It should be noted that because of the available housing capacity in the County, current and short term projected housing generated waste may not necessarily track with population.
3. Average annual growth rate (2003 to 2050) is 1.8%.
4. Table 3-2 presents County-Wide waste generation. Based on information from processing/disposal facilities (See Section 7), it is estimated that in 2010 700,000 to 1,000,000 tons of Class III and C&D waste were processed at facilities in Orange County. It is difficult to accurately report County-Wide amounts due to lack of available data and inconsistency of data reporting (i.e. some facilities accept waste in cubic yards and some in tons).

As development and economic conditions return to a more typical pattern, waste generation is expected to increase as shown in Table 3-2, with the actual amount predicted to be somewhere between the projected and adjusted values.

4. Current Framework and Management Practices

Solid waste management (including recycling) can be divided into four major steps: collection, transfer, processing/disposal and end markets for recycled material. Since these steps are carried out by different industries, multiple information sources were used to develop an inventory of the various collection businesses, management facilities and end market recyclers. The information and sources included:

- Permitted commercial haulers from the Orange County Solid Waste Division.
- Facility information from the Florida Department of Environmental Protection (FDEP) Solid Waste Facility Database.
- Facility and other information from the Orange County Environmental Protection Division (OCEPD).
- Input from local haulers and facility operators.

Using these sources, an inventory was developed including location and contact information for waste haulers, demolition companies, and solid waste facilities. The entities were contacted and requested to supply general information related to their current business practices, including type and estimated quantities of material handled, recycling efforts, and interest in participating in the development of an integrated resource plan for C&D waste in Orange County. If interested in participating, contact information was obtained, including an email address for notification of upcoming workshops and dissemination of materials/information. An inventory of entities, including contact information for those interested in further participation in the development of an integrated resource plan, is provided Attachment A. Table 4-1 provides a summary of the number of and types of these entities that were documented as part of this project.

Table 4-1 Summary of Entities Documented

Entity Type	Number of Entities Documented.
Haulers	30
Demolition Companies	4
Disposal Facilities	7
Processing Facilities	13

5. Regulatory and Policy Considerations

5.1. Existing Regulatory Considerations

The County regulates haulers of C&D material through a permitting process described in Orange County's Code of Ordinances, Chapter 32 Solid Waste, Article IV Collection and Disposal. Construction and demolition debris may be disposed of in a permitted landfill. Chapter 62-701 of the Florida Administrative Code (FAC) establishes the standards for the construction, operation, and closure of solid waste management facilities to minimize their threat to the public health and the environment. This also includes reporting requirements.

On January 6, 2010, Chapter 62-701 of the FAC was amended. In general, the amendments clarified, deleted, or expanded the requirements for the design, permitting, construction, and operation of solid waste management facilities. Some of the significant changes noted in the rule amendment are related to the following: handling of chromate copper arsenate (CCA) wood defining recovered screened material (RSM); emergency preparedness and response is addressed in the operations plan; the permitted footprint can extend beyond the area needed for disposal

during a 5-year permit period; and the liner requirements for Class III landfills, as summarized below.

The amended rules specifically address CCA treated wood and requires that is shall not be incorporated into compost or made into mulch, decorative landscape chips or any other wood product that is applied as a ground cover, soil or soil amendment. The rules also includes how the CCA treated wood may be used, including ground and used as initial cover on interior slopes of lined solid waste disposal facilities. The CCA treated wood shall not be disposed of through open burning or through combustion in an air curtain incinerator. The definition of “clean wood” indicates that the presence of CCA treated wood would preclude wood waste from being classified as “clean wood”.

RSM was defined in the amended rules, and is the fines fraction (i.e., soil and other small materials) derived from the processing or recycling of construction and demolition debris which passes through a final screen size no greater than $\frac{3}{4}$ of an inch.

The liner system required for a Class III landfill are now prescribed in Chapter 62-701 of the FAC and shall consist of a single 60-mil minimum average thickness high density polyethylene (HDPE) geomembrane. The HDPE geomembrane in the sumps and leachate collection trenches shall be underlain with a geosynthetic clay liner (GCL) or compacted clay liner. A primary leachate collection and removal system shall be installed above the HDPE geomembrane liner. Applicants may still request an exemption for the liner requirements.

5.2. State 75% Recycling Goal

House Bill 7135, the 2008 Energy and Economic Development legislation, was signed into law in June of 2008. This bill created Section 403.7032, Florida Statutes. The legislation included a State recycling goal of 75% by 2020, and directed the FDEP to develop a plan for achieving the goal. After a series of public workshops, FDEP finalized the plan to achieve this aggressive goal, and provided it to the State Legislature in January of 2010. According to FDEP’s report titled “75% Recycling Goal Report to the Legislature”, at least 12% of the 75% goal can be achieved by recycling C&D debris currently being disposed. In the report, FDEP recommended requiring all mixed loads of C&D to be processed at a materials recovery facility prior to disposal, and adding sorting operations at the front end of existing C&D disposal facilities. Sorting C&D should make it more cost-effective to recycle materials than dispose of them.

The State Legislature eventually adopted an amended House Bill 7243 (HB 7243) in late April 2010, which resulted from compromises between House Bill 1559 and Senate Bill 570. House Bill 7243 was signed into law, and amends several chapters in Florida Statute which took affect July 1, 2010. The Bill includes the following milestones for reaching the recycling goal:

- 40% by 2012
- 50% by 2014
- 60% by 2016
- 70% by 2018
- 75% by 2020

In order to assist counties in attaining the goals shown above, “the Legislature finds that the recycling of construction and demolition debris fulfills an important state interest”. Therefore, HB7243 requires each county to implement a program for recycling C&D waste. To the extent economically feasible, all C&D waste must be processed prior to disposal, either at a permitted MRF or at a permitted disposal facility. The amount of C&D waste processed and recycled prior to disposal at a permitted disposal facility must be reported to FDEP and to the County on an annual basis. Another change involves a presumption that C&D would require a liner, though the applicant can request exemption from the liner requirement. If this requirement makes its way into FAC, it may make disposal of C&D more expensive and recycling more attractive.

FDEP began the rulemaking process in September of 2010 with a workshop in order to get feedback on amending the FAC to reflect the new law; however, the new Governor of Florida has suspended all rulemaking activities until an Office of Fiscal Accountability and Regulatory Reform can be established. C&D issues and how the material can be counted toward the recycling goal were topics of discussion at the workshop.

5.3. Orange to Green

In September 2005, Orange County Mayor Richard T. Crotty launched an initiative to promote energy efficiency and to register to become a Florida Green Local Government by 2008. Additionally, a goal was set to reduce petroleum consumption in Orange County by 20% over the next five years. In July 2007, the Board of County Commissioners adopted a Resolution to reduce Green House Gas (GHG) emissions.

Orange County is setting the following targets for its Climate Change Plan. The reductions are based on 2005 GHG emissions.

- 15% reduction by 2010
- 28% reduction by 2015
- 40% reduction by 2020

Two objectives under the Orange County Climate Change Plan Goal #5, “Adopt Policies to Support Recycling, Methane Recovery & Biomass Energy” are related to the efforts of the project:

- Objective G (Increase existing recycling goals for private landfills) and
- Objective H (Help establish local markets for recycled construction materials)

Further, the Orange County Climate Change Plan Goal #7 is to “Adopt Policies to Support Green Buildings”.

5.4. County Comprehensive Plan

The County’s Comprehensive Plan 2010 through 2030, Goals, Objectives and Policies adopted May of 2009 and amended through June of 2010 include some noteworthy objectives and policies. The “Conservation Element” of the Plan includes objective OBJ C1.10, which states “Orange County shall conserve energy resources for future generations. This objective shall be made measurable by implementing the following policies.” And policy C1.10.3 states “Orange

County shall investigate and implement alternative means of *reducing the County's solid waste* and dependency on fossil fuels.”

The “Solid Waste Element” includes the following relevant objectives and related policies:

- OBJ SW1.1 Orange County shall provide adequate solid waste disposal facilities and capacity to accommodate existing and future demands by implementing the following policies.
 - SW1.1.13 The County shall encourage and support the permitting of Class III or Construction and Demolition landfills over a wide geographic area to best serve the public and support the efforts of the waste management industry to provide waste management services in a timely, economically efficient manner and to preserve capacity at the Orange County Landfill. (Added 12/00, Ord. 00-25)
- OBJ SW1.2 Orange County shall continue to implement alternate means of solid waste management to reduce landfill disposal.
 - SW1.2.2 Orange County shall continue to promote private sector participation in resource recovery systems to the extent feasible.
 - SW1.2.6 Orange County shall seek to establish interlocal agreements with the local governments in the County to promote coordinated recycling efforts. (Added 12/00, Ord. 00-25)
 - SW1.2.7 Orange County shall support the establishment of a wallboard recycling facility and discourage the land filling of wallboard from private and public disposal facilities. (Added 12/00, Ord. 00-25)
- OBJ SW1.4 Orange County shall require that landfill activities be operated in an environmentally sound manner for existing and future landfills that are operated and maintained by Orange County. This objective shall be made measurable by the following policies. (Added 12/00, Ord. 00-25)
- OBJ SW1.5 Orange County shall continue to require that all existing and future privately owned solid waste management activities be operated in an environmentally sound manner. This objective shall be made measurable by the following policies. (Added 12/00, Ord. 00-25)

6. Collection

Collection and transportation of target waste is provided by commercial haulers, as well as demolition companies and other private entities. Based on information from Orange County Solid Waste Division, approximately 60 to 70% of the Class III waste is from account holders (which are generally the licensed commercial haulers) with the remainder from homeowners and other private construction or hauling companies.

Licensed commercial haulers and other entities identified by OCEPD (such as large demolition contractors) were contacted and requested to provide the following type of information:

- Type of business and waste generation/collection activities
- Amount collected and transported
- Type of projects, including source separated waste and LEED (Leadership in Energy and Environmental Design) certified

- Type of material recycled and estimated amount of recycled materials
- Disposal or transfer of material

Table 6-1 summarizes the information obtained and general findings are summarized as follows:

- Based on the information in Table 6-1, it appears that an average recycling rate is 15 to 20%.
- Many hauling companies provide recycling by hauling source-separated material directly to processors (“end market recyclers”) or material directly to a MRF for customer requested LEED certification.
- Demolition companies provide a higher level of recycling (approximately 30 to 50%) to maximize project profit.
- Concrete, cardboard and metal appear to be the most commonly and easily recycled materials.

Table 6-1 Commercial Haulers and Demolition Companies

Company	Estimated C&D Waste, cy/yr [1]	Estimated % Recycled [1]	Cardboard	Concrete	HDPE/PCV	Metal	Wood	Comment
Advanced Disposal of Central FL, LLC	4,000	5%	X					
American Waste Management, DBA: Eye Can	24,000	5%	X	X		X		
Bob Randolph Trucking & Loader Services								No Response
Cat & I, Inc.	N/A	50%		X				Clean concrete waste generated from primary business (concrete cutting).
Central Environmental Services	N/A	N/A		X		X		Demolition for OC and Orlando; Plans for C&D MRF
Central Rock & Supply	13,000	0%						Mainly roofing, no recycling
Clean Site Services, Inc.	15,000	25%		X		X		LEED to GEL; Also fluorescent bulbs
Container Rental Co., Inc.	N/A	10%		X				Customer separated or LEED recycled; mixed landfilled
Debris & Roll-Off Services	N/A	N/A						Mostly green waste
DisposAll, Inc.	70,000	5%	X	X		X		Waste to WSI and Taft Recycling
Global Rental Dumpsters, Inc.	3,000	5%		X				
Home Builders Services of Florida, Inc.	N/A	N/A		X		X		Landfilled if not customer separated

Orange County Solid Waste Integrated Resources Plan
 Summary of Current Situation

Company	Estimated C&D Waste, cy/yr [1]	Estimated % Recycled [1]	Cardboard	Concrete	HDPE/PCV	Metal	Wood	Comment
Keller Outdoor, Inc.	40,000	20%	X	X				Concrete to West Orange
One Waste Services, Inc								Purchased by WM; No Response
PCM Construction Services, LLC								No Response
Pece Of Mind Disposal, Inc.	25,000	50%		X		X		Demolition company; hauling own material only
Pro Dump Services, LLC	2,000	15%		X	X	X		PVC to company in Lakeland
Republic Services	60,000	30%	X	X		X		Source separate and to MRF; large cardboard customer
Rhino Can, Inc.								Not in business per EPD
SP Recycling Corp., DBA: Aggressive Hauling	5,000	10%	X	X				Primarily waste paper; some C&D
Sunshine Recycling, Inc.	10,000	5%		X		X		To GEL if requested
TEC Diversified	5,000	10%						No LEED (too much paperwork)
USA Services of Florida, Inc.	N/A	N/A						Some C&D, but mainly street sweeping; screened dirt as fill. No recycling.
Veolia ES Environmental Services, Inc.								Requested information not available
Waste Management of Orlando								See Section 7 for processing and disposal facilities
Waste Pro of Florida	50,000	2%		X				Concrete and small amount of LEED

Orange County Solid Waste Integrated Resources Plan
 Summary of Current Situation

Company	Estimated C&D Waste, cy/yr [1]	Estimated % Recycled [1]	Cardboard	Concrete	HDPE/PCV	Metal	Wood	Comment
Waste Runners, LLC (formerly Advance Waste)								Commercial Class I only; no C&D
Waste Services of Florida, Inc.								No Response
Waste Depot LLC DBA: Waste Works	2,500	10%	X	X		X	X	New operation with plans to increase to 10,000 /yr; Also American Recycling MRF
Weeks & Weeks Waste Services, Inc. DBA: Central Florida Dumpsters	3,000	5%		X				
Demolition								
CST Environmental								No Response
HB Walker, Inc.								No Response
L & L Demolition & Salvage Inc.	50,000	30%		X		X		
Maximus Demolition	50,000	50%		X		X		

[1] The estimated C&D waste cubic yards per year and the estimated percent recycled data was estimated and provided by the haulers interviewed. No effort was made to independently verify the estimates.

7. Transfer

Transfer of Class I waste is fairly common and a significant part of managing the overall waste stream; however, transfer does not appear to be a significant component or step in the current management of C&D/Class III. Typically, hauling companies transport the C&D/Class III waste to the closest facility. If source separation is requested by the customer or LEED certification, separate containers are provided and the waste is transported directly to the facility.

As the industry develops, it is anticipated that transfer of loads for recycling will become an integral part of the management practices.

8. Processing/Disposal

The extent of processing, and consequently disposal, varies considerably throughout the County. There are a number of permitted C&D, Class III and mixed waste recycling (MRF) facilities in Orange County. In addition, these facilities also handle waste from other areas, including Hillsborough County, Pinellas County and neighboring Counties.

Permitted facilities were contacted and requested to provide the following types of information:

- Location and waste disposal/processing activities
- Type and amount of material handled
- Current recycling practices, including type of material recycled, end market recyclers and amount of material recycled
- Processing capacity
- Remaining disposal capacity

Table 8-1 summarizes the information obtained from the processing and disposal facilities and the location of these facilities is shown on Figure 8-1. As seen in Table 8-1, for those facilities where tipping fee data was available, C&D processing fees vary from approximately \$25 per ton to \$41 per ton and C&D disposal fees vary from approximately \$18 per ton to \$25 per ton.

Table 8-1 Class III and C&D Disposal and Processing Facilities

Facility Name	FDEP Status	Ash Monofill	Class III Landfill	Composting Plant	C&D Debris	C&D Debris Recycling	Land Clearing Debris	Material Recovery	Transfer Station	Comment/Additional Information	Estimated Amount Disposed or Processed, cy/yr	Estimated % Recycled	Estimated Remaining Life, yrs	Tipping Fees
AMERICAN RECYCLING GROUP, LLC	ACTIVE							X		Recently permitted and operating.				\$4.75 a yard or \$25.00 per ton
ANGELO'S RECYCLED MATERIALS INC	ACTIVE					X				Permit under review, data from 2009 report. Primarily recycling concrete and asphalt.	500,000	100%	N/A	
BAY LAKE CLASS 3 LANDFILL (Located in Reedy Creek)	ACTIVE		X							Significant on-site recycling through source separation; LEED is encouraged. Only accepts waste from Reedy Creek waste.	200,000	20%	48	
GOLDEN GEM ROAD CLASS III LANDFILL	ACTIVE		X					X		Accepts material (residual) from SWS (See Note1)	400,000	10%	3	C&D - \$24.00 per ton; Class III - \$24.00 per ton; Yd Waste - \$34.00 per ton; Hard to Handle - \$9.00 per yd ; Large Land clearing - \$6.00 per yd (Minimum Charges: \$40.00 for less than 20 yds; \$60.00 for more than 20 yds)
HONEY BEE RANCH LCD	ACTIVE						X			Yard Waste Only, Enforcement by EPD at this time.	N/A	N/A	N/A	
KEENE ROAD LANDFILL - CLASS III	ACTIVE		X	X						Closed	N/A	N/A	N/A	

Orange County Solid Waste Integrated Resources Plan
Summary of Current Situation

Facility Name	FDEP Status	Ash Monofill	Class III Landfill	Composting Plant	C&D Debris	C&D Debris Recycling	Land Clearing Debris	Material Recovery	Transfer Station	Comment/Additional Information	Estimated Amount Disposed or Processed, cy/yr	Estimated % Recycled	Estimated Remaining Life, yrs	Tipping Fees
MID-FLORIDA MATERIALS (AKA HUBBARD)	ACTIVE				X					Concrete crushing on-site; wood waste for landscaping and boiler feed. 20% is from Hubbard.	250,000	18%	30	Gate Rate C&D - \$4.25 per yard ; Land clearing - \$8.50 per yard; Clean Concrete – No Charge if load clean, otherwise \$4.25 per yard; For job site contract with large volumes: C&D - \$3.75 per yard
MOUNT DORA DISPOSAL AND FILL	ACTIVE				X					Located in Lake County, but significant processor of waste from Orange County.	400,000	15%	20	C&D - \$4.00 per yd.; Large Land clearing - \$6.00 per yd; (Minimum Charge: \$25.00)
ORANGE COUNTY LF	ACTIVE		X					X	X	Currently very limited Class III recycling, however plans to start metal, concrete, cardboard and lumber.	500,000	5%	65	
ORLANDO RECYCLED MATERIALS	COMPLAINT									According to EPD, site closed.	N/A	N/A	N/A	
ORLANDO TRANSFER STATION-WPF	ACTIVE								X	Class I	N/A	N/A	N/A	
OUC STANTON ENERGY CENTER	ACTIVE	X								Recycle of ash for temperate road base (at OCL) and concrete additive; on-site landfill of unused ash. (Internal processing facility only.)	N/A	N/A	N/A	
PINE RIDGE LANDFILL (AKA 545 SANIFILL LF)	ACTIVE		X		X					WM LEED facility; Handles LEED and recycle loads from multiple Counties; Recycling typical products, including dry wall (gypsum powder for soil	200,000	10%	28	C&D: \$18.60 per ton (\$60 minimum per load); yard waste: \$34 per ton (\$60 minimum per load)

Orange County Solid Waste Integrated Resources Plan
Summary of Current Situation

Facility Name	FDEP Status	Ash Monofill	Class III Landfill	Composting Plant	C&D Debris	C&D Debris Recycling	Land Clearing Debris	Material Recovery	Transfer Station	Comment/Additional Information	Estimated Amount Disposed or Processed, cy/yr	Estimated % Recycled	Estimated Remaining Life, yrs	Tipping Fees
										amendment.				
RECYCLE AMERICA OF ORANGE COUNTY	ACTIVE							X		Class I recycling Facility.	N/A	N/A	N/A	
REEDY CREEK TRANSFER STATION	ACTIVE								X	Transfer of Class I.	N/A	N/A	N/A	
ROCKET BLVD MATERIALS RECOVERY FACILITY	ACTIVE							X		Republic Services site.	60,000	30%	N/A	
TAFT RECYCLING (AKA SOUTH ORLANDO MRF)	ACTIVE							X	X	Data from 2009 C&D report.	5,000	100%	N/A	Class III - \$53.00; C & D - \$41.00; Single stream loads (or rich in recyclables) are negotiated based on the yield and value of the different materials in the load
VISTA LANDFILL, LLC., CLASS III (BUTTREY/KEENE RD SOUTH)	ACTIVE		X							WM facility (60% of waste from WM).	500,000	10%	28	C&D/Class III: \$24.10 per ton (\$60 minimum per load); yard waste: \$34 per ton (\$60 minimum per load)
WEST ORANGE ENVIRONMENTAL RESOURCES C&D	ACTIVE							X		Recycling facility with picking station. Additional information in report. Co-located with C&D disposal facility.	100,000	70%	N/A	

Facility Name	FDEP Status	Ash Monofill	Class III Landfill	Composting Plant	C&D Debris	C&D Debris Recycling	Land Clearing Debris	Material Recovery	Transfer Station	Comment/Additional Information	Estimated Amount Disposed or Processed, cy/yr	Estimated % Recycled	Estimated Remaining Life, yrs	Tipping Fees
WEST ORANGE ENVIRONMENTAL RESOURCES C&D	ACTIVE				X					West Orange, Mt. Dora and Golden Gem under same ownership.	500,000	N/A	5	C&D - \$5.00 per yd; Hard to Handle - \$9.00 per yd ; Large Land clearing - \$6.00 per yd (Minimum Charge: \$25.00)

Notes:

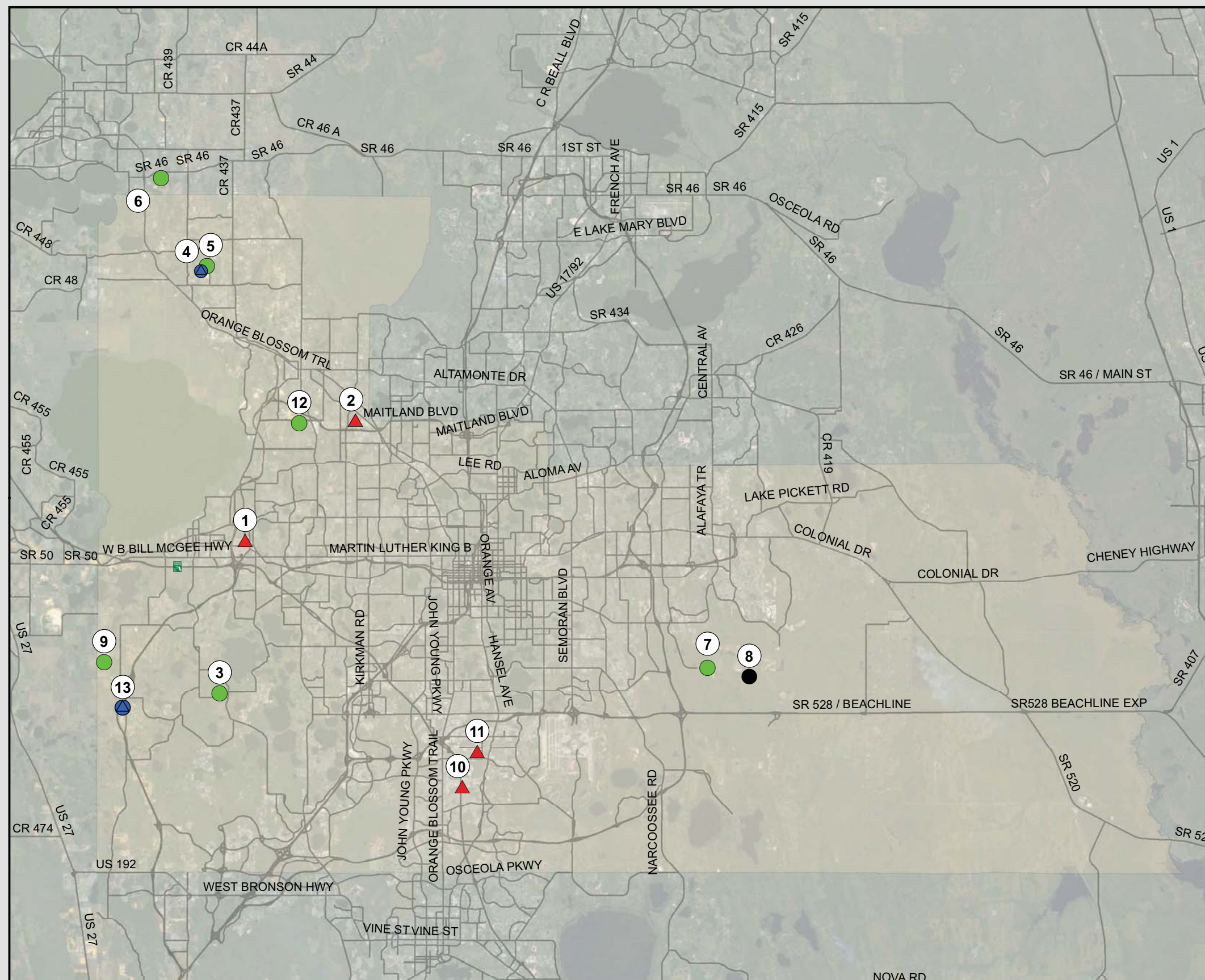
1. Sun Recycling (an SWS Company) is a recycling company in South Florida with 4 recycling centers and 3 transfer stations. According to SWS they process about 3 million cy per year with a recycle rate of 86%. Some residual waste sent to Golden Gem.
2. Some data reported in tons/year. Converted to cubic yards/year based on bulk density of 300 to 1,000 lb/cy depending on reported composition (i.e. amount of concrete)
3. Based on reported values, approximately 3 million cy of material processed in Orange County (estimated to be 700,000 to 1,000,000 tons per year).



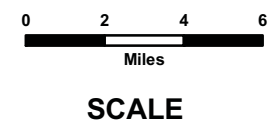
Legend

- ASH MONOFIL
- C & D LANDFILL
- C & D LANDFILL/MATERIAL RECOVERY
- ▲ C & D RECYCLING
- CLASS III LANDFILL
- CLASS III LANDFILL/MATERIAL RECOVERY
- ▲ MATERIAL RECOVERY
- ORANGE COUNTY

ID	Facility Name
1	AMERICAN RECYCLING GROUP, LLC
2	ANGELO'S RECYCLED MATERIALS INC
3	BAY LAKE CLASS 3 LANDFILL
4	GOLDEN GEM ROAD CLASS III LANDFILL
5	MID-FLORIDA MATERIALS (HUBBARD)
6	MT DORA DISPOSAL FACILITY
7	ORANGE COUNTY LF
8	OUC STANTON ENERGY CENTER
9	PINE RIDGE LANDFILL
10	ROCKET BLVD MATERIALS RECOVERY FACILITY
11	TAFT RECYCLING (SOUTH ORLANDO MRF)
12	VISTA LANDFILL, LLC., CLASS III
13	WEST ORANGE ENV. RESOURCES C&D



ORANGE COUNTY SOILD WASTE INTEGRATED RESOURCES PLAN



CLASS III, C&D AND RECYCLING FACILITIES

FIGURE 8-1

DRAFT

Some facilities were able to supply additional details regarding their operation, material processing, and recycling, which is useful in understanding the current situation of the industry, markets for recyclables and possible future trends. The additional information is provided in the following paragraphs.

Waste Management Waste Management of Florida, Inc (WM) operates two landfills in Orange County that accept C&D and Class III waste: Pine Ridge and Vista. Pine Ridge is a permitted C&D landfill and recycling facility (LEED facility) and Vista is permitted as a Class III landfill.

Information was provided regarding the origin of waste entering the facilities. WM reported that approximately 50% of the waste was supplied by WM. As shown on Table 8-2, nearly half of the waste originates from areas outside of Orange County, with Hillsborough and Pinellas Counties accounting for 30-40% of the waste. This percentage can vary from year to year.

Table 8-2 Origin of Waste at Pine Ridge and Vista Landfills

C&D Waste Origin	Pine Ridge Landfill		Vista Landfill	
	Amount (tons, unless noted)	% of Total	Amount (tons, unless noted)	% of Total
Brevard	309	0.3%	10	0.0%
Hillsborough	28,507	26.1%	41,763	23.4%
Lake	98	0.1%	31	0.0%
Orange	64,856	59.3%	116,079	65.1%
Osceola	2,231	2.0%	6	0.0%
Pinellas	11,846	10.8%	19,916	11.2%
Polk	1,040	1.0%	39	0.0%
Seminole	0	0.0%	111	0.1%
Volusia	0	0.0%	3	0.0%
Other	500	0.5%	465	0.3%
Total	109,386	---	178,423	---

Note: Data reported by WM for 2010.

Data reported for the Pine Ridge facility was evaluated for recycling activities. Table 8-3 summarizes the amount of waste received from LEED contracts, as well as the approximate amount and percentages of material recycled.

Table 8-3 Pine Ridge Recycling Data (2010)

Item	Amount, tons	% of Total Waste	% of LEED Material
Total Waste Received	109,386	---	---
LEED	26,401	24.1%	---
Cardboard	29	0.03%	0.1%
Drywall	15	0.01%	0.1%
Metal	654	0.60%	2.5%
HDPE/PVC	10	0.01%	0.0%
Wood	38	0.03%	0.1%
Concrete	1,082	0.99%	4.1%
Total	---	---	6.9%

Note: Data reported by WM for 2010.

West Orange Environmental Resources C&D. West Orange Environmental Resources C&D operates both a C&D disposal and MRF facility on the same site. The facility is owned by Orange County Environmental, LLC, which also owns two other disposal facilities in the area: Mt. Dora and Golden Gem Road Landfill.

A site visit was conducted to observe and document the operation. Information from the site visit is summarized below and Pictures 1, 2, 3 and 4 show features of the recycling operation.

West Orange Summary

- The entire facility (landfill and MRF) receives approximately 2,000 cy per day and the MRF processes approximately 600 cy per day.
- Approximately 30% of the MRF material is from LEED projects and the remaining is from other sources, including loads diverted from the landfill. Spotters at the landfill identify loads that are potentially suitable for recycling.
- Once easily separated items are removed from the waste, the material is fed onto a sorting line (conveyor belt, dirt recovery area and stations for manual sorting). See Pictures 1 and 2.
- The type of material and extent of separation is based on end product uses and recycler requirements. The following material is separated for recycling:
 - Cardboard
 - Metal (additional separation by type, such as brass, ferrous, aluminum and tin)
 - Concrete
 - Lumber
 - Composite wood
 - Wood pallets
 - Plastic (i.e. bottles)
 - Plastic pipe (HDPE and PVC)



Picture 1 – MRF Sorting Machine and Feed Material



Picture 2 – MRF Conveyor and Sorting Stations



Picture 3 – Stockpiled Concrete



Picture 4 – Stockpiled Plastic Pipe

General information was also provided regarding incoming waste, outbound (or stored) recyclables and landfilled (un-recycled) material. Figure 8-2 shows the relative amount of material based on weight, as reported by West Orange Environmental.

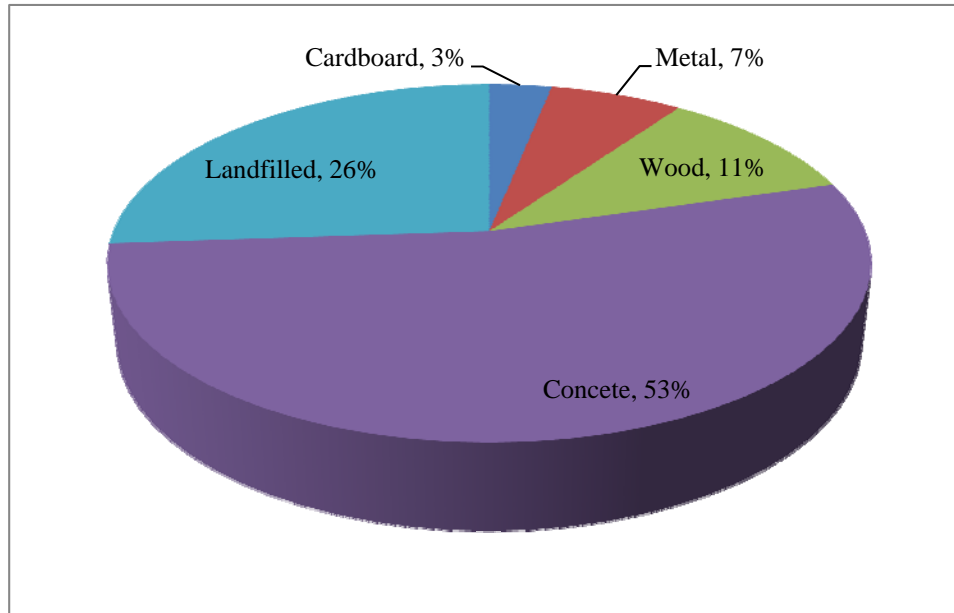


Figure 8-2 Typical Distribution of Recycled Material – West Orange Environmental

9. End Markets

End market refers to the final processor of the material that prepares the material for market, such as a concrete crusher or a metals processor (shredding and re-sale of bulk material in the metals market). Table 9-1 lists some of the common new products or uses for recycled material.

Table 9-1 Typical New Products and Uses for Recycled Material

Used C&D Material	New Product	Use
Cardboard	Raw material	Raw material for boxes and containers
Concrete	Aggregate	Base for road building Drainage applications/bank stabilization
Metal	Raw material	Raw material for metals fabricators
Plastic pipe	Raw material	Raw material for plastic and pipe
Wood	Mulch	Landscaping / Erosion control Industrial fuel source Compost additive/Soil amendment

Based on information from the waste haulers and processors, a list of local end market companies was compiled. It is important to note that many of these companies have multiple facilities throughout the County. Table 9-2 summarizes the local companies and the material accepted for processing. Additional information from the County regarding concrete crushers, based on active permits, is also included in the table below.

Table 9-2 Partial List of End-Product C&D Recycle Companies in Central Florida

Company	Address	City	State	Zip	Phone	Material
Angelo's Recycled Materials Inc	2105 Vulcan Rd	Apopka	FL	32703	407-290-8010	Concrete and Asphalt
Promax Recycling Inc.	3070 Apopka Blvd	Apopka	FL	32703	407-299-0001	Concrete
Double D Crushers	12608 Avalon Road	Winter Garden	FL	34787	407-238-2328	Concrete
Independence Recycling	9800 Recycle Center Rd., Ste. A	Orlando	FL	32824	407-240-1664	Concrete
American Demolition (Douglas Transport & Recycling Co)	118 W Grant St	Orlando	FL	32806		Concrete
BG Group – Portable Crusher		Pompano	FL	33169		Concrete
BPH Rock	12601 Avalon Rd	Orlando	FL	34787		Concrete
Calleja, Joe E	4000 Forsyth Rd	Orlando	FL	32792		Concrete
CEM Enterprises	12608 Avalon Rd	Winter Garden	FL	34787		Concrete
Central Hauling and Excavating	11041 Rocket Blvd	Orlando	FL	32824		Concrete
Crushing Inc Portable Crushing Unit	3350 Reynolds Rd	Lakeland	FL	33803		Concrete
D L Rees	11281 Rocket Blvd	Orlando	FL	32824		Concrete
Eagle Crusher (Eco-Rock Resource)	2930 Eunice Ave	Orlando	FL	32808		Concrete
Orlando Recycled Materials Inc	2300 Mercator Dr	Orlando	FL	32807		Concrete
Middlesex Asphalt LLC; Orange County Asphalt Plant #1	10705 Cosmonaut Blvd	Orlando	FL	32824		Concrete
Brothers Scrap Metals Inc	420 S Norton Av	Orlando	FL	32805	407-872-3622	Metal

Company	Address	City	State	Zip	Phone	Material
Trademark Metals (Note 1)	51 East Landstreet Rd	Orlando	FL	32824	407-855-2990	Metal
GEL Corporate Headquarters (Note 2)	1200 S. Leavitt Ave.	Orange City		32763	386-775-5385	MRF
Taft Recycling, Inc	375 7th Street	Taft	FL	32824	321-202-8426	MRF
West Orange Environmental Resources, LLC	7706 Avalon Road	Winter Garden	FL	34787	407-814-7000	MRF

Note

1. Three locations (Landstreet, Lockhart, Kaley); ferrous and non ferrous metals, lead-acid batteries and autos
2. GEL facility located at the Volusia County Tomoka Farms Road Landfill (Daytona Beach).

Effectiveness and extent of recycling for various materials is dependent on the commodity price, as well as the transportation considerations related to bulk density of the material. To provide perspective on this information, volume/weight relationships were used to estimate a bulk density for the material, and information on typical material pricing was obtained. Table 9-3 summarizes the bulk density relationship as well as the typical material pricing. Please note that pricing is highly dependent on a number of factors such as the quality/type of the material and market conditions

Table 9-3 Typical Bulk Density and Material Pricing (2010)

Material	Bulk Density, lb/cy	Typical Price in 2010, \$/ton
Mixed Waste	350 to 700	---
Cardboard	250	140
Metal	290	240
Wood	310	10
Concrete	1,400	10

Note: Price dependent quality/type of the material and market conditions.

Data on historical trends in recycling markets for Target Waste Type is not readily available, and represents a data gap to fully understanding the Target Waste Type life cycle. While traditional recyclables market data is available, and has been highly variable, it is not clear whether the Target Waste Type recyclables markets have also been as variable.

10. Summary of Findings

In general, three basic methods of C&D recycling were documented.

- On-site source separation (separate roll-offs provided for each type of material).
- Some level of deconstruction or removing of components prior to demolition.
- Mixed Waste Recycling (MRF).

The industry is fairly fragmented and recycling typically occurs through either customer requests (i.e. LEED certification) or profit considerations (i.e. demolition companies). Mixed waste recycling is a relatively new industry in central Florida. Additional findings are summarized as follows:

- Some level of recycling occurs throughout the process of collection, hauling and disposing of C&D waste.
- Based on the reported information, approximately 20% of the C&D waste stream is being recycled.
- The amount of recycling is much higher for concrete and metal.
- Limited uses and markets are available for wood, dry wall, and plastic pipe.
- The amount of recycling is very dependent on the generator goals.
- Information regarding the amount of waste and recycling is not readily or consistently recorded.
- Material is measured in multiple units (tons, cubic yards, loads, etc) which make tracking, record keeping and data analysis difficult.
- There appears to be increasing specialization as waste is moved through from collection to end market.
- There is uncertainty about potential rule changes based on the new State 75% recycling goal, and its impacts on C&D material.
- The current major barriers to the recycling of C&D wastes in Orange County appear to be:
 - Lack of Established End Markets
 - Landfilling Affordability vs. the Cost to Recycle
 - Lack of Infrastructure

Acknowledgment: This material is based upon work supported by the Department of Energy under Award Number(s) DE-EE0000791.

ATTACMENT A

List of Haulers, Disposal Sites and Processors
(Contact and email information)

Contact List - Commercial Haulers and Demolition Companies

Company	Address	City	State	Zip	Phone	Contact	Email	Interested
Advanced Disposal of Central FL, LLC	405 Thorpe Rd.	Orlando	FL	32824	407-251-9600	Gene Carroll	gcarroll@advanceddisposal.com	Yes
American Waste Management, DBA: Eye Can	3849 Klondike Pl.	Sanford	FL	32771	407-420-5828	Mike Novello	americanwastemgmt@earthlink.net	Yes
Bob Randolph Trucking & Loader Services	16330 Douglas Rd.	Groveland	FL	34736	352-429-9291			Unknown
Cat & I, Inc.	17304 Phil. C. Peters Rd.	Winter Garden	FL	34787	407-654-7574	Regina Campbell	flsunred@aol.com	Yes
Central Environmental Services	3210 Friendly Ave.	Orlando	FL	32808	407-295-7005	Richard Lorenz	rj-demoace@usa.net	Yes
Central Rock & Supply	P. O. Box 540258	Orlando	FL	32854	407-423-1632	Don Sandargas		No
Clean Site Services, Inc.	6827 Partridge Ln.	Orlando	FL	32807	407-999-2699	Jackie Giorgio		No
Container Rental Co., Inc.	2715 Staten Rd.	Orlando	FL	32804	407-298-8555	Jerry Allen	jerry@orlandowastepaper.com	Yes
Debris & Roll-Off Services	351 Deer Pointe Cir.	Casselberry	FL	32707	407-696-1277	Ron Raymond	rraymond@cfl.rr.com	Yes
DisposAll, Inc.	7904 N. Orange Blossom Trl.	Orlando	FL	32810	407-522-0201	Eddy Chiara	marylou@refusegmt.com	Yes
Global Rental Dumpsters, Inc.	1920 Silver Star Rd.	Orlando	FL	32804	407-295-0400	Tina Weaver	tina@grddumpster.com	Yes
Home Builders Services of Florida, Inc.	3031 HWY 119	Longmont	CO	80504	407-850-5379	Angie Tilghman	angie.tilghman@cofence.com	Yes
Keller Outdoor, Inc.	2150 Marquette Ave.	Sanford	FL	32773	407-330-2750	Cheryl Smith	agillmor@kelleroutdoorfla.com	Yes

Company	Address	City	State	Zip	Phone	Contact	Email	Interested
One Waste Services, Inc	2263 Clark St.	Apopka	FL	32703	407-522-1498	Shawn Lilles		Unknown
PCM Construction Services, LLC	1775 W. Williams St. Box 179	Apex	NC	27523	919-362-1701			Unknown
Pece Of Mind Disposal, Inc.	1575 Aber Rd.	Orlando	FL	32807	407-568-3456	Sam Benton	Sam@peceofmind.com	Yes
Pro Dump Services, LLC	5003 Patch Rd.	Orlando	FL	32822	407-929-0159 407-929-4579	Nathan	nathan@produmpservices.com	No
Republic Services	11255 Rocket Blvd.	Orlando	FL	32824	407-293-8000	Fred Olsen	olsenf@repsrv.com	Yes
Rhino Can, Inc.	P.O. Box 327	Ocoee	FL	34761	407-897-8888			Unknown
SP Recycling Corp., DBA: Aggressive Hauling	5303 N. Orange Blossom Trl.	Orlando	FL	32810	407-295-2000	Paul Junk	paul.junk@spnewsprint.com	Yes
Sunshine Recycling, Inc.	1263 W. Landstreet Rd.	Orlando	FL	32824	407-843-7990	Bill Milligan	bmilligan@sunshinerecycling.com	Yes
TEC Diversified	P. O. Box 616922	Orlando	FL	32861	407-298-4217	Shannon Ethridge	tecdiversified@aol.com	Yes
USA Services of Florida, Inc.	P.O. Box 520580	Longwood	FL	32752	407-339-1800	Phil Formichelli		No
Veolia ES Environmental Services, Inc.	1964 S. Orange Blossom Trl.	Apopka	FL	32703	407-464-0664	Regina Carolia		Unknown
Waste Management of Orlando	3510 Rio Vista Ave.	Orlando	FL	32805	407-843-7370			Unknown
Waste Pro of Florida	3705 St. Johns Parkway	Sanford	FL	32773	407-774-0800	Tim Dolan	tdolan@wasteprousa.com	Yes

Company	Address	City	State	Zip	Phone	Contact	Email	Interested
Waste Runners, LLC (formerly Advance Waste)	P. O. Box 715	Brandon	FL	33509	407-466-1901	Rich		No
Waste Services of Florida, Inc.	1099 Miller Dr.	Altamonte Springs	FL	32701	407-261-5000	Dennis Pantano	dpantano@wsii.us	Unknown
Waste Depot LLC DBA: Waste Works	320 Enterprise St.	Ocoee	FL	34761	407-447-0047	Paul Reddish	paul@wasteworksusa.com	Yes
Weeks & Weeks Waste Services, Inc. DBA: Central Florida Dumpsters	P. O. Box 915771	Longwood	FL	32791	407-880-3025	Dale Weeks	dweeks1@cfl.rr.com	Yes
<u>Demolition Companies.</u>								
CST Environmental	9180 Boggy Creek Road	Orlando	FL	32824	407-855-2365			Unknown
HB Walker, Inc.	2895 Mercy Drive	Orlando	FL	32808	407-299-4126			Unknown
L & L Demolition & Salvage Inc.	5500 Old Winter Garden Road	Orlando	FL	32811	407-295-0875	Lenny Linhares	lldemo@mpinet.net	Yes
Maximus Demolition	11318 S. Orange Blossom Trail	Orlando	FL	32837	407-948-1154	Ted Chapman	maximusedemolition@earthlink.net	Yes

Contact List – Disposal Sites and Processors

Facility Name	Owner	Facility Address	City	Zip	Phone	Contact	Email	Interest
AMERICAN RECYCLING GROUP, LLC	AMERICAN RECYCLING GROUP, LLC	320 Enterprise St	Ocoee	34761	407-295-2000	Paul Reddish	paul@wasteworksusa.com	Yes
ANGELO'S RECYCLED MATERIALS INC	ANGELO'S AGGREGATE MATERIALS, LTD	2105 VULCAN RD	APOPKA	32703	407-290-8010	Genny Iafrate	angelosrocks@yahoo.com	Yes
BAY LAKE CLASS 3 LANDFILL	WALT DISNEY WORLD COMPANY	1.5MI W MAGIC KINGDOM THEME PK	ORLANDO	32830	407-824-1248	Jose Garcia		Yes
GOLDEN GEM ROAD CLASS III LANDFILL	ORANGE COUNTY ENVIRONMENTAL RESOURCES, LLC	GOLDEN GEM RD	APOPKA	32712	352-483-6518	Rob Fintak	rob@oceflorida.com	Yes
HONEY BEE RANCH LCD	HONEY BEE	16877 EAST COLONIAL DRIVE #322	ORLANDO	32820	4075686003			N/A
KEENE ROAD LANDFILL - CLASS III	WASTE MANAGEMENT	255 W. KEENE ROAD	APOPKA	32703	407-886-2920			N/A
MID-FLORIDA MATERIALS (AKA HUBBARD)	HUBBARD CONSTRUCTION COMPANY	GOLDEN GEM RD	APOPKA	32712	407-886-4879	Dennis Severance	dennis.severance@hubbard.com	Yes
MOUNT DORA DISPOSAL AND FILL	ORANGE COUNTY ENVIRONMENTAL RESOURCES, LLC	3300 SR 46	Mount Dora	32757	352-483-6518	Rob Fintak	rob@oceflorida.com	Yes
ORANGE COUNTY LF	ORANGE COUNTY BOCC	12100 YOUNG PINE RD	ORLANDO	32829	407-836-6600	Debbie Sponsler	Debbie.Sponsler@ocfl.net	Yes
ORLANDO RECYCLED MATERIALS		2300 Mercator Dr	Orlando	32807				N/A

ORLANDO TRANSFER STATION-WPF	WASTE MANAGEMENT INC. OF FLORIDA	4986 L.B.MCLEOD ROAD	ORLANDO	32703	904-260-1592			N/A
OUC STANTON ENERGY CENTER	HEADWATERS RESOURCES, INC.	5100 S. ALAFAYA TRAIL	ORLANDO	32831	321-235-5832		N/A	N/A
PINE RIDGE LANDFILL (AKA 545 SANIFILL LF)	WASTE MANAGEMENT	5400 DANBURY ROAD	WINTER GARDEN	34787	407-886-2920	IRV SLIKE	islike@wm.com	Yes
RECYCLE AMERICA OF ORANGE COUNTY	WASTE MANAGEMENT	12100 YOUNG PINE RD	ORLANDO	32829	4078366604			N/A
REEDY CREEK TRANSFER STATION	REEDY CREEK IMPROVEMENT DISTRICT	5500 NORTH CAST DRIVE	LAKE BUENA VISTA	32830	407-824-1248	Jose Garcia		Yes
ROCKET BLVD MATERIALS RECOVERY FACILITY	REPUBLIC SERVICES	11273 ROCKET BLVD	ORLANDO	32824	407-509-6766	Fed Olsen	olsenf@reprsv.com	Yes
TAFT RECYCLING (AKA SOUTH ORLANDO MRF)	TAFT RECYCLING, INC.	375 7TH STREET	TAFT	32824	407-851-0074 cell-3214362652	Wilson Estves		
VISTA LANDFILL, LLC., CLASS III (BUTTREY/KEENE RD SOUTH)	IRVINSLIKE	230 WEST KEENE RD	APOPKA	32703	407-886-2920	IRV SLIKE	islike@wm.com	Yes
WEST ORANGE ENVIRONMENTAL RESOURCES C&D	ORANGE COUNTY ENVIRONMENTAL RESOURCES, LLC	7706 AVALON ROAD	WINTER GARDEN	34787	407-456-9331	Greg Fowler	greg@oceflorida.com	Yes
WEST ORANGE ENVIRONMENTAL RESOURCES C&D	ORANGE COUNTY ENVIRONMENTAL RESOURCES, LLC	7706 AVALON ROAD	WINTER GARDEN	34787	352-483-6518	Rob Fintak	rob@oceflorida.com	Yes