

5.G.2 SOLID WASTE

In accordance with Title 42 of the U. S. Code (USC), a solid waste is considered to be any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Solid waste does not include solid or dissolved material in domestic sewage or irrigation return flows, or industrial discharges that are point sources subject to permits under Title 33 of the USC 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended.¹⁸⁰

Section 10.2 of FAA Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures*, dated March 20, 2006, states that the FAA may be required to consider solid waste impacts in any actions to fund or improve airport layout plans. Preliminary review should indicate whether the projected quantity or type of solid waste generated, or method of collection or disposal would be appreciably different than would be the case without the action.

5.G.2.1 Regulatory Context

5.G.2.1.1 FEDERAL

Resource Conservation and Recovery Act (RCRA): The RCRA of 1976, which amended the Solid Waste Disposal Act, addresses non-hazardous (Subtitle D) and hazardous (Subtitle C) waste management activities.

RCRA established an Interagency Coordinating Committee on Federal Resource Conservation and Recovery Activities which has the responsibility for coordinating all activities dealing with resource conservation and recovery from solid waste carried out by the USEPA, the Department of Energy, the Department of Commerce, and all other Federal agencies which conduct such activities pursuant to the chapter or any other act. The term "resource conservation and recovery activities" includes, but is not limited to, all research development and demonstration projects on resource conservation or energy, or material recovery from solid waste, and all technical or financial assistance for state or local planning for, or implementation of projects related to resource conservation, or energy, or material recovery from solid waste.¹⁸¹

¹⁸⁰ Title 42, USC, Chapter 82, Subchapter I, Section 6903

¹⁸¹ Title 42, USC, Chapter 82, Subchapter II, Section 6911

5.G.2.1.2 STATE AND LOCAL

State of Florida: In the State of Florida, Chapter 403 and Section 381.0098, FS, addresses solid waste management. Regulations related to solid waste management are contained within FAC Chapters:

62-701, Solid Waste Management Facilities

62-702, Solid Waste Combustion Ash Management

62-708, Full Cost Accounting for Solid Waste Management

62-709, Criteria for the Production and Use of Compost Made from Solid Waste

62-710, Used Oil Management

62-711, Waste Tire Rule

62-713, Soil Treatment Facilities

62-722, Regulations of Recovered Materials

62-737, Management of Spent Mercury-Containing Lamps and Devices Destined for Recycling

62-740, Petroleum Contact Water

The Florida DEP Solid Waste Management section is responsible for implementing Florida's Solid Waste Program. As such, one of the primary tasks of the Florida DEP Solid Waste Management section is the internal coordination with other Florida DEP offices on all issues pertaining to permitting, compliance, and enforcement activities.

Broward County: For Broward County, Chapter 27 of the Broward County Code of Ordinances addresses pollution control. Most of the applicable solid waste regulations are contained in Article VI, *Solid Waste*.

The Waste Regulation Section of the BCEPD Pollution Prevention and Remediation Division is responsible for administering the licensing and compliance for all solid waste management facilities, waste transporters, and borrow pit reclamation areas within Broward County. The Waste Regulation section is also responsible for the county inspection of all licensed facilities to ensure compliance with environmental regulations and administering the state-delegated solid waste licensing and compliance program.¹⁸²

¹⁸² Internet web site: http://www.broward.org/pprd/wr_wasteregulation.htm, BCEPD. Last Revision: n.d.

5.G.2.2 Existing Conditions at Fort Lauderdale-Hollywood International Airport (FLL)

5.G.2.2.1 Airport Facilities

To develop the baseline information for on-airport solid waste generation, the current quantities of solid waste produced at FLL were linked to the various on-airport activities. It is assumed that the quantity and type of material (recyclable and non-recyclable) produced will vary based on the type of activity. Four primary activities were identified at FLL:

- Cargo
- General Aviation/Fixed-Base Operators
- Office
- Passenger Enplanements

Cargo: The cargo facilities, located along the north side of the airport, consist of facilities such as Federal Express and DHL, which handle the freight-related operations at the airport. It is estimated that cargo facilities at FLL produce approximately 200 tons of solid waste per year (based on 2004 baseline quantities).

General Aviation/Fixed-Base Operators (FBO): The general aviation and FBO facilities are located along the north and west side of the airport. These facilities handle private air traffic and other aircraft operations not handled directly through the major airlines (which operate through the main terminal area). It is estimated that approximately 450 tons of solid waste are produced per year (based on 2004 baseline quantities).

Office: Office buildings are located throughout the entire airport. Each of these facilities handles the administrative portion of the airport operations, which include, but are not limited to Broward County and airport maintenance. It is estimated that the office facilities at FLL produce approximately 140 tons of solid waste per year (based on 2004 baseline quantities).

Passenger Enplanements: The terminal area is the central location for passengers traveling on domestic and international flights and the car rental facilities are located in this area. This is a high traffic area, which generates a large amount of passenger-generated solid waste. It is estimated that the terminal area at FLL produces approximately 5,320 tons of solid waste per year (based on 2004 baseline quantities).

Based on the information received through tenant interviews, and data received from waste transportation contractors and Broward County, the total amount of waste produced at FLL is approximately 6,110 tons of solid waste per year (based on 2004 baseline quantities).

5.G.2.2.2 WASTE MANAGEMENT CONTRACTORS

All Service, Inc.: All Service handles solid waste from the majority of the airport tenants located along the north and west sides of the airport. All Service also collects and disposes of non-recyclable solid waste collected by the on-airport recycling facility (Airport Recycling Specialists, Inc.). All the waste collected by All Service is transported to the Wheelabrator South Facility.

Southern Waste Systems: Construction debris generated at the airport is generally handled on a project-by-project basis by each individual contractor involved. However, solid waste quantities for construction and demolition at FLL have been compiled by Broward County.

Construction debris is collected at FLL by Southern Waste Systems. All construction waste placed in on-airport dumpsters is hauled by Southern Waste Systems to Sun Recycling, a recycling facility. The company is able to recover and recycle approximately 80 percent of the construction materials. Any non-recyclable materials are collected from Sun Recycling and transported to the Central Disposal Sanitary Landfill or the Okeechobee Landfill for disposal. The Sun Recycling facilities are capable of handling in excess of 1,920 tons of material a day.^{183 184} According to Broward County data, during the baseline (2004) year, Southern Waste Systems collected an average of 312 tons of construction waste from FLL.¹⁸⁵

Waste Management, Inc.: Waste Management handles the food waste from the concession areas within the terminals at FLL. Waste Management collected approximately 1,853 tons of waste from the terminal area in 2004.¹⁸⁶ All waste collected from FLL, by Waste Management, is transported to the Wheelabrator South Facility.

5.G.2.2.3 MUNICIPAL SOLID WASTE CAPACITY

Solid waste in Broward County is collected by a number of haulers and transported to various facilities within the County. For the purposes of this Draft EIS, only the four major facilities located in the county are discussed, and listed as follows:

- Wheelabrator North Broward – 2600 NW 48th Street, Pompano Beach, FL
- Wheelabrator South Broward – 4400 S. State Road 7, Fort Lauderdale, FL
- Broward County Interim Contingency Landfill – 7101 SW 205th Avenue, Fort Lauderdale, FL
- Central Disposal Sanitary Landfill – 2700 NW 48th Street, Pompano Beach, FL

¹⁸³ Email correspondence received from Mr. Dan Malloy, Southern Waste Systems, November 7, 2006.

¹⁸⁴ Cubic yards total converted to tons based on calculations from *Converting C&D Debris Volume to Weight: A Fact Sheet for C&D Debris Facility Operators*, University of Florida, March 2000.

¹⁸⁵ Cubic yards total converted to tons based on calculations from *Converting C&D Debris Volume to Weight: A Fact Sheet for C&D Debris Facility Operators*, University of Florida, March 2000

¹⁸⁶ Waste Management Summary Data obtained from Mr. Richard Segredo, Waste Management, Inc., July 2006.

Waste-to-Energy Facilities: *Wheelabrator North and Wheelabrator South Facilities:* Under a current waste transportation and disposal agreement, which is valid until 2013, these two waste-to-energy facilities (i.e., incinerator sites) handle all the municipal solid waste for 26 municipalities in Broward County.¹⁸⁷ Each facility is capable of handling approximately 1.6 million tons of waste a year, which is equivalent to 2,250 tons a day.

According to the Broward County Office of Urban Planning and Redevelopment Planning Services Division, the population of the area is expected to increase from 1,789,916 to 2,273,287 by the year 2020.¹⁸⁸ This is a growth rate of approximately 27 percent. The waste to energy facilities are currently operating at approximately 66 percent capacity, based on the demands of the current day population of Broward County.¹⁸⁹ Therefore, based on the growth projections, the facilities will still be capable of handling the needs of the County through the year 2020.

Broward County Interim Contingency Facility: A third waste-to-energy facility is also located at the Broward County Interim Contingency Landfill to accommodate future needs within the county.¹⁹⁰ The facility is not being used at this time and therefore has a 100 percent potential increase in operational capabilities.

Broward County Interim Contingency Landfill: This landfill can accommodate approximately 2.8 million tons¹⁹¹ of material and has a current demand of 40,000 to 50,000 tons of material a year. According to the Broward County Solid Waste Operations Division, at the current rate of disposal, this facility is expected to be completely operational for another 100 years.

Central Sanitary Disposal Landfill: This landfill is privately owned and operated by Waste Management, Inc. and is provided as a back-up facility for any additional requirements within the County.¹⁹² According to the BCEPD, this facility is expected to be operational for another 25 years.¹⁹³

Airport Recycling Specialists (ARS): ARS is a waste processing and materials recovery facility, which currently serves the terminal area of the airport, with the exception of food waste collection. The ARS facility is currently the sole recycling facility at FLL. The ARS collection and recovery quantities were obtained from the Broward County report, *Environmental Footprint for FLL Operations*.¹⁹⁴

¹⁸⁷ Information received from Broward County Solid Waste Operations Division, November 9, 2006.

¹⁸⁸ *Accommodating Population Growth in Broward County, 2000 to 2030*, Broward County Office of Urban Planning and Redevelopment Planning Services Division, August 2003.

¹⁸⁹ *Disposal Capacity at Broward County Solid Waste Facilities*, Broward County Solid Waste Operations Division, Revised October 2005.

¹⁹⁰ *Disposal Capacity at Broward County Solid Waste Facilities*, Broward County Solid Waste Operations Division, Revised October 2005.

¹⁹¹ Cubic yard total converted to tons using maximum pound per cubic yard measurement from *Measuring Recycling: A Guide for State and Local Governments*, Environmental Protection Agency, September 1997.

¹⁹² *Disposal Capacity at Broward County Solid Waste Facilities*, Broward County Solid Waste Operations Division. Revised October 2005.

¹⁹³ Information obtained from Fermin Unsal, BCEPD, November 9, 2006.

¹⁹⁴ *Environmental Footprint for FLL Operations*, Clean Airport Partnership, Inc., September 2005.

ARS currently handles an average of 2,800 tons of material a year, of which an average of 1,100 tons is recovered and recycled.¹⁹⁵ The balance of the waste is transported by All Service to the Wheelabrator South Facility to be incinerated.¹⁹⁶ The recyclable material which includes, but is not limited to aluminum, cardboard, newspaper, office/mixed paper, plastics, glass, pallets, and steel is transported by All Service, to the Envirocycle transfer station. ARS operates at one-third of maximum capacity and is capable of handling up to three times the waste currently being generated within the FLL main terminal area.¹⁹⁷

¹⁹⁵ *Environmental Footprint for FLL Operations*, Clean Airport Partnership, Inc., September 2005.

¹⁹⁶ Information obtained from Mr. Michael Phillips of All Service, Inc., June 27, 2006.

¹⁹⁷ Information obtained from Mr. Andy Duerr of Airport Recycling Specialists, June 23, 2006.