



# Department of Solid Waste Management Business Plan

**Fiscal Years: 2010 and 2011**  
(10/1/09 through 9/30/11)

Plan Date: November 25, 2009

Approved by:

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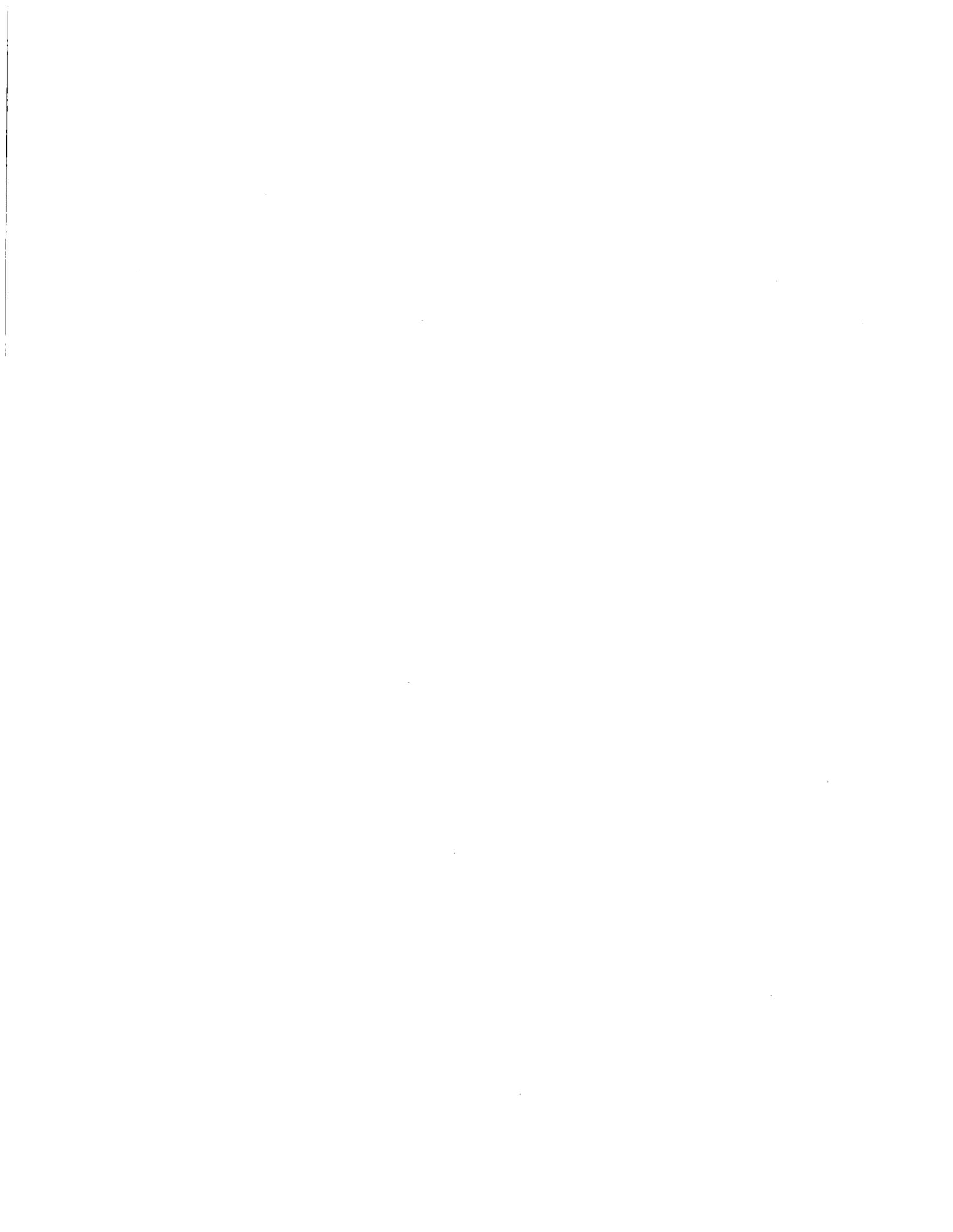
Kathleen Woods-Richardson,  
Department Director

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Howard Piper,  
Special Assistant

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<b>BUSINESS PLAN REPORT</b>	

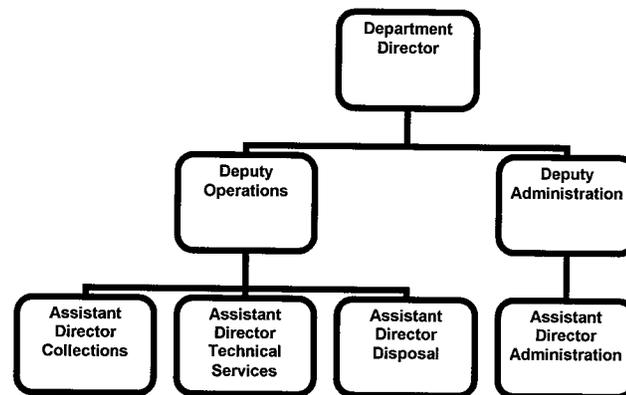


## **EXECUTIVE SUMMARY**

The Department of Solid Waste Management (DSWM) mission is to provide our customers with exceptional waste collection, recycling, and disposal services that protect, preserve, and improve our environment and the quality of life in our community. This is achieved by providing the following services:

- garbage and trash collection in the Solid Waste Collection Service Area (WCSA)
- collection of recyclable materials in unincorporated Miami-Dade County and participating municipalities
- waste transfer and disposal services countywide
- contract with municipalities and private haulers for the provision of disposal services
- regulation of waste collection, transportation, and recycling countywide

The Department successfully fulfills its mission with an exceptional management team that operates based on the major functions depicted in the organization table below.



The Department has nine key strategic goals which align with the Neighborhood and Unincorporated Municipal Service Area of the Miami-Dade County strategic areas. The Department's plan for the next two years encompasses the continuation of its main objectives and provides a few new objectives, which focus on programs and initiatives for improved business processes, innovation, sustainability, workforce engagement and succession planning. The most significant programs or initiatives included in this plan are the following:

- Collection and Disposal Operations
- Household Hazardous Collection Program
- Landfill Gas Utilization System
- Garbage Route Balancing Project
- Facility Maintenance & Construction Program
- Ensure Compliance with Federal, State and Local Environmental Regulations
- Technology Initiatives (TRC Access, GPS, Scale house Automation, and replacement of Waste Collection System
- Succession Planning

**Departmental Business Plan and Outlook**  
**Department Name: Solid Waste Management**  
**Fiscal Years: 2009-10 & 2010-11**

While the Department strives to accomplish its objectives, there are some challenges that are critical to the Department's ability to be successful in these accomplishments. A few of the most significant critical success factors identified in the plan are as follow:

- **Maintain Financial Stability:** The DSWM has experienced disposal revenue loss due to the downturn in the economy.
- **Solid Waste Management Master Plan:** The Solid Waste Management Master Plan will provide a framework for policies and decisions, operational efficiencies, funding mechanisms, waste system concurrency, waste collection, disposal alternatives, waste stream analysis (long-term disposal contract reviews), waste diversion, and facility needs for the next 50 years in Miami-Dade County.
- **Changing Laws and Regulations:** Upcoming legislation at the Federal and State levels (i.e. clean energy, climate change) may have a significant impact on the department.
- **Succession Planning:** DSWM needs to monitor the retention of its skilled workforce and prepare for retirements by training and participating in succession planning.
- **New Technology:** DSWM needs to continue new and innovative technological efforts that will allow the department to operate more efficiently and effectively.

DSWM provides collection services to over 320,000 households within the WCSA of unincorporated Miami-Dade County and nine municipalities. In addition to providing disposal to the Department's collection operation, there are long-term agreements with 18 municipalities and numerous private haulers. The Department owns thirteen Neighborhood Trash and Recycling Centers, three regional transfer stations, two landfills, and one of the largest waste-to-energy facilities, which is operated by Covanta Southeastern Florida Renewable Energy LLC.

The current business environment in DSWM has resulted in slowed housing growth, reduced disposal tonnages and a negative Consumer Price Index (CPI), which have affected the Department's financial stability. To compound the economic factors, there are new sustainability efforts, recycling, and an increase in green initiatives. To mitigate the financial impact of these factors the Department has reduced operating expenditures and capital costs.

The Department has a few relevant program and initiatives planned over the next three to five years that are essential to the success of DSWM's strategic goals and outcomes. The Department's 3 to 5 year plan includes the following activities:

- **Solid Waste Master Plan:** The results of the plan will be used to formulate long-term departmental waste collection and disposal strategies.
- **Cell 5 Construction:** The completion of this cell will leave the system with 11 years of remaining disposal capacity.
- **Legislation:** The renewable/ clean energy and two air emission standards are legislations that will affect DSWM
- **Financial Stability:** The Department is currently experiencing revenue shortfalls and will have problems meeting debt coverage without a fee increase and operational efficiencies.
- **New Technology:** The Department is currently exploring new technology for improved business processes.
- **Succession Planning:** Automate Human Resources systems to track, monitor and analyze data for the development of innovative programs.

The DSWM is a local government with collection, recycling, and disposal obligations. As such, competition is based on the different components of the services. The entities that are capable of competing are the larger companies, which are few.

## **DEPARTMENT PURPOSE/MISSION**

**Purpose:** To collect garbage and trash in the Solid Waste Collection Service Area, to contract for the collection of recyclable materials in unincorporated Miami-Dade County and participating municipalities; to provide waste transfer and disposal services countywide; to contract with municipalities and private haulers for the provision of disposal services; and to regulate waste collection, transportation, and recycling countywide.

**Mission:** To provide our customers with exceptional waste collection, recycling, and disposal services that protect, preserve, and improve our environment and the quality of life in our community.

Additional departmental information can be found in the Departmental Profile (Attachment 1).

**Strategic Area:** Neighborhood and Unincorporated Municipal Service Area (UMSA)

## **STRATEGIC ALIGNMENT**

- I. The Department's efforts align with the following Miami-Dade County Strategic Plan Goals:
  1. Empower the community by increasing communication and coordination with local, state and federal entities **(NU2)**
  2. Promote responsible stewardship of natural resources and unique community environments **(NU3)**
  3. Use consistent, fair and effective means to achieve code compliance **(NU4)**
  4. Enact programs to beautify and improve urban and residential areas **(NU5)**
  5. Provide timely and reliable public infrastructure services including road maintenance, storm water, solid waste and wastewater management, and a safe and clean water delivery system consistent with the Comprehensive Development Master Plan (CDMP) **(NU6)**
  6. Ensure timely acquisition of "best value" goods and services while maintaining integrity and inclusion **(ES3)**
  7. Capitalize on technology to improve service, increase efficiency and provide greater information access and exchange **(ES4)**
  8. Attract, develop and retain an effective, diverse and dedicated team of employees **(ES5)**
  9. Deliver on promises and be accountable for performances **(ES9)**

**II. Department-related Strategic Plan Outcomes, Departmental Objectives, and Programs & Initiatives:**

- 1.1. Improved community access to information and services (NU2-2)
  - 1.1.a. Increase community awareness through increased community outreach events
    - Outreach Events and Community Fairs (ongoing)
    - Dissemination of brochures and public notices (on-going)
    - Design and implement recycling campaigns (on-going)
  - 1.1.b. Enhance community engagement
    - Home Owner Association (HOA) and town-hall meetings (on-going)
    - School partnerships (on-going)
  
- 1.2. Well-trained, customer-friendly County government workforce (NU2-3)
  - 1.2.a. Enhance and develop staff through training efforts
    - Continue customer service trainings (on-going)
    - Training and Employee Development Programs (on-going)
    - Enforcement Certification (on-going)
    - Spotter Training (on-going)
  
- 1.3. Continuing supplies of quality drinking water to meet demand (NU 3-1)
  - 1.3.a. Ensure that the treatment and delivery of existing public water supply well and well fields meet or exceeds regulated standards
    - Monitor leachate production to comply with environmental regulations (on-going)
    - Household Hazardous Collection Program (on-going)
    - Groundwater monitoring well (on-going)
  
- 1.4. Preservation of wetlands and environmentally valuable uplands (NU 3-3)
  - 1.4.a. Ensure Landfill capacity
    - Disposal Operations (on-going)
    - Southdade Landfill Cell 3 Closure (started FY 09, on-going)
    - Southdade Landfill Cell 5 Construction (started FY 09, on-going)
    - Resources Recovery Cells 17,18 Closure (started FY 09, on-going)
  - 1.4.b. Ensure control of exotic plants in preserved wetlands
    - Wetland Exotic Control Program (on-going)
    - Environmental Endangered Lands Program

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- 1.4.c. Increase waste volume reduction
  - Operation of the Resources Recovery Plant
- 1.4.d. Ensure compliance with Clean-Air Act (Title V)
  - Landfill Gas Utilization System (start FY 10)
- 1.4.e. Ensure Greenhouse Gas reduction
  - Hybrid Truck Purchases
  - Installation of a CO<sup>2</sup> boiler monitor and distributed control system at Resources Recovery (on-going)
  
- 1.5. Resident and business voluntary compliance with County Codes (NU 4-1)
  - 1.5.a. Enhance community education and information regarding enforcement codes
    - Multi-Family/Commercial Recycling Education and Enforcement (on-going)
    - Continue Notice of Intent to Lien (NOIL) mail-outs (on-going)
  
- 1.6. Consistent interpretation and application of enforcement practices (NU 4-3)
  - 1.6.a. Ensure the enforcement and compliance of Chapter 15 of the Code
    - Code Enforcement Programs (on-going)
    - E-Ticketing Initiative (start FY 11)
    - Florida Association Code Enforcement (start FY11)
  
- 1.7. Neighborhood and rights-of-way aesthetics that foster and enhance quality of life (NU 5-1)
  - 1.7.a. Improve collection of residential curbside garbage and trash
    - Twice-a-week residential garbage pick-up service (on-going)
    - Scheduled Bulky-Waste Pick-up Program (on-going)
    - Garbage Route Balancing Project (on-going)
    - ARC Logistics Bulky Waste Project (start FY10)
  - 1.7.b. Enhance recycling programs
    - Contracted recycling pick-up, once every other week (on-going)
  - 1.7.c. Improve programs that promote neighborhood and rights-of-way aesthetics
    - Pick-up of illegal dumping piles (on-going)
    - Litter Hotpots Pick-ups (on-going)
    - Bus Stop Collection Program (on-going)
  
- 1.8. Timely repair and replacement of damaged property (NU 5-2)
  - 1.8.a. Ensure safe facilities and equipment
    - Renovation and 40-year structural refurbishment of the 58<sup>th</sup> street building; New 3A building (start FY 10)

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- Northeast Transfer Station 40-year structural refurbishment (start FY 10)
  - Maintain safe and operational facilities (on-going)
  - Annual Fleet Replacement Plan (on-going)
- 1.9. Improved public infrastructure level-of-service standards and policies (NU 6-3)
- 1.9.a. Ensure compliance with federal, state, and local environmental regulations
- Continue monitoring for 100% compliance (on-going)
  - Florida Department of Environmental Protection (FDEP) Landfill and Transfer Quarterly Reports (on-going)
- 1.9.b. Develop a long term (50-Year) Solid Waste Master Plan
- Master Plan Project (start FY 09, on-going)
- 1.10. Streamlined and responsive procurement process (ES 3-1)
- 1.10.a. Improve response time for purchase of goods and services
- Implement automated procurement system (start FY 10)
- 1.11. Available, reliable systems (ES 4-2)
- 1.11.a. Enhance internal applications for adequate information demands reliability
- Replacement of the Waste Collection System (WCS); a three-year process (starts FY 09-10)
  - CSR Mobile (start FY 10)
  - 311 Integration (on-going)
  - Scalehouse Automation Project (start FY 09, on-going)
  - Electronic Document Management System (EDMS) (start FY 10)
- 1.12. County processes improved through information technology (ES 4-6)
- 1.12.a. Improve processes through information technology efforts
- Implement the Trash and Recycling Center (TRC) Access System (start FY10)
  - Implement GPS tracking on garbage and trash trucks (start FY 10)
  - Continue to implement the use of Share Point (on-going)
- 1.13. Workforce skills to support County priorities (e.g. leadership, customer service, fiscal problem-solving technology, etc. (ES 5-4)
- 1.13.a. Enhance training opportunities to provide middle and senior level staff with competencies to be effective and thereby tie all Human Resources initiatives together
- Senior Staff Retreat (on-going)
  - Supervisors (Mid-Level Managers) Retreat – (on-going)

- Supervisory Academy (start FY 09, on-going)
  - Supervisors Forum (start FY 10)
  - Succession Planning Program (on-going)
  - Participation in the Professional Development Clinics and Supervisors Certification Program (on-going)
- 1.14. Alignment of priorities throughout the organization (ES 9-2)
- 1.14.a. Improve the deployment of Departmental priorities and performance expectations
- Continue Active Strategy Enterprise business reviews (on-going)
  - Governor's Sterling Award examination (start FY 10)
  - Formal field tours and ride-alongs by Administrative Staff ( start FY 10)
- 1.14.b. Ensure administrative support is efficient and effective for operational performance
- Assignment Tracking System

## **PERFORMANCE MEASURES AND TARGETS**

For ease of reference, specific information regarding departmental objectives and performance measures including the targets for FY 2009-10 and FY 2010-11 can be found in Attachment 2 – Business Plan Report.

## **CRITICAL SUCCESS FACTORS**

Principal factors determining success in key strategic challenges are: organizational structure, operations, human resources, technology, positive public and municipal engagement with the community suppliers and partners, budget and funding management and an updated comprehensive master plan. Identifying and addressing these key principal factors will identify and develop activities, programs, facilities and technologies that will provide sustainability, resource conservation, source reduction, recycling, diversion, disposal and collection options to promote public health and environmental protection to the next generation of County residents.

Identified below are specific critical success factors aligned to the appropriate departmental objectives.

1. **Effective Customer Communication:** DSWM needs to continue to communicate and enhance our mission of providing exceptional waste collection, recycling and disposal services. Additionally, a strong, comprehensive program of public education and outreach to facilitate the proper use of our waste management services, programs and facilities. (Supports objectives – 1.1.a, 1.1.b)

2. **Maintain Financial Stability:** DSWM needs to continue to achieve financial stability. The household waste fees predominately support collections operations and tipping fees mostly support disposal operations. The DSWM has experienced disposal revenue loss due to the downturn in the economy. (Supports objectives 1.7.a, 1.7.b, 1.7.c)
3. **Solid Waste Management Master Plan:** DSWM needs to complete Phase I of the Solid Waste Master Plan. The goal of the Solid Waste Management Master Plan is to identify and develop long-term waste strategies that will enhance and improve resource conservation, recycling, disposal and collection options, environmental protection, and public health for the next generation of Miami-Dade County residents. (Supports objective 1.4.a, 1.4.c, 1.4.d, 1.4.e, 1.9.b)
4. **Aging Facilities:** DSWM needs to ensure future viability of all existing facilities. The DSWM has a multi-year capital program in place to address these issues. (Supports objective 1.8.a)
5. **Changing Laws and Regulations:** DSWM needs to maintain and guide the local, state and federal regulations. Upcoming legislation (i.e. clean energy, climate change) will have a significant impact on the department. (Support objectives 1.3.a, 1.5.a, 1.6.a, 1.9.a)
6. **Fleet Management and Fuel Cost:** DSWM needs to ensure that the fleet (heavy & light) equipment is safe reliable and cost efficient. The DSWM will continue to work with GSA to lower maintenance costs while ensuring that vehicles and other equipment remain operational. DSWM will continue to purchase the most appropriate vehicle for operation needs and monitor fuel costs. DSWM will continue to fund the 10-year fleet plan. (Supports objective 1.4.e., 1.8.a)
7. **High Level of Contractual Performance:** DSWM needs to ensure that all strategic partners maintain high levels of contractual performance (i.e. Waste to Energy Plant Operator, Recycling Vendors, and White Goods Vendor). (Support objectives 1.4.c, 1.7.b)
8. **Succession Planning:** DSWM needs to monitor the retention of its skilled workforce and prepare for retirements by training and participating in succession planning. (Supports objectives 1.2.a, 1.13.a)
9. **Political Engagement:** DSWM needs to educate and engage the political body with upcoming initiatives that will require Board approval. (Supports objectives 1.1.a, 1.1.b)
10. **New Technology:** DSWM needs to continue new and innovative technological efforts that will allow the department to operate more efficiently and effectively. (Supports objective 1.6.a, 1.11.a, 1.12.a)

### **Internal Support Requirements**

1. **Government Information Center (GIC):** DSWM needs the assistance of GIC to enhance communication with customers and help resolve complaints in a timely and adequate manner. (Supports objectives 1.1.a, 1.1b)
2. **General Services Administration (GSA):** DSWM requires the assistance of GSA to keep costs at a minimum through efficiencies and services available when needed. (Supports objective 1.8.a)

3. **Department of Procurement Management (DPM):** DSWM requires assistance from DPM to improve the response time of the procurement process. (Supports objective 1.10.a)
4. **Human Resources (HR):** DSWM needs the Human Resources Department to sustain the present speed of recruitment. (Support objective 1.14.b)
5. **Enterprise Technology Services Department (ETSD):** DSWM needs assistance from ETSD to help maintain adequate technology for systems and infrastructure and needs support and assistance with the replacement of the Waste Collection System (Support objectives 1.11.a, 1.12.a)
6. **Permitting Departments:** DSWM requires support from the permitting departments for timely turnaround and proper comprehension of DSWM capital projects, grant opportunities, and environmental regulations. Due to the complexity and uniqueness of the Department's capital projects, permitting often requires more time and explanation. (1.3, 1.4, 1.8.a, 1.9.a)

## **SUSTAINABILITY**

The DSWM will be undertaking the following sustainability efforts in FY 2009-10 and FY 2010-11:

- Increase the participation in the Curbside Recycling Program (measured in total tons collected).
- Purchase at least six Hybrid Automated Garbage Trucks (tracked as an initiative in ASE, expected arrival in the summer of 2010).
- Continue to develop the Solid Waste Management Master Plan (tracked as an initiative in ASE, expected completion of Phase I in fall 2010).
- Continue the Landfill Gas conversion to electricity project (tracked as an initiative in ASE, expected to be complete in February 2011).
- Continue a carbon sequestration (reforestation) project at the Old South Dade Landfill (tracked as an initiative in ASE).
- Track the amount of fuel used (both heavy and light fleet) and search for trends and opportunities for fuel reduction (measured in number of gallons purchased).
- Continue to enforce the Department's *No Idling* Policy (measured in numbers of reminders or disciplines given to employees).
- Continue to enforce the Department's *Green Office* procedures (no clear way to measure), but the Director's Office will continue to push the information through the Department.
- Explore ways to reduce paper usage (measured by number of reams purchased).
- Continue efforts towards a goal of 2% fuel reduction.
- Extract all Freon from older refrigerators and air-conditioning units that contain contaminants.

## **3 to 5 YEAR OUTLOOK**

Below are a few of the most relevant activities, programs and initiatives anticipated beyond FY 2010-11 required to achieve the DSWM's strategic goals and outcomes.

### Solid Waste Master Plan:

The Solid Waste Management Master Plan will provide a framework for policies and decisions, operational efficiencies, funding mechanisms, waste system concurrency, waste collection, disposal alternatives, waste stream analysis (long-term disposal contract reviews), waste diversion, and facility

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needs for the next 50 years. The project will engage citizens in the process through community outreach to solicit their feedback. The results of the plan will be utilized to effectively formulate long-term departmental waste collection and disposal strategies. The results will also be used to address the challenge to meet capacity requirements.

The DSWM began the development of Phase I in June 2009. Within the next three years, the development of both Phase I and II will be completed. The Department will then begin implementing the desired outcomes of the plan.

Cell 5 Construction:

The DSWM is responsible for planning and ensuring that disposal needs are met in both the incorporated and unincorporated areas of the County. The County's system must collectively maintain a solid waste disposal capacity sufficient to accommodate waste flows committed to the long-term interlocal agreements or contracts with municipalities and private waste haulers and anticipated waste flows for a minimum of 5 years. The DSWM is in the process of designing Cell 5 (35% complete) at the South Dade Landfill for additional disposal capacity. Construction of this 50-acre cell will begin in FY09-10 and once completed in FY11-12, the system will have eleven (11) years of remaining disposal capacity.

Legislation

There are looming legislative changes at the Federal and State levels that will affect DSWM operations as it relates to recycling and renewable/clean energy. A comprehensive legislative item regarding Renewable Energy reflects the DSWM's ongoing efforts to both preserve waste-to-energy's inclusion in applicable definitions of "renewable energy" and "green energy" and to provide incentives and other support for the production of such renewable energy. The Department is working with the Office of Intergovernmental Affairs and has included language in the legislative package to address these issues.

There are two air emission standards established by the United States Environmental Protection Agency/ Florida Department of Environmental Protection (USEPA/FDEP) that may be modified and therefore, could affect our facilities in the foreseeable future, (Mercury (Hg) and Greenhouse gases (GHGs). They both include Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O). The FDEP has expressed that Hg from the Waste-to Energy plant may require continuous emissions monitors (CEM's) which is equipment that analyzes stack emissions continuously on a real time basis. Currently, the stack emissions are monitored once yearly. Effective January 1, 2010, Landfills and the Waste-to-energy plant must keep an inventory of GHG emissions. Data collected through the inventory will be used as a basis for limiting (capping) GHGs from solid waste facilities. Facilities emitting over a certain threshold will have to offset the GHGs by buying credits and/or paying a fee. The American Clean Energy and Security Act (Federal Legislation - HR 2454), establishes a cap-and-trade system which is expected to start in 2012.

Financial Stability

The DSWM has experienced some revenue shortfalls and is actively seeking to develop and implement operating efficiencies that will help minimize costs. Current projections anticipate that DSWM will not meet the required debt service coverage in FY 2011-2012. A fee increase will likely be necessary in that year.

New Technology

Technology is essential to every industry. The DSWM is in the process of exploring new technologies and will be among the first in the industry to purchase Automated Hybrid Garbage Trucks. The Solid Waste Management Master Plan will identify new technologies for the collection and disposal of waste. DSWM will continue to explore new IT technology such as enhanced GPS, routings, customer management systems, and enhancement of the waste collection system.

Succession Planning

The DSWM currently has a large percentage of its workforce that is and will be able to retire within the next three to five years. The department has implemented many programs to react to this oncoming issue such as succession planning, supervisory forums, supervisory academy and continues to push training efforts in the wake of budgetary constraints. The department continues to monitor its workforce to ensure that the skill sets necessary for the continuity of operation are maintained.

The Department is currently working with the Fire Department to benchmark their HR systems which will enable the Human Resources Division to track, analyze, and report personnel data automatically. These systems will also enable the Department to identify issues in a timely manner based on data and evaluate data trends based on retirements, types of injuries, disciplines, accidents, trainings, and many other activities. The completion of this project will allow for innovative HR programs based on the data trends and results.

*Attachment 1*

## **DEPARTMENTAL PROFILE**

### **Department Description**

#### **1. Brief History/Significant Events**

In January 1989, DSWM and the Countywide Disposal Division of the Public Works Department merged into the Department of Solid Waste Management (DSWM) with the primary responsibility for collection, transfer, disposal, and recycling of municipal solid waste.

By the early 1990s, the DSWM had encountered financial challenges as a consequence of the altered waste disposal market and the availability of low cost regional capacity, which were addressed in the Department's 1995 Strategic Plan. Currently, the DSWM is experiencing a reduction in tonnage as the nation experiences an economic downturn, compounded by new and increased green initiatives. The Department is evaluating how to deal with this issue and will address these concerns in the long-term Solid Waste Management Master Plan.

#### **2. Major Duties, Services and Programs**

The Department's major services and programs can be described as follows:

- Provision of waste collection and disposal service to more than 320,000 residential households in the solid waste service area; providing curbside collection of garbage twice-per-week.
- Unlimited authorized customer access to any of the 13 Trash and Recycling Centers located throughout UMSA
- The single stream contracted operation for collection of curbside recyclable materials
- Operation of waste disposal comprises of two landfills (North Dade and South Dade Landfills) and the Resources Recovery facility (waste-to-energy-facility) and the associated ashfill
- Provision of disposal capacity to meet state concurrency Level of Service standards and provision of disposal services to municipalities and private haulers via long term contracts
- Operation of three Transfer Stations to reduce travels and waste delivery obligations
- Provision of other special programs and services including code enforcement, special waste collection, recycling goal compliance, illegal dumping collection, UMSA litter collection and the funding and administration of municipal landfill closure grants
- The Home Chemical Collection Centers for disposal of household chemical waste generated
- Enforcement of Chapter 15 of the Miami-Dade County Code: issuing citations for residential and commercial recycling, issuing permits to general haulers, landscapers, tire generators and any other solid waste violations
- Operation of the litter clean-up program, bus stop program and hot spot program
- Maintain capital infrastructure and vehicle replacement
- Maintain environmental compliance with federal, state and local regulations
- Ensure administrative support is efficient and effective to support the service mission of all operating divisions

### **3. Department Facilities**

#### **A. Disposal Facilities**

##### **Landfills**

- Resources Recovery Facility (Waste-to-Energy facility) and the associated ashfill
- South Dade Landfill – Class I waste disposal facility
- North Dade Landfill – Class III (trash) waste disposal facility

##### **Transfer Facilities**

- Northeast Transfer Station
- Central Transfer Station
- West Transfer Station

#### **B. Collection Facilities**

##### **13 Trash & Recycling Centers – residential trash drop-off centers**

- North Dade - 21500 NW 47 Avenue
- Norwood - 19901 NW 7 Avenue
- Palm Springs North - 7870 NW 178 Street
- West Little River - 1830 NW 79 Street
- Golden Glades - 140 NW 160 Street
- Sunset Kendall - 8000 SW 107 Avenue
- Snapper Creek - 2200 SW 117 Avenue
- Richmond Heights - 14050 Boggs Drive
- Chapman Field - 13600 SW 60 Avenue
- Eureka Drive - 9401 SW 184 Street
- West Perrine - 16651 SW 107 Ave
- Moody Drive - 12970 SW 268 Street
- South Miami Heights - 20800 SW 117 Court

3A Facility – Garbage Collection Vehicles Facility

3B Facility – Collection Vehicles Facility

58<sup>th</sup> Street Facility – Collection Vehicles Facility

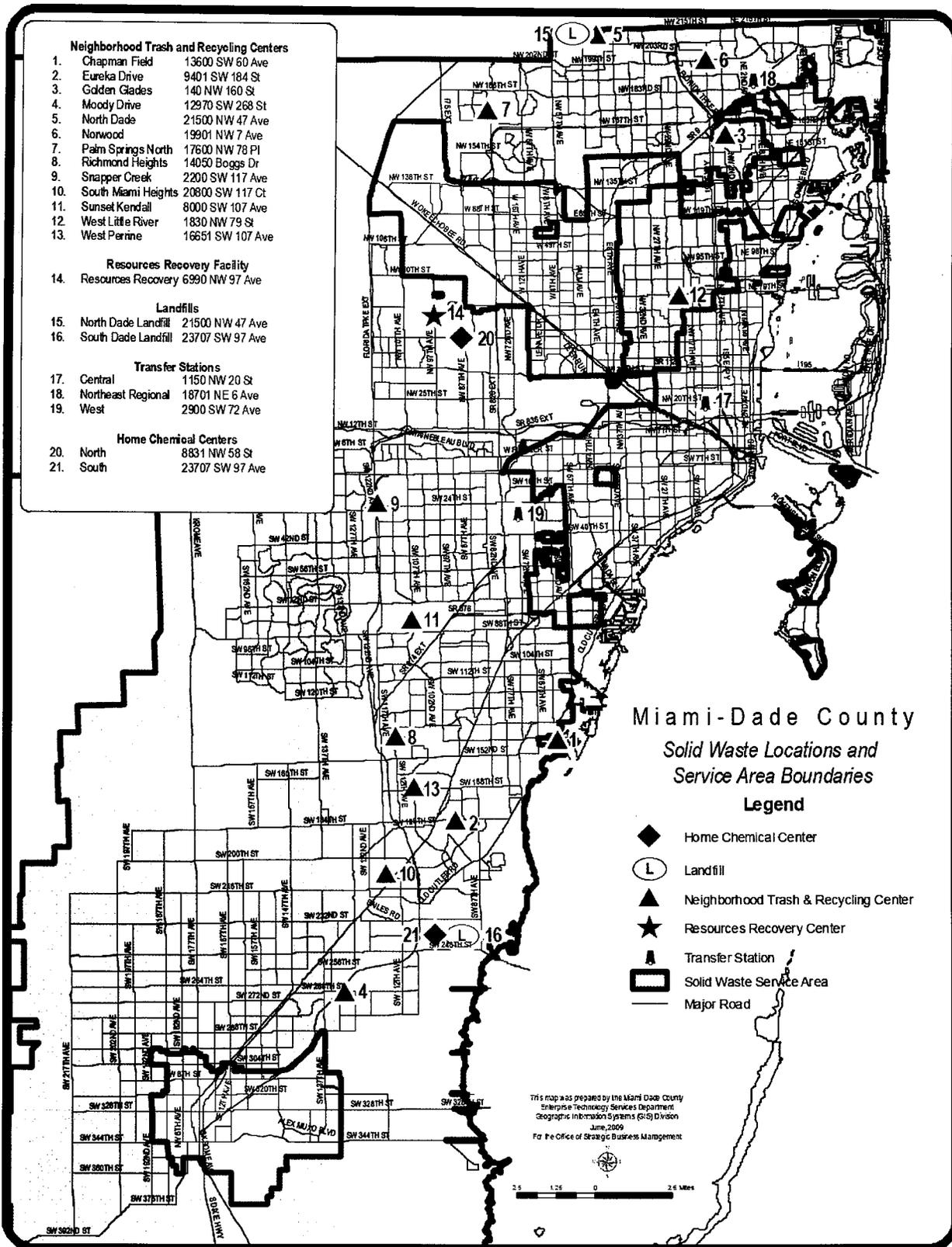
Home Chemical Collection Facility – North

Home Chemical Collection Facility - South

#### **C. Other Facilities**

MLK Building – Administrative Offices

**Map of department facilities:**



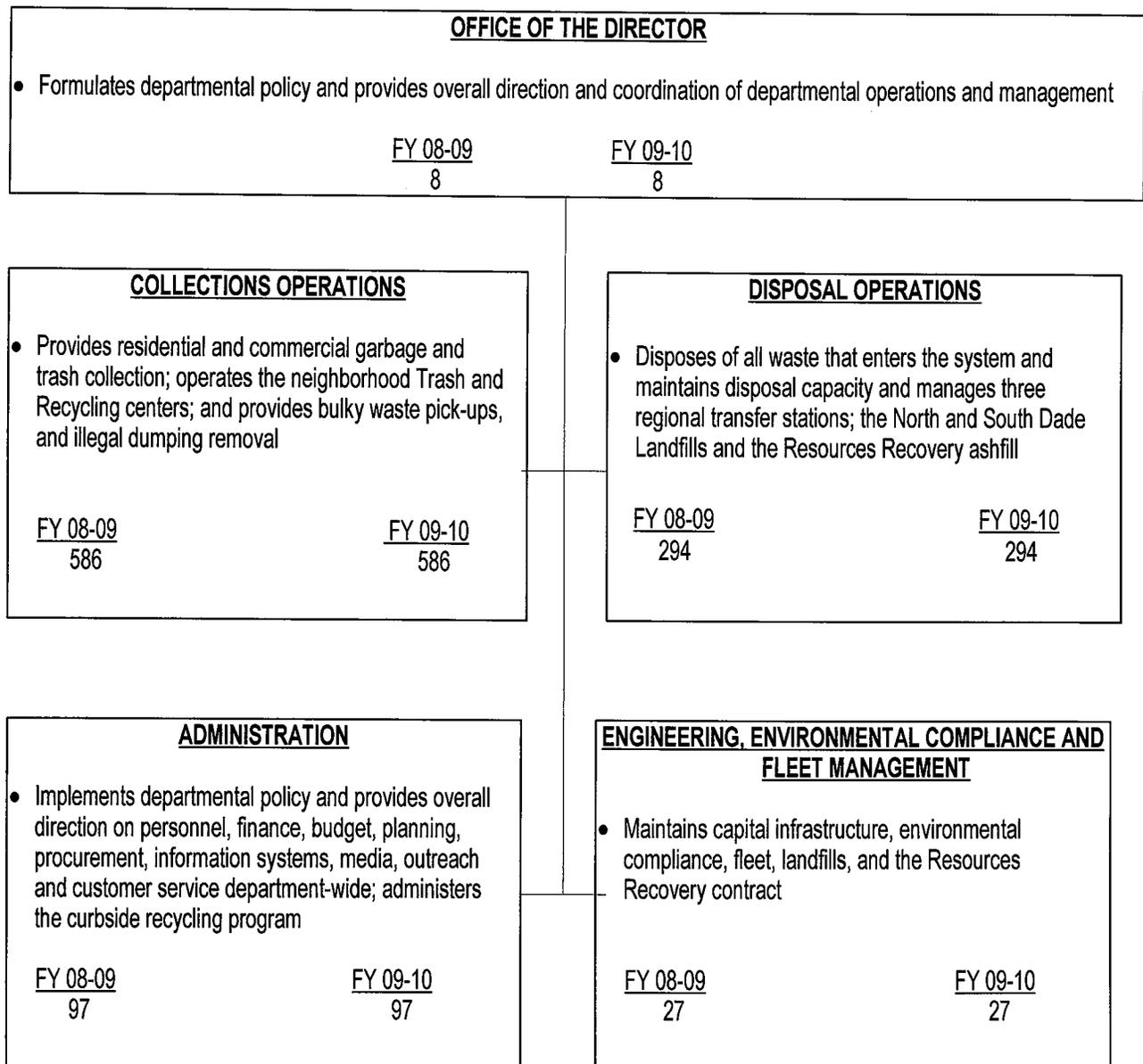
#### **4. Current Innovative Programs and Initiatives**

- Single Stream Recycling Service
- Automated Garbage Service
- Hybrid Trucks
- E-Waste Program
- Trash and Recycling Center Access System
- Procurement Automation System
- Landfill Gas Utilization System

#### **5. New Services or Programs Anticipated for next fiscal year (FY10-11)**

- Implement the Trash and Recycling Center Access Management program with full automation.
- Implement the use of Global Positioning System technology on those vehicles with the largest return on investment.
- Explore composting programs that take food waste and other organic material (whether individual backyard composting or with a larger network).
- Implement the use of the E-Ticketing initiative which will provide a nearly paperless case handling process and allow the officer the ability to input and retrieve pertinent data while in the field.
- Explore partnerships with academic and research institutions involved with sustainable solid waste practices, green energy and environmental protection.

**Table of Organization**



\*Administration and the Office of the Director comprise Administration and UMSA Recycling  
 \*Collection Operations comprises Trash Collection, Garbage Collection, and UMSA Enforcement, Litter and Illegal Dumping  
 \*Disposal Operations comprises Disposal and Transfer Operations  
 \*Engineering, Environmental Compliance and Fleet Management

**Departmental Business Plan and Outlook**  
**Department Name: Solid Waste Management**  
**Fiscal Years: 2009-10 & 2010-11**

**FINANCIAL SUMMARY**

(dollars in thousands)	Actual FY 07-08	Budget FY 08-09	Adopted FY 09-10
<b>Revenue Summary</b>			
Interest/ Rate Stabilization Reserve	5,420	8,755	5,063
Recyclable Material Sales	1,184	503	781
Resource Recovery Energy Sales	28,001	27,845	29,918
Carryover	105,107	95,646	88,772
Collection Fees and Charges	143,894	136,097	136,297
Disposal Fees and Charges	123,473	127,371	106,347
Transfer Fees	7,732	8,148	6,962
Utility Service Fee	18,067	18,171	17,666
Federal Grants	0	0	830
<b>Total Revenues</b>	<b>432,878</b>	<b>422,536</b>	<b>392,636</b>
<b>Operating Expenditures Summary</b>			
Salary	51,671	55,472	48,881
Fringe Benefits	19,873	22,546	21,283
Other Operating	218,953	219,873	214,376
Capital	6,306	7,729	17,844
<b>Total Operating Expenditures</b>	<b>296,803</b>	<b>305,620</b>	<b>302,384</b>
<b>Non-Operating Expenditures Summary</b>			
Debt Service	24,549	26,051	24,602
Reserve	0	82,466	51,997
Transfers	2,000	8,399	13,653
Other Non-Operating Adjustments	0	0	0
<b>Total Non-Operating Expenditures</b>	<b>26,549</b>	<b>116,916</b>	<b>90,252</b>

(dollars in thousands)	Total Funding		Total Positions	
Expenditure By Program	Budget FY 08-09	Adopted FY 09-10	Budget FY 08-09	Adopted FY 09-10
<b>Strategic Area: Neighborhood and Unincorporated Area Municipal Services</b>				
Administration	32,223	35,391	103	103
Disposal Operations	103,622	103,957	96	96
Engineering, Environmental Compliance and Fleet Management	8,911	8,658	27	27
Garbage Collection	75,884	75,179	319	319
Transfer Operations	31,711	30,744	198	198
Trash Collection	38,312	32,960	194	194
UMSA Enforcement Litter & Illegal Dumping	5,990	6,923	73	73
UMSA Recycling	8,967	8,572	2	2
<b>Total Operating Expenditures</b>	<b>305,620</b>	<b>302,384</b>	<b>1,012</b>	<b>1,012</b>

**CAPITAL BUDGET SUMMARY**

(dollars in thousands)	PRIOR	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FUTURE	TOT.
<b>Revenue</b>									
Bond Anticipation Notes	348	0	0	0	0	0	0	0	3
Building Better Communities GOB Program	1,108	572	3,745	5,825	0	0	0	0	11,2
Future Solid Waste Disp. Notes/Bonds	0	0	18,625	1,290	2,200	457	13,301	34,994	70,8
Solid Waste System Rev. Bonds 1998	45	0	0	0	0	0	0	0	0
Solid Waste System Rev. Bonds Series 2001	6,684	0	0	0	0	0	0	0	6,6
Solid Waste System Revenue Bonds, Series 2005	36,473	0	0	0	0	0	0	0	36,4
Waste Collection Operating Fund	503	1,890	2,185	477	200	200	200	0	5,6
Waste Disposal Operating Fund	9,912	11,763	4,757	3,156	420	553	2,059	5,180	37,8
<b>Total:</b>	<b>55,073</b>	<b>14,225</b>	<b>29,312</b>	<b>10,748</b>	<b>2,820</b>	<b>1,210</b>	<b>15,560</b>	<b>40,174</b>	<b>169,1</b>
<b>Expenditures</b>									
<b>Strategic Area: Neighborhood And Unincorporated Area Municipal Services</b>									
Facility Improvements	200	2,280	720	0	0	0	0	0	3,2
Waste Collection	353	440	1,360	477	200	200	200	0	3,2
Waste Collection and Disposal	95	25	880	0	0	0	0	0	1,0
Waste Disposal	7,724	4,495	7,203	9,701	150	150	100	0	29,5
Waste Disposal Environmental Projects	17,234	7,185	26,314	22,100	2,575	965	15,365	40,431	132,1
<b>Total:</b>	<b>25,606</b>	<b>14,425</b>	<b>36,477</b>	<b>32,278</b>	<b>2,925</b>	<b>1,315</b>	<b>15,665</b>	<b>40,431</b>	<b>169,1</b>

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The critical revenue to the Collections Fund is the Household Fee, accounting for about ninety-seven percent of the fund revenues, excluding carryover. This fee increases only upon the approval of the Board of County Commissioners. The last fee increase was imposed October 1, 2006 and the DSWM realizes that the increase of costs presents a challenge to deliver the same level of service at the current fee.

The Disposal Fund's financial position has changed because the fund has faced some unanticipated revenue challenges. A slow and recovering economy has impacted the fund significantly handling 1.582 million tons in FY 2009, which was 15% less than budgeted. In addition, a net decrease of 1.1% Consumer Price Index (CPI) South All Urban Consumers, was applied to contracts and interlocal agreements appropriately, resulting in less disposal revenue. As a consequence, the Disposal fund is projected to experience less financial stability until further growth in the economy is experienced.

The bulk of the DSWM capital budget (ninety-seven percent) is related to disposal projects and is funded through a combination of revenue-backed debt issuance and annual operating revenues. As noted above, the current revenue structure is adequate to meet the needs of the current multi-year capital budget.

### **Current Business Environment**

The Department of Solid Waste Management has a major role in the local waste management market. The major market segment is comprised of single and multi-family residential properties and commercial or industrial establishments who utilize (either by mandate or voluntarily, collection), transfer, recycling, volume reduction and disposal services. Pursuant to Miami-Dade County ordinance No. 96-30, the Department provides waste collection services to residential units located in the County's Unincorporated Municipal Service Area (UMSA) as it existed on February 16, 1996; the geographic area served, defined as UMSA. The Department also provides waste disposal services to any and all haulers (municipal or private) providing collection services to their customers located in Miami-Dade County. In addition to providing disposal to its own collection operation, the Department has entered into long term disposal contracts with 18 municipalities and numerous private haulers. Simultaneously, the Department manages a curbside recycling contractor and waste-to-energy facility operator, three regional transfer stations, two landfills, one ashfill, and has an enforcement agency for local and state waste collection and transportation regulations.

For more than 50 years, the Department of Solid Waste Management has served the Miami-Dade community. Today, we are the largest government owned and operated waste collection and disposal system in the southeastern United States. In addition to providing waste collection and recycling services to over 320,000 households in unincorporated Miami-Dade County and nine municipalities, the Department owns one of the largest and most technologically advanced waste-to-energy facilities in the world. The Department's relative size and growth in the industry remains steady with the current changes in business practices such as the implementation of automated garbage and recycling collection to achieve efficiencies and manage rising costs. The current state of the economy has had an impact on the solid waste industry as a whole. Miami-Dade County Department of Solid Waste (DSWM) projects a minimal increase in revenues for waste collection services, based on low population growth in households for the Department's Waste Collection Service Area. Disposal equivalent revenue tons are expected to decrease moderately as a result of lower tonnage in full revenue tons. The reduction in tonnage may be offset by the Department's long term disposal contracts with municipalities and private haulers, which include a fee adjustment based on the consumer price index. Although, the DSWM has experienced a decrease in waste being disposed of, the system continues to remain financially sound and solidifies continual growth in the industry.

- **Customers served:** Collections customers consist of the more than 320,000 household residents within the Waste Collection Service Area. Disposal customers consist of the DSWM collection operation, municipal waste collection operations and a number of private haulers from throughout the entire County. The disposal relationships with third parties are relatively stable, being governed by long-term disposal agreements. Relationships with third parties must be maintained as most of these agreements come to an end in the year 2015.

The DSWM key customers and/or market segments are: county and municipal residents, commercial establishments, haulers and waste tire generators (municipal or private), and other county departments.

- **Customer Service Trends:** Current trends in customer service programs provided to solid waste customers (particularly the residential collection customers) are characterized by increased integration with countywide customer service initiatives, more defined tracking and presentation of customer service data and development and implementation of more organized and frequent customer feedback mechanisms. These trends are exemplified by the DSWM merger with the countywide 311 call center system, utilization of the Active Strategy Balanced Scorecard and the Resident Satisfaction Survey. Garbage complaints have decreased in the

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last fiscal year and even further reductions from FY 06-7 as illustrated in the table below (see Table A). The data also reflects from FY 06-07 to FY 08-09, the complaints have been reduced by over 50% and represent 0.02 complaints per household.

The curbside recycling data below illustrates a reflection of higher complaints during implementation and lower complaints and increased tonnage after the completion of the newly implemented single stream recycling program (see Table B).

**Table A: Garbage Complaints**

<b>Month</b>	<b>FY 06-07 Complaints</b>	<b>FY 07-08 Complaints</b>	<b>FY 08-09 Complaints</b>
October	812	1062	596
November	718	1039	385
December	800	880	590
January	1,415	1054	692
February	1,096	789	550
March	1,381	723	792
April	1478	781	614
May	1,491	720	536
June	1,714	795	874
July	1,359	817	613
August	1,443	748	595
September	1,093	749	638
<b>Total</b>	<b>14,800</b>	<b>10,157</b>	<b>7,475</b>

**Table B: Curbside Recycling Data**

<b>Month</b>	<b># of Complaints</b>	<b># of Cart Issues</b>	<b>Total Tons Collected</b>
January-08	372	0	2,774
February-08	312	0	2,211
March-08	377	0	2,430
April-08	350	0	2,384
May-08	249	0	2,447
June-08	479	100	2,386
July-08	1,462	1,208	2,708
August-08	1,134	1,423	2,973
Sept-08	1,458	2,192	3,414
October-08	2,234	3,708	4,567
Nov -08	1,153	1,821	4,370
Dec-08	1,257	2,214	5,544
January-09	1,121	2,167	5,250
February-09	762	928	4,362
March-09	566	1,360	4,986
April-09	685	1,143	4,894
May-09	523	766	4,932
June-09	583	898	5,557
July-09	514	848	5,176
August-09	470	774	4,847
Sept-09	336	676	5,132

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Oct – 09	367	634	5,090
<b>Total</b>	<b>9,765</b>	<b>17,163</b>	<b>59,860</b>

- Regulatory Environment:** The regulatory environment in which the Department operates is a major factor impacting operations. In particular, the construction operation and closure and long term care of disposal facilities are extensively regulated by the State of Florida for the purpose of achieving consistent compliance with groundwater protection and other objectives. As a consequence, considerable resources, both in terms of staffing and budget dollars, are devoted to this effort. In addition to climate changes, the Department will address regulatory issues such as, clean energy, recycling and flow control during the Master Planning process. Flow control is a legal provision that allows state and local governments to designate places where municipal solid waste is taken for processing, treatment or disposal. Currently, the County has the authority to implement a flow control ordinance and require that all municipal solid waste collected in Miami-Dade County be disposed of at a DSWM facility. However, implementing this regulation would have a significant impact on the Department both financially and operationally. Critical analysis is important prior to making any final decisions, and this will occur while developing the Department's Long-term Master Plan.
- Changes in Business Practices:** The DSWM collection system faces continuing challenges as the significant cost factors in service provision (labor, benefits, fleet, fuel, waste disposal, etc.) continue to increase, while revenues have not increased at the same pace. Changes in the business practices (such as the implementation of automated garbage and recycling collection) have been implemented to achieve efficiencies and manage rising costs. The Department continues to look for innovative methods to implement more efficient and effective business processes.

The DSWM disposal system operates within a competitive environment from which it has attempted (with relative success) to insulate itself through a series of efficiency and stabilization measures (long-term disposal contracts with municipal and private haulers) as outlined in the 1995 Strategic Plan. This was needed due to the heavy fixed costs and debt service associated with the construction, operation and closure of waste disposal facilities, a situation in which downsizing did not result in proportional cost savings. However, the current disposal environment has been impacted by a slow and recovering economy. Decreased tonnages have resulted in decreased disposal revenues. The Department is working to identify and implement cost saving efficiencies in addition to exploring other revenue opportunities.

- Effects of Privatization:** Consideration is given to privatization of certain programs or elements in terms of their overall impact on the Department's operations and the potential to realize efficiencies or service improvements. Potential privatization is reviewed on a case-by-case basis and can, as occurred in the case of the operation of the DSWM household chemical collection program, result in the movement of a contracted or privatized operation to an in-house project. In this case, this transition permitted the days and hours of service availability to be approximately doubled for the same cost of service.
- Customer Feedback:** In a Department, such as the DSWM, where service provisions are so direct and immediate, customer feedback is equally direct and immediate. This feedback, in the form, for example, of phone calls, emails and 311 reports enables management to identify and act quickly to effectively address customer service problems and improve performance.

- **Geographical Service Area:** Pursuant to Miami-Dade County Ordinance No. 96-30, the Department provides waste collection services to residential units located in the County's UMSA as it existed on February 16, 1996, meaning that the geographic area served may be defined as the current UMSA, along with the municipalities of Pinecrest, Sunny Isles Beach, Miami Lakes, Palmetto Bay, Miami Gardens, Cutler Bay and Doral. The Department also serves Sweetwater and Aventura under other arrangements. The Department also provides waste disposal services to any and all haulers (municipal or private) providing collection services to their customers located in Miami-Dade County. In addition to providing disposal service to its own waste collection operation, the Department has entered into long-term disposal contracts with 18 municipalities and numerous private haulers. These arrangements together define the service area or population of the Department's waste disposal programs.
- **Industry Background:** Solid Waste Management can be described as that entire range of activities, including collection, transport, processing and/or recycling or disposal of waste materials typically, but not exclusively generated by human activity. Through the practice of modern solid waste management, removal of the waste material is accomplished in order to reduce the negative impacts of that waste on health and safety, the environment and community appearance. The industry, as it exists today, originated with public sanitation laws and programs established in the 18<sup>th</sup> and 19<sup>th</sup> Centuries, a system in which local governments took on collection and enforcement activities in order to remove a nuisance and preserve public health within the community.

As a result, local waste management activities are typically comprised of a network of collection, transfer, recycling, and volume reduction and disposal operations, in which the local government is directly involved, either through direct operation, contracted operations or regulation or both. For example, while each locality handles collection differently, the collection of MSW from single-family homes is usually the responsibility of local governments, with municipal crews or a private contractor. While some local governments also serve multi-family residences and commercial properties, others require that service be provided by a franchisee or private hauler. The recycling program and disposal services may also vary by provider and by method. Miami-Dade County's solid waste management system is reflective of this overlapping network of methods and service providers.

The current state of the economy has had an impact on the solid waste industry. The DSWM has seen a reduction in disposal revenue tons due to the decline in the economy. The decrease in tonnage is not only felt here in Miami-Dade County, but it has affected the entire solid waste industry. Although, the DSWM has experienced a decrease in waste being disposed of, the system continues to remain financially sound.

- **Competitors:** Competition within the solid waste industry can be addressed in its component parts, in terms of waste collection, waste transport, and waste processing or disposal. Additionally, as a local government committed to recycling, a review of potential competition can involve various parties in recyclable materials collection, transporting, processing and marketing. Finally, competition can be addressed in terms of the market segments by type of generator. Within that framework, certain market segments have more potential for competition than others. Examples of market segments include single-family residential, multi-family residential and commercial or industrial. Some entities capable of competing on a large scale, in one or more of these areas include the following:

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- Waste Management Inc.: waste collection and disposal, recyclables collection, processing and marketing
  - Republic Waste Services: waste collection and disposal and recyclables collection
  - Waste Services, Inc.; waste collection and disposal and recyclables collection
- 
- ***Mergers and Acquisitions:*** In these tough economic times many smaller companies are either being bought out or agreeing to the decision to merge with more financially stable companies to gain a greater market share or to achieve greater efficiencies. Some of the DSWM partners have changed as a result of mergers and acquisitions throughout the industry.
  - Our Waste to Energy plant, until recently, was being operated and maintained by Montenay Power Corp. (MPC), a Florida corporation. In fact MPC was running the plant since June 20, 1985. On July 6, 2009 we received a letter from the Chief Executive Officer of MPC informing us of an agreement to sell the majority of its Waste to Energy assets and long-term operating agreements in North America, including Montenay-Dade Ltd. and Montenay Power Corp. to Covanta Southeastern LLC (Covanta). Covanta is a world leader in the development, ownership, and operation of Waste-to-Energy facilities. On January 28, 2010 the Board of County Commissioners approved the acquisition, and subsequently the acquisition was also approved by the Mayor, effective February 1, 2010.