



REVIEW OF UNCERTAINTIES ASSOCIATED WITH THE PROPOSED BROWARD COUNTY SOLID WASTE DISPOSAL DISTRICT

CITY OF MIRAMAR

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EXECUTIVE SUMMARY

The City of Miramar (City) is a member of the Broward County Solid Waste Disposal District (Current District), which was created through an Interlocal Agreement (ILA) as a dependent District of Broward County (County). The governing body of the District is the Resource Recovery Board (RRB). The primary objective when creating the Current District was to provide for disposal of solid waste generated in the County by constructing two waste-to-energy facilities. The current ILA is scheduled to expire in 2013. The RRB drafted a new Interlocal Agreement (Proposed ILA) and has requested that the County, Miramar and all other cities in the County, execute the Proposed ILA to create a new Solid Waste Disposal District (Proposed District). A Service Agreement was also negotiated by the RRB with Wheelabrator, which was executed by Wheelabrator in June 2010. Upon execution by the RRB, the Proposed District will be obligated to the terms of both the Proposed ILA and Service Agreement.

The Service Agreement (Section 5.08 (a)) provides for a one-time payment to cities that execute the Proposed ILA by December 31, 2010. For Miramar, this one-time payment is expected to be \$724,840. The Service Agreement and Proposed ILA are the two documents that define the major obligations of the parties. Value Added Consulting, LLC has been engaged to assess the risks and uncertainties associated with Miramar joining the Proposed District.

A key underlying question is: ***“Will the total cost of waste management paid by Miramar under the Proposed District as offset by the one-time payment, be less than the City would pay under any other alternative?”*** Based on our review the potential risks and financial obligations associated with membership in the Proposed District are not sufficiently defined. Even in consideration of the one-time payment, the financial risks and obligations could be far greater than for alternative disposal options.

Many important issues have not been resolved to the degree necessary to project future financial obligations with a reasonable degree of certainty. For example:

- specific details have not been provided regarding the Proposed District's intent to fund existing and proposed programs;
- anticipated staffing levels for such programs have not been estimated; and
- agreement does not appear to have been reached between the County and Proposed District relative to the respective assets and liabilities of each.

This Executive Summary provides a brief overview of the identified uncertainties and risks, which are described in greater detail in subsequent sections.

DISTRICT TIPPING FEE

One of the greatest uncertainties for the Proposed District is the District Tipping Fee, which is the sum of the Wheelabrator Service Fee (Service Fee), and the costs of other County solid waste management programs and expenses (Program Costs).

District Tipping Fee = District Program Costs + Wheelabrator Service Fee

These Program Costs are dependent on District programs and services, and the District's assets and liabilities.

District Programs

The District, through staffing provided by the County manages a number of programs and expenses such as:

- Operations staffing
- Contract administration
- Closure and post-closure reserves
- Environmental compliance
- Cost of flow control enforcement
- Public information and education
- Household Hazardous Waste
- E-waste recycling
- Scrap tire removal
- Unincorporated collection services
- Research and development

Many expenses are not discretionary and can be expected to continue in any case. The cost of these programs and expenses are estimated to be approximately \$30 per ton of waste currently. A Memorandum of Understanding (MOU) among ILA members specified the costs for these services will be no greater than \$12/ton. The Proposed ILA, which supersedes the MOU, does not include a cap on these expenses. Nor is a plan or structure for staffing provided. This results in a projected range of approximately \$12 to \$30M per year, which represents a significant uncertainty.

Other programs have been proposed in addition to those listed, including emergency debris management, regional yard waste processing, construction and demolition debris disposal, and an enforcement program to enforce waste flow commitments. Costs and parameters for these programs have not been identified.

Under the Proposed ILA the District can hire its own staff and contract for services. Currently, the only staff is the Executive Director.

Assets and Liabilities

As an independent district the RRB will determine the fees and charges necessary to meet all of its obligations. However, the assets and liabilities have not been determined. These assets and liabilities, which include both real property and financial assets and liabilities, will obviously affect any estimate of Program Costs and should be known before executing the Proposed ILA.

WHEELABRATOR SERVICE FEE



The District is required to pay Wheelabrator a Service Fee under the Service Agreement. Based on the agreement negotiated with Wheelabrator, the Service Fee to be paid by the District for disposal is calculated as follows:

$$\text{Service Fee} = [(\text{Net Tipping Fee}) \times (\text{Deemed Deliveries})] +$$

Monthly Pass Through Costs + Other Costs – Credits, where

- a. **Net Tipping Fee** is equal to the Base Tipping Fee + Adjustments per Article 5.02 or Article VI
- b. **Deemed Deliveries** are essentially the tons delivered by the District.

*Note: the **Base Tipping Fee** is defined as \$47.75 per ton of Processable Waste as negotiated in June 2010. At the Commencement Date, the Base Tipping Fee is replaced by the Net Tipping Fee, which is adjusted as described.*

The Wheelabrator Service Fee (on a per ton basis) is expected to be approximately \$49.66, plus pass through costs of approximately \$3.53 (not including the ash monofill). The total District Tipping Fee in the first year of the Agreement could be from \$65.19 to \$85.38 per ton.

District Tipping Fee Component	Estimated Range of Service Fee (\$FY11)		Comments
Wheelabrator Service Fee	\$49.66	\$49.66	\$47.75 plus Pass Through and One Time Adjustment
Pass Through Costs	\$3.53	\$5.72	\$5.72 estimate includes future ash monofill expansion. It does not include leachate disposal, and additional proposed programs
District Programs	\$12.00	\$30.00	Preliminary estimate
Total	\$65.19	\$85.38	Per ton of MSW

Range of Service Fee over the term of the Agreement

The Service Agreement provides for increases due to Change-in-Law or Force Majeure. The increase is limited to a maximum increase of 10 percent in any one year, or 40 percent over the term of the Agreement, excluding inflationary adjustment and Monthly Pass Through costs. The reference point for the percentage increase is the Service Fee that is in effect on the Contract Date. The Contract Date is defined as the date on which the District executes the Service Agreement. There is no way to know whether a Change-in-Law will occur and what the effect will be. However, if the maximum increase were to be made the Service Fee range over the term could be:

Current Service Fee	140% Increase
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\$77.02	\$107.83
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Because of the many uncertainties of the future costs, the level of control a community has over the future costs should also be considered.

OTHER UNCERTAINTIES OF THE PROPOSED DISTRICT

There are many uncertainties associated with the Proposed District that should be clarified in addition to those described above. The significant uncertainties, listed below, as well as other miscellaneous uncertainties are discussed in detail in the following sections.

- County Approval of the ILA
- Effect of any future Change-in-Law
- District Program Costs
- Costs associated with new MRF Contract (current contract expires in July 2013)
- Costs of proposed new programs, such as regional yard waste, C&D disposal, emergency debris.
- Cost of District flow control enforcement
- Cost of Miramar flow control enforcement

SECTION 1.0 INTRODUCTION

1.1 Process

Value Added Consulting was engaged to identify risks and uncertainties associated with Miramar executing the Proposed ILA before December 31, 2010. In conducting this analysis, Value Added Consulting reviewed and consulted the relevant documents associated with the Proposed District, including:

- Miramar waste, recycling, and financial data
- Current ILA
- Proposed ILA
- FY '08 Tipping Fee Usage Allocation
- Service Agreement executed by Wheelabrator (June 2010)
- Proposed flow control ordinances

In addition, we estimated costs to Miramar based on the Proposed ILA, the Service Agreement between Wheelabrator and the District, and financial information of the current District.

In this analysis, two alternatives are used to illustrate the risk and uncertainties of each:

- Alternative A - Execute the Proposed ILA as a Contract Community; and
- Alternative B – Pursue alternate disposal options

1.2 Background

The City of Miramar is faced with a decision whether to join the Broward Solid Waste Disposal District under new terms currently proposed. The purpose of this analysis is to identify the obligations of the City anticipated as part of the Proposed ILA, to provide a summary of key changes that are anticipated, and identify and quantify potential risks.

To put the issues in context, the Broward Resource Recovery District (Current District), was created through an interlocal agreement (Current ILA) and is structured as a dependent District of Broward County under Florida law. The purpose of the District was to put in place a Resource Recovery System to provide for the disposal of all Contract Communities' processable waste. The primary system elements were the two waste-to-energy facilities, Wheelabrator North Broward (WNB), and Wheelabrator South Broward (WSB).

The most critical role of the County during formation of the Current District and since its formation was financial backing of the investment in the two waste-to-energy facilities: WNB, and WSB. Although privately owned, these facilities were financed using tax exempt bonds, based largely upon the County's ability to direct waste to the facilities, and to assure bondholders that revenue could be recovered to meet the bond covenants. This would be accomplished through special assessment if necessary, and such costs would be recovered from the District, which under the current dependent structure has the power to levy assessments if necessary.

The County provides approval of the District's budget, although it does not typically become involved in District operations. Since the County is ultimately responsible financially, it requires that a sufficient reserve be maintained as a contingency against any shortfall.

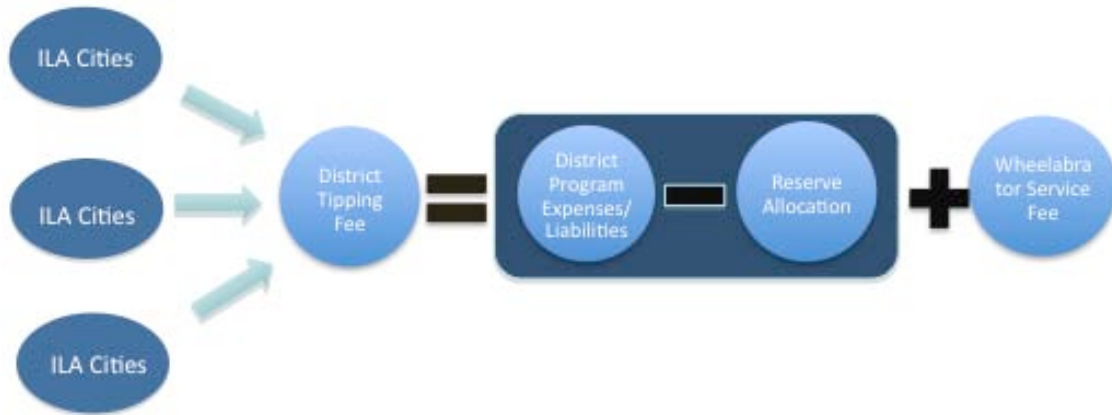
1.3 Current District – Key Facts

- The Current District is a Dependent District of the County, created through an Interlocal Agreement (ILA) in 1986.
- The fundamental basis of the Current District is that Wheelabrator would design, build, and operate the two WTE facilities for a term of 20 years, and own the facilities, and that the County would commit to a minimum level of waste deliveries (put-or-pay) to those facilities, and would issue the tax exempt bonds to secure a lower financing cost.
- The bonds are scheduled to expire in 2011.
- At the time the Current ILA was executed the unincorporated area of the County was significant.
- Wheelabrator is entitled to all revenues from the recovery and sale of energy, and recovered materials.
- Wheelabrator also operates the ash monofill at the South Facility, although the District was responsible for the cost of construction.
- The put-or-pay provision and County backing were critical elements to the facilities' financing and development.
- Under the Current District:
 - The County and Contract Communities were required to enact flow control ordinances to cause all solid waste generated within their borders to be directed to the Resource Recovery System.
 - The County provides for flow control enforcement, but its enforcement powers are limited.
 - The County provides staff to oversee and administer the Resource Recovery System which includes the two WTE facilities, recycling and contract administration, three (3) trash transfer stations, the Southwest Regional Landfill, household hazardous waste program, and other similar activities.

- o District staff is limited to the Executive Director.
- o The District has legal counsel, via contract.
- o The Current District charges a Tipping Fee to the Contract Communities.
- o The District pays a Service Fee to Wheelabrator for the disposal of its processable waste.

Figure 1-1 illustrates the flow of funds.

Figure 1-1 District Tipping Fee Components



1.4 Proposed District – Key Facts

The Proposed ILA is essentially the document that provides the administrative structure of the District that would be created should the required conditions all be met (Proposed District).

- The Proposed ILA establishes an Independent District. One aspect of this difference is that the District is the contracting party to the Service Agreement with Wheelabrator instead of the County.
 - o The County Commission must approve the Proposed ILA for it to become effective.
 - o All financial obligations of the District must be met by fees and charges to Contract Communities. However, as discussed below the specific financial assets and liabilities have not been calculated.
- Each Contract Community will require its own code enforcement to enforce ordinances directing waste to the District facilities (flow control).
- The Proposed District will need to create a flow control enforcement program.
- The Proposed District will expand its services to include regional yard waste processing, construction and demolition debris processing, and emergency debris processing and disposal.

- The Proposed District will hire staff.
- The Proposed District will no longer have a put-or-pay requirement.
- Wheelabrator will no longer be required to provide the District with a 10% discount on waste disposal to other Broward non-ILA cities.

SECTION 2.0

ALTERNATIVE A PROPOSED DISTRICT

2.1 Alternative A Assumptions

Under Alternative A, it is assumed that:

- The City receives a one-time payment of \$724,840 (estimate by RRB). This equates to approximately \$1.09/ton over the initial 10-year term.
- City pays the Proposed District a District Tipping Fee, which currently includes:
 - Disposal of all Processable Waste
 - Processing of recyclable materials
 - Access to Household Hazardous waste (HHW), e-waste, and bulk waste self-haul facilities.
- The City must cause all waste, including MSW, recyclable materials, yard waste, and construction and demolition debris (C&D), and emergency generated debris to Resource Recovery System facilities. *(Note the \$65.19 estimate does not include yard waste, C&D or emergency debris since these services are not currently provided.)*
- The City is responsible for flow control enforcement through code enforcement, which will likely require hiring new Code Enforcement officers.
- The Proposed District will provide a District-wide flow control system, including a magistrate and a fine-based system to enforce the program.

Uncertainties are composed of two major components: Uncertainties of the Proposed District itself, and uncertainties of the Wheelabrator Service Agreement.

2.1.1 Uncertainties and Potential Impacts for Proposed District

The current District does not have any staff other than the Executive Director. Under the Proposed ILA, the Proposed District could hire staff and execute contracts for services. County staff currently provides all services to the District. It is estimated that the current costs for these services are approximately \$30/ton (Table 2-1).

Table 2-1 Current District Program Cost Estimate	
	FY 2009
Waste Disposed	63,618.94
Recyclable Material	2,789.05
Disposal Cost	\$6,266,466
Excess Revenue Distribution	\$0
Recycling Revenue	(\$134,919)
Net Disposal Cost	\$6,131,547
Wheelabrator Service Fee	\$96.38
Net Disposal Cost per Ton	\$66.26
Difference (Program Costs)	\$30.12

The RRB has estimated these costs will decline significantly. The range of costs was stated to be from \$10.72 to \$12/ton. However, these estimated figures have not been supported by a plan or cost estimate. Nor is any limitation included in the Proposed ILA. Possible outcomes, therefore, are that the District could:

- a) hire staff and outsource services;
- b) find that all County services and costs remain necessary and continue at similar levels; or
- c) streamline services provided by the County to \$12/ton.

2.1.1.1 County Approval

A key uncertainty is the County approval of the ILA, which is required. As is the case for the Contract Communities, there are many uncertainties for the County, and the County could elect not to approve the Proposed ILA without clarification, or changes. Some of the impacts to the County include:

- *Delineation of assets and liabilities, including its associated rights.* Allocation of assets and liabilities between the County and the Proposed District can have a significant impact on the County's costs and its assets and liabilities.

Should the County execute the Proposed ILA, it will also be subject to a number of uncertainties, including legal disputes relative to the proposed flow control ordinance.

The Proposed ILA seeks to transfer the Resource Recovery System assets, and these assets held in the name of the County to the District, except for the SW Regional LF. As the owner of the SW Regional Landfill, which is constructed and permitted to receive Class 1 waste, the County could elect to use this landfill for its unincorporated area waste, or for non-ILA cities at a fraction of the cost of the District tipping fee.

- *Ash Disposal.* Under the Proposed ILA, the Wheelabrator South Facility will process waste from outside the County, and dispose of the residue at the South Facility Ash Monofill. Note this is a direct benefit to Wheelabrator and a cost to the District (pending determination of ownership). At the Wheelabrator North Facility, Wheelabrator pays for ash disposal. The disposal of ash by Wheelabrator from non-District waste can be expected to result in a required expansion of the monofill about 6.5 years sooner at a cost to the District within the initial 10-year term.
- *County Staff.* The staffing level and approach for the Proposed District has not been determined. Any staff not employed by the District will need to be absorbed by the County in other capacities, or other actions as determined by County policy.

2.1.1.2 Enacting of ordinances

The County and Contract Communities must pass new ordinances providing for a system of flow control enforcement in the form provided in the Proposed ILA. Directing waste to a private enterprise by ordinance is, at a minimum, very controversial. A body of law and record of US Supreme Court decisions has evolved even with respect to directing waste to publicly owned and operated systems. Although a recent decision (*United Haulers v. Oneida-Herkimer*) affirmed the right to direct waste to publicly owned and operated facilities, it is very possible that action by the County to direct waste to the privately owned and operated Wheelabrator facilities will become the subject of legal action.

2.1.1.3 Flow Control Enforcement

Under the Current ILA the Contract Communities were required to enact flow control ordinances, which did not have enforcement mechanisms. The County provides limited flow control enforcement. Under the proposed District, Contract Communities are required to enact new, strengthened ordinances and to provide enforcement including Code Enforcement officers. Miramar must agree to appoint the District as its agent in enforcement of flow control ordinances, and franchise agreement provisions between it and its franchise hauler.

Section 4.3 of the proposed ILA states:

“....Said system shall specifically include, but not be limited to the appointment of Code Enforcement officers who shall have jurisdiction to issue citations within the Contract Community and the unincorporated areas, a magistrate or magistrates authorized to determine fines and liens and foreclosure of properties as provided in 162 of the Florida Statutes, or such other similar quasi-judicial proceedings for code enforcement as authorized pursuant to general or special law. By approving this Interlocal Agreement, each Contract Community and County hereby appoints and authorizes such agents designated by either the County or the District or both, as Code Enforcement Officers for the purpose of enforcing the ordinances adopted by said municipality or County pursuant to this Agreement. The County agrees to enact and maintain such an ordinance providing for the institution of a code enforcement system as described in this paragraph.”

The details of this program have not been developed, such as the parties that may be fined (e.g. Contract Communities), projected operating costs and other similar details.

2.1.1.4 Current Program Costs

The cost for District-provided programs, and therefore, the District Tipping Fee, has not been determined. Many of these costs are not discretionary, but are obligations regardless of staffing, or productivity (e.g., closure and post-closure reserves). Services include:

- Staffing
- Contract administration
- Closure and post-closure reserves
- Environmental compliance
- Cost of flow control enforcement
- Public information and education
- Household Hazardous Waste
- E-waste recycling
- Scrap tire removal
- Unincorporated collection services
- Research and development

The Proposed ILA does not estimate or otherwise project the District operating costs. Although a Memorandum of Understanding executed in 2009 specified a limit of \$12 per ton of waste, the basis for this figure is the subject of a separate effort being conducted by the District.

2.1.1.5 Cost of future recyclable materials processing

The current MRF Contract expires July 2013. Under the current MRF Contract, no processing fee is paid, and the District receives revenue of approximately \$58/ton of Recyclable Material. The Proposed District will be required to either negotiate a new agreement, or develop an alternative recycling option.

2.1.1.6 *Cost of proposed new services*

In addition to the services being provided the Proposed District envisions several new programs such as regional yard waste, construction and demolition debris, and emergency debris disposal. The costs and potential benefits for these services have not been estimated.

2.1.1.7 *Independent District-Related.*

While most independent districts are created by County or State legislation and have authority to levy assessments if necessary, the Proposed District, if executed by the County, will be an independent district, created by the proposed ILA.

Financial Uncertainties

- the District's ability to issue debt could be negatively impacted by this lack of revenue assurance.
- without knowing the Contract Communities that will be part of the Proposed District, it is not possible to precisely project the share of costs to be borne by each member.
- Without knowing the District's assets and liabilities, and program operating costs it is not possible to accurately project the District Tipping Fee.
- There are many duties and responsibilities required of the District in the proposed ILA. The financial impact of these responsibilities has not been determined by the District, nor have any estimates been provided. However, the District, and in turn the Contract Communities, is responsible for funding all of the costs for carrying out these responsibilities.

Section 3.1 (a) of the Proposed ILA states that the Executive Board of the RRB shall:

“Establish such reasonable rates, fees and other charges and revenue sources allowed by law to sufficiently fund the Resource Recovery System and the maintenance of the District, including but not limited to its administration, management, operation, enforcement, debt service, reserve accounts or any other obligations or services necessary or convenient for the operation of the Resource Recovery System in compliance with this Interlocal Agreement and applicable law. “

Governance

The Proposed District includes a Full Resource Recovery Board, and Executive Resource Recovery Board. The Full Resource Recovery Board includes one representative from each Contract Community (and the County if

applicable). The Executive Resource Recovery Board includes 11 members, one County Commissioner, and representatives from 10 Contract Communities selected by the full RRB as follows:

- Contract Communities are divided into three (3) tiers: largest, next largest, and smallest.
- Five representatives chosen from the largest tier
- Three (3) from the next largest tier.
- Two from the tier of smallest Contract Communities.
- The members must be elected officials from their respective communities.
- The full Resource Recovery Board will select the Executive Board members.
- The Technical Advisory Committee continues in largely the same role as present, as an advisory body.

2.2 Uncertainties associated with the Service Agreement

2.2.1 Conditions Precedent

A number of conditions must be met in order for the Service Agreement to become effective on the Commencement Date. Failure to satisfy the Conditions Precedent, (except for Wheelabrator's requirement to execute and deliver the Parent Guarantee) may result in termination of the Agreement by Wheelabrator within 5 days' notice. Failure by Wheelabrator to execute and deliver the Parent Guarantee does not provide for the District to terminate the Agreement. Paraphrasing the significant provisions of Section 2.03:

- The ILA must have been executed by December 31, 2010 by Contract Communities representing 80% of the tonnage delivered in Calendar Year 2009.
- Wheelabrator must be satisfied with the system established for enforcing flow control of waste.
- The County and District must waive their right to receive disposal services at a discount to third parties.

Note, that Wheelabrator may waive any of its rights, such as the 80% provision for example, should it believe it is in its best interests. The Proposed District has little or no rights to terminate once executed.

2.2.2 Wheelabrator Service Fee

The District is required to pay Wheelabrator a Service Fee under the Service Agreement. Based on the agreement negotiated with Wheelabrator, the Service Fee to be paid by the District for disposal is calculated as follows:

Service Fee = [(Net Tipping Fee) x (Deemed Deliveries)] + Monthly Pass Through Costs + Other Costs – Credits, where

- Net Tipping Fee is equal to the Base Tipping Fee+ Adjustments per Article 5.02 or Article VI
- Base Tipping Fee is equal to \$47.75 per ton of Processable Waste
- Deemed Deliveries are essentially the tons delivered by the District.

The Service Fee is subject to change for a number of reasons, including inflationary changes, Monthly Pass Through Costs, Change-in-Law, and Force Majeure.

Section 5.02 Adjustments to the Net Tipping Fee

- Adjustment for Inflation* (Not less than 1%, or more than 5% per year)
 - One Time Adjustment.* The Base Tipping Fee of \$47.75 per ton of processable waste will be subject to a one time adjustment on August 4, 2011. The adjustment is based on Bureau of Labor Statistics (BLS) inflationary indices from April 2009 through April 2011. It is equal to 100% of the Adjustment Factor from October 2009 through April 2011, plus 33% of Adjustment Factor from April 2010 to April 2011.

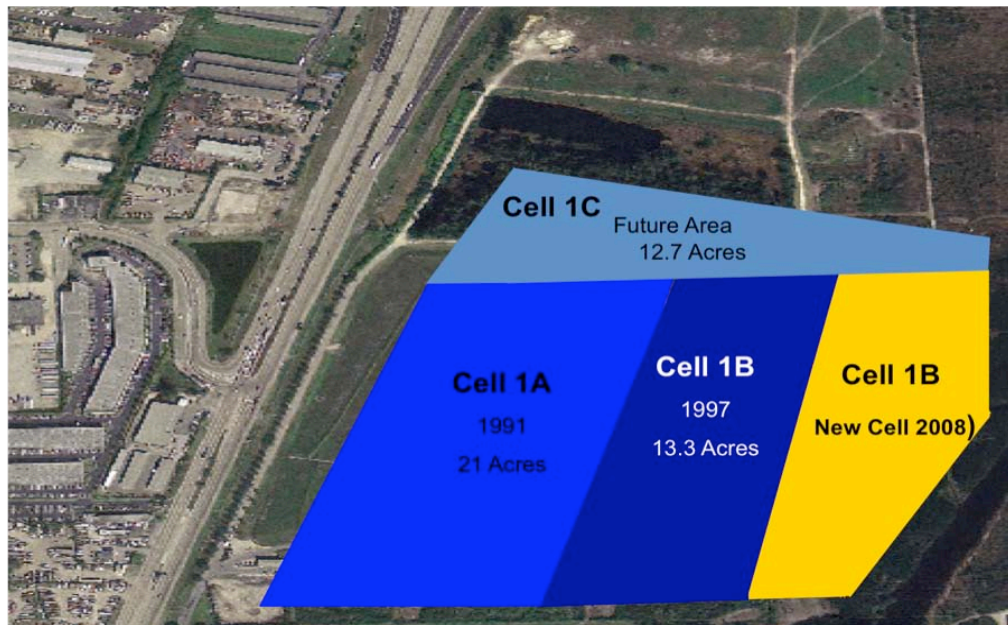
It is not possible to calculate these until the indices are published. Based on historic changes in the applicable indices, it is estimated, that the one-time adjustment will result in a tipping fee of approximately \$49.39 per ton.
 - Annual Adjustment.* The Base Tipping Fee is adjusted annually based on an Adjustment Factor based on indices published by the US Bureau of Labor Statistics (BLS Series).
 - Changes to BLS Series.* This applies if the parties agree to a change in the BLS Series to be used.

2.2.3 Monthly Pass Through Cost Uncertainties

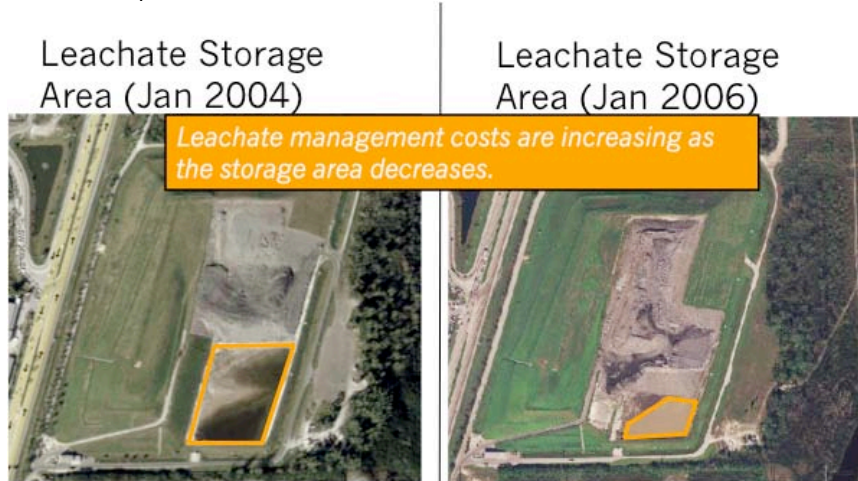
Monthly Pass Through Costs include a variety of miscellaneous fees. However, Monthly Pass Through Costs also include the costs of planning, constructing, and equipping the South Facility Monofill, and the cost of offsite leachate disposal, and taxes and assessments. The most significant Monthly Pass Through cost factors are related to the ash monofill, and taxes.

- Ash monofill expansion.* The costs of planning, constructing, and equipping the South Facility Monofill, and the cost of offsite leachate disposal. The ash monofill was expanded approximately 2 years ago, providing approximately 1.9M cubic yards of capacity. At full capacity of 800,000 tons per year, and historic ash density, the expected life of the current expansion is about 9 years. Planning and design must begin in approximately 5 or 6 years. If only District waste were processed, the capacity would be well after the initial 10-year term.

While the previous expansion cost was approximately \$15M, the next planned expansion is likely to cost considerably more due to inflationary factors, if no other reason.



- ii. *Off-site Leachate Disposal Costs.* These costs are dependent on a) the level and timing of precipitation, b) available areas for impoundment, and c) costs of disposal at the Hollywood Wastewater Treatment facility. The City of Hollywood fees may be affected by pending rules to increase treatment levels, and of sludge disposal costs. Additionally, as the landfill continues to be filled less area will be available to impound leachate and could require construction of leachate treatment facilities.



Since 2004 Leachate Storage area has been reduced by over 50%

TAC Presentation
November, 2006

- iii. *Taxes and assessments (including non-ad valorem assessments) incurred by Wheelabrator.* If not allowed to pay such taxes, the District must pay in the form of a Service Fee or other means acceptable to Wheelabrator.

2.2.4 *Adjustments Due to Compensable Event*

The Service Fee charged by Wheelabrator as defined in the Service Agreement includes a number of provisions for adjustment. Article VI Adjustments (Change-in-Law or Force Majeure), provides for adjustment to the Service Fee.

2.2.4.1 *Capital Cost Adjustment (Change-in-Law or Force Majeure)*

In the event of a Compensable Event, which is defined as either a Change-in-Law or Force Majeure, a Capital Cost Adjustment may be made to the then current Net Tipping Fee. The Capital Cost Adjustment is the amount of debt issued, or equity contributed by Wheelabrator in any Contract Year, including a reasonable return to Wheelabrator of up to 10%. This amount is prorated by the Deemed Delivery percentage.

2.2.4.2 *Operation and Maintenance Adjustment*

This adjustment is similar to the Capital Cost Adjustment and applies in the event of a Compensable Event.

2.2.4.3 *Revenue Adjustment*

An adjustment based upon documented loss of revenue by Wheelabrator due to a Compensable Event.

2.2.4.4 *Service Fee Adjustment due to Change-in-Law*

Service Fee adjustments are limited to 10% in one year or 140% cumulatively, (exclusive of Pass Through Costs, and inflation adjustments) over the Service Fee on the Contract Date.

The Service Fee on the Commencement Date is projected to be \$53.19. Table 2-2 below reflects the range of possible adjustments due to Change-in-Law.

Table 2-2 Maximum Projected Service Fee			
		140% Adjustment (see note)	Total Increase
<u>Proposed Service Fee on Commencement Date</u>	\$53.19/ton		
<u>Service Fee projected on Contract Date</u>	\$77.02/ton	\$107.83/ton	203%

Note that the Contract Date differs from the Commencement Date. The Contract Date is the date on which the District and ILA communities execute the Service Agreement. The Commencement Date is the date on which each party is obligated to performance under the Service

Agreement. The Service Fee on the Contract Date will be at least \$77.02 per ton (current rate), unless it is increased before the Commencement Date due to the Energy Shortfall adjustment recently disclosed. (1) The reference value for the 140 percent maximum adjustment is \$77.02.

SECTION 3.0

ALTERNATE DISPOSAL OPTIONS

3.1 Alternative B – Alternate Disposal Options

- The City could issue an RFP for the services currently provided by the District and County, of which the most significant is waste disposal.
- During the time frame until the end of the Current ILA, the City could continue to dispose of waste and recyclable materials at the RRS facilities.

3.2 Alternative B Possible Outcomes

Although costs cannot be determined without a Request for Proposals (RFP), available disposal facilities for the City of Miramar include Wheelabrator South, Wheelabrator North, Central Disposal Sanitary Landfill, Okeechobee, JED Landfill in Osceola County, Lee County RRF, Collier County LF. An operational transfer station for MSW exists in Pembroke Pines. New facilities could be developed for both short- and long-term. With existing facilities such as those mentioned above, market forces determine the disposal cost.

3.2.1 Market Forces

The District currently delivers approximately 63% of the waste processed at the Wheelabrator South Facility, or about 3,000 tons per day (tpd). The remainder, approximately 1,500 tpd is delivered by non-ILA cities, or out-of-County customers. Since energy sales are a significant operating revenue, Wheelabrator is incentivized to maximize waste throughput. Market forces incentivize Wheelabrator to establish a disposal cost that attracts 1,500 tpd. Currently, it cannot charge a Broward non-ILA member less than the Service Fee (estimated as \$53.19 first year). However, it can charge customers outside Broward County any fee it feels necessary to maximize throughput and energy sales.

Possible outcomes under Alternative B, therefore, include:

- The City pursues alternative disposal while continuing to use the Wheelabrator facilities. Although it cannot be predicted, market pricing at the Wheelabrator South facility is likely to be between \$53.19 and \$65.19.
- The City would either need to pay a non-ILA fee to continue using Program services (e.g., HHW, e-waste) or find other options.
- Pursue alternate recycling processing services.

3.3 Alternative B Uncertainties

As with any long-term agreement, there are also risks associated with alternate disposal capacity.

3.3.1 Market Risk

The key uncertainty under Alternative B is the market risk associated with disposal costs. There are clearly facilities available, since the waste is being disposed now, and new waste generating sources are not likely.

The main risk therefore is the cost.

Wheelabrator South has capacity to continue accepting Miramar's waste at whatever cost the market will bear, as long as it is not less than \$53.19/ton.

3.3.2 Cost for processing and marketing of recyclable materials.

The recycling market is very volatile, and at the current rate of recycling only applies to about 4% of Miramar's tonnage. Future recycling approaches will most likely be driven by the avoided cost of waste disposal.

SECTION 4.0 COMPARISON OF ESTIMATED WASTE MANAGEMENT COSTS

Value Added Consulting estimated the total cost of waste management to Miramar assuming Alternative A – Proposed District, and Alternative B – Alternate Disposal. Table 4-1 reflects the results of the comparison, with detailed footnotes explaining all assumptions. Although, as discussed previously, there are risks that could increase the costs significantly, our analysis uses very conservative assumptions as reflected in the associated footnotes.

Table 4-1 Estimated District Disposal Cost (\$121m Program Cost) Compared to Alternate Disposal (\$581m)											
	Notes	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Miramar Tonnage		1,000,000	1,010,000	1,020,100	1,030,301	1,040,604	1,051,010	1,061,520	1,072,135	1,082,857	1,093,685
Miramar MSW Tonnage (estimated)	1	63,619	64,255	64,898	65,547	66,202	66,864	67,533	68,208	68,890	69,579
Miramar Recyclable Tonnage (estimated)	1	2,654	2,721	2,749	2,776	2,804	2,832	2,860	2,889	2,918	2,947
Alternative A - Proposed District											
Wheelabrator Disposal Costs											
Inflationary Adjustment Factor	2	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Wheelabrator Service Fee	3	\$52.19	\$53.75	\$55.38	\$57.02	\$58.74	\$60.50	\$62.31	\$64.16	\$72.89	\$76.83
Net Tipping Fee	4	\$40.66	\$51.16	\$52.68	\$54.26	\$55.89	\$57.57	\$59.30	\$61.08	\$62.91	\$64.80
Monthly Pass Through Costs	5	\$3.53	\$3.63	\$3.74	\$3.85	\$3.97	\$4.09	\$4.21	\$4.32	\$4.44	\$4.56
Lease Payment (Ash Monofill)	6	(\$1.00)	(\$1.03)	(\$1.06)	(\$1.09)	(\$1.13)	(\$1.16)	(\$1.19)	(\$1.23)	(\$1.27)	(\$1.30)
Capital Cost Adjustment		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
O&M Adjustment		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Wheelabrator Disposal Cost		\$3,319,983	\$3,453,768	\$3,592,976	\$3,737,773	\$3,888,405	\$4,045,108	\$4,208,126	\$4,378,036	\$5,007,631	\$5,352,589
District Program Costs											
District Program Fee	7	\$12.38	\$12.73	\$13.11	\$13.51	\$13.91	\$14.33	\$14.76	\$15.20	\$15.66	\$16.13
District Expenses		\$786,330	\$818,019	\$850,565	\$885,280	\$920,957	\$958,071	\$996,682	\$1,036,848	\$1,078,633	\$1,122,102
District Revenue (Recyclables)	8	(\$180,884)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net District Program Cost	9	\$635,446	\$818,019	\$850,565	\$885,280	\$920,957	\$958,071	\$996,682	\$1,036,848	\$1,078,633	\$1,122,102
District Disposal Cost (\$17.51 Program Costs)	10	\$3,955,438	\$4,271,807	\$4,443,561	\$4,623,053	\$4,809,382	\$5,003,179	\$5,204,807	\$5,412,884	\$6,086,264	\$6,474,691
Miramar Disposal Cost (Proposed District)		\$62.17	\$68.48	\$68.48	\$70.53	\$72.65	\$74.83	\$77.07	\$83.76	\$88.35	\$93.06
Alternative B - Alternative Disposal											
Inflationary Adjustment Factor		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Haul and Disposal Fee (1)	11	\$58.00	\$59.74	\$61.53	\$63.36	\$65.23	\$67.14	\$69.08	\$71.03	\$73.07	\$75.16
Program Services	12	\$83,619	\$84,255	\$84,898	\$85,547	\$86,202	\$86,864	\$87,533	\$88,208	\$88,890	\$89,579
Recyclable Program Costs/(Revenue)	13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Haul and Disposal Costs	14	\$3,689,899	\$3,838,601	\$3,993,297	\$4,154,227	\$4,321,642	\$4,495,804	\$4,676,985	\$4,865,466	\$5,061,546	\$5,265,527
Total Miramar Disposal Cost for Alternative Disposal	15	\$3,753,517	\$3,902,857	\$4,058,195	\$4,219,774	\$4,387,844	\$4,562,688	\$4,744,516	\$4,933,876	\$5,130,436	\$5,335,106
Miramar Haul and Disposal Cost (Option B) \$58/ton		\$58.00	\$60.74	\$62.53	\$64.38	\$66.28	\$68.24	\$70.26	\$72.33	\$74.47	\$76.68
Difference (Savings)		(\$201,921)	(\$368,951)	(\$365,767)	(\$405,279)	(\$421,516)	(\$448,511)	(\$466,289)	(\$779,206)	(\$695,829)	(\$1,130,585)
Cumulative Savings		\$201,921	\$570,872	\$936,639	\$1,359,918	\$1,781,435	\$2,221,948	\$2,682,236	\$3,461,444	\$4,417,271	\$5,558,856

Notes

- (1) Tonnage figures from FY 2009, received from Miramar
- (2) An inflationary adjustment of 3% was assumed. Actual adjustments will be made per the Service Agreement, using 3 indices published by the Bureau of labor statistics.
- (3) Estimated net payment to Wheelabrator subtracting Lease Payment from Service Fee.
- (4) Base Tipping Fee of \$47.75 plus one-time adjustment, assumed to be 4%. The Service Agreement specifies this to be calculated using 100% of

the adjustment from October 2009 to April 2011, plus 33.3% of the adjustment from April 2010 to April 2011.

- (5) Estimated to be \$3.53/ton based on Malcolm Pirnie previous estimate (March 2010). Beginning in 2017, a fee for as monofill expansion is included. This is based on an estimated \$20M capital cost amortized over 10 years. Wheelabrator could invoice these costs as incurred under the Service Agreement. The fixed debt service is estimated to be \$2,344,610.
- (6) Lease Payment to District from Wheelabrator at \$1M.
- (7) Estimated District Program Cost at \$12/ton plus adjustment to 2011.
- (8) Revenue from recyclable materials based on FY 2009. Estimated at net \$0 in future years to be conservative as recyclable revenues are highly volatile.
- (9) Net Program Costs accounting for revenue.
- (10) Sum of Wheelabrator net Service Fee and net District Program Costs.
- (11) Estimated cost of \$58/ton for haul and disposal, adjusted at 3% per year.
- (12) Estimated cost to contract directly for services offered by the District including HHW, e-waste, etc. Based on \$1/ton using estimates from non-ILA cities.
- (13) Estimated at net \$0 in future years to be conservative as recyclable revenues are highly volatile.
- (14) Total Haul and Disposal cost.
- (15) Sum of estimated Haul and Disposal and direct contract for HHW, e-waste and recycling representing total waste management cost to Miramar.

Table 4-2 illustrates the comparison using Program Costs of \$17.51/ton

	Notes	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Miramar Tonnage		1,000,000	1,010,000	1,020,100	1,030,301	1,040,604	1,051,010	1,061,520	1,072,135	1,082,857	1,093,685
Miramar MSW Tonnage (estimated)	1	63,619	64,255	64,898	65,547	66,202	66,864	67,533	68,208	68,890	69,579
Miramar Recyclable Tonnage (estimated)	1	2,694	2,721	2,749	2,776	2,804	2,832	2,860	2,889	2,918	2,947
Alternative A - Proposed District											
Wheelabrator Disposal Costs											
Inflationary Adjustment Factor	2	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Wheelabrator Service Fee	3	\$52.19	\$53.75	\$55.36	\$57.02	\$58.74	\$60.50	\$62.31	\$64.17	\$66.07	\$68.01
Net Tipping Fee	4	\$49.68	\$51.15	\$52.68	\$54.26	\$55.89	\$57.57	\$59.30	\$61.08	\$62.91	\$64.80
Monthly Pass Through Costs	5	\$3.53	\$3.63	\$3.74	\$3.85	\$3.97	\$4.09	\$4.21	\$4.34	\$4.47	\$4.60
Lease Payment (Ash Monofill)	6	(\$1.00)	(\$1.03)	(\$1.06)	(\$1.09)	(\$1.13)	(\$1.16)	(\$1.19)	(\$1.23)	(\$1.27)	(\$1.30)
Capital Cost Adjustment		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
O&M Adjustment		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Wheelabrator Disposal Cost		\$3,319,993	\$3,453,788	\$3,592,976	\$3,737,773	\$3,888,405	\$4,045,108	\$4,208,126	\$4,376,875	\$4,550,797	\$4,730,528
District Program Costs											
District Program Fee	7	\$18.04	\$18.58	\$19.13	\$19.71	\$20.30	\$20.91	\$21.54	\$22.18	\$22.85	\$23.53
District Expenses		\$1,147,367	\$1,193,626	\$1,241,729	\$1,291,771	\$1,343,830	\$1,397,986	\$1,454,325	\$1,512,934	\$1,573,905	\$1,637,334
District Revenue (Recyclables)	8	(\$150,884)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net District Program Cost	9	\$996,503	\$1,193,626	\$1,241,729	\$1,291,771	\$1,343,830	\$1,397,986	\$1,454,325	\$1,512,934	\$1,573,905	\$1,637,334
District Disposal Cost (@\$17.51 Program Costs)	10	\$4,316,485	\$4,647,415	\$4,834,705	\$5,029,544	\$5,232,235	\$5,443,094	\$5,662,450	\$6,039,809	\$6,277,202	\$6,524,162
Miramar Disposal Cost (Proposed District)		\$87.85	\$72.33	\$74.50	\$76.73	\$79.03	\$81.41	\$83.85	\$86.55	\$89.12	\$93.77
Alternative B - Alternative Disposal											
Inflationary Adjustment Factor		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Haul and Disposal Fee (1)	11	\$58.00	\$59.74	\$61.53	\$63.38	\$65.28	\$67.24	\$69.26	\$71.33	\$73.47	\$75.68
Program Services	12	\$63,619	\$64,255	\$64,898	\$65,547	\$66,202	\$66,864	\$67,533	\$68,208	\$68,890	\$69,579
Recyclable Program Costs/(Revenue)	13	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Haul and Disposal Costs	14	\$3,689,899	\$3,838,601	\$3,993,297	\$4,154,227	\$4,321,642	\$4,495,604	\$4,676,985	\$4,865,498	\$5,061,548	\$5,265,527
Total Miramar Disposal Cost (Path B)	15	\$3,753,517	\$3,902,857	\$4,058,195	\$4,219,774	\$4,387,644	\$4,562,669	\$4,744,518	\$4,933,676	\$5,130,436	\$5,335,106
Miramar Haul and Disposal Cost (Option B) \$58/ton		\$59.00	\$60.74	\$62.53	\$64.38	\$66.28	\$68.24	\$70.26	\$72.33	\$74.47	\$76.68
Difference (Savings)		(\$562,978)	(\$744,558)	(\$776,511)	(\$809,770)	(\$844,390)	(\$880,425)	(\$917,932)	(\$1,066,133)	(\$1,146,765)	(\$1,189,061)
Cumulative Savings		\$562,978	\$1,307,536	\$2,084,046	\$2,893,817	\$3,738,207	\$4,618,632	\$5,536,564	\$6,492,697	\$7,588,463	\$8,817,519

Notes

- (1) Tonnage figures from FY 2009, received from Miramar
- (2) An inflationary adjustment of 3% was assumed. Actual adjustments will be made per the Service Agreement, using 3 indices published by the Bureau of labor statistics.
- (3) Estimated net payment to Wheelabrator subtracting Lease Payment from Service Fee.
- (4) Base Tipping Fee of \$47.75 plus one-time adjustment, assumed to be 4%. The Service Agreement specifies this to be calculated using 100% of the adjustment from October 2009 to April 2011, plus 33.3% of the adjustment from April 2010 to April 2011.
- (5) Estimated to be \$3.53/ton based on Malcolm Pirnie previous estimate (March 2010). Beginning in 2017, a fee for as monofill expansion is included. This is based on an estimated \$20M capital cost amortized over 10 years. Wheelabrator could invoice these costs as incurred under the Service Agreement. The fixed debt service is estimated to be \$2,344,610.
- (6) Lease Payment to District from Wheelabrator at \$1M.
- (7) Estimated District Program Cost at \$12/ton plus adjustment to 2011.
- (8) Revenue from recyclable materials based on FY 2009. Estimated at net \$0 in future years to be conservative as recyclable revenues are highly volatile.
- (9) Net Program Costs accounting for revenue.
- (10) Sum of Wheelabrator net Service Fee and net District Program Costs.
- (11) Estimated cost of \$58/ton for haul and disposal, adjusted at 3% per year.

- (12) Estimated cost to contract directly for services offered by the District including HHW, e-waste, etc. Based on \$1/ton using estimates from non-ILA cities.
- (13) Estimated at net \$0 in future years to be conservative as recyclable revenues are highly volatile.
- (14) Total Haul and Disposal cost.
- (15) Sum of estimated Haul and Disposal and direct contract for HHW, e-waste and recycling representing total waste management cost to Miramar.

Figure 4-1 illustrates the three estimated disposal costs, and cumulative savings of the alternate disposal over each District alternative.

Figure 4-1

