

**City of Delray Beach**

**Report to City Commission on Recycling**

**Prepared by the Green Task Force**

**May 5, 2008**

## Table of Contents

|  |          |
|--|----------|
| <b>Single / Dual Stream Recommendation.....</b>  | <b>1</b> |
| <b>Understanding the Single Stream / Dual Stream Evaluation Criteria .....</b>   | <b>1</b> |
| <i>Table 1 – Evaluation Criteria</i>   |          |
| <i>Table 2 – Summary of Analysis</i>   |          |
| <b>Additional Recommendations and Possible Solutions Relating to Current Renewal<br/>of Waste Management Contract.....</b> | <b>3</b> |
| <i>A Possible Win-Win Scenario</i>   |          |
| <i>Expansion of Overall Recycling Efforts</i>  |          |
| <i>Clearly Define Commitments by WM in Contract</i>  |          |
| <b>Additional Recommendations Regarding Recycling in General .....</b>   | <b>4</b> |
| <i>Mandatory Recycling Ordinance</i>   |          |
| <i>Increased Public Education Program</i>  |          |
| <i>Requiring Future Construction Projects to Include Recycling<br/>Event / Beach Recycling</i>                             |          |

## **Single / Dual Stream Recommendation**

The City of Delray Beach Green Task Force, voted 6-0 on April 23<sup>rd</sup> to recommend to the City Commission the continuation of dual stream recycling for the City of Delray Beach, with the added note to work with Solid Waste Authority to make every effort to increase collection rates from their current levels.

The decision proved to be very difficult with extensive analysis and multiple presentations by both Solid Waste Authority and Waste Management. After careful analysis of the data presented and intensive independent research by the Task Force, the issue generally came down to a weighting of increased carbon footprint in transportation and increased quantity of collected recyclables. Please note that this discussion was lengthy and this summary carries the dangers of oversimplifying the decision. The Single Stream system's main advantage seemed to be an increase in the collection of recyclables, primarily due to the necessity of utilizing a transfer station in Pompano Beach. The Task Force ultimately felt that the increase in collection quantities could not justify the significant increase in green house gas emissions, and that other efforts could be made locally to achieve higher collection quantities (diversion rates).

While a clear recommendation on this specific issue is what was asked of the Task Force, there was a great deal of exploration and discussion of not only this specific issue, but also recycling in general in Delray Beach. We felt it was important to share our thoughts, which are contained in this report, including a dedicated section on specific important issues relating to the renewal of the current Waste Management contract.

## **Understanding the Single Stream / Dual Stream Evaluation Criteria**

The Task Force found it very difficult to come to a conclusion based on testimony because the Task Force received diametrically opposing testimony from Solid Waste Authority (SWA) and Waste Management (WM). It was difficult to get substantive documentation of their claims. Thus, the Task Force sought out further independent information in the form of reports and articles that had been published on the subject. The following table is a synopsis of the pros and cons that drove much of the decision, followed by a distilled summary analysis table. Note that much of the data on this issue is very hard to determine due to wide variations in reporting, types of sorting facilities etc., and statements in the criteria that follow are somewhat generalized.

|   | Pros  | Cons  |
|---|---|---|
| <b>Single Stream (SS)</b>                             |   |   |
| <i>Collection</i>                                     | <ul style="list-style-type: none"> <li>• Generally easier for end-user and more recycling is collected.</li> <li>• Presents a cleaner streetscape with a single roll bin with a lid.</li> <li>• Automated collection by the truck allows for less manpower / workers comp claims etc. (advantage to WM, not city).</li> </ul> |   |
| <i>Amount Lost in Sorting</i>                         |   | <ul style="list-style-type: none"> <li>• Reports suggest that SS facilities end up throwing away a higher percentage of collection after sorting. However, WM's newer facility seems to be performing well.</li> </ul>  |
| <i>Quality of Output</i>                              |   | <ul style="list-style-type: none"> <li>• Reports from end user manufacturers suggest that the SS recycled end product is of lesser quality and is therefore worth less.</li> </ul>  |
| <i>Efficiency in Miles Traveled during Collection</i> | <ul style="list-style-type: none"> <li>• SS collection trucks may require fewer actual truck trips (i.e. they can service more homes per truckload).</li> </ul>   | <ul style="list-style-type: none"> <li>• Even factoring in an increased per truck collection rate, calculations indicate an incredible increase of <u>potentially hundreds of thousands of more miles traveled by the collection trucks</u> because of the need to drive to WM's facility in Pompano (vs. the current drop off location here in Delray). This represents a huge increase in green house gas emissions tied to the City's overall carbon footprint.</li> </ul> |
| <i>Economic Impact to City</i>                        | <ul style="list-style-type: none"> <li>• Limited cost as WM has committed to pay for new bins / education.</li> <li>• WM has proposed a revenue stream to the city of approximately \$50,000 to \$60,000 annually. Best guess at a net gain seems to be around \$40,000.</li> </ul>   | <ul style="list-style-type: none"> <li>• Intensive education campaign is necessary – WM has offered to split the bill, but some money will need to be spent by City on this effort.</li> <li>• City residents will have to pay a minor increase in fees to SWA.</li> </ul>  |
| <i>Existing Relationships</i>                         |   | <ul style="list-style-type: none"> <li>• Abandons current relationships with SWA / County.</li> <li>• Delray would be only city in the area to make switch, but may lead to others, which would increase SWA fees to residents in the future.</li> <li>• Need to redesign recycling education programs.</li> </ul>  |
| <b>Dual Stream (DS)</b>                               |   |   |
| <i>Collection</i>                                     |   | <ul style="list-style-type: none"> <li>• Reports indicate DS collection rates are less than SS.</li> </ul>  |
| <i>Amount Lost in Sorting</i>                         | <ul style="list-style-type: none"> <li>• Reports indicate that DS facilities end up throwing away a lower percentage of collection after sorting.</li> </ul>  |   |
| <i>Quality of Output</i>                              | <ul style="list-style-type: none"> <li>• Reports from end user manufacturers suggest that the DS recycled end products are of higher quality, and thus worth more.</li> </ul>   |   |
| <i>Efficiency in Miles Traveled during Collection</i> | <ul style="list-style-type: none"> <li>• Even with an increase or even a doubling of trips made per DS truck, the overall miles traveled by remaining local (instead of going to Pompano), is significantly less, and thus the overall carbon footprint of the recycling effort is much less than SS.</li> </ul>              | <ul style="list-style-type: none"> <li>• DS trucks appear to have to make more trips than SS because they cannot haul as much recycling.</li> </ul>   |
| <i>Economic Impact to City</i>                        | <ul style="list-style-type: none"> <li>• No impact to city financially – business as usual.</li> </ul>  |   |
| <i>Existing Relationships</i>                         | <ul style="list-style-type: none"> <li>• Continues to build upon established collaborative recycling relationships to entities outside of Delray in the county / region.</li> </ul>   |   |

**Table 1 – Evaluation Criteria**

After exploring all of the criteria, the Task Force worked to distill the information and arrived at the following table. The yellow highlighted portions quickly rose to the surface as the major advantages for both that were then weighed against one another.

|   | <b>Single Stream Advantage</b>   | <b>Dual Stream Advantage</b> |
|---|--|------------------------------|
| <i>Collection</i>                                     | +  |                              |
| <i>Amt. Lost in Sorting</i>                           | Neutral / no advantage   | Neutral / no advantage       |
| <i>Quality of Output</i>                              |  | +                            |
| <i>Efficiency in Miles Traveled during Collection</i> |  | +                            |
| <i>Economic Impact to City</i>                        | +<br>(Cash flow from WM's shared revenue stream offers initial advantage; not clear about long term due to SWA's increased fees in future years) |                              |
| <i>Existing Relationships</i>                         |  | +                            |

**Table 2 – Summary of Analysis**

As noted above, from the Task Force perspective, the increase in green house gas emissions seemed to present more of an overall negative environmental impact that would outweigh even a good size increase in the quantity of recyclable materials collected.

**Additional Recommendations and Possible Solutions Relating to Current Renewal of Waste Management Contract**

*A Possible Win-Win Scenario*

In evaluating the various criteria, the Task Force devised a possible solution that tries to capitalize on the benefits of both single and dual stream. Such a scenario could be proposed as an alternative to what is now being viewed as a black and white issue with no middle ground:

The city could maintain a dual stream system, but work towards a system with both WM and SWA to use larger automated carts.

- The convenience and aesthetic factor cited by WM is addressed and should increase the amount collected because trucks could be filled to capacity if they are only collecting one type of stream on a particular day.
- There is better end product, less contamination, and less lost after sorting.
- The issue of increased mileage (and thus green house gas emissions) would be eliminated as well, and perhaps even reduced.

This alternative would require an investment in new containers and an education campaign to the public (i.e. blue-Tuesdays / yellow-Fridays etc.)

### *Expansion of Overall Recycling Efforts*

While evaluating the single vs. dual stream issue, some other issues relating to the current WM contract came to light. To understand these, one needs to recognize that there are three areas of recycling in Delray Beach that are being serviced at varying levels:

| <b>Residential</b>                         | <b>Commercial (office / restaurant)</b>   | <b>Construction / Light Industrial</b>   |
|--|---|--|
| Currently provided by dual stream curbside | Provided on a limited basis with free drop off locations for cardboard and paper – no glass, metal etc. | Currently limited by WM contract to either WM roll-offs or sorted roll off dumpsters by other contract |

The Task Force felt strongly that the conditions of the WM contract should be renegotiated to include a commitment to expanded services for office / commercial within a specified time period, especially for the restaurant corridor on Atlantic Avenue.

In addition, the Task Force felt strongly that the clause excluding non-sorted recycling containers for commercial / light industrial recycling needs to be revised (or eliminated altogether) to offer the private sector construction and light industrial consumer more options for expanded recycling. Under the current conditions, recycling in Delray Beach is in effect, being limited by prohibiting single stream construction / light industrial recycling contracts.

As Delray moves in a green direction, commercial and construction / light industrial recycling areas are important components of the City's overall recycling plan where there is significant room to improve. The current contract decisions to be made appear to have significant implications for these types of recycling, and represent a great opportunity to further the City's efforts in this area.

#### *Clearly Define Commitments by WM in Contract*

Regardless of which direction the City Commission decides upon, the City should require a binding written proposal from WM that addresses the exact costs to the city for new bins, education / PR campaign, and potential revenue stream back to the city. The City should make sure these issues are addressed in whatever contract is approved to avoid any unexpected costs and ensure potential revenue.

### **Additional Recommendations Regarding Recycling in General**

The Task Force felt that in the course of reporting to the City Commission on this issue, it was appropriate at this time to make some further recommendations, outside the scope of this particular contract, for possible consideration in the future.

#### *Mandatory Recycling Ordinance*

Some jurisdictions have actually implemented a mandatory recycling program. Revenues generated by this program by violations can be earmarked into a separate account to fund further education programs, or other green initiatives by the city. In 2003 Sarasota County implemented such an ordinance requiring both residential and commercial recycling, with warnings for first violations and \$200 up to \$500 penalties for future violations. This ordinance is available on the Task Force website ([www.SustainableDelray.org](http://www.SustainableDelray.org)).

#### *Increased Public Education Program*

The Task Force, many of whom consider themselves to be loyal and good recyclers, learned that often they were recycling wrong. Regardless of the single vs. dual stream decision, there seems to be a need

for increased education of the general population of how to recycle properly and what resources are available.

#### *Requiring Future Construction Projects to Include Recycling*

One component of many green building programs, such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program, is the integration of recycling into building design and construction for ease of recycling during the lifetime of the building. The City could require such integration on future projects. For example, a multi story condo building could have multiple chutes for recycling and waste etc.

#### *Event / Beach Recycling*

Especially in the winter months, Delray hosts many festivals, from Jazz on the Ave to the Delray Affair. There is tremendous opportunity to incorporate recycling into these events as many haulers can provide this service now. Recycling could become a pre-requisite commitment by any organization working with City to host an event.

Similarly, there is great potential for collection at the beach where visitors currently discard newspapers and a lot of drink containers in the beach garbage bins.