

Final Memorandum

Date: Tuesday, July 10, 2018

Project: City of Alexandria, Virginia, Resource Recovery Division Strategic Plan Review

To: Michael Clem, Recycling Program Analyst

From: Christopher Koehler, Susan Raila and Wendy Mifflin, HDR

Subject: Task 4 - Commercial Collection, Revenue Opportunities and Marketing Strategies

Introduction

The City of Alexandria (City) has asked HDR to evaluate the potential of expanding the City's commercial waste collection operations and to identify potential revenue enhancing opportunities through increased presence in the waste collection and disposal markets. Per discussions with the City, this memo is based on a few overall assumptions as follows:

- 1) The City is not focused upon trying to compete in the commercial markets, but instead looks to optimize the use of the City's existing equipment and workforce to maximize revenues;
- 2) There currently is underutilized labor and underutilized collection equipment within the City's staff and fleet;
- 3) Additional commercial accounts can be added without the need to increase staff or purchase new equipment; and
- 4) Any increase to the number of commercial accounts will make a positive impact to revenue.

This memo focuses on increasing commercial accounts to an optimal level, which is the level just before additional labor and equipment would be needed.

It should be noted that because it appears there is underutilized labor and equipment, there is also the potential to reduce staff and sell equipment to reach optimal efficiency. As suggested in the Task 3 memo, the City should review current staffing levels, the ratio of supervisors to employees, the use of temporary employees, and the task-based incentive system implemented for field staff.

The data for the costs and revenues shown in this memo were provided by the City. HDR has in some cases manipulated the data provided to break down costs into comparable units.

Current Commercial Collection Services

Alexandria's Current Non-Residential Collection Services

Institutional Waste

The City provides waste collection and recycling service to approximately 250 commercial accounts and a small number of non-profits located within the residential neighborhoods but also collects from



65 schools and government buildings (collectively known as institutional accounts). There are no fees paid by institutional accounts for this service, as these facilities serve Alexandria’s residents who already pay for waste collection through their current residential waste fees.

The City provides two (2) 8-yard containers to each school and government building; one (1) for waste and one (1) for recyclables. The City currently owns approximately 175 8-yard containers of which approximately 125 are placed at schools and government buildings and about 50 are placed at the four (4) Recycling Drop-Off Centers (about 12 at each facility).

The City uses city-owned front-load compactor trucks to collect trash from the schools and government buildings. The City also collects recyclables from the four (4) recycling drop-off facilities three times per week.

Bates Trucking Trash Removal Inc. (Bates) was under contract to collect recyclables from the schools and government buildings once a week. In FY 2017, recyclables collection cost \$38,000; which equates to a cost of \$11.24 per stop.

Starting in early 2018 the City took over the Bates routes using City forces, and to begin collecting recyclables at all 65 schools and government buildings two-times per week. The City will continue to service the recycling drop-off centers three-times per week. The City will use three (3) front-loading packer trucks to service waste and recycling containers. Each truck will service approximately 23-24 stops per day, two days per week for a total of 142 stops per week. Looking at the financial data provided by the City, this may not be a prudent decision. Bates currently collects recyclables for \$11.24/stop while the City collection routes average about \$46/stop. This amount is calculated below. The City may want to reconsider assuming these services.

The City also manages one compactor room where approximately 20 commercial accounts self-haul their wastes for a fee.

Institutional Waste Collection Costs

Based on budgets provided by the City, in FY2017, the cost to provide waste and recycling services to schools and government buildings was \$622,105. Based on 65 accounts with two (2) containers at each stop, one (1) for trash and one (1) for recycling, serviced twice a week, this equates to a cost of about \$46 per stop, as shown below.

$$\frac{\$622,105}{65 \text{ stops} \times 2 \text{ containers/stop (trash and recycling)} \times 2 \frac{\text{stops}}{\text{week}} \times 52 \text{ weeks}} = \$46 \text{ per stop}$$

In addition, in FY 2017, the City provided recycling service to the four (4) recycling drop-off facilities three times per week (12 stops per week).

Small Business/Commercial Accounts

The City currently provides curbside collection of waste to approximately 250 small businesses/commercial accounts that are located along residential collection routes. These small businesses can “opt-in” to City sponsored collection and their trash and recyclables are collected alongside their residential neighbors.

Fees for curbside commercial accounts are based on a standard waste “unit.” Each unit is the equivalent of one (1) 65-gallon tote or approximately 3 bags of trash per week and the fee for each unit is the same as the resident fee, \$373/year (non-profits do not pay this fee). The City can adjust any account’s fee (the number of units charged) if the number of bags put out for collection each week increases or decreases. The City collects fees from a total of 627 units a year from the commercial sector, these fees are from approximately 250 curbside commercial accounts and approximately 20 compactor room accounts. For estimating purposes, it is assumed that the average curbside commercial account pays for one (1) unit (250 units) for a total of \$93,250 in revenue. Commercial accounts make up only 1.25% of the stops/accounts along the residential curbside collection routes, and the balance of the commercial units (377 units) are associated with the compactor room.

Compactor Room

In an attempt to help reduce truck traffic and unsightly waste containers in the Alexandria Historical District, the City established a compactor room near the intersection of King and Union Streets. Local commercial accounts are given a key code to the compactor room and are allowed to self-haul waste and recyclables to the compactor room. The fees use the same formula as the curbside commercial accounts; \$373/year per “unit.” Each unit is the equivalent of one 65-gallon tote or about 3 bags of trash per week. The annual charge varies per account based on how much waste each business typically hauls to the facility each week. Many commercial accounts purchase multiple units; some as many as 50 units. Once a year the City conducts an audit to check/confirm that accounts are paying the correct fee based on the amount of trash they typically bring to the facility. The compacted waste is hauled by the City to the Covanta facility for disposal 2-3 times per week.

According to discussions with the City, the cost to operate the compactor room and to transport and dispose of the waste collected in 2016 was approximately \$110,000. Estimated annual revenues for the compactor room are approximately \$141,000 (377 waste units @ \$373/unit = \$141,000). Based on these simple assumptions, the compactor room produces a \$31,000/year positive revenue stream.

Private Haulers Current Commercial Collection Service

Private haulers currently provide the majority of commercial trash collection and recycling services in the City under an open-competitive market based system in which businesses may choose which hauler will provide their trash and recyclable collection services. Table 1 provides information on commercial waste collected in 2016, by private haulers.

Table 1 – Commercial/Institutional Waste Collected (2016)¹

| Commercial Hauler | Commercial Waste Collected (tons) | Institutional Waste Collected (tons) | Total Commercial and Institutional Waste Collected (tons) |
|----------------------------------|-----------------------------------|--------------------------------------|---|
| AAA Recycling & Trash Collection | 12,731 | 1,765 | 14,496 |
| Advantage Waste Removal | 818 | - | 818 |
| American Disposal Services | 7,772 | - | 7,772 |
| Apple Valley Hauling | 708 | - | 708 |
| Bates Trucking & Trash | 98 | - | 98 |
| Chester Gavin & Sons | 572 | - | 572 |
| Con Serv Industries | 7,500 | - | 7,500 |
| Good Friends Waste Management | 2,586 | - | 2,586 |
| Harris Teater | 622 | - | 622 |
| Joe's Trash Service | 15 | - | 15 |
| KMG Hauling Inc. | 3,338 | - | 3,338 |
| National Parks Service | 19 | - | 19 |
| Olivo Trash Service | 117 | - | 117 |
| Potomac Disposal | 16,000 | - | 16,000 |
| Shoppers Food & Pharmacy | 314 | - | 314 |
| Target | 1,319 | - | 1,319 |
| Thompson Hauling | 96 | - | 96 |
| Trash Away, Inc. | 1,151 | - | 1,151 |
| Turbo Haul, Inc. | 119 | - | 119 |
| VH Inc. | 1,100 | 950 | 2,050 |
| Waste Management of Virginia | 3,957 | - | 3,957 |
| City of Alexandria | 1,046 | 2,761 | 3,807 |
| Total | 61,998 | 5,476 | 67,474 |

(1) Information for this Table provided by the City of Alexandria 2016 Solid Waste Hauler Report.

The City requires all solid waste and recycling haulers to obtain permits for each vehicle and container used in the collection of waste materials including municipal solid waste (MSW), construction and demolition debris (C&D), yard trimmings/waste, bulk waste and recyclables generated within the City limits (City Municipal Code 5-1-51). Permits are issued once a year on July 1st, and are valid for a period of one year (July 1 to June 30). Any permits issued after July 1 are valid only for the remainder of the current fiscal year (through June 30). Licenses are issued to haulers based on \$300/year for each mechanized truck; \$150/year for each pick-up truck; \$5 for each container greater than 10 CY; and \$3 for each container less than 10 CY. Annual revenue from permits/inspections averaged approximately \$130,000 over the past 4 years. HDR is not aware of how the fee levels were set.

Potential Revenue Opportunities and Marketing Strategies

Actively Pursue Additional Commercial Accounts

The City currently owns three (3) front-loading packer trucks that are used by the City to service school and government building wastes and recyclables. Given that the City owns the trucks and has access to additional containers at a favorable cost, the City may consider actively pursuing additional commercial accounts.

HDR contacted several haulers to understand their current service pricing structures. One major hauler provided their current collection charges based on a twice-weekly haul and disposal of waste with an 8-yard container of \$286.00 per month which equates to a cost per stop of \$33.00. A second major hauler provided their current collection charge for a once a week haul and disposal of commercial trash in a 6-yard container at a yearly fee of \$2,040 which equates to a cost per stop of \$39.23. In comparison, the City cost for commercial collection is about \$46/stop.

While the City's \$46/stop cost is relatively high in comparison to the private haulers, based on our overarching assumption that the City's collection staff and equipment are underutilized, the cost of adding additional stops per route is only the cost of additional tip fees plus the one-time cost of an 8-yard container. Therefore, each additional commercial account the City services without requiring an additional truck or additional labor, would have a positive effect on revenue. To determine the optimum number of additional commercial accounts that the City could accept, a route optimization study and a market survey of potential accounts on each existing truck route would be required.

As an example, according to the City, their existing front-loading packer truck (Mack MRU613) makes about 40 stops per day in an 8 hour shift. The same truck operated by Waste Management in Woburn, Massachusetts (a less dense municipality) averages 80 commercial container stops over a 12 hour shift ⁽¹⁾. If it is assumed that a City vehicle can operate as efficiently as a Waste Management vehicle, a City vehicle might make 60 stops over an 8 hour shift. That is 20 more stops per day. This equates to a 50% increase in potential accounts and a theoretical corresponding increase in revenues.

Additional Small Business/Commercial Accounts

As stated previously, the City currently services approximately 250 small business/commercial/non-profit accounts along with the residential waste. Because the City collects these commercial accounts simultaneously with the residential curbside collection accounts, it is assumed that the opportunity cost of collecting each new account is minimal, as the City need only pay for the increased tonnage via the tip fee at the A/A Facility. It is important to remember the overarching assumption that there is excess capacity along the residential collection routes. However, we would need to complete a route analysis to confirm this assumption. The City may consider conducting a survey of all businesses operating along the residential collection routes to determine how many additional or potential commercial accounts are located along the routes. While conducting this survey, the City could also inspect wastes to determine if any commercial properties are exceeding

their waste “unit” allocation or inappropriately disposing of waste in their neighbor’s totes instead of paying a fee.

Based on the market survey, the City might actively market those potential commercial accounts in an attempt to optimize the revenue of each collection route.

Additional Compactor Rooms

The City’s compactor room is a rare situation. In 2006, the compactor room was built by a contractor as part of a larger development project. In essence, the compactor room was “donated” as part of the permitting process to develop a large mixed-use project in the historic district. The approximately 20 commercial accounts that self-haul wastes to the compactor room generate an estimated \$31,000 in annual revenue (see previous estimate under “Compactor Room”). However, this revenue does not include any debt service for constructing the compactor room.

If this rare situation presents itself again, the City might consider additional compactor rooms. Assuming a large portion the cost and the difficulty in constructing additional compactor rooms is associated with locating and acquiring the property, the City may wish to persuade future developer’s to build additional compactor rooms as a condition associated with receiving building permits and/or zoning variances.

Optimization

This memo’s overarching assumption is that additional commercial accounts can be added to the residential routes and school and government building routes without the need for additional equipment or labor. This in itself assumes there is excess capacity in each route and that there is a disposal facility willing to accept the additional waste. Under the terms of the WDSA with Covanta, the City can increase the amount of waste delivered to the A/A Facility by about 2,000 tons per year until the upper limit is reached. In 2016, the City collected commercial fees from 627 waste units that produced an estimated 1,046 tons of waste; or about 1.66 tons for each unit. Based on this, the City could actively market and expand its small business/commercial accounts by up to approximately 1,200 additional commercial waste units each year until the upper limit is reached.

Each new commercial waste unit produces an additional fee of \$373 and a corresponding increase in disposal costs (tip fees) of \$72 ($\43.16×1.66 tons). Each new unit sold could potentially increase net revenue by about \$300/year. Again, this assumes no additional equipment or labor would be required to service these new accounts. If the number of commercial accounts were to increase to a level that required additional equipment and/or labor, the City’s higher collection costs would likely offset any financial benefit.

In general, the City’s cost for all waste collection and disposal (residential, commercial and institutional) is higher than comparable services in other communities. It is reasonable to assume that these higher costs will also occur in the commercial markets. Rather than attempt to compete directly with private entities, the City could attempt to steadily increase the number of new commercial accounts on existing collection routes. New accounts could be added up to the point where additional shift hours or additional trucks are necessary to collect the increased tonnage.

As detailed in Task 3 – Privatization, the City will need to address their elevated costs in comparison to the private sector. These increased costs are due, in part, to the use of a task based incentive programs for field staff, elevated sick time (workplace injuries and illnesses), and a high supervisor to staff ratio.

The City may wish to begin a survey of potential new commercial customers along existing collection routes (both residential and institutional) to develop a list of potential target revenue enhancing accounts and/or commission a complete staff and route optimization study to develop and initiate cost savings measures to become more competitive in the commercial collection and disposal markets.

Re-evaluate Licensing Fees

The City already licenses commercial haulers to operate within the City. The City may wish to re-evaluate and potentially raise the annual licensing fees it is charging haulers as a way of increasing revenues.

Potential Obstacles to Entering the Commercial Market

Commonwealth of Virginia Code – Displacement of Private Waste Companies

The regulation quoted below will need to be evaluated by City counsel to determine if these sections apply to the City actively marketing and competing to provide waste services to individual commercial accounts.

Commonwealth of Virginia Code, Title 15.2, Counties, Cities and Towns, Chapter 9, General Powers of Local Governments Section 934 and Section 5121 have established the following requirements when local governments consider displacing a private company providing garbage, trash or refuse collection service:

- Hold at least one public hearing seeking comment on the advisability of the locality or combination of localities providing such service;
- Provide at least 45 days written notice of the hearing, delivered by first class mail to all private companies that provide the service in the locality;
- Provide public notice of the hearing;
- Make a written finding of a least one of the following:
 - a. Adequate or sufficient privately-owned refuse collection and disposal services are not available;
 - b. The use of privately owned and operated services has substantially endangered the public health or created a public nuisance;
 - c. Privately owned services, although available, are not able to provide the needed services in a reasonable and cost-efficient manner; or

- d. Displacement is necessary to provide for the development or operation of a regional system or disposal for two or more localities.

Depending on legal interpretation by City counsel, this regulation may preclude the City from actively pursuing and expanding their for-profit commercial account base.

WDSA

The City and Arlington County entered into the WDSA with Covanta on January 1, 2013. According to the WDSA, only waste which is “collected or caused to be collected” by the City and County is considered as part of the agreement. The initial WDSA established an annual bandwidth of 50,000 to 70,000 tons/year to be accepted, the bandwidth has been subsequently adjusted downward to 40,000 to 60,000 tons in FY2018. Currently, the City and the County have the opportunity to adjust these tonnage amounts by no more than 5,000 tons each contract year. Based on a 40/60 split between Alexandria and Arlington, respectively, the City could adjust their tonnage up or down by 2,000 tons per year.

In October 2025, the tip fee for the City’s waste will decrease to zero dollars per ton (\$0.00/ton). This contractual reduction in tip fee is limited to a bandwidth of waste delivered by the City and Arlington County of not less than 65,000 tons and not more than 80,000 tons, with further adjustments to the bandwidth in the years 2030 and 2035. This \$0.00/ton rate will continue until 2038, at which time the ownership of the facility and its underlying property will transfer back to the City and Arlington County.

In FY 2017, the City delivered 21,136 tons of waste to the facility and Arlington County delivered 28,976 tons of waste for a total of 50,112 tons, closely following the 40/60 split.

If the City elects to actively pursue additional commercial waste accounts, it may wish to consult legal counsel. The current agreement with Covanta does not address commercial waste, other than the small amount of commercial/institutional waste that the City has historically collected and delivered to the A/A facility. While commercial waste is not specifically addressed in the WDSA, the spirit of the agreement when negotiated implied that the City would only collect commercial/institutional waste from the types of properties that it did at the time the agreement was negotiated, and to not actively pursue increasing commercial waste tonnages. If the City actively solicits for-profit commercial waste accounts, it is likely that a separate agreement or an amendment to the WDSA would be necessary to address any programmatic increase in the annual commercial tonnage.

Key Findings and Recommendations

Key Facts and Understandings

The following summarizes key facts resulting from this Task 4 effort.

- There is an overarching assumption that the City's collection staff and equipment is underutilized, and the opportunity cost of adding additional commercial accounts is the cost of the per ton tip fee at the disposal facility and any collection container provided to the new account.
- The City currently provides institutional trash and recycling collection to approximately 65 schools and government buildings and small number of non-profit institutions at no charge.
- Bates Trucking currently collects recyclables once per week at the approximately 65 schools and government buildings for an annual fee of \$38,000; or \$11.24/stop.
- The private sector provides trash and recyclables collections for the majority of commercial/industrial properties under an open-competitive market based system.
- The current WDSA with Covanta only covers residential waste and a small amount of commercial waste that the City has historically collected. The WDSA does not specifically address commercial waste. If the City develops a specific program that will increase commercial collection and disposal, an amendment to the WDSA, or a separate agreement, will likely need to be negotiated.
- The Commonwealth of Virginia Code has specific requirements that local governments must consider prior to displacing private trash collection entities. This Code may apply to the City if they actively pursue for-profit commercial waste accounts.
- Based on HDR's understanding of the City's waste collection operations and costs, the City is not currently cost competitive with private sector trash haulers. However, they may be able to optimize their routes and add commercial accounts to the point where all current staff and equipment are fully utilized and revenues are maximized.

Recommendations

The following summarizes recommendations for consideration resulting from this Task 4 effort.

- The City should consider conducting a route optimization study. This study would allow the city to better understand areas where their current operations are efficient and where improvements can be made.
- The City should reconsider assuming the collection of recyclables at the approximately 65 schools and government buildings. Bates can provide this service at a lower price than the City.
- The overarching assumption that the City's collection staff and equipment are underutilized should be verified via a route optimization study and based on the results, evaluate the opportunities to optimize the collection routes, add commercial accounts, and maximize revenue.
- The same overarching assumption can also justify cost savings measures. Based on the results of the route optimization study, the City should review current staffing levels, ratio of supervisors to employees, the use of temporary employees and the task-based incentive system implemented for field staff to optimize current equipment and labor forces.
- The City might also consider reviewing the current collection routes and developing a list of potential new commercial accounts on each route. Based on the aforementioned review, the City might develop a marketing plan to target and contract with a specific number of these potential accounts that will not require additional labor or equipment.
- Should the City choose to actively pursue additional commercial accounts, the current WDSA may need to be amended or a separate agreement negotiated. A legal opinion should be solicited to fully understand the letter and spirit of the WDSA prior to entering the commercial waste collection and disposal market.
- Should the City choose to actively pursue additional commercial collection accounts that would displace current private disposal agreements, a legal opinion regarding the applicability of Commonwealth of Virginia Code, Title 15.2, Counties, Cities and Towns, Chapter 9, General Powers of Local Governments Section 934 and Section 5121 should be solicited.

Bibliography

- (1) <https://www.wastedive.com/news/waste-management-vp-we-have-just-scratched-the-surface-of-fleet-data-cap/440332/>