Final Memorandum

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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 3 - Privatization of Collection Services

Introduction

The City of Alexandria (City) is examining how it currently manages its solid waste and recyclable materials as part of their short and long-term strategic planning efforts.

Curbside collection of solid waste is an integral part of the of the City's strategic planning efforts. One of the tasks associated with these planning efforts is to evaluate the efficiency and effectiveness of potentially privatizing and/or franchising residential and/or commercial solid waste collection. The purpose of this memo is to summarize our findings with respect to potential privatizing of solid waste collection and disposal.

Collection Services Overview

Alexandria's Current Collection Service

The City's current collection system is commonly referred to as "municipal collection service." More plainly stated, the City collects waste curbside using its own staff and equipment. In fact, Title 5, Chapter 1 of the City of Alexandria's Code of Ordinances provides regulations and general conditions for solid waste collection, disposal and recycling, and specifies that the City is responsible for collecting and disposing of solid waste, ashes, yard debris and recyclables from any detached single family home containing less than four units. City forces currently provide curbside trash and yard debris on a weekly basis to approximately 20,200 residential homes and 250 small businesses operating within residential neighborhoods. In addition, the City contracts with a privately owned company (Bates) to collect curbside recyclables on a weekly basis. The City also provides trash and recycling collection services to all City government buildings and schools and one compactor room.

Owners of buildings with four or more dwelling units, businesses, and commercial establishments are required to hire a private collection service. This waste sector is collectively known as "commercial collection." Commercial collection is provided by private haulers under an open, competitive based collection system in which businesses contact haulers directly for trash and recycling collection services. Private haulers are required to obtain a collection permit from the City prior to operation.



Collection Services Options – Advantages and Disadvantages

Generally, there are three main types of collection services providers, referred to as "municipal," "open/subscription" and "franchise/contract." Each type of provider is explained in detail below. Within each type of service, the provision of curbside collection services can be mandatory (also referred to as universal), meaning residents are required to pay for and receive the service, or not mandatory, meaning the residents can elect to pay for and receive curbside service but it is not required.

Whether commercial trash collection services are included in organized collection systems varies by community, and can influence rates for services for all customer types. In communities that include commercial trash collection as part of the organized collection service, a larger customer base can allow for greater economies of scale, which may reduce costs and rates; however, commercial collection service typically requires different collection vehicles and containers, and therefore does not guarantee lower costs.

Municipal Collection Service

Municipal collection service refers to a system that uses municipal crews (e.g., city employees) and municipally-owned equipment, and typically implies a mandatory or universal system in which residents are required to use and pay for the service. This is the City's current system. Collection from commercial businesses can be included in the mandatory/universal service for trash collection, or commercial service can be left open to competition. It is most common for commercial recyclables collection service to be left to the open market, even if municipal collection of trash is provided to residential and commercial customers. Table 1 presents the advantages and disadvantages of municipal collection.

Municipal Collection				
Advantages	Disadvantages			
 Provides the City with the most control over collection services 	Customers do not get a choice in service provider			
 Less large vehicle traffic on streets (increased public safety, fewer emissions, less wear and tear on roads) 	 Political process can affect ability to respond to technological, regulatory and socio-economic changes 			
 Provides the City with continued level of service and rate control 	 Lack of competition can lead to higher collection costs. 			
 Reduced impacts to the City's Waste Reduction and Recycling goals 				

Table 1. Municipal Collection Advantages and Disadvantages

Open/Subscription Collection Service

Open/subscription collection service refers to a system in which residents and/or businesses subscribe directly with haulers that are licensed to collect waste within the community. Whether residents and businesses are required to subscribe for collection services varies by community. It is fairly common for a community that has either municipal or franchised collection for residential services to have an open/subscription system for commercial collection. Table 2 presents advantages and disadvantages with open/subscription collection.



Table 2. Open/Subscription Collection Advantages and Disadvantages

Open/Subscription Collection					
Advantages	Disadvantages				
Customer choice in service providers	City has very little control over collection services				
 Multiple haulers (including local/independent haulers) can provide service promoting competition and lowering costs 	 Multiple large vehicles traveling on the same streets (increased risk to public safety, more emissions, more wear and tear on roads) 				

Franchise/Contract Collection Service

Franchised/contracted collection service refers to a system where a community grants a franchise to (or signs a service contract with) hauler(s) to provide collection services. There are **Exclusive Franchises**, in which one hauler is granted the exclusive rights to collect within a service area; and there are **Non-Exclusive Franchises**, in which multiple haulers are granted the right to collect within a service area. There are a wide variety of approaches for establishing franchised systems. Table 3 summarizes the different variations and presents advantages and disadvantages for each.

Table 3. Franchising Approaches, Advantages and Disadvantages

Name	Description	Advantages	Disadvantages
Exclusive Franchise, subscription	One hauler per service area; residents subscribe for trash and/or recycling service	 One hauler/agreement to administer Less large vehicle traffic on streets 	 No guarantee of customer base for hauler (difficult for pricing) No choice of hauler for residents Implementation could displace some haulers
Exclusive Franchise, universal (mandatory)	One hauler per service area; residents required to pay for trash (and perhaps recycling service, as a policy decision)	 One hauler/ agreement to administer Guaranteed customer base promotes economies of scale Recycling participation may increase if residents are required to pay for the service Less large vehicle traffic on streets 	 No choice of hauler for residents Residents are forced to participate and have to pay for service
Non-exclusive franchise, subscription	Requires haulers to obtain a license from the municipality prior to collecting waste with the municipality licensing agreement will typically require the haulers offer both waste and recycling services; . Residents are not required to subscribe for service.	 Residents can choose amongst licensed haulers Not a mandatory service 	 Potentially less customer base than mandatory universal franchise Multiple haulers operating on same street (greater risk, emissions and wear and tear on streets)



Name	Description	Advantages	Disadvantages
Non-exclusive franchise, universal (mandatory)	Requires haulers to obtain a license from the municipality prior to collecting waste with the municipality; typically requires the haulers to offer both waste and recycling services; Residents are required to subscribe for service.	 Residents can choose amongst licensed haulers Haulers competition promotes better service and pricing Larger customer base potential than non- exclusive subscription 	 Residents must subscribe for this mandatory service Multiple haulers operating on same street (greater risk, emissions and wear and tear on streets)

Current Staffing and Equipment

The City of Alexandria's Solid Waste Collection Staff consists of administrative staff, field staff and temporary, full-time workers provided by a private staffing agency. There are currently 42 total City staff members: 10 administrative staff and 32 field staff. In addition, seven full-time temporary workers are provided by Randstad Services.

Administrative Staff and Equipment

Currently Alexandria's Resource Recovery Division (RRD) Managers, Recycling Administration and Administrative Support Staff form the administrative staff comprised of seven vehicles and ten staff members. Table 4, below, illustrates a breakdown of the FY 2017 administrative staff costs.

Administrative Staff **Staff Titles** Vehicles **Employees Total Cost Division Chief** Superintendent Resource Recovery Assistant Superintendent (2) \$41,204 \$688,901 \$730,105 Division Managers Labor Supervisor Sanitation Inspector Program Analyst (2) Recycling / \$5,100 \$376,279 \$381,379 Administration Admin Support/Comm. Clerk (2) **Total** \$ 46,304 \$ 1,065,180 \$ 1,111,484

Table 4. The City of Alexandria's Administrative Staff Costs

The supervisor-to-staff ratio, or span of control, refers to the number of employees a supervisor can effectively manage, and is an important concept to recognize as the optimal supervisor to staff ratio allows managers to effectively supervise the correct number of employees. The current span of control for the City collection system is four supervisors to 32 field staff which calculates to a ratio of 1 supervisor to 8 field staff. The City of Spokane (Spokane) is currently operating their residential curbside collection program with 1 supervisor to 40 field staff. Spokane's field staff, for both commercial and residential collection, totals 100 with 3 supervisory positions.



Field Staff and Equipment

The field staff is responsible for 20,200 residential collection accounts, 250 commercial collection accounts, 65 schools and 150 government buildings, yard waste collection, and curbside leaf collection, as well as street litter, and litter can collection. Each residential collection route consists of one driver and two laborers. The City contracts with Randstad Services to provide seven full-time temporary workers to assist with routes at a cost of \$39,988 per worker for FY 2017. The below Table 5 illustrates the breakdown of the FY 2017 field staff costs.

Field Staff/ Collection Programs	Staff Titles	# of Staff	# of Trucks	Vehicle Annual Cost	Annual Salaries	Total Annual Cost
Residential	Drivers	6	6	\$333,638	\$1,139,835	\$1,473,473
Collection	Refuse Collector	12	O			
Yard Waste	Drivers	2	2	\$106,850	\$229,214	\$336,064
Collection	1 Helper/1 Temp	2 ¹	2			
Commercial Collection	Drivers	2	3	\$163,944	\$155,488	\$319,432
Street Litter	Drivers	2	2	\$89,290	\$149,810	\$239,100
Collection	Helpers/Temp ¹	1	2			
Littor Con	Drivers	1	1	\$45,000	\$113,486	\$158,486
Litter Can Collection	Temp Refuse Collector	2				
De alsum (Conings	Drivers	5		\$265,652	\$513,310 ¹	\$778,962
Backup/Swing (w. temp)	Temp Refuse Collector ¹	2	5			
Overtime					\$223,500	\$223,500
Fringe and Benefits					\$1,111,483	\$1,111,483
	Total	39 ¹	19	\$ 1,004,374	\$ 3,636,126	\$ 4,640,500

¹⁾ Includes 7 temporary helpers provided by Randstad Services.

In addition to the above salary and benefits, the City paid field staff employees \$223,500 in overtime. In FY2017, salaries, benefits, overtime and contracted labor for administrative and field staff totaled \$4,640,500.

The City utilizes a task-based incentive system for the field staff where the collection workday is completed when the route is finished, and staff is paid for a full shift. The field staff currently work 4 days per week, an average of 6 hours per day to complete the collection routes. The City has implemented the 5th day Friday shift where field staff report for staff training and litter control functions. The Friday shift is also used as a "flex day" to allow for full weekly residential services during weeks that contain holidays.



Workplace Injury/Illness

Trash collection is often viewed as one of the more dangerous jobs due to the number of fatal and non-fatal occupational accidents.

For FY 2016, the City provided data on accidents, sick leave and injuries associated with the collection of trash. The City calculated that there were 2,580 hours, or 322.5 days, that the RRD staff was on sick/disability leave, which calculates to be 80.6 hours per employee for the 32 full-time field employees.

For comparison, the Spokane is currently averaging 2 employees per day, per month out on light duty or unable to work due to injury or illness or 41.6 hours per employee per year away from work. The City of Alexandria is recording a 93.75% greater injury, accident, illness rate than the City of Spokane.

Comparable Community Overview

Normalizing the Suite of Services Provided

The City currently uses internal forces to collect trash and yard waste on a weekly basis and contracts with Bates for the collection recyclables on a weekly basis. Table 6, below, provides a comparable community overview for household collection in which all communities surveyed provide the same curbside collection of materials to homeowners with the exception of the Spokane which also provides curbside food waste collection as part of their suite of services.

	City of Alexandria, VA	Arlington County, VA	Montgomery County, MD	Cambridge, MA	City of Spokane, WA
Population	153,511	229,164	1,020,000	134,284	215,973
Number of Households	20,200	33,200	91,500	31,741	68,000
Yearly Fee per Household ¹	\$373.00	\$314.00	\$373.10 ³	Included in General Tax	\$504.00 ²
Disposal Method	WTE	WTE	WTE	WTE/Landfill	WTE
Service Provider 1. Includes weekly collection of collect	City Staff	Private	Private	City Staff	City Staff

Table 6. Comparable Community Overview

Case Study - Spokane, WA

The Spokane Department of Solid Waste Collection operates its own public solid waste collection utility for city residents and businesses. Without a franchise from the city, no other institutional haulers are allowed to haul solid waste within Spokane.

Spokane includes weekly food waste collection.

Includes all services available for Montgomery County (FY 17)



Spokane crews service residential solid waste collection accounts with fully automated, side-load vehicles and rear loaders for alley service, and commercial solid waste collection accounts with front-loader, rear loader, and roll-off vehicles. The combined fleet of residential trash trucks is comprised of 6 semi-automated and 15 automated routes, and collects from over 68,000 residential accounts. Collection vehicles were converted to Compressed Natural Gas (CNG) from diesel which has realized a cost savings to Spokane for both fuel costs and for repairs and maintenance. Current fuel price for diesel at the Spokane shop is \$2.30 per gallon versus CNG at \$1.90 per gallon. Spokane is also exploring service contracts for their CNG compressors as another cost saving measure.

Spokane currently operates a crew of approximately 100 field staff for both commercial and residential collection with 3 supervisors for a span of control ratio of 1 supervisor to 33 field staff. Spokane also has one administrative staff position assigned solely to provide staff training, safety training and special event assistance. In addition, Spokane provides weekly collection for residential properties and collection up to five times a week for commercial properties depending on the customer's needs, collecting approximately 175,000 tons of trash per year.

Spokane's field staff consists of 100 drivers servicing 60 routes per day for both residential and commercial collection. Spokane is currently averaging 2 employees per day, per month out on light duty or unable to work due to injury or illness, or 41.6 hours per employee per year away from work. The field staff works an 8 hour day with a ½ hour duty free lunch. The work day includes collection of the route, fueling and washing the vehicle and pre and post trip inspections.

Spokane recently completed an internal Route Optimization Study in which 5 routes were eliminated and are in the process of issuing an RFP for routing software utilizing a tablet based GPS system to geo-code service location for accounting purposes.

Curbside recycling collection is offered to every single family residence, but is not mandatory. Spokane also provides curbside recycling to some commercial and multi-family accounts through a subscription service. Yard debris and food waste collection is provided to residents during the months of March through November as a subscription rate, with a current participation rate of over 28,000 customers. During the months that yard debris and food waste collection is provided, 41% of the residential customers participate.

Solid waste collected by Spokane is delivered primarily to the WTE Facility at a current tipping fee of \$108.00 per ton. Single stream recyclables are delivered to the Waste Management SMaRT Facility whose rate changes month to month based on the charge assessed to Spokane for processing and a split of profit and/or loss on materials shipped. Yard and food waste is delivered to a private composting facility for a fee of \$41.00 per ton.

Spokane charges customers for collection of solid waste and recyclables on a single, monthly invoice that also includes water and sewer charges. Subscription for yard and food waste is charged as an additional rate on the monthly bill. Multifamily (five units or greater) and commercial rates vary, depending on the size of the container and the frequency of collection.

Spokane is not currently considering the privatization of collection services for either the commercial or residential sectors. The citizens and businesses are generally satisfied with the service they



receive and costs are equivalent to other public and private collections operations in Washington State, in particular in eastern Washington. Spokane has also levied a 20% utility tax on revenues from the collection system that goes directly to the general fund.

Implications of Privatizing Collection Services

The practice of privatization and public-private partnerships of trash collection services is currently used extensively in the United States. The Waste Business Journal reports that 75% of collection and disposal is currently being managed by the private sector, while 25% is managed by municipalities. The decision to privatize municipal waste collection typically correlates to; 1) cost savings realized to tax payers under the privatization scenario, 2) customer dissatisfaction with the current trash collection system, or 3) political pressure to privatize.

Potential Cost Savings

The following Table 7 provides comparable community costs for curbside collection of trash, recyclables and leaf and yard waste and notes which collection services are performed by private industry or city collection.

	City of Alexandria, VA	Arlington County, VA	Montgomery County, MD	Cambridge, MA
Population	153,511	229,164	1,020,000	134,284
Number of Households	20,200	33,200	91,500	31,741
Trash Collection and Disposal \$/HH/Year	\$131 ¹	\$96 ²	\$145 ²	\$86 ¹
Recyclables Collection and Recycling \$/HH/Year	\$32 ²	\$41 ²	\$33 ²	\$55 ²
Leaf and Yard Waste Collection and Recycling \$/HH/Year	\$17 Yard Waste ¹	\$50 ²	\$12 ²	\$39 ²

Table 7. Comparable Community Costs

The City provides comparable services and prices for collection and recycling for leaf and yard waste and recyclables. The City cost for trash collection per household per year is calculated using FY 2017 actual expenditures divided by the number of household served (20,200) or \$131/HH/year. For comparison, in FY17, Arlington County provided private collection at a cost of \$4.88 per month (\$58.56 per year) plus disposal costs at \$43.16 per ton (\$35.14 per year) plus \$1.92 for cart maintenance for a total of \$96.00 per year, per household.

Private provided collection service.



Customer Complaints

The City operates a Call-Click-Connect system that allows customers to create and track the status of their own requests, from start to finish, either online or by telephone. The system features an online system for entering, tracking, and resolving service requests, designed to help the City respond more efficiently to requests from residents and the public. From August 2016 through August 2017, the system generated 24,458 tickets of which 9,010 tickets related to refuse and recycling. The City collects from 20,200 residential units per week, 52 weeks per year which totals to 1,050,400 residential units collected per year. Of the complaint tickets generated for trash services, 1,701 tickets were directly related to missed collections or general complaints based on residential units collected per year, which would translate to about 33 complaints per week out of the 20,200 stops. Customer complaints are low which demonstrates that City collection service performance is excellent in terms of customer satisfaction.

Potential Impacts of Privatization

Privatization Advantages and Disadvantages

Advantages

Privatization would allow the City to transfer operational responsibility for a service to a private company. Depending on the negotiated agreements, performance guarantees are typically provided. Through privatization, the City may gain access to private capital to avoid large capital expenses (such as required for collection fleets or transfer stations). The contracted company may provide technical expertise for collection such as automation and collection route optimization.

Disadvantages

While the City can contract out collection services, the ultimate responsibility for providing service will always remain with the City. The City will give up its autonomy and have no direct control over collection services and must rely on the strength and terms of the contract. Often this can be frustrating and expensive when it comes to providing special services not envisioned when the contract was initially negotiated.

Finally, privatization can put the City at a competitive disadvantage for future trash collection service contracts. Upon contracting for services, it is assumed that the City would liquidate its collection fleet, retrain or lay-off the employees, and in general, get out of the trash collection business. Once out of the collection business, contract negotiations become more difficult as the City cannot negotiate from a position of strength as the cost of re-entering the collection business may become prohibitive. While the short-term goal of lower costs is sometimes realized, the long-term result can be reduced competition and higher cost.

When considering privatization, both the advantages and disadvantages should be fully understood and evaluated prior to issuing a request for proposals.

Physical Impacts to the Existing Fleet

The City currently has a full sized fleet of equipment consisting of rear loader packer trucks, front loader packer trucks, knuckle boom trucks, box trucks, and pickup trucks. Currently, the City



allocates 13 vehicles for collection services, mainly rear and front loader packer trucks. The City's current fleet averages 3 years in age shown in Table 8 below.

Collection Vehicle# of VehiclesAverage YearResidential62014Commercial22015Yard Waste22013

2

1

2016

2014

Table 8. Current City Collection Fleet

To realize the benefits under a privatization scenario, the collection vehicles must be sold, offered to the successful collection company for use, or re-purposed for use in other City departments. In addition, personnel must be retrained for other functions or be displaced.

Post Privatization Impacts

Street Litter

Litter Can

Costs

With City ownership, the tax payers have control over all aspects of the collection operation and the preferred service levels. With privatization, the tax payers will only have limited control based on the terms of the contract. While short term cost saving may be realized, the loss of tax payer control is an aspect for consideration and public input. The full cost impacts cannot be known until an RFP is issued for services and will be highly dependent on which services are requested.

Some program costs will continue even if services are privatized. There will still be staff needed to manage contracts, monitor citizen complaints, and to provide public education and outreach programs, and other chosen services that are not outsourced.

Waste Reduction and Recycling Goals

The City is ultimately responsible for meeting State and local waste reduction and recycling goals. Under a privatized collection system, a contractor may have conflicting goals. The structure of the privatized contract will need to be carefully crafted to ensure waste reduction and recycling goals can be met over the period of the contract.

Operations

Privatization of operations may result in a displacement to some City employees. Some positions may be transferred to the private contractor or reassigned to other positions within the City but it is unlikely that all positions would be retained. In addition to the field staff employees, the City also maintains equipment using in-house staff. Additional employees throughout the City allocate some portion of their workday to the Resource Recovery Division. The Division allocated \$379,900 in FY 2017 for Indirect Costs for City Administrative Support.

To realize cost benefits, the collection fleet would need to be sold or repurposed for use in other City operations.



The City currently has a low citizen complaint volume. Outsourcing collection services may change public perception, and result in increased customer complaints and dissatisfaction with services provided.

Case Study - Decatur, AL

Decatur, Alabama, with a population of 55,437, considered privatizing the city's trash service in 2015. Six companies submitted bids to take over the trash collection duties at a rate that was 60% higher than the current curbside rate. The bids were rejected by City Council as too drastic a change to implement before considering improvements to the current system. As of 2017, the City of Decatur is still operating a curbside collection system at the residential rate of \$16.76 per month (\$201.12 annually).

Case Study - Fall River, MA

Fall River, Massachusetts, with a population of 88,930, chose to privatize trash collection city-wide in 2015. Privatization of the collection system began in 2015 with a ten year contract with EZ Disposal that is expected to save the city \$8 to \$9 million over the 10 year contract period. Both union employees and residents filed lawsuits against the privatization, and requested a restraining order to stop privatization. All requests were eventually denied in Superior Court.

Key Findings and Recommendations

Key Facts and Understandings

The following summarizes key findings resulting from this Task 3 effort.

- The City currently provides curbside collection of trash and yard waste on a weekly basis.
- The City currently contracts with a privately owned company to provide curbside collection of recyclables on a weekly basis.
- Most commercial collection of trash is provided by private haulers under an open-competitive based collection system.
- The City's Resource and Recovery Division staff consists of ten administrative staff, 32 field staff and 7 full-time temporary workers provided by a contracted service provider.
- The City's utilizes a task based incentive program for field staff. The field staff currently average a 6 hour day 4 days per week with Friday being a "flex day."
- Workplace injury/illness is over 80 hours/year per employee.
- Communities with privatized collection included in the Comparable Community Overview have a yearly household fee from \$314.00 to \$504.00 for a similar suite of services.
- The City, through a private collection contract, provides competitive recycling collection and processing based on comparable community costs.



- In FY16, the City collected 535 tons of yard waste curbside at a cost of \$632/ton and 8,245 tons of leaves at \$112/ton.
- The City costs for trash collection are high based on comparable community costs.
- The City collection service performance, in terms of customer service is excellent based on complaints to the Call-Click-Connect system.

Recommendations

The following summarizes recommendations and potential cost-savings changes for consideration resulting from this Task 3 effort.

Current Operational Recommendations

- The City should consider conducting a Route Optimization Study to perform a review of the current truck routing, mileage, staffing levels, homes served per route and tonnages of trash collected to insure that all routes are performed in the most efficient and economical manner for the tax payers.
- The Route Optimization study should be conducted using both the "per task" workday basis and an 8-hour/day basis to better understand the impacts and costs of the "per task" workday schedule.
- The City should consider a local ordinance to ban the disposal of yard waste with trash and
 greatly improve education and enforcement of yard waste disposal to increase the amount of
 yard waste collected; or the City should discontinue the yard waste collection program.
- The City should consider incorporating Automatic Vehicle Location technology in specifications for new trucks and consider retrofitting existing trucks.
- The City should review the current staffing levels of the Division for potential cost savings including the ratio of supervisors to employees, the use of temporary employees and the task-based incentive system implemented for field staff to better utilize current employees.
- A more complete review should be undertaken to ensure that the City has a training and safety program in place and functioning properly including:
 - New employee screening and training.
 - Regularly scheduled safety meetings.
 - o Tailgate safety meetings to review work safety procedures.
 - Incident reporting and investigation.
 - Enforcement of policy including progressive discipline.

Potential Privatization Recommendations

• The City should consider establishing a stakeholder group to review potential privatization options available to tax payers.



- The City should consider conducting a survey of households to determine customer satisfaction with cost of service, services provided, additional services desired and level of services.
- The City should review and update the Resource Recovery Division strategic plan to include goals and objectives as they relate to residential collection and potential privatization of collection services. This would also include review of City Code as it relates to regulations and guidelines for residential collection.
- The City should consider privatization of collection services if cost savings methods
 recommended in the Current Operational Recommendations are not implemented or do not
 realize the cost savings to the tax payers that provide comparable community costs and
 rates.