

SCS AQUATERRA

April 22, 2015
File No. 27215006.00

MEMORANDUM

TO: Jim Linn, II Superintendent, City of Oklahoma City

FROM: Bob Gardner, PE, BCEE
Jack Dowden

SUBJECT: OCEAT 03-15 - Professional Solid Waste Collection Services
Solid Waste Collection Analysis, Public Survey, and Request for
Proposal

The purpose of this memorandum is to discuss several issues relative the upcoming procurement process associated with a new solid waste collection services contract and present the results of a Public Survey recently completed regarding the City's solid waste services.

Background

On December 30, 2014, OCEAT approved a contract with SCS Engineers (SCS) to provide professional solid waste services in the following areas:

1. **Collection Services** - Evaluate the City of Oklahoma City's current solid waste collection services plan, recommend improvements to be implemented through a blend of City and privately-contracted sources during the next private contract term, and provide any associated procurement and transition services deemed necessary by OCEAT.
2. **Transfer Station Services** – Evaluate the costs and benefits to OCEAT of encouraging the development of transfer stations for use by City and privately-contracted collection vehicles and the general public, in lieu of transporting waste directly to landfills, recommend conceptual designs, siting, services, and procurement approach, provide any associated procurement and transition services deemed necessary by OCEAT.
3. **City Solid Waste Fleet Maintenance Services** - Evaluate the City of Oklahoma City's privatized solid waste management fleet maintenance services, develop updated service requirements, recommend statement of work and contract terms, and provide any associated procurement and transition services deemed necessary by OCEAT.

The evaluation of the collection services includes the following potential service changes:

1. **Recycling Program:** Changes to recycling program from the current dual-stream recycling using the 18-gallon bins to a single-stream recycling program using wheeled 96-gallon carts.

2. **Household garbage and yard waste:** Increased containerization considerations such as:
 - a. Two (2) full Big Blue carts vs. three (3) or more full Big Blue carts set out at curb for collection by urban customers prior to qualifying for bag collection services
 - b. Charging customers a per-bag collection fee (i.e., Pay-As-You-Throw) to offset the added cost of manual bag collection and incentivize customer adoption of increased containerization in Big Blue carts
 - c. A one-hundred percent (100%) containerization of waste in Big Blue carts scenario, disallowing set out of plastic bags for collection of wastes (i.e., no “outside the barrel” waste).
 - d. Potential use of transfer stations by the general public/private firms in addition to City/OCEAT private collection contractors to improve payback/return on investments, and lower tipping fees.

Request for Proposals – Solid Waste Collection Services

The evaluation of these options is ongoing, but the preparation of the request for proposals for the new private collections contract is expected to be completed and ready for advertisement in May 2015. The current collections contract with Waste Management of Oklahoma expires August 31, 2016. The goal is to complete the procurement process and award a new collections contract in September 2015, which will allow a year transition period before the existing contract expires. A draft RFP has been prepared, reviewed by City staff, and is being finalized by SCS. In addition, SCS has held discussions and received input from the private companies that provide solid waste collection services in the region. The current plan is to request quotation of prices for the following collection and recycling service scenarios (Exhibits 1 and 2).

At this juncture, we do not plan to request pricing for separate yard waste collection and composting in the RFP. The State of Oklahoma does not preclude disposal of yard waste in landfills and a separate collection system and composting operation will likely add additional costs to the City’s current solid waste system costs. In addition, the City’s current contracted landfill disposal rates are relatively low at approximately \$18/ton for municipal solid waste. However, this alternative is being considered in more detail in SCS’s alternatives evaluation for future planning and consideration.

The potential for siting transfer stations within the City to improve collection efficiency is being considered in the SCS study; however, given that the City has contracts with four nearby landfills (three in the City and one just outside the City limits) that have projected service lives in excess of 30 years, the decision on a transfer station is not time sensitive. Also, the City may wish in the future to consider siting one or more manned citizen convenience centers in the rural areas to facilitate recycling where these services currently are not provided. Convenience centers also can provide for drop off and proper management of other household, yard waste and bulky waste materials.

Exhibit 1. Residential Curbside Collection of Household, Yard Waste, and Bulky Waste Service Alternatives

Option No.	Collection Service Description	No. of Households	Residential Collection Service Level										Price Proposal, \$/HH/Month					
			Residential Collection Frequency (Per Week)	Additional City Charge* Beyond 2 carts*	Bag Limit	Container Type	Container Size	Bulky Waste Pickup Frequency, 4 CY	% of Contractor Route Stops/month	Type of Recycling Assumed	4-days per week pickup				5-days per week pickup			
											1 Cart	2 Carts	3 Carts	4 Carts	1 Cart	2 Carts	3 Carts	4 Carts
1. Current Collection Areas																		
1.1	Status Quo	117,454	1x/wk	Yes	No limit	Cart	96-gal	1/mon	?	Dual Stream								
1.2	Status Quo - Bag Limit	117,454	1x/wk	Yes	5 bags	Cart	96-gal	1/mon	?	Dual Stream								
1.3	Containerize Residential and Yard Waste, No Bags	117,454	1x/wk	Yes	No Bags	Cart	96-gal	1/mon	?	Dual Stream or Single Stream								
2. Reallocated Collection Zones Between the City and Contractor Collected Area																		
2.1	Status Quo	105,454	1x/wk	Yes	No limit	Cart	96-gal	1/mon	?	Dual Stream								
2.2	Status Quo - Bag Limit	105,454	1x/wk	Yes	5 bags	Cart	96-gal	1/mon	?	Dual Stream								
2.3	Containerize Residential and Yard Waste, No Bags	105,454	1x/wk	Yes	No Bags	Cart	96-gal	1/mon	?	Dual Stream or Single Stream								

Exhibit 2. Recycling Collection and Processing Alternatives

Option No.	Recycling Program Description	No. of Households	Recycling								Collection			Fee Proposal Processing	
			Program Type			Materials					\$/HH/Month	\$/ton Delivered	Basis for Average Commodity Value (\$/kon)*	\$/HH/Month	
Dual Stream	Single Stream	Frequency	Container Type	Container Size	Paper	Plastics	Metals	Corrugated Cardboard	Glass						
1	Dual Stream - Bins, Glass Included	176,174	Yes	No	1x/wk	Bin	18 gal	Yes	Yes	Yes	Yes	No	Yes		
2	Dual Stream - Bins, Glass Excluded	176,174	Yes	No	1x/wk	Bin	18 gal	Yes	Yes	Yes	Yes	No	No		
3	Single Stream, Carts, Glass Included	176,174	No	Yes	1x/2-wks	Cart	96 gal	Yes	Yes	Yes	Yes	Yes	Yes		
4	Single Stream, Carts, Glass Excluded	176,174	No	Yes	1x/2-wks	Cart	96 gal	Yes	Yes	Yes	Yes	Yes	No		

*Contractor to provide suggested formula for calculating the monthly price adjustments to address processing commodity pricing fluctuations.

We are soliciting input from the OCEAT Board regarding the following:

Bag Set Out Policy. Currently, in the urban areas of the City, residents can set out an unlimited number of bags if their second cart is full. The rural areas have no separate bag pickup, and all waste, with the exception of bulky waste, is required to be containerized. The City and Waste Management use automated side loader collection vehicles, and allowing for bag setouts reduces the collection efficiency of these vehicles. A typical home with two Big Blue carts will take approximately 18 seconds to service. If there are bag setouts, the service time increases significantly. For 10 bags, it may take 3 minutes to service a stop, and in some cases, when there are 50 or more bags, it can take up to 10 minutes. Limiting or completely eliminating the bag set outs will improve collection efficiency, reduce costs, and reduce workers compensation claims. The additional yard waste beyond what can be containerized could be collected with the monthly bulky waste pickup, or a separate charge could be instituted to account for the additional costs incurred to provide this service.

Recycling Services. The City's current program is referred to as a dual-stream system. Recyclables are set out weekly in 18-gallon bins (Little Blue), and manually sorted at the curb by the collection contractor. Currently the City does not collect corrugated cardboard because it typically will not fit in an 18-gallon bin. The City averages just over 3% recycling (amount of the total waste stream diverted from landfills), which is significantly below national averages. The alternative is to transition to a single-stream recycling program using 96-gallon wheeled carts and automated collection similar to the Big Blue Carts. A different color (or a sticker attached to one of the Big Blues) would be specified for the recycling container. Typically, with single-stream recycling programs, collection is every other week (EOW), which reduces overall collection costs, fuel consumption, and additional truck traffic. Communities that have converted to single-stream collection have experienced higher customer participation rates and landfill diversion rates, less litter, and generally improved customer satisfaction ratings. With a single-stream system, the City could begin collecting corrugated cardboard materials, which are an increasing component of the waste stream, but are now excluded. Norman, Edmond, and Midwest City, who recently transitioned to single-stream from the dual-stream approach, experienced significant increases in recycling participation and recycling rates. The other issue is whether to exclude glass from the list of materials to be recycled. Glass is a low- to no-value commodity for recyclers and creates operational processing challenges and reduces the value of other recycled materials due to contamination.

Increase Service Area Served by City Resources. Exhibit 3 presents the number of households currently serviced by the City and Waste Management collection fleets. City Solid Waste Management Division currently collects residential solid waste (household, yard waste, and bulky waste) from approximately 75,400 households. Waste Management collects from approximately 117,500 households, and provides recycling services for the entire City (approximately 176,200), with the exception of the rural areas. SCS's preliminary analysis suggests that the City's current personnel and equipment could be used to collect more homes (up to 8,000 to 12,000 depending on productivity assumptions), reduce contractor collection costs, and reduce overall system costs. Some additional fuel and maintenance costs would result; however, SCS's preliminary analysis suggests that the reduced contractor costs would

significantly outweigh the additional fuel and maintenance costs the City would incur. The current plan is to issue the RFP with new City/Contractor zones identified in addition to the existing collection zones. We recommend the City re-route its collection routes to fully optimize the collection system prior to the beginning of the new contract in 2016.

Exhibit 3. Homes by Collection Day and Service Provider

Day	City	Contract-Urban	Contract-Rural	Total
Mon	20,514	25,401	2,859	48,774
Tue	18,755	22,772	4,530	46,057
Thu	17,909	26,897	4,646	49,452
Fri	18,200	25,726	4,623	48,549
Total	75,378	100,796	16,658	192,832

Assumptions:

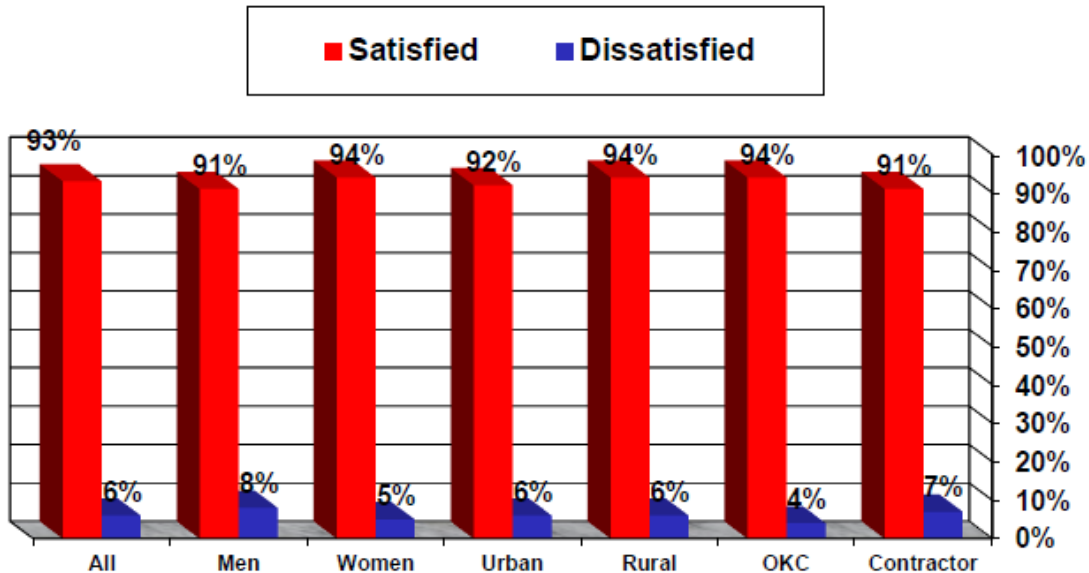
1. Includes all records from solid waste installation with billing stats 2015-03-01.xlsx that had [First cart]>0 and [Address] is not null.
2. Includes all records from solid waste dumpster and bags 2015-03-01.xlsm.
3. Except for 284 of these records, all records were assigned XY coordinates via matching to address points, geocoding to streets, geocoding to Google and Bing.

Public Survey Results

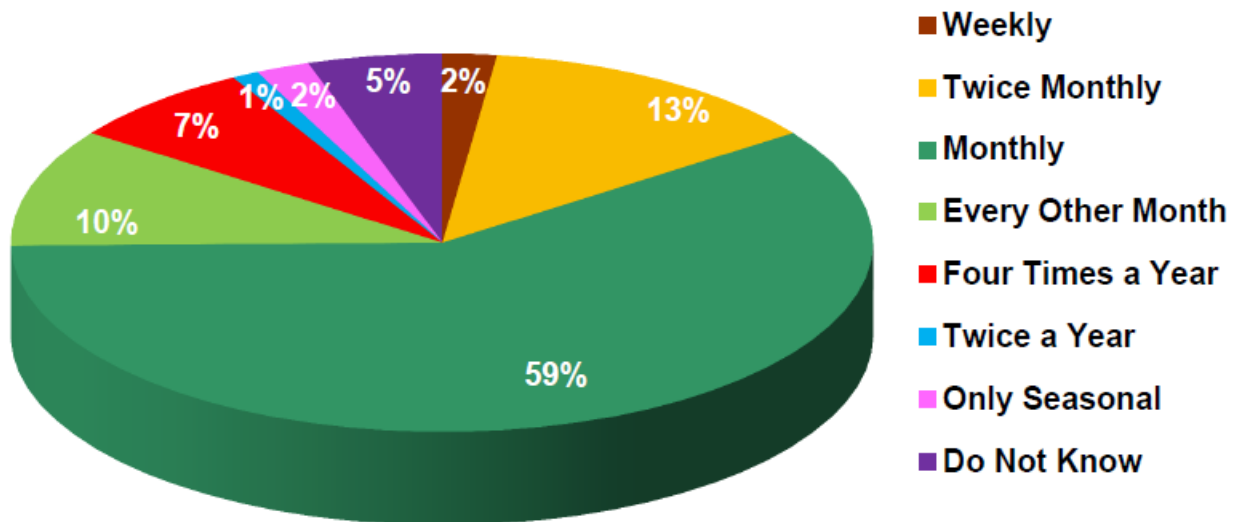
SCS, in conjunction with Cole, Hargrave, Snodgrass and Associates, recently conducted a public survey of a cross section of Oklahoma City residents regarding their views on existing services and the potential service changes being considered. A summary of CHSA’s findings is provided in Attachment A. Key points of the survey are provided below:

1. **Satisfaction with Collection Services.** 93% of all respondents indicated that they were satisfied with the solid waste services provided by the City. For respondents in the City-served area, the satisfaction rate was 94%, and for the contractor-served area the rating was 91%. More than 90% satisfaction is a very high number. Sixty one percent (61%) indicated that they are “very satisfied.” A slight difference was observed between those served by the City and those served by the contractor. While the responses from the urban and rural survey participants are similar, there is a difference in that 62% of urban customers indicate they are “very” satisfied and only 51% of rural customers indicate they are very satisfied.

61% Very Satisfied; 32% Somewhat Satisfied; 5% Somewhat Dissatisfied; 1% Very Dissatisfied; 1% Undecided



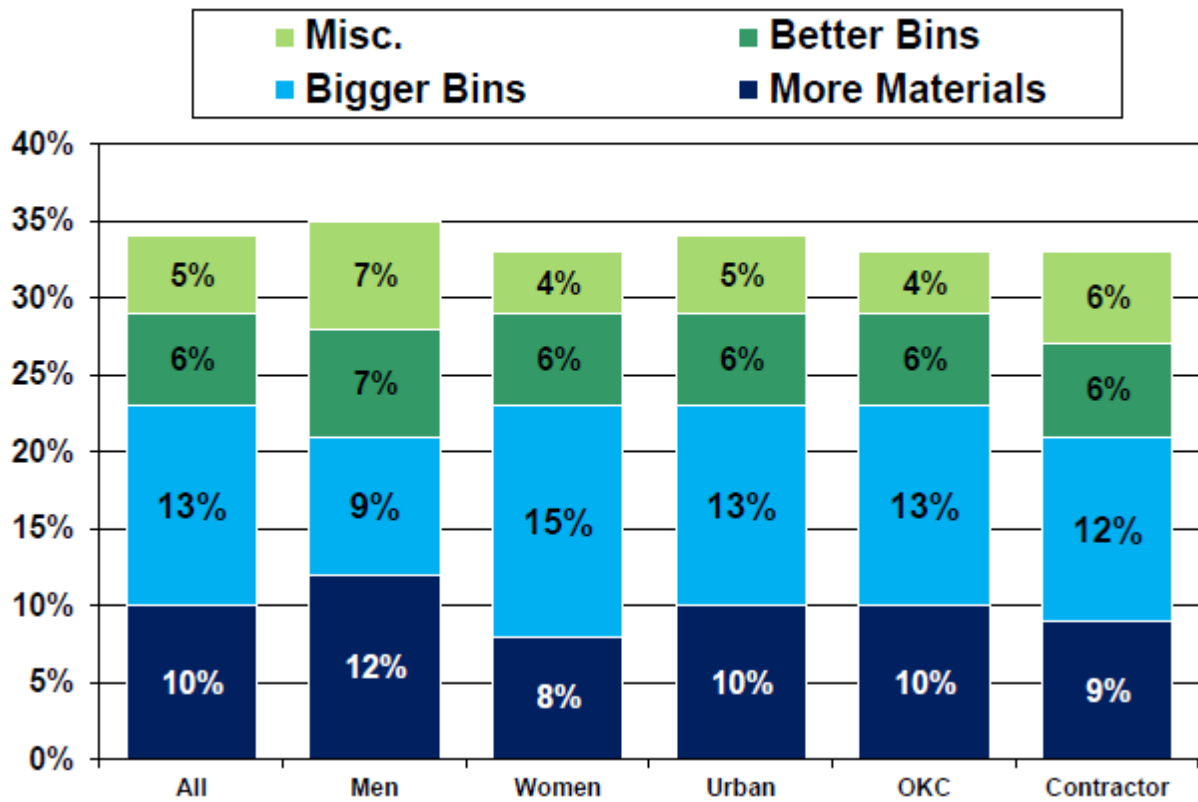
2. **Do you know how much you pay?** Most residents readily admit they do not know what they pay for trash service. The exception is among the rural customers where awareness is much higher.
3. **Big Blue Carts.** The Big Blue carts have been almost universally accepted.
4. **Pay as You Throw Programs (PAYT).** Initial reaction to “pay as you throw” is not positive. A higher negative was observed among rural customers than urban ones. However, the City’s current rate structure includes elements of a PAYT structure by charging more for additional carts.
5. **Bulky Waste Services.** High satisfaction was observed (89%) with the bulky waste services provided to City residents, with the City-provided service doing only slightly better than that of the contractor. The following responses were received to the question of how frequently people wanted bulky waste pickup:



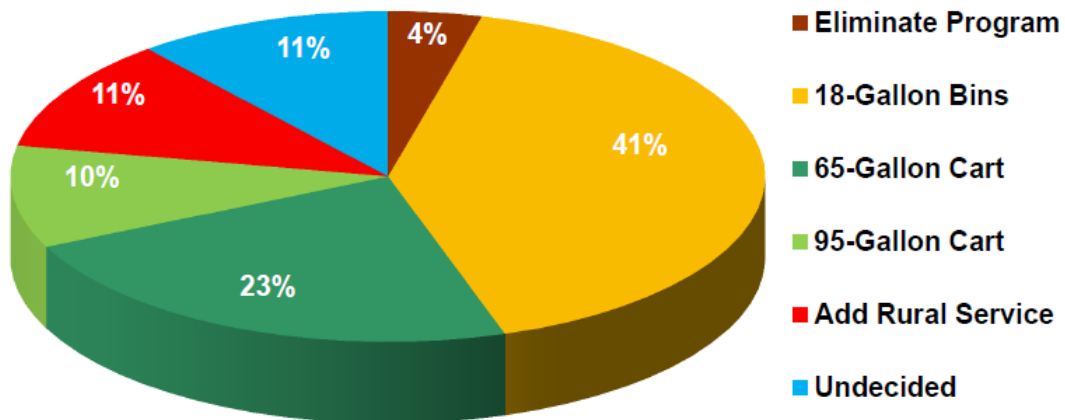
Fifteen percent (15%) of the respondents want bulky waste pick-up more often compared to 20% who want it less often. Clearly, the current situation is in a sweet spot for residents. This question did include a statement about more frequent pick-up increasing the cost. Those making less than \$50,000 a year are actually the most likely to want more frequent pick-up (19%) while it drops to 14% among those making more than \$75,000. Twenty-three percent (23%) of those under 45 would like to see more frequent pick-ups.

6. **Recycling in Rural Areas.** Support for rural recycling was weakest among rural customers. Only 51% of the rural customers surveyed favored recycling, and 62% indicated that they would not be willing to see their cost increase at all to provide this service; however, 28% indicated they would be willing to pay at least \$2 more a month for the service.
7. **Type of Recycling Services.** A general satisfaction was noted with the 18-gallon bins (71%) – but it is not as high as some of the other categories that were examined. Still, when looking at the ratio of the extremes, a better than 5-to-1 ratio was observed, which indicates that there does not appear to be strong interest for change. Sixty-seven percent (67%) could not say what they would change about the recycling program. However, almost 20% expressed concerns about the bins. A desire for bigger bins is a particular concern for women. Those who have lived in a different environment are also very favorably inclined to a change. On this issue, some demographic differences were observed. Whites, those under 45 and the more affluent all were much more likely to support changes. Given that a third of those that responded indicated that they hardly ever recycle, the 20% wanting a change in bins becomes significant among those that do recycle weekly, with this becoming more evident as household income increases. A third (33%) of the respondents wanted to move to carts. This is higher among those who recycle regularly. Those who do not recycle tended to opt for keeping the current bins.

10% More Materials; 13% Bigger Bins; 6% Better Bins; 5% Miscellaneous; 67% Undecided



A third (33%) indicated a desire to move to carts. This was higher among those who recycled regularly. Those who did not recycle tended to opt for keeping the current bins.



8. **Favor Yard Waste in Carts?** This is one change residents seemed to embrace, by almost a three-to-one margin. Sixty-two percent (62%) indicated a preference for full containerization of yard waste. The survey question did note that eliminating the bag pick-up could lower rates. This is not as popular among those on contractor routes, and a slight income difference was observed. However, 77% of rural customers indicated that they would not want to pay more to have this service.

9. **Composting.** Two-thirds favored compost collection. It is not as desired in the rural areas – but even there, support hit 59%. Those who have lived in a different collection environment are the most supportive. Among rural residents, opposition to paying more for compost collection was higher (74% nothing) than in the urban service area (59% nothing). A majority of those under 45 indicated a willingness to pay for this service, but those indicating they were not willing to pay anything for this service increased to 75% among senior citizens.