

**City of Broken Arrow**

**Minutes  
Recycling Committee**

**June 12, 2017**

The regular meeting of the Recycling Committee was held on Monday, June 12, 2017 at 5:30 p.m. in the City Hall Main Conference Room.

**Present were:**

**Committee Members:** Russell Peterson (Chairman), E.J. Hardwick, Jim Hoffmeister, Dawn Seing, Jill Spurgeon, Michelle Bergwall, Becky Wood, Tom Chatterton, Chris Taylor, Peggy Striegel, Johnnie Parks, Scott Eudey.

**Absent were:**

**Committee Members:** Tom Hahn

**Resource Team:** Graham Brannin, Russell Gale, Kate Vasquez, Lee Zirk.

**I. Call to Order**

The meeting was called to order by Chairman Russell Peterson.

**II. Roll Call**

Roll call was conducted.

**III. Approval of Minutes, April 24, 2017 Minutes with two corrections.**

MOTION: A motion was made by Tom Chatterton, seconded by Johnnie Parks.

**Move to approve April 24, 2017 Minutes with two corrections.**

**Motion carried unanimously by all Committee Members present.**

The Minutes were approved.

**Approval of Minutes, May 1, 2017 Minutes.**

MOTION: A motion was made by Johnnie Parks, seconded by a Becky Wood.

**Move to approve May 1, 2017 Minutes.**

**Motion carried unanimously by all Committee Members present.**

The Minutes were approved.

**IV. Presentation of Gershman, Brickner & Bratton Cost Model of Proposed Cart Systems by Kate Vasquez, Gershman, Brickner & Bratton Consultant**

Chairman Peterson turned the floor over to Ms. Kate Vasquez.

Ms. Kate Vasquez thanked Chairman Peterson and expressed her pleasure to be present at the Committee Meeting. She stated the cost model she was presenting was incomplete as there were a few project related setbacks; however, she was confident in the information she was providing. She said there would be a more complete report available in the future to provide more detail.

Ms. Vasquez outlined the information she was to discuss, including what a cost model was, its limitations, the factors influencing costs, the cost of the model, the importance of outreach and education, and what was anticipated going forward. She explained a cost model was a set of calculations that incorporated all the cost related to the activity. She said it was different from a budget document with line items as a cost model broke line items into per unit amounts. She stated with collection the cost model often used per mile or per hour for operations which was then translated into per household or per customer or per stop. She explained there were additional factors applied in a cost model such as anticipated participation rates, anticipated pounds per week, anticipated diversion rates, costs for processing, and costs for disposal, which were placed into a per unit format and calculated indicating if adjustments needed to be made. Ms. Vasquez stated this specific cost model modeled the costs to collect waste utilizing the Sanitation Department of Broken Arrow. She stated sometimes agencies charged a rate which was different than what the cost model determined. She said there were many reasons for this and the reasons in her cost model were abstract examples, not necessarily factual for Broken Arrow.

She explained she would review the data and parameters behind the model. She stated she attempted simplification, due to time restraints, of the assumption sheet and the inputs from which calculations were derived. She directed the Committee Member's attention to the Cost Assumption/Input sheet which listed costs, rates, price per tons, etc. She praised Broken Arrow's staff for the staff's excellent record keeping which eased her research process greatly. She stated GBB indicated a figure based on her estimation, experience and expertise; C2Logix Resource Estimator indicated a function of algorithms used in C2Logix routine and allocation of resources. A committee member asked what a 12 route multiplier was. She answered it was a figure initially created based on the Resource Estimator prepared by C2Logix in anticipation of possible reduction of fixed or overhead costs. She mentioned she had not used it and it did not apply to this cost model.

Ms. Vasquez reviewed the "assumptions." She stated some were carry-overs. She stated the FY-2016 actual was used and copied across; as a result uniform costs were unchanged, professional and technical services remained the same, property costs and travel costs were conservatively kept the same as well.

Ms. Vasquez explained "comps" were situations where she did not have the data for Broken Arrow or a way to obtain the data; therefore, she used data obtained from current active clients of Gershman, Brickner & Bratton, Inc. (GBB), specifically Fort Worth. She stated GBB's current clients were active, longtime, well-researched clients and she had access to enormous amounts of the client's data. She was confident Fort Worth was an appropriate comparison city for Broken Arrow with regard to pricing, participation, attitude and engagement. She said cart maintenance prices were comparable

for Broken Arrow by region and market cost and recycling rebate pricing was the active current pricing used for Tulsa and Fort Wayne.

Ms. Vasquez stated “inexact” were things that could not be exactly known. She said none of the inexact were massively impactful overall, but were things still to be considered, for example GBB assumed the same cost per mile to operate a truck as Broken Arrow’s Maintenance and City Agencies indicated in FY-2016; however, going forward the trucks would have new GPS equipment and the cost per mile to operate with such was unknown and not reflected. She stated the purchase of any GPS equipment in the future was also not reflected. Ms. Vasquez referenced the two scenarios, one with two carts and the other with one recycling cart and bags for garbage, and stated in the absence of comparatives the conservative thing to do was to assume the same amount of diversion in either scenario. She said in reality GBB did not believe this was true, but this data could be collected during a pilot program.

A discussion ensued regarding Fort Worth’s comparability to Broken Arrow, a recycling set out rate of 45%, the 22.5 second per stop rate average, stop time with bags versus carts, C2Logix software routes collection and information taken into consideration when calculating averages.

Ms. Vasquez reviewed the numbers which indicated a recycling program was feasible at an acceptable price. A discussion proceeded involving the differences in cost between the two scenarios, the cost of educating the public at \$3 per household and whether that number would increase or decrease yearly, how the public education money was used and various options. Ms. Vasquez reviewed the recycling rebate. She stated it was based on an aggregate of 75% revenue sharing. She said for the breakdown of composition GBB used the information found in the contract between the Murph and Tulsa. She stated that for scenario 2 (one cart for recycling and bags for trash) she would not expect the rebate to be as profitable. A Committee Member asked how long GBB was going out on the amortization and what was the typical life of a cart. Ms. Vasquez responded 10 years for both. A Committee Member commented the truck retrofitting was a one time investment. Ms. Vasquez agreed.

Ms. Vasquez stated the total cost for scenario 1 (one cart for trash and one cart for recycling) with high processing rates was \$5.44 million and with low processing rates was \$4.8 million. She stated the total cost for scenario 2 was about \$300,000 to \$500,000 less, but she did not feel Broken Arrow’s rebate would be as profitable with scenario 2 which would narrow the gap. Chairman Peterson stated that it seemed Broken Arrow would actually save money after a few years. Ms. Vasquez stated she was not ready to confirm this as the cost model was not yet complete, but she felt certain Broken Arrow could implement recycling without any rate increase per household. Discussion ensued regarding the resident’s concern about a rate increase, how the recycling rebate varied from year to year, the possibility of reserving rebate overages one year to hedge against a poorer rebate year, how the recycling rebate offset the cost of cart purchase, and how not purchasing bags offset cart purchase cost.

Ms. Vasquez declared added recycling and cart purchases would not cost more than the current system for three reasons. She expressed the first and primary reason was the “role of routing.” She explained the current routing was inefficient; however, this did not mean the current staff who handled routing were not working efficiently, but if Broken Arrow used computerized routing the savings would be significant. Ms. Vasquez then reviewed the map of routes produced by C2Logix. She stated the map would need to be fine-tuned, but as it stood it showed mathematically balanced time/mile routes. Discussion ensued regarding the map, fine-tuning it, how current routes were determined, single truck pickup, when trucks emptied loads, and trucks using the highway to travel.

Ms. Vasquez stated the Resource Allocator from C2Logix discovered Broken Arrow would not need to expand the current fleet, which was a significant savings the Committee had not foreseen. She mentioned C2Logix had asked about one-way streets and Broken Arrow was unable to provide that information. Chairman Peterson stated the only one-way streets he was aware of were the alleys behind Main Street located downtown. Discussion transpired concerning the GPS systems, how the GPS systems would streamline routes and make navigation easier, how hiring a company like C2Logix would further streamline and make routes more efficient.

Ms. Vasquez continued with the second reason recycling and carts would not cost more than the current system: not purchasing bags. She indicated the cost of bag purchase in FY-2016 was \$516,000, and the modeled annual cost to amortize the carts and the flippers and to maintain the carts was \$720,000. She stated this averaged out to 53 cents per month per customer, and would be offset by other savings as well. She indicated in the absence of new truck purchase the half a million spent on bags was of even greater worth in the cost model.

Ms. Vasquez stated the third reason was the recycling rebate. She expressed the pricing of commodities in the Broken Arrow area was currently very good. Ms. Vasquez reviewed the recycling rebate with a high processing cost versus a low processing cost. She stated Tulsa currently got a low processing rate of \$40 per ton; however, she would not expect Broken Arrow to get this rate as Tulsa had more tonnage and a more mature program than Broken Arrow. Broken Arrow had unpredictable tonnage and unpredictable contamination and initially would pay more as a result. Chairman Peterson asked what avoided disposal was. Ms. Vasquez explained processing was the amount the city paid to dispose of recyclables, rebate was the amount returned to the city after the recyclables had been sold, net cost was the cost to bring recyclables to the Murph after the rebate, avoided disposal was what would have been paid to dispose of recyclables in Tulsa; therefore, the realized savings made by the city at the high processing rate was \$30,000 and potentially could be \$342,000 at the low processing rate. Chairman Peterson asked if Broken Arrow would be at the mid-point between these two numbers. Ms. Vasquez said no, she and GBB would expect Broken Arrow to be closer to \$60 per ton for processing. A Committee Member asked what the “break even” rate was. Ms. Vasquez stated she would calculate this and get back to the Committee. Ms. Vasquez stated the contract would initially be written as a 5 year contract with two 1 year renewals, and if Broken Arrow recycling program was excelling, a better rate would be expected at renewal. A Committee Member asked if Tulsa’s rate of \$40 per ton was excellent. Ms. Vasquez responded in the affirmative.

Ms. Vasquez summarized. She stated costs were decreased via the recycling rebate, no bag purchase, and improved route efficiency. She stated costs increased via truck retrofitting, cart purchase, public education program, and bulky waste route. Discussion ensued regarding bulky waste charges, individual item fees, cubic yardage fees, and fees being charged only to offset pickup cost to prevent residents from illegal dumping.

Ms. Vasquez iterated that public outreach and education was critical. Discussion proceeded regarding Tulsa's education program, Broken Arrow's established education program, how this would simply be adding to the current program and money would be saved in this manner. Ms. Vasquez stated \$3 per household was a dollar amount GBB used for kicking off a new program; however, how it was spent was entirely up to the Committee and using established resources was an excellent idea.

Committee Member, Peggy Striegel, asked if other counties had hired advertising agencies to handle public education. Ms. Vasquez replied a county she worked for in the past hired graphic design companies, others had hired media firms to market educational materials. She stated this proved to be an economically sound decision and the money spent on marketing went much further in this manner. Dialogue continued involving money savings through previously established communications relationships, how marketing companies/media firms provided added value for money spent on advertising and social networking. Dawn Seing commented even with the generous budget of \$3 per household for public education (\$100,000 per year) Broken Arrow had the ability to roll out recycling without an increase to the current waste disposal fee per household.

Ms. Vasquez explained the Committee would present a recommendation to the City Council, the Council would approve the Committee's recommendation, and ideally a pilot program would commence. She stated this would enhance waste characterization data used to fine tune future routes which was essential. She stated the entire process would be time consuming, including retrofitting of trucks, cart customization and purchase, creation of education programs, and rollout.

Chairman Peterson asked the Committee various questions: should the Committee recommend an opt-out option for residents to the City Council, what would the effect be on the M.e.t. (Metropolitan Environmental Trust) with current usage, and would the containers currently placed around town for recycling get the same usage and what the impact of this would be. He stated he felt the Murph would ultimately receive the items collected regardless, but he was unsure what the impact would be on the M.e.t. Graham Brannin, M.e.t. representative, stated there would be an impact on the M.e.t.s numbers, and different recyclables had different levels of impact, but the M.e.t. would be adaptable. Chairman Peterson stated the Committee needed to be ready to answer if residents were worried about the negative effect the new recycling program possibly would have on the M.e.t. and its employees. Ms. Vasquez stated GBB had clients with recycling programs who still utilized drop off centers as residents do not always want to wait until pickup day to dispose of recyclables. She stated the M.e.t. was more than a recycling drop off center and her intuition was the new recycling program would not greatly negatively affect the M.e.t.

Ms. Vasquez broached the subject of glass versus no glass recycling programs. She stated there were several successful programs which did not accept glass curbside; glass was accepted at drop off centers. She said the key to success with this type of program was direct marketing. She said more glass was recycled in this manner as glass was often lost when collected in a single stream. She explained glass was considered a contaminate at the Murph and was currently at a loss coming out of the Murph. She stated glass collected at drop off centers was sold to companies who made abrasives, to companies who produced specialized glass products, and to companies who made new bottles. She explained cities that did not allow curbside glass collection were actually recycling more and that glass going through the Murph was not being utilized in this way; it was being used as a substitute for stone or as an alternate cover in a landfill, while glass collected at drop off centers was being recycled into something new. Discussion followed about the quality of recycling through the M.e.t. versus the Murph for glass, glass added weight to recycling tonnage, glass contamination of recycling, glass not receiving a rebate rate through the Murph. Ms. Vasquez stated Broken Arrow should consider implementing a special glass drop off program as opposed to curbside glass recycling with initiation of the curbside recycling program. Chairman Peterson stated this potentially was the solution to ensure the M.e.t. did not suffer as a result of the new recycling program implementation, but public education would need to be dynamic to encourage residents to recycle properly. A Committee Member mentioned when she toured the Murph, the Murph indicated it did not want glass to come in to be dumped via trash truck, glass was supposed to be placed at the drop off site. Discussion followed regarding HOA laws regarding carts, City Ordinances trumped HOA laws, should the Committee recommend glass be picked up, or not be picked up, curbside, leaving the decision of glass recycling up to the City Council, providing information to the City Council about different glass recycling types, and the possible public education involved.

Chairman Peterson asked Ms. Vasquez which program option she recommended to the Committee. Ms. Vasquez stated she and GBB were strongly against one cart use. She indicated it was ultimately not GBB's decision, it was the Committee's; however, GBB and the entire consulting team strongly recommended Broken Arrow choose the two cart program. A Committee Member commented that Broken Arrow was a unique community, very happy with the current use of bags, and as such the best program for Broken Arrow possibly could be the one cart option. A Committee Member responded that the Committee understood eventually the change to carts had to be made; it was the way of the future and should not be belabored. She stated the City should make the change to two carts all at once instead of gradually and in a couple of years it would be considered the norm. Deliberation continued concerning political implications of a switch to a two cart system.

Ms. Vasquez pointed out that with scenario 2 the costs were inclusive of a fleet of 12 trucks compared to the current fleet of 14 trucks; therefore, the costs included reducing the fleet size, not maintaining the present fleet, and could affect employment. She stated it could be reduced by attrition, but she wanted to bring it to the Committee's attention. Assistant City Manager of Administration, Russell Gale, stated it should not affect employment as there was a lot of turnover, and there were other ways for the City to employ CDL licensed drivers potentially.

Chairman Peterson stated the Committee would present the Council with a report which listed options and recommendations and data supporting both, pros and cons of both, the recommendation of the GBB, the vote of the Committee, and the Council would make the ultimate decision. He anticipated there would be one more meeting to review this report, but he needed a vote today in order to draft this report. Peggy Striegel questioned if the Committee was still considering a third party for collection. Chairman Peterson stated he would include a paragraph with third party information for the Council's consideration, but he worried utilizing a third party would eliminate the City Sanitation Department. Discussion commenced regarding third party sanitation companies, the City putting the job out for bid, the implications of eliminating the current Sanitation Department, the lack of an accurate comparison between use of an outside provider versus use of the current Sanitation Department, the need to provide more than one paragraph of information to the City Council referencing outside providers, New Solutions and the possibility of piggy backing off the Tulsa contract, and involving legal. Discussion continued regarding the pilot programs and the possibility of pilot programs for both options, the impact the pilot programs would have on the direction the City chose to go, pilot programs running for 3 to 4 months, the possibility of testing educational materials in the process of the pilots, the benefit of data collected by pilot programs. Ms. Vasquez agreed the pilot programs would be beneficial to the City and the decision making process.

MOTION: A motion was made by Peggy Striegel, seconded by Dawn Seing.

**Move to recommend two pilot programs to the Council: Pilot 1) One cart for recycling and bags for trash. Pilot 2) One cart for recycling and one cart for trash. Both pilot programs with once a week collection.**

**Motion carried unanimously by all Committee Members present.**

Motion approved.

Ms. Peggy Striegel asked what the typical recommendation was regarding types of materials recycled. Ms. Vasquez responded plastic and metal food and beverage, clean paper that tears, and cardboard. She indicated most recycling programs did not include electronics, batteries, etc. She said she felt the Committee did not want to include container glass in curbside pickup. Ms. Striegel asked if Ms. Vasquez would draw up a document with this information. Ms. Vasquez agreed. Discussion commenced regarding appropriate glass types for recycling, Tulsa allowed curbside glass recycling, Broken Arrow allowing or not allowing curbside glass recycling. A Committee Member inquired why Broken Arrow would not allow curbside glass recycling if Tulsa did and if the Murph accepted glass. Ms. Vasquez replied glass was a negative in single stream recycling programs, it was destructive to the equipment, and it brought down the value of recycled paper. She stated the program she presented included glass as a "no-pay;" Broken Arrow would have to pay to process the glass, but would not receive anything in return. Discussion was held regarding the Murph accepting glass for recycling, the damage caused by glass to the Murph processing equipment, bringing glass to the M.e.t., the Murph not wanting glass delivered with other recyclables in a truck and the need to sort the glass out prior to delivery to the Murph. Ms. Vasquez stated the general public felt strongly about recycling glass, felt the desire to recycle glass, but in reality it would not be recycled properly in



a single stream recycling program. Discussion ensued concerning what were acceptable recycling materials, what were not, and the importance of educating the public with respect to this.

**V. Discuss staff's idea to provide Broken Arrow residents with Tulsa Mulch Facility access**

General Services Director, Lee Zirk, stated in a previous meeting green waste disposal was discussed, as a result Broken Arrow staff spoke with Tulsa staff and Tulsa was interested in partnering with Broken Arrow to allow Broken Arrow residents to bring green waste (tree limbs, stumps, etc.) to the Tulsa Mulch Facility. He stated the Tulsa Mulch Facility would be happy to give the Committee a tour of the facility. He said it would come at a cost to the City of Broken Arrow, but would allow Broken Arrow residents to dispose of green waste for free. Conversation commenced regarding what Tulsa Mulch Facility did with the waste, how Tulsa Mulch Facility mulched everything and gave away the mulch for free, whether Broken Arrow should provide mulching service, how the TARE board supported the Tulsa Mulch Facility, Broken Arrow currently picked up bulky waste and yard waste and whether this service would end, the fact that yard waste (leaves, grass cuttings, etc.) was not the same as green waste (large tree limbs, stumps, etc.) and was not accepted at the Tulsa Mulch Facility. Chairman Peterson asked if the Committee was interested in visiting the Tulsa Much Facility for a tour. No Committee Member expressed interest. Chairman Peterson said the option could be explored further at a later date if desired, but would not be included in the report.

**VI. Questions from Committee Members**

Chairman Peterson asked if there were additional Committee Member questions. A Committee Member asked how long it would take to obtain carts. Ms. Vasquez stated it took some time and Broken Arrow would be better off leasing carts to start.

Chairman Peterson stated he would prepare the report, pass it through the appropriate channels for approval and have it distributed to the Committee for review prior to the next Committee Meeting on 07/10/2017. He stated the Committee would give the report to the City Council in advance and proceed with the presentation to City Council in the beginning of August. He stated this would push the pilot program to begin in the fall and extend into winter which would be beneficial for data collection.

**VI. Adjourn**

Chairman Peterson reported the next meeting was scheduled for 07/10/2017 at 5:30 PM.

MOTION: A motion was made by Peggy Striegel, seconded by Dawn Seing.

**Move to adjourn.**

**Motion carried unanimously.**

The meeting was adjourned.