RECYCLING TECHNICAL ASSISTANCE
Project #599

DALLAS AREA MUNICIPAL AUTHORITY
LUZERNE COUNTY, PENNSYLVANIA

Curbside Solid Waste Collection, Disposal & Recycling Evaluation

October 2016

Sponsored by the Pennsylvania Department of Environmental Protection through the Pennsylvania State Association of Township Supervisors

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Project #599

DALLAS AREA MUNICIPAL AUTHORITY
LUZERNE COUNTY, PENNSYLVANIA

CURBSIDE SOLID WASTE COLLECTION, DISPOSAL & RECYCLING EVALUATION

Project Completed By:

Sustainable Resources Consulting, LLC
313 Sample Bridge Road
Mechanicsburg, PA 17050
717.329.4133
steve@sustainableresourcesconsulting.com

1.0 STATEMENT OF PROBLEM

This study was conducted for the Dallas Area Municipal Authority (DAMA) under the Recycling Technical Assistance (RTA) program. The RTA program is sponsored by the Pennsylvania Department of Environmental Protection (PADEP) through the Pennsylvania State Association of Township Supervisors (PSATS). DAMA is responsible for solid waste billing, collection and disposal services for Dallas Borough, Kingston Township, and Dallas Townships in Luzerne County, Pennsylvania. DAMA requested assistance to benchmark its curbside collection performance against similar solid waste programs and to identify opportunities to improve its residential solid waste collection system.

2.0 SUMMARY OF WORK

2.1 Curbside Refuse Collection and Disposal

DAMA operates a multi-municipal residential solid waste collection program. DAMA collects refuse in Dallas Borough, Kingston Township, and Dallas Township. Collection routes operate five days per week using manual rearload trash trucks ranging from 10 to 31 cubic yards. Routes are broken into North Side and South Side. Wednesday and Thursday collection crews include one driver and two laborers or "pickers". On other collection days, refuse crews sometimes have one driver and one picker. Active collection route time is typically between 5-6 hours. Refuse is delivered 32 miles one-way to the Keystone Sanitary Landfill in Scranton Pennsylvania. The average round trip for empty trucks takes about 1.5 hours. The planning factor is three hours due to the variability of traffic conditions and landfill operations.

The current disposal waste tip fee is $53 per ton. Based on the 2013-2015 three-year average, approximately 4,500 tons of waste is disposed annually. The DAMA program and user fee structure is a hybrid Pay-As-You-Throw (PAYT) program. Each account is allowed to dispose two 32-gallon bags of refuse or one 64-gallon container at the base rate of $249 per year. Additional disposal requires purchasing tags at a cost of $3.00 each. Tags must be attached to each additional bag. DAMA sells approximately 8,300 tags per year, or 1.2 tags per residence served.

2.2 Curbside Recyclables Collection and Processing

DAMA collects single stream recyclables from the multi-municipal service area using manual rearload trucks. Recyclables are collected on the same day as refuse. Recycling crew sizes are similar to refuse crews. On the heavier Wednesday and Thursday routes, three-man crews collect recyclables.

2.3 Yard Waste Sites

DAMA supports three sites for residential yard waste collection. There are two satellite sites located in Kingston Township and Dallas Township and the primary processing site is located off Route 118 in Lehman Township. The satellite sites consolidate residential yard wastes that are delivered to the primary site. SRC visited the Kingston site which is staffed during normal operating hours. Each visitor must sign in and contractors are not permitted to use the site. Due to limited size and adjacent properties, no processing or composting occurs at this location. Material is consolidated into 40-yard roll-off containers or trucks and transported by DAMA to the Route 118 compost facility.

SRC visited DAMA's Route 118 compost operation. This site processes incoming feedstocks (leaves and brush) from the DAMA municipalities, Lehman Township, and Harvey's Lake Borough. Incoming feedstocks are windrowed and ground into a fine finished organic product that is given away to residents. No finished material accumulates on site beyond the current season.

2.4 Site Visits

SRC conducted a site visit on May 19, 2016 to review curbside collection operations and compost sites. Site visit photos are included in **Appendix A - Site Visit Photos**. During the site visit SRC observed active collection, primarily along single stream recycling routes. Observations were limited and not intended to be a route audit where detailed performance metrics were obtained. The observations did provide valuable information regarding set-out rates, collection methods, and equipment. The key findings from field observations are included in Section 3.

3.0 FINDINGS

3.1 General Findings

The following findings are based on site visits, review of DAMA-provided data, interviews with DAMA staff, and case study experience from other residential curbside collection programs in Pennsylvania. Overall the program is operated very well. There is a strong management commitment to worker safety, customer satisfaction, and program performance. This is evident in strong performance in recyclables recovery and customer set-out and participation rates. The greatest opportunity for improvement is collection efficiency, which includes increasing the quantity of recyclables collected per stop and collection equipment optimization.

3.2 Collection System Findings

Site visit observations and general findings include:

- There is high variability in set outs that impacts overall efficiency. Trash is set out in bags, carts, and cans of all types and sizes.
- Small, 18-gallon bins represent the vast majority of recycling containers. The 18-gallon bins are frequently overfilled and supplemental containers were used for recyclables. Crews reported that the small containers, spillage, and multiple-container set outs contribute to excessive bending and extra handling.
- Customers sometimes apply stickers to bags even when other bags are not full.
- Cardboard is often set out beside bins.
- There are many round recycling containers. Windy conditions and steep grades contributed to a number of empty containers being tipped over and/or displaced from the original set out point.
- A smaller, 10-yard truck services tight roads. The small truck collects and empties the recyclables and then collects trash to eventually travel approximately 30 miles to the landfill.
- The International trucks frequently require repair due to the poor regeneration system for emissions. Frequent repairs negatively impact efficiency and complicate route planning.
- On the heaviest collection day (Thursday), as many as seven trash and recycling trucks operate.
- There are a number of dead-end streets. Collection vehicles back up streets, adding route time and, in some cases create unsafe conditions for drivers, crews, and pedestrian or public vehicles.
- Crews report that a primary challenge is being called back to collect customer-alleged missed stops. Crews suspect, and have supporting evidence, that many of these calls are instances where customers did not set out containers by the required collection time.
- The curbside feedback program is well above average. Residents receive stickers and phone calls and notes.
- Complaints are followed up diligently. In fact, there may be room for reducing the amount of staff time and effort addressing complaints through some streamlining in the complaint management system.
- The use of truck tracking software gives the director valuable real-time feedback and route flexibility.

- Industry data supports that small recycling containers underperform larger recycling containers. Once a recycling container is filled, residents have less incentive to separate material for recycling and often recyclables are disposed with trash.
- The current yard waste feedstocks and product are very clean or free of contamination. Space limitations negatively impact processing, particularly the ability to form long windrows appropriately sized to promote active composting. Processing relies heavily on mechanical size reduction and active composting can be improved. Short active and curing phases of composting combined with fine grinding with very small screens produces an organic product that is not distinctly a mulch or a compost.

3.3 Performance Metrics

A waste collection system's performance can be assessed with a variety of metrics: cost per household, recycling participation rates, waste and recyclables generation rates, number of households served per route, etc. A number of these metrics were calculated for DAMA and compared to available metrics from other Pennsylvania communities.

3.3.1 Materials Collection

Figure 1 displays the trend in refuse and recyclables totals since 2007. The data reveals the success in the transition from private contract collection to DAMA operations in 2012. Of the material collected curbside (excluding recycled bulky items), nearly 33% was diverted to recycling in 2015, a significant increase from 23% diversion in 2007.

3.3.2 Refuse Generation

The amount of refuse collected in the curbside program averaged 4,400 tons per year from 2012 to 2015. Divided over the estimated 6,940 households served yields a waste generation rate of 24.4 pounds per household per week. Member municipalities also receive waste in annual spring cleanups which is not included in these waste totals. Figure 2 displays the DAMA waste generation rate compared to available waste generation rates in select Pennsylvania municipalities that offer curbside recycling. The figure displays that DAMA performs exceptionally well compared to selected municipalities as measured by refuse generation rates. Except where noted, the recycling programs of the selected municipalities offer weekly curbside single stream recycling.

Figure 1 - Annual Totals, Curbside Refuse and Recyclables (tons)

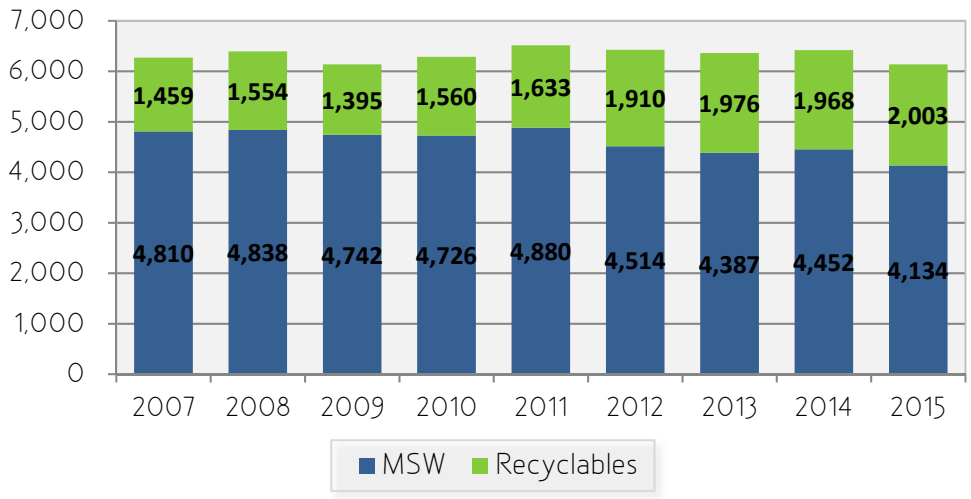
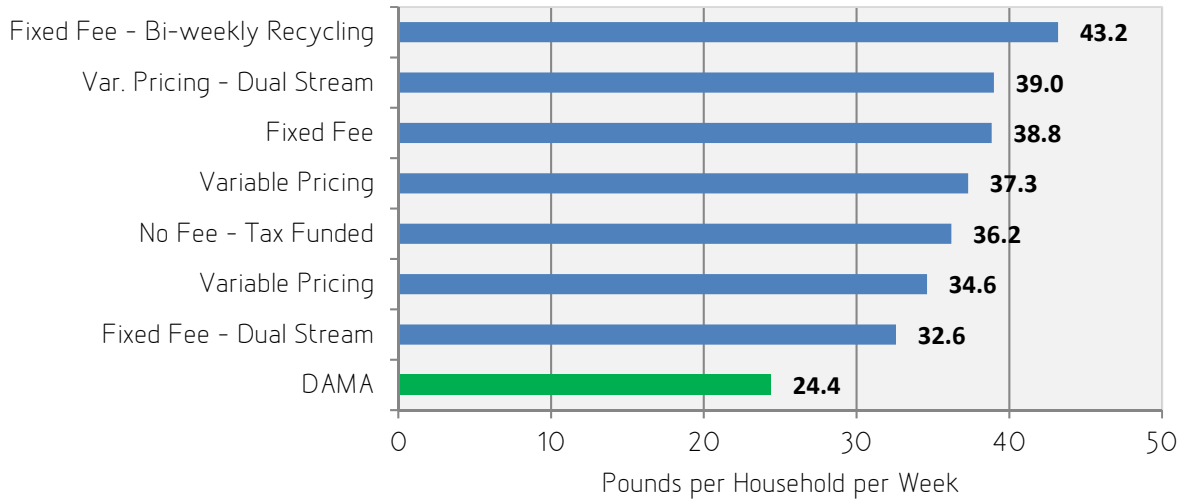


Figure 2 - Refuse Collected per Household, Select PA Municipalities

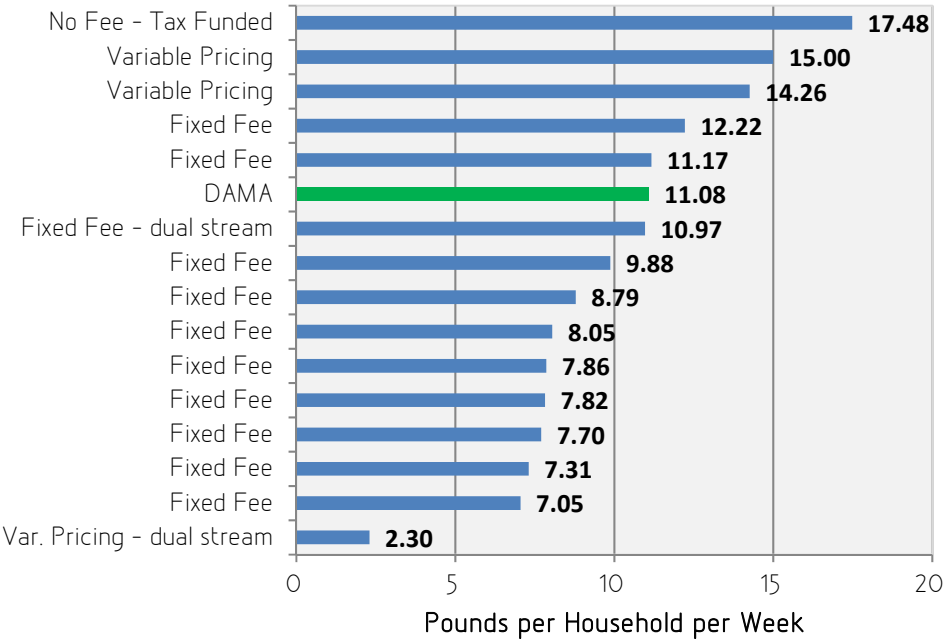


The generation rate (pounds) can be converted to a volume rate using a conservative bulk density of 150 pounds per cubic yard (approximately 1.35 gallons per pound). At this density, the average refuse set out per household per week is approximately 33 gallons. This average volume is well below the set-out limit of 64 gallons per week. The low number of tag sales aligns with this estimate and finding. The result suggests a very small number of customers exceed refuse set out limits at multi-unit set out locations.

3.3.3 Recyclables Diversion

DAMA's curbside collection program has averaged nearly 2,000 tons per year in single stream recyclables over the four years from 2012 to 2015. This quantity represents slightly over 11 pounds per household per week. Figure 3 displays how this rate compares to selected municipalities offering weekly curbside recycling. The figure shows that DAMA's recyclables collection rate compares favorably to that of most municipalities with flat fee systems but is lower than that of other municipalities with variable fees.

Figure 3 - Curbside Recyclables Collection Rates, Select PA Municipalities

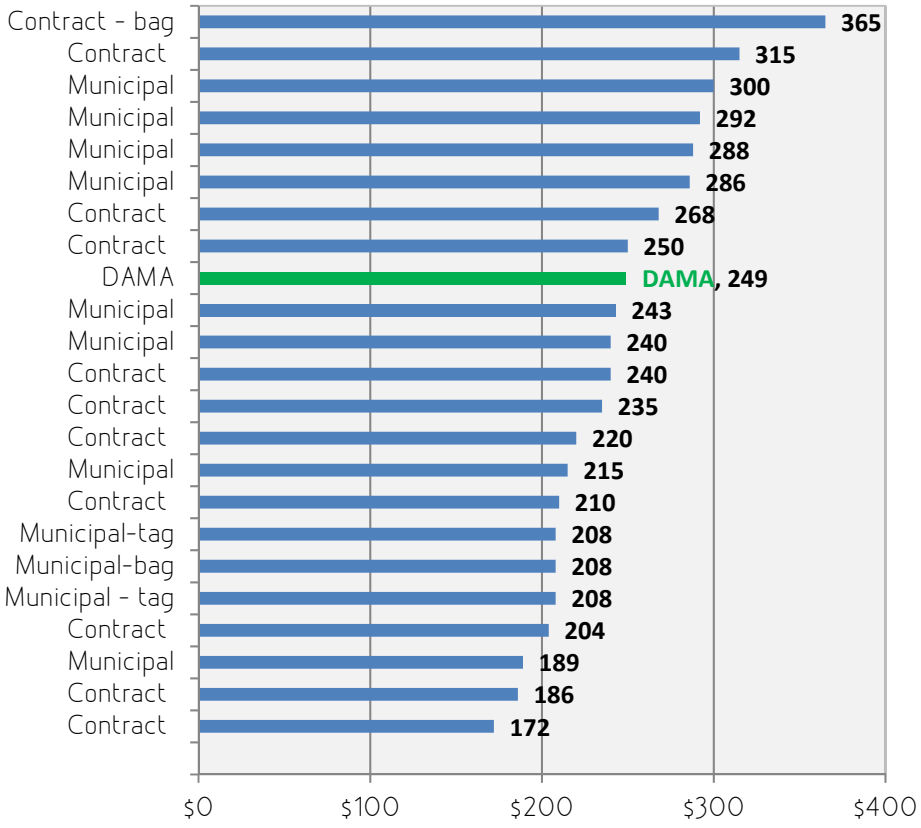


The data does not reflect the performance as adjusted for residuals (non-recyclable materials) that require disposal after recyclables processing at the MRF. DAMA's residuals rates for 2012, 2013, and 2014 were 3.19, 1.51, and 2.37 percent, respectively. These are very low residue rates, reflecting DAMA's diligent attention to quality control, and customer feedback and education. The highest recyclables rate shown in the chart is the 17.48 pounds per household for Upper Dublin Township, but includes a reported a residual rate of over 17 percent. By adjusting the recyclables quantity to use DAMA's average residue rate of 2.4 percent, a comparable recyclables generation rate for Upper Dublin Township would be 14.9 pounds per household, per week.

3.3.4 Efficiency and Cost

It is difficult to compare fees across programs. Municipal solid waste programs differ in extent of service offerings (e.g., yard waste collections, bulk waste service) and in costs that are included. In particular, programs vary in the extent to which capital replacement and overhead costs are recovered in fees. Contracted service fees vary depending on bid or procurement timing can be affected by highly variable disposal and recycling market conditions. Figure 4 presents fees from a sampling of programs across eastern Pennsylvania. PAYT fees are based on customer accounts disposing an average of two bags per week, to make them equivalent to the two bag allowance by DAMA. DAMA's annual fees (i.e. $249) are slightly in the upper end of fees surveyed. DAMA's fees are aligned with other municipally-run programs.

Figure 4 - Annual Trash and Recycling Service Fees, Select PA Municipalities



Two useful measures of program efficiency are households served per route and households served per worker on the route. For DAMA this measure is made complex due to the use of the small packer truck for narrow streets and due to variable staffing levels. Roughly, with thirteen refuse routes per week, DAMA refuse trucks average approximately 530 customers per route. This rate is slightly below industry standards, which range from 600-800 customers per refuse route. With three staff per route on two days of the week and two staff per route on the remaining collection days, the refuse route collects approximately 230 customers per collection worker (driver and pickers).

Upper Dublin Township was interviewed for this study (Refer to **Appendix B - Upper Dublin Interview Notes**). Upper Dublin has automated refuse collection. Automated routes are performed by a driver only and average 733 customers per route, or per worker. Comparably high route efficiency in Upper Dublin may be partly attributed to different route conditions in the DAMA service territory. Elevation, dead-end streets, housing density, and hauling distance are factors. However, Upper Dublin's collection efficiency primarily relates to automated collection performance. With manual collection, Upper Dublin averaged 550 customers per route and approximately 185 customers per collection worker, which are collection rates very similar to DAMA's current operations.

4.0 RECOMMENDED SOLUTIONS

4.1 Curbside Refuse Collection Recommendations

4.1.1 Reduce Instances of Backing Down Streets.

DAMA should minimize the number of occurrences where drivers are backing down streets. In some areas where backing occurs, it may be feasible to convert to a consolidated, accessible set out location. Residents should be instructed to place containers at the end of driveways or edge of primary streets at designated locations. These customers could be provided wheeled carts, and possibly receive a rate adjustment.

4.1.2 Reduce the Need for Re-routing to Collect Missed Pick-Ups

There are a number of measures that DAMA can consider implementing to minimize the occurrence of going back to pick up material that the customer failed to set out in time for the regular collection route. For instances where it is known that the customer set out containers late, the customer should be instructed to hold the trash until the next week. The requirement of holding trash until the next collection day is used effectively in other municipalities. To implement this policy, DAMA should educate the customers on the extent of the problem, informing them on how rerouting trash and recycling trucks adds costs to all customers, including the customers who set out containers on time. DAMA could also designate a dumpster, perhaps at the DAMA office location, as an alternative for these customers to take their trash.

4.1.3 Transition to Automated Collection

DAMA should prepare a Vehicle Replacement Plan (VRP) to phase in automated collection trucks. In automated collection, customers are provided wheeled carts and one driver operates a mechanical arm that lifts and empties the carts. Automated collection (for refuse and recycling) dramatically increases collection efficiency and reduces worker injury, thus yielding savings in salaries and worker's compensation insurance premiums.

The VRP should include a decision process prioritizing the replacement of specific trucks based on vehicle age, mileage, condition and other factors like truck utilization and efficiency (e.g. truck carrying capacity). The international trucks that frequently break down are a logical target for replacement. The VRP should include a replacement funding mechanism. Consideration of the costs and schedule for the provision of refuse carts should also be given.

4.1.4 Standardize and Streamline the Enforcement Process

DAMA's enforcement program would benefit from modifying the solid waste ordinances to standardize the enforcement language across participating municipalities. Consideration should be given to authorizing DAMA personnel to issue warnings and citations for ordinance violations. It is recommended that DAMA and its member municipalities institute a violation ticket process to streamline curbside enforcement.

The violation ticket process would authorize designated DAMA staff and/or staff from the participating municipalities (e.g. codes enforcement officers, recycling coordinators, or other designee) to issue warnings and citations for specified solid waste violations (e.g. exceeding trash limits, disposing recyclables with trash, non-compatible bulky items, late set outs, etc.). When an initial violation is observed, a warning is given via notice sticker placed on the container. The violation ticket/sticker would be pre-printed with a checklist of violation that can easily be checked at the time of observation. Warnings would be given and the customer would have the opportunity to rectify the violation.

The intent of the ticketing mechanism is not to cite customers and issue fines. Rather, its primary role is to serve as a tool to educate customers and to address solid waste compliance outside of the court system. The fine structure is directed toward accounts with a history of repeat violations and/or failure to correct violations after ample warning has been given. If a customer does not rectify the violation or repeats violations, the authorized personnel could assess a violation fee (say $25.00). The customer can pay the fee or plead not guilty, in a process similar to that used with parking violation tickets. The key to this process is to set low and fair violation fees via an ordinance-supported effort. An example of language related to this process includes: *Violation Ticket is a form issued by a police officer, public officer, or other designee to a person who violates a provision of this Article. The violation ticket is an offer by the (municipality) extended to a person to settle a violation by paying the fine in lieu of a citation being issued against the violator.*

4.2 Recycling Recommendations

4.2.1 Distribute Large, Standard Recycling Containers

DAMA curbside recycling performs well when measured by the amount and quality of materials collected. Compared to the diversion performance in other PAYT programs and considering the impacts of containers and customer convenience, there is room to enhance diversion rates. SRC recommends distribution of larger, standardized recycling containers to all DAMA customers. As proven in many recycling communities, larger recycling containers will increase waste diversion, increase collection efficiency, benefit customer convenience and improve worker safety. Standard containers that prevent spillage also enhance curbside/community appearance.

Based on a typical single stream bulk density of 2.25 gallons per pound, the current single stream generation rate equates to about 25 gallons of recyclables per week per average household. This average volume indicates that a 32 to 35-gallon recycling container would be large enough for most households on most weeks, even with the expected increase in recyclables recovery. However, some households may occasionally find a 32 to 35-gallon container insufficient to hold recyclables between collections. See **Appendix C-Recyclables Container Pricing Sheets** for price quotes for recycling containers from Rehrig Pacific.

4.2.2 Competitive Bidding DAMA Recyclables

DAMA should negotiate with recyclables processors and use competitive bidding and procurement processes to maximize recyclables commodity revenues. Competitive bidding can also minimize risks from market fluctuations by inclusion of commodity pricing that adjusts to a market index (e.g. Official Board Market or Yellow Sheet). DAMA's low residual rates may be a form of market leverage. It is recommended DAMA contact the Chester County Solid Waste Authority, which administers a processing and marketing agreement for multiple municipalities, to obtain information on leveraging MRF's.

4.3 Compost Facility Recommendations

Opportunities to improve yard waste materials management include the following measures:

- More effectively segregate materials on site for two types of processing and to create two different end products: mulch and compost. Mulch is a top-dressing for weed suppression and moisture management. Compost, integrated within soil, promotes plant growth.

- Work with the compost operator(s) to develop a compost plan that identifies separate consolidation and processing areas for larger diameter woody waste (i.e. mulch processing) and for smaller diameter brush, tree trimmings, leaves, and similar garden residues (compost processing). Since the windrow area is established, key elements of the plan include: a woody waste receiving area, processing/grindings schedule, compost curing area, and clearly labeled take-away piles for mulch and compost products.
- For woody waste grinding, use a 5-inch hex (top, middle) and 2-inch (round) bottom screen (first grind) and 2-inch (round) top and bottom screens (second grind). Creating mulch using more than two grinds or using screens under 2 inches is not recommended. Or use similar screen sizes readily available, but suited to create coarse mulch and finer compost.
- The current processing method for incoming small-diameter brush, leaves, and garden residue can essentially remain the same. Incoming mixed material should be pre-ground and then incorporated into windrows with the goal to produce quality finished compost. Avoid overgrinding incoming material because fines restrict airflow that is critical to active composting. To the extent space allows, target windrow dimensions that have maximum height of 8 feet and maximum width of 16 feet. Periodic windrow turning should be based on pile temperature and moisture. After windrows are actively composted, finished screened compost should be allowed to cure (i.e. cooling phase) for two months to stabilize compost and eliminate pathogens.

APPENDIX

Appendix A – Site Visit Photos

Appendix B – Upper Dublin Interview Notes

Appendix C – Recycling Container Pricing Sheets

MUNICIPALITY/CLIENT
Dallas Area Municipal Authority - Photos (05-19-16)

Photo 1: 05-19-16. DAMA
Curbside Set Out. Various containers.

Photo 2: 05-19-16.
Curbside Set Out. PAYT tag.

Photo 3: 05-19-16. DAMA
Curbside Set Out. 96-gallon Recycling Cart & Refuse Cart.

Photo 4: 05-19-16. DAMA
Small Rear Load Packer.

Photo 5: 05-19-16. DAMA
Kinston Township Organics Consolidation/Transfer.

Photo 6: 05-19-16. DAMA
Route 118 Compost Facility.

INTERVIEW NOTES

UPPER DUBLIN

Telephone Call with Jerry Smith, Upper Dublin Twp Public Works Administrator

215-643-1600 x3234

6 July 2016

Service Units - about 8,800 residence

Trash

- Fully automated, one driver, 3 trucks out each day.
- That's 12 routes per week, 8,800 residences: 733 units served/route.
- Faster than manual with two laborers. Were using 4 trucks (a driver and two laborers) (12 staff).
- 7,090 tons in 2015 (about 31 pounds/household/week).
- 7,318 tons in 2014.

Recycling

- Two trucks/day. One is fully automated. Will be replacing the other with fully automated.
- Contract terms: Sample loads are processed and measured once a year to determine composition.
- Price per ton varies monthly based on published recyclables prices. Most recent month was a new low, $28/ton. Highest so far was $42.30. A new contract as of late last year: were getting paid by Blue Mountain/FCR under old contract.
- Have considered discontinuing glass, but paying for disposal keeps them recycling.
- Last sort: 17.57 percent residue. 22 percent of the balance was glass. (18.1 percent of gross tons was glass).
- 3,150 tons in 2015 (gross tons over the scale). 2,600 net (based on 17.57 percent residue, may have been different. Was a different processor most of the year, too) 3,513 tons in 2014. 2,900 net.
- RecycleBank - near the end of their contract of and don't expect to continue. Troubles weighing the carts. Credits are issued to residents on the route based on the weight collected on the route.
- People seem to have an attitude of "when in doubt, put it in the recycle cart".

Yard Waste

- Brown cart - semi-automated. Weekly seasonal collection. Grass is allowed. Turned into mulch and provided free to residents. Only ever once had trouble with material stockpiling, after a big storm.
- In the fall, township vacuums the leaves.
- 2,600 tons yard waste in 2015. 3,250 tons in 2014.
- A PowerPoint from 2004 states that 40% by weight of summer trash was yard waste.

No service fee. General Fund.

Point of contact regarding the fully automated collection is Dan Supplee, Operations Director. 215-643-1600 x3801.

Rehrig Pacific Company SINCE 1913

Facilities Located: 1000
Raco Court, Lawrenceville, GA 30046
625 West Mockingbird Lane, Dallas, TX 75247 1738
W. 20th St, Erie, PA 16502
7452 Presidents Dr, Orlando, FL 32809
8875 Commerce Dr, DeSoto, KS 66018
7800 100th St, Pleasant Prairie, WI 53158
4010 East 26th St, Los Angeles, CA 90058

Proposal

Proposal: Recycling Bin Options Using CoSTARS **August 26, 2016**

PREPARED FOR:	SHIP TO:
Steve Deasy steve@sustainableresourcesconsulting.com 717.329.4133 Mechanicsburg, PA	TBD Zip Code - 18708

Option - 200 32 Gallon Round Bins	QUANTITY	UNIT PRICE	EXTENDED PRICE
32 Gallon Round Recycling Bins (9.6 pounds)	200	$18.10	$ 3,620.00
Drain Holes **Branded with Specific Logo (1) included** **Serial Numbers and Bar Codes for Identification** **RFID** **Standard Colors No Lids**	200	$1.25	$ 250.00
Sub Total:			$ 3,870.00
Frieght:			Exempt
Tax:			Included
Total:			$ 3,870.00

Option - 7000 32 Gallon Round Bins	QUANTITY	UNIT PRICE	EXTENDED PRICE
32 Gallon Round Recycling Bins (9.6 pounds)	7,000	$13.30	$ 93,100.00
Drain Holes **Branded with Specific Logo (1) included** **Serial Numbers and Bar Codes for Identification** **RFID** **Standard Colors No Lids**	7,000	$0.75	$ 5,250.00
Sub Total:			$ 98,350.00
Frieght:			Exempt
Tax:			Included
Total:			$ 98,350.00

Made in Erie, PA

Order Details: Options for 32 Gallon Round Bins
Freight Info: Delivered Price.
Lead Time: TBD
Terms: Net 30 - COSTARS VENDOR # 172928
Quote Valid: 30 Days
Taxes: Tax Exempt with proper certificate furnished by municipality
Art Work: *TBD - 1 Custom Brand included*

Rehrig Pacific Company

PRESENTED BY:	ACCEPTED BY:
Kemrey Kidd	**SRC** Steve Deasy
Kemrey Kidd Date	Sign and Print Name Date
Environmental Sales Representative Cell: 202-731-3937 kKidd@rehrig.com	Title:_____

Rehrig Pacific Company SINCE 1913

Facilities Located:
Raco Court, Lawrenceville, GA 30046
625 West Mockingbird Lane, Dallas, TX 75247
1738 W. 20th St, Erie, PA 16502
7452 Presidents Dr, Orlando, FL 32809
8875 Commerce Dr, DeSoto, KS 66018
7800 100th St, Pleasant Prairie, WI 53158
4010 East 26th St, Los Angeles, CA 90058

1000

Proposal

Proposal: Recycling Cart Options Using CoSTARS **August 26, 2016**

PREPARED FOR:	SHIP TO:
Steve Deasy steve@sustainableresourcesconsulting.com 717.329.4133 Mechanicsburg, PA	TBD Zip Code - 18708

Option - 200 35 Gallon Roll Out Carts	QUANTITY	UNIT PRICE	EXTENDED PRICE
35 Gallon Roll Out Carts (weight 18 pounds)	200	$47.16	$ 9,432.00
Body: Standard **Lids: Standard** **RFID** **Branded with Specific Logo (1) included** **Serial Numbers and Bar Codes for Identification** **8" Wheels**	200	$1.25	$ 250.00
Sub Total:			$ 9,682.00
Frieght:			Exempt
Tax:			Included
Total:			$ 9,682.00

Option - 7000 35 Gallon Roll Out Carts	QUANTITY	UNIT PRICE	EXTENDED PRICE
35 Gallon Roll Out Carts (weight 18 pounds)	7,000	$40.57	$ 283,990.00
Body: Standard **Lids: Standard** **RFID** **Branded with Specific Logo (1) included** **Serial Numbers and Bar Codes for Identification** **8" Wheels**	7,000	$0.75	$ 5,250.00
Sub Total:			$ 289,240.00
Frieght:			Exempt
Tax:			Included
Total:			$ 289,240.00

Made in Erie, PA

Order Details: Options for 35 Gallon Carts
Freight Info: Delivered Price.
Lead Time: TBD
Terms: Net 30 - COSTARS VENDOR # 172928
Quote Valid: 30 Days
Taxes: Tax Exempt with proper certificate furnished by municipality
Art Work: *TBD - 1 Custom Brand included*

Rehrig Pacific Company

PRESENTED BY:	ACCEPTED BY:
Kemrey Kidd	**SRC** Steve Deasy
Kemrey Kidd Date	Sign and Print Name Date
Environmental Sales Representative Cell: 202-731-3937 kKidd@rehrig.com	Title:_____