

RECYCLING TECHNICAL ASSISTANCE
Project #538

FINAL REPORT

CITY OF HARRISBURG
DAUPHIN COUNTY, PENNSYLVANIA

**SOLID WASTE SYSTEM BENCHMARK &
RECYCLING PROGRAM EXPANSION**



JUNE 2013

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

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Project Completed By:



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1.0 STATEMENT OF PROBLEM

Preface: Some of the findings and conclusions in this study are derived from field investigations and other data analyzed under a separate study titled, "Recycling Technical Assistance Study #535 - Commercial Paper Recycling Evaluation" (Gannett Fleming, June 2013).

This municipal solid waste and recycling study was conducted for the City of Harrisburg (City), Dauphin County Pennsylvania, under the Recycling Technical Assistance program that is sponsored by the Pennsylvania Department of Environmental Protection (PADEP) through the Pennsylvania State Association of Township Supervisors (PSATS). City residential recyclables diversion is well below residential recovery in many other Pennsylvania municipalities. Commercial recycling is in place at State Commonwealth buildings, but many other businesses recycle minimally or not at all. Although the City Sanitation Department is working hard to serve the community, poor recycling performance is a measureable indicator that the City's waste management program is struggling. Other indicators include persistent and widespread littering, illegal dumping, and higher than expected residential trash bills. In this evaluation, Gannett Fleming, Inc. (Gannett Fleming) analyzed City-wide waste management performance and developed recommended best management practices (BMP's) to improve the solid waste management system.

2.0 SUMMARY OF WORK

The following subsections summarize work conducted under the approved project tasks.

2.1 Solid Waste Customers and Fees

The City Sanitation Department collects trash from residential units and the majority of the commercial buildings. Residential customers receive municipal solid waste collection once per week at an average cost of **\$388.00 per household per year**. Commercial customers, including large multi-family buildings with dumpster service, may schedule collection up to seven days per week. A portion of City businesses signed an exclusion waiver and are not provided trash service by the Sanitation Department. The Sanitation Department services over 21,000 residential refuse accounts and 1,400 commercial accounts (refer to **Appendix A**).

Residential and commercial trash service fees are high compared to most Pennsylvania solid waste programs. The distribution of collection versus disposal costs is atypical. At \$190 per ton, the disposal tip fee for municipal solid waste (MSW) is two (2) to four (4) times higher than average Pennsylvania tip fees that range from \$45-\$75 per ton. It was beyond the scope and budget of this project to analyze refuse collection equipment, routes and labor efficiency.

2.2 Recycling Services

The recyclables listed below are collected mixed or "commingled" at the curbside once a week by the Sanitation Department on the same day as regular trash, primarily from residential establishments.

- Plastic jugs and bottles
- Aluminum and bi-metal cans
- Glass bottles and jars
- Newspaper and phone books

The City uses two (2) SAC 30 cubic yard open top, side loading trucks for curbside recyclables. These trucks are approximately 15 years old. Recycling trucks are staffed with a driver and sometimes a helper. Most residents have rectangular 14-gallon "blue bin" recycling containers. A small number of businesses participate in curbside commingled recycling and use 64-gallon and 96-gallon totes. Most

totes are fitted with a lift bar so they can be hydraulically loaded into the recycling trucks. Additional information on the various commercial recycling efforts is available in Gannett Fleming's Recycling Technical Assistance Report #535, *Commercial Paper Recycling Evaluation* (June 2013).

After collection, commingled recyclables are emptied into a 100-cubic yard open-top trailer staged at a small transfer area adjacent to the incinerator. Loaded trailers are delivered to a materials recovery facility located at 4455 Mt. Pisgah Road in York, Pennsylvania that is owned by Waste Management. Based on Gannett Fleming's conversations with Waste Management on May 13, 2013, filled 100-cubic yard trailers average 6.46 tons of mixed recyclables. Waste Management reports that 30% of the recyclables are glass (by weight); a low-value to negative-value material. Waste Management indicated that transportation costs exceed \$300 per load and that the current arrangement for transfer, processing, and marketing of City residential recyclables is a net-loss.

The City of Harrisburg reported collecting **1,224 tons of commingled recyclable materials** in its curbside recycling program in 2011. Most of this material is residential. It is not possible to accurately estimate the residential recycling rate because the City does not report total residential refuse. The City's overall recycling rate, including commercial trash and commercial recycling, is 24%. The majority of recycling occurs in the commercial sector. City Commonwealth building recycling efforts (primarily paper recycling) represent over 35% of reported commercial recycling. Total trash and recycling quantities and the overall recycling rate are presented in **Appendix B**.

2.3 Waste and Recycling Performance Benchmark: City of Lancaster Program

The City of Lancaster's waste management program was selected for benchmark comparison because it has a similar number of waste generating residential and commercial units. Gannett Fleming met with the manager of the City of Lancaster Bureau of Solid Waste on May 7, 2013 to tour the paper drop-off recycling center, observe residential trash and recycling routes, and review BMP's. **Appendix C** contains informational resources regarding the City of Lancaster's solid waste benchmark program including: a Site Visit Memo; a Recycling Ordinance; Recycling Container Specifications; and a sample Administrative Ticket used for solid waste system enforcement.

Appendix D contains Municipal Solid Waste and Recyclables Collection Profiles, comparative analysis, and calculation for recycling grants and waste system performance. The profiles compare components of the City of Lancaster and City of Harrisburg waste systems. Over six years ago, the City of Lancaster had widespread litter and illegal dumping problems and a poorly performing waste management program. Residents selected their hauler, multiple haulers operated in the City, and an estimated 20% of households did not have a trash hauler. In 2006, the City of Lancaster entered into a competitively priced contract with York Waste Disposal to provide weekly trash and recyclables collection from residences with up to four units per building. The City's waste contract, ordinance, enforcement and effective BMP's have resulted in dramatic reductions in City-wide litter and illegal dumping along with measurable gains in recycling. Over time, these BMP's have cleaned up most City streets and there are noticeable improvements to City quality of life.

2.4 Comparative Waste Performance Benchmark Analysis: A New Benchmark for Harrisburg

Table 1 compares City of Harrisburg status quo residential performance metrics with those of the City of Lancaster. Trash collection and commercial recycling are not compared because Lancaster City's contractual program targets residential units. Lancaster residents divert over two (2) times the recyclables (by weight) of Harrisburg residents; 23 pounds diverted per unit per month versus 10 pounds per unit diverted per month. Based on recycling stops per route, Lancaster City recyclables

recovery is nearly four (4) times more efficient than Sanitation Department routes. Differences in efficiency and recycling rates between these programs contribute to differences in customer fees. The City of Lancaster charges \$17.50 per month per household, or roughly half the cost of Harrisburg's residential trash bills.

| TABLE 1 Cities of Lancaster and Harrisburg Pennsylvania Residential Solid Waste and Recyclables Collection Comparative Performance Metrics | | |
|---|---------------|------------|
| Measure | Lancaster | Harrisburg |
| Pounds Recycled Per Residential Unit/Month | 22.7 | 9.4 |
| Recycling Stops per Route | 1,400 – 1,750 | 400-450 |
| Single-Family Residential Solid Waste Fee per Month | \$17.50 | \$ 32.24 |

Table 2 presents estimated projections of Harrisburg's waste system performance under the base assumption the City will meet the proposed benchmark for tons recycled per household. Recycling would more than double, increasing by 1,700 tons to 2,806 total tons annually. Additional recyclables diversion is projected to yield \$14,000. To date, commercial recycling has greatly exceeded residential recycling, thereby limiting the City's diversion bonus for its Recycling Grant. Increases in residential recycling to meet the proposed benchmark would increase the commercial recycling diversion bonus and the residential diversion bonus, returning more grant funds to the City.

| TABLE 2 City of Harrisburg's Projected Benchmark Residential Recycling Performance Projected Revenue & Tip Fee Savings | | | | | |
|---|---------------|--------------------|-------------------------|----------------------------------|--|
| | Tons Recycled | Material Revenue * | 904 Performance Grant** | Avoided Tip Fees @ \$190 per ton | Total Annual Revenue & Tip Fee Savings |
| Benchmark Program | 2,806 | \$ 14,029 | \$ 100,180 | \$ 533,087 | \$ 647,295 |
| Existing Program | (1,041) | \$ (0) | \$ (59,052) | \$ (197,790) | \$ (256,842) |
| Benchmark Gains | 1,765 | \$ 14,029 | \$ 41,128 | \$ 335,297 | \$ 390,453 |

* Currently recyclable revenues are at is zero and the City incurs no recyclables processing costs. \$5.00 per ton under benchmark gains material revenue as an assumed negotiated market value for commingled recyclables.

** The PADEP grant formula rewards higher recycling rates with a "diversion bonus"; it caps the bonus awarded for the commercial tons at the total amount of residential recycling.

2.5 Summary of Findings

Based on study findings, including comparative analysis with the City of Lancaster Solid Waste Management System, the current waste system in the City of Harrisburg is not structured or operated in a way that delivers efficient, comprehensive and convenient waste and recycling service to all residential and commercial customers. As a result of deficiencies within the waste and recyclables collection programs, there is persistent and widespread littering and illegal dumping and excessive costs are passed on to customers in City utility/trash bills.

Collection Equipment Inefficiency – The City's operation of two (2) 30-cubic yard recyclable collection vehicles is not feasible, not cost-effective, and is not scaled to collect comingled recyclables

from 20,000 households. These recycling trucks are also near the end of their service life. With limited capacity and without compaction capability, the SAC trucks fill quickly, requiring frequent unloading at the recyclables transfer facility. Weight-per-load data and route data show high capacity recycling trucks operate four to five times more efficiently than the 30-cubic yard SAC recycling trucks. Inefficient hauling of non-compacted recyclables is magnified during recyclables transfer as underweight 100-cubic yard trailers (6.46 ton average) are transported to York Pennsylvania for processing. Gannett Fleming did not analyze the efficiency of the refuse collection vehicles.

Collection Route Inefficiency - City collection routes appear to be based on historical practice, not on principles of efficient route design. Based on waste system performance data and observation of City recyclable collection routes conducted by Gannett Fleming in April 2013, City collection routes are far from optimized. Maintaining efficient routes consistently is problematic due to day to day changes in staff availability. Over 30% of the Sanitation Department includes senior staff with extensive leave. Inefficient labor allocation appears to have various impacts in overall service efficiency and increases costs. Refer to Gannett Fleming's Recycling Technical Assistance Report #535, *Commercial Paper Recycling Evaluation* (June 2013); **Appendix B**.

Poor Waste and Recycling Participation & Limited Curbside Enforcement - Poor recycling rates are costing the City money. Recycling participation rates could not be accurately calculated in this study, but collection routes were observed and waste and recycling data was analyzed to assess participation. Residential curbside recycling participation appears to be under 40%, and both residential and commercial recycling participation rates and recovery are well below an achievable benchmark. Factors influencing poor recycling participation include:

- Undersized residential recycling containers.
- Many residential units do not have a recycling bin.
- Ineffective promotion, education and/or incentives for waste diversion. For example, many commercial establishments are unaware of their legal requirements to participate and/or may not understand how increased recycling could lower their trash bill.
- Lack of effective curbside waste management enforcement. A streamlined penalty process (e.g. administrative ticket/violation with a fee) is absent.

Unsustainable Recyclables Transfer and Markets - The City's recyclables consolidation, transfer and marketing arrangement for mixed recyclable containers, newspaper and magazines is not economically sustainable. Transportation costs for commingled materials currently exceed market value of the recyclables. The absence of compaction for loose recyclables by collection vehicles or at the transfer station results in very light loads of material being transported frequently at a high cost. Contractual market arrangements that could improve recycling economics are not in place. The City may be charged in the near future for recyclables processing by Waste Management or a subsequent recyclables processor, further eroding commodity values, and increasing total costs.

Inconvenient and Inefficient Bulky Item Service - The customer call-in service for bulky item collection includes a separate fee and is inconvenient for residents. This structure creates incentives for illegal disposal. The call-in structure for bulky waste collection requires the Sanitation Department to operate a separate collection route that is administratively and logistically inefficient when compared to allowing a limited number of bulky items to be collected with regular trash.

Litter and Illegal Dumping - Persistent illegal dumping and litter are evidence that the solid waste system requires procedural, structural and enforcement changes. Comprehensive and convenient waste

services coupled with strict anti-litter enforcement is a proven litter/dumping deterrent. The Sanitation Department's waste and recyclables workflow is repeatedly disrupted by trash accumulation cleanups that increase costs paid by the City and ultimately the residents and business owners.

Yard Waste Management Challenges - The City's current yard waste removal system is not sustainable. Collecting leaves with a street sweeper contaminates leaf waste with materials that will not be accepted for composting. The City needs leaf waste vacuum collection equipment to pick up leaf waste separately from general street sweepings. Leaf waste collection in paper/compostable bags is a possible supplemental program. This program was not analyzed in detail.

High Costs and Low Recycling Revenues - The inefficiencies in the City's waste collection system negatively impact economics. High-priced trash bills will continue to be passed on to residential and commercial establishments unless a substantial waste system solution is executed. City trash bills are nearly double the cost (\$388.00) of comprehensive trash and recycling services in the City of Lancaster (\$210.00) that were secured via a competitive bid with a private waste hauling company.

3.0 SOLUTIONS

The City of Harrisburg is beginning to take actions on important issues like illegal dumping. These actions are a step in the right direction and the City should continue to make solid waste issues a priority. The following subsections describe preliminary recommended solutions and BMP's for improving the City's waste management system. Emphasis is placed on enhanced recycling performance to improve overall waste system performance and economic sustainability.

3.1 Recommended Best Management Practices (BMP's)

3.1.1 BMP Introduction

Gannett Fleming recommends the City adopt a comprehensive set of municipal solid waste BMP's in order to address waste system deficiencies (Section 2.4) and to achieve performance benchmarks (Section 2.3). In order to facilitate the implementation of the BMP's, Gannett Fleming recommends the City develop and approve a **City-wide Solid Waste Management Action Plan** by the first quarter of 2014. Core solutions should be in place within 1-2 years. The approved Solid Waste Action Plan should include, at a minimum, the following: a formal City commitment to resolve critical waste management deficiencies; measurable goals and progress tracking; public transparency; agreed-upon BMP's; an aggressive schedule of implementation; and an implementation budget. This Action Plan requires a vision for a visibly cleaner City achieved within two (2) years of start up in early 2014. The City should follow two parallel BMP tracks. The first track, aimed at increasing participation, will result in an increase in recyclables recovery. The second track is aimed at collection system efficiency and material transportation and marketing. In order to accommodate increased recyclable recovery resulting from Track 1 BMP's, it will be essential for the City to simultaneously implement Track 2 BMP's including enhanced services and substantially improved waste and recyclables management efficiency.

Track 1 & 2 recommended BMP's are outlined below and are also discussed in more detail in the following subsections. There are two implementation approaches for Track 2 BMP's: (1) The City Sanitation Department could continue operating all aspects of the solid waste and recyclables collection and transfer (Track 2A); or (2) the City could secure a contract with a private waste company to provide some or all of the waste and recyclables collection, transfer and processing (disposal) services (Track 2B).

| Table 3 City of Harrisburg Waste Management and Recycling Recommendations & BMP's | |
|--|---|
| Track 1: Improve Participation | Track 2A &2B: Improve Collection, Transfer, and Marketing |
| (1) Distribution of 25-gallon residential recycling containers to <i>all</i> residences | (1) More efficient collection vehicles and larger household containers |
| (2) Comprehensive Public Education Campaign | (2) Re-designed efficient collection routes |
| (3) Solid Waste/Recycling Coordinator | (3) More efficient labor allocation |
| (4) Comprehensive Enforcement Program | (4) Improved recyclables transfer (e.g. compaction) and new market arrangements for recyclables |
| | (5) Weekly bulky item pickup included with regular trash collection |
| | (6) Regular dedicated seasonal leaf waste pickup |

3.1.2 Track 1: Measures to Improve Waste and Recycling Participation

- (1) **Distribution of larger capacity household recycling containers.** For the first phase of container distribution, the City should immediately procure and distribute 25-gallon curbside recycling containers to every residential unit that does not currently have a recycling container. In the second phase, the City should distribute 25-gallon recycling containers zone by zone to every residential unit over the next 1-2 year period (see **Appendix C** for container specifications), with a goal that all have 25-gallon recycling containers by early 2015. The City should seek reimbursement for the recycling containers for each phase of distribution through Act 101, Section 902 grants. Residents should not be charged a fee for recycling bins because it will deter participation.
- (2) **Street-level solid waste enforcement program.** The City should immediately implement a street-level solid waste and recycling enforcement program to assure proper participation in solid waste management activities, including litter control and illegal dumping. The enforcement program should include:
 - Two (2) street enforcement officers that audit City streets, trash and recycling performance daily;
 - Warning Notice and Administrative Ticket process: Street officers would issue warning notices and administrative tickets for violations (see the administrative ticket in **Appendix C**). Penalties should be placed on property owners including landlords who should be required to make sure tenants are complying with the program requirements; and
 - Cooperation and transparency among district magistrate, police, codes, Bureau of Solid Waste and other relevant entities.
- (3) **Ordinance Revisions.** City solid waste ordinances should be revised to include mechanisms that reinforce City-wide participation in proper waste management practices by residents and businesses. Landlord waste requirements should be defined. Gannett Fleming recommends the City utilize the City of Lancaster ordinance in **Appendix C** as a template.

- (4) **A comprehensive, sustained Public Education Program.** The City should implement a comprehensive and sustained educational campaign to promote proper waste management and increased recycling by residents and businesses. This includes a comprehensive revision to the City's website that makes all collection schedules, requirements, and penalties clear to residential and commercial establishments. The website should have separate tabs/menus for commercial and residential waste and recycling information on the website.
- (5) **Solid Waste/Recycling Coordinator.** The City should hire a Solid Waste/Recycling Coordinator to manage a comprehensive public education program, track and benchmark solid waste performance, administer grants, and similar waste and recycling administrative and enforcement functions.

3.1.3. Track 2A: Measures to Improve Collection, Transfer, and Market Efficiencies – Waste and Recyclables Collection by City Sanitation Department

- (1) **Efficiency through high capacity recycling trucks and curbside containers.** The City should procure two (2) high capacity (e.g. 35 cubic yards) side-loading recycling trucks with compaction capability to handle the bulk of residential curbside recycling service stops and improve residential collection efficiency. The SAC recycling trucks should be retained to supplement curbside routes for commingled materials, particularly in areas where alleys restrict collection by larger curbside recycling trucks.
- (2) **Increased curbside container capacity.** The City should distribute 25-gallon bins to increase collection efficiency by increasing recyclables collected per stop. Larger bins would achieve a number of objectives: encourage more material per set out, reduce litter from material that blows out of overfilled containers, reduce time spent by collection workers picking up overfilled material, and deter the use of ad hoc containers that may not be recognized and/or are difficult or unsafe to handle.
- (3) **Optimized collection routes and refuse equipment.** The City should secure a route expert/company to develop new waste and recyclables collection routes for residential and commercial waste and recycling routes. The City should evaluate route management software to determine if route software is feasible for purchase and implementation by the City. The City should secure a company to evaluate the existing refuse collection equipment/ fleet.
- (4) **Optimized labor utilization/allocation.** A labor allocation analysis should be completed so that labor adjustments can be made to facilitate improved planning and optimized labor distribution among prioritized solid waste management tasks (e.g. improve consistent availability among critical staff like drivers).
- (5) **Improved transfer and marketing arrangements for recyclables.** The City should issue a concise request for proposals and/or bids to secure competitive market pricing for recyclables commodities including both commingled container recyclables and for other recyclables (e.g. office paper and cardboard collected from commercial establishments). The City should seek input from waste vendors on how to improve the City transfer station functionality and operation (e.g. compaction) so transportation/market economics are improved.
- (6) **Bulky item collection included with standard trash.** The City should update its residential waste collection program to include the collection of one bulky item per week with regular trash at no extra cost.

- (7) **Seasonal leaf waste pickup.** Gannett Fleming recommends the City procure leaf waste collection equipment that will enable the City to comply with Act 101 requirements, including deliveries of leaf waste to a permitted compost facility approved by PADEP.

3.1.4 Track 2B: Contract with the Private Sector for City-wide Waste and Recyclables Collection.

Preface: During this study, a solicitation for a residential curbside waste hauler was issued but a decision was not finalized.

Track 2B transitions the responsibility of a large portion of Sanitation Department waste management responsibilities to one or more private sector waste hauling companies via a competitive solicitation released by the City to secure a qualified waste hauling company. Under this track, the City must tackle the difficult questions of whether or not the Sanitation Department should remain primarily responsible for City waste collection. In one to two years, is it feasible for the City to: (1) replace aged and inefficient trash and recycling trucks with more efficient equipment; (2) redesign and operate efficient trash and recycling routes; (3) improve Sanitation Department labor allocation; (4) secure economical recyclables transfer and marketing arrangements; (5) perform dedicated leaf waste collection services; (6) provide and distribute new recycling containers to all residential units and to a large number of commercial establishments; (7) sustain an expanded public education and marketing campaign; and (8) actively enforce litter, dumping and curbside waste and recycling requirements?

Due to the extent of the waste system deficiencies and due to potential financial and administrative barriers that could delay BMP implementation by the City and Sanitation Department, Gannett Fleming recommends **Track 2B** as the preferred pathway to achieve City-wide solid waste BMP implementation in the shortest timeframe, at the lowest cost, and with the greatest return on investment. **Track 2B** assumes the contracted private waste hauling company would provide the following services, at minimum:

- Weekly trash pickup (six bag limit) on the same day as recycling pick up;
- Weekly residential commingled recycling service (same materials as currently collected);
- Distribution of 25-gallon recycling bins to all households;
- One bulky item per household collected with regular trash each week at no extra fee;
- Shared role in waste/recycling education; and
- Delivery of waste to the Harrisburg Incinerator (assumes this is required)

It is not recommended the City eliminate the Sanitation Department upon implementation of a residential waste/recyclables collection contract. Staff should be retained for clearly defined solid waste responsibilities including public education, enforcement, aggressive illegal dumping and litter cleanup programs, leaf waste collection, public area trash receptacles service, commercial trash and recycling, etc. Remaining Sanitation Department staff would perform integrated and vital waste management services to assure the City rapidly achieves proposed benchmarks and is cleaner in 2 years. City staff could be transferred to other departments and eventually the number of staff could be reduced through natural attrition like retirement.

The Sanitation Department gains important revenues through residential and commercial trash bills currently and the City should continue to administer trash bills under the contractual waste system. The City should maintain affordable trash bills through managed competition, economies of scale, and efficiencies gained through the private sector waste hauling services. Similar to how the City of

Lancaster finances six (6) solid waste staff through residential trash bills, City refuse bills should include the cost for City street enforcement officers and other essential Sanitation Department staff.

Conclusion

The City's Sanitation Department is comprised of over 20 hard working employees that collect trash and recyclables for over 20,000 households and the majority of City commercial establishments. Although the total amount of labor resources appears more than adequate for the waste system scale and services provided, the City of Harrisburg's waste system performance is well below an achievable performance benchmark. As a result of a combination of system-wide deficiencies, the Sanitation Department spends a disproportionate amount of time cleaning up trash after it has become a nuisance on City streets and on public and private properties; rather than efficiently capturing waste/recyclables during planned collections. These system-wide operational inefficiencies appear to have a cascading or compounding effect. Until these deficiencies are resolved, City trash accumulation and fees for trash/recycling service can be expected to increase with negative impacts for City taxpayers and businesses. Solving City-wide waste system problems will not be easy but it is possible. Through the effective implementation of solid waste BMP's, the City can achieve significant and sustained economic, environmental and social benefits. At this time, evidence suggests that the fastest and most cost-effective pathway for solid waste BMP implementation in the City of Harrisburg includes securing a private waste hauling company for comprehensive residential curbside waste and recyclables collection service.

APPENDIX

Appendix A – Sanitation Department Customer Accounts

Appendix B – City of Harrisburg Reported Recyclables and Refuse (2011)

Appendix C – City of Lancaster Benchmark Program Information

Appendix D – Harrisburg & Lancaster Profiles & Comparative Analysis Data

Appendix E – Field Audit/Collection System Summary

Appendix A

| City of Harrisburg – Public Works Department (Sanitation) Refuse Accounts and Units Served (2013) | | | |
|--|----------|------------|-------------|
| Type | Accounts | Units | Total Units |
| Single Family Residential | 13,439 | 1 | 13,439 |
| Multi-Family, Small | 1,586 | 2-4 | 3,924 |
| Commercial Scale Multi-Family | 233 | 5 and over | 4,021 |
| Total Residential | 15,258 | | 21,384 |
| Commercial City Collected | 1,400 | | 1,400 |
| Commercial Privately Contracted | 240 | | 240 |

Appendix B

| City of Harrisburg Reported Recyclables and Refuse Tons (2011) | |
|---|---------------|
| City collected commingled recyclables | 1,224 |
| DGS-collected recyclables | 3,335 |
| Other reported Commercial recycling | <u>6,478</u> |
| Total Recycling w/residue | 11,037 |
| Less: Residue | <u>-1,250</u> |
| Total Recycling | 9,787 |
| City collected trash | 28,921 |
| Recyclables Residue | <u>1,250</u> |
| Total Trash | 30,171 |
| Recycling Rate (Total Recycling/Total Materials) | 24% |



City of Lancaster – Waste and Recycling Program Site Visit

FROM: Steve Deasy**TO: Kevin Hagerich****DATE: 5-7-2013**

MEMO

Gannett Fleming (Steve Deasy and Kathy Malarich) met with Tim Breneisen, manager of the City of Lancaster Bureau of Solid Waste & Recycling on 5-7-2013. The purpose of the visit was to review the existing waste program operations and details in order to identify best management practices that may be applicable to the City of Harrisburg's waste management program. During this visit, Gannett Fleming reviewed the paper drop-off center, followed trash and recycling routes and reviewed best management practices.

It is important to understand that 10 years ago the City of Lancaster was plagued with litter and trash accumulation problems. Mayor Gray took on resolving a number of quality of life issues, including waste management. The City's waste collection program included numerous private waste hauling companies. An estimated 20% of household's did not have a trash hauler. Trash and litter was visible on most city streets. In 2006, the City bid and executed a single contract for waste collection. The delivery of comprehensive waste and recycling services coupled with city enforcement efforts has dramatically improved City litter and waste management. Currently, the City of Lancaster appears very clean when you drive its streets.



City of Lancaster

How long has waste program been in its current form? 6 years

Contracted Service provider? York Waste

Cost: Residents pay \$210 per year. That cost pays for waste and recyclables collection, disposal and processing, and program administration.

Admin and enforcement

- The City Department of Public Works Bureau of Solid Waste & Recycling oversees the waste and recycling contract with York Waste. A key component to the effectiveness of the City's Residential Solid Waste Management program is its enforcement process. Enforcement includes:
 - o Two full-time "SWEEP" officers that monitor City Streets and issue SWEEP Notices and \$25 Administrative tickets for violations. Violation Notices are printed in English and Spanish and include:
 - Littered Property/Sidewalk
 - Trash/Recycle out too early
 - Loose/messy trash
 - Improper trash/recycle storage
 - Trash/Recycle out on wrong day
 - Exceeding Trash Limit
 - Failure to recycle
 - Trash in recycling bin
 - Brush/weeds/grass
 - Indoor furniture outside
 - Other _____
 - o Violations are documented using a hand held ____ device that captures a photo with the time.
- City sanitation staff include:
 - o 2 SWEEP enforcement officers
 - o 1 manager of the Bureau of Solid Waste & Recycling
 - o 1 paper drop-off operations manager
 - o 1 admin person (shared)

Residential Trash Program Description:

- Materials collected
- MSW – up to six (6) 30-gallon containers/bags per week. Up to one (1) bulky item per week. If a bulky item is out, only set out 4 containers/bags of trash.
- Collection Schedule
- 1 per week

- Curbside Containers
 - o Type: bags, hard containers
 - o How are containers distributed? Owner responsibility

- Curbside Trash Trucks
 - o Type and Capacity (cubic yards)? McNeilus 25-CY rear load packers.
 - o How Many? 3-4 per day
 - o Persons per truck? 2
 - o Total trash Crew size? 6-8
 - o Household units served per truck/per route?
 - o How long (hours) is the average route? 8 hours
 - o Waste tons per truck? unknown
 - o Residential trash participation rate? (delinquent accounts) Unknown

- Waste disposal facilities? LCSWMA

Residential Recycling Program Description:

- Materials collected
 - o Plastic, glass, bi-metallic and aluminum cans and bottles
 - o Newspaper
 - o Magazines
 - o Yard waste (121 tons in 2012 tipped @ \$20 per ton)
- Collection Schedule
 - o Recyclables – once per week same day as trash
 - o Yard waste – once per month
- Curbside Containers
 - o Type: 18-gal and new 25-gallon bins
 - o How are containers procured? City provides and supplements cost with Act 101, Section 902 grants.
- Curbside Recycling Trucks
 - o Type and Capacity (cubic yards)? Heil Side Loading 25-30 cy
 - o How Many? 2
 - o Persons per truck? 1 usually, 2 sometimes
 - o Total trash Crew size? 2-3
 - o Household units served per truck/per route? 1,500 – 1,800
 - o How long (hours) is the average route? 8 hours
 - o Waste Tons per truck? 5-6 tons
 - o Recycling participation rate? Unknown. It appeared that over 75% of households participated during Gannett Fleming's windshield survey of the route.
- Waste disposal facilities? Consolidation at the LCSWMA transfer into 90-100 CY trailers for delivery to Penn Waste.

Commercial Trash Program Description:

Description including admin role and enforcement?

- How many private haulers? Unknown
- Cost per 8 cubic yard trash dumpster collection? Unknown
- Trash Containers
 - o 8, 6, 4 cubic yard dumpsters and toters
- Commercial Trash Trucks
 - o Type and Capacity (cubic yards)? Unknown
 - o Persons per truck? Unknown
 - o Commercial units served per truck/per route? Unknown
 - o How long (hours) is the average commercial route? Unknown
 - o Commercial Waste Tons per truck? Unknown
 - o Commercial Trash participation rate? Unknown
- Waste disposal facilities? LCSWMA facilities.

Commercial Recycling Program Description:

Description including admin role and enforcement:

- How many private haulers? Unknown
- Cost per 8 cubic yard cardboard dumpster collection? Unknown
- Typical Commercial Recycling Containers?
 - o Dumpsters and carts
- Commercial Recycling Trucks
 - o Type and Capacity (cubic yards)? Unknown
 - o Persons per truck? 1-2
 - o Commercial units served per truck/per route? Unknown
 - o How long (hours) is the average commercial recycle route? Unknown
 - o Commercial Recycling Tons per truck? Unknown
 - o Commercial Recycling participation rate? Unknown
- Commercial recycling facilities? Penn Waste for container recyclables and various paper recyclers.

- Performance Measures
 - o How does the City measure performance?
 - Lbs./HH/Month of trash disposed
 - Current trend is going down
 - Lbs./HH/Month of recycling
- Economic performance
 - o Distribution of costs; \$210/HH
 - Collection - \$100
 - Waste disposal fee - \$70 (\$58 at rebate cost)
 - Admin/Enforcement - \$40 - \$52 (\$52 assumes all tons at rebated tip fee rate)
 - Recyclables - Owned by York Waste from time of collection
- Best Management Practices
 - o Contract Collection with a private hauler
 - o Enforcement
 - o Efficient comprehensive service
 - Proper trash and recycling equipment
 - Proper recycling containers
 - Collection includes bulky items once per week
 - Organized collection routes
 - Properly sized labor force
 - o Enforcement
 - Two (2) Street Enforcement officers
 - Notices and Administrative Ticket process
 - Cooperative effort among district magistrate, police, codes and Bureau of Solid Waste

City of Lancaster, PA
Friday, July 5, 2013

Chapter 258. SOLID WASTE

[HISTORY: Adopted by the City Council of the City of Lancaster as indicated in article histories. Amendments noted where applicable.]

GENERAL REFERENCES

Brush, grass and weeds — See Ch. **105**.

Health standards — See Ch. **150**.

Junkyards — See Ch. **177**.

Property maintenance — See Ch. **223**.

Abandoned refrigerators — See Ch. **236**.

Trees — See Ch. **273**.

Article I. Dumps

[Adopted as Article 721 of the Codified Ordinances]

§ 258-1. Definitions.

As used in this article, the following terms shall have the meanings indicated:

DUMP

Any lot or tract of ground of an area of more than 200 square feet within the corporate limits which is used for the depositing of earth, ashes or other refuse or waste matter, whether such ground is so used by one or more parties or by the public or is used permissively, adversely, gratuitously, for pay or otherwise.

§ 258-2. Dump supervision; nuisances.

[Amended 5-12-1998 by Ord. No. 4-1998; 9-14-2004 by Ord. No. 17-2004]

- A. The Department of Housing and Neighborhood Development of the City shall have charge of and supervision over all dumps within the City, and the Bureau may at any time in its discretion have the power to declare any dump in the City a public nuisance because of offensive smoke, odors, dust, etc., and may proceed accordingly by injunction, criminal prosecution or otherwise.
- B. No person, corporation, partnership or other entity shall establish a dump within the City without first obtaining a permit from the Board of Health. The Board of Health shall not issue a permit to establish a dump unless the applicant has demonstrated that the dump

will not be injurious to the public health or the environment (including surface and ground water), will not result in offensive odors, litter or rubbish from passing onto or over neighboring properties and will not attract insects, rodents or other vermin. The permit from the Board of Health shall be in addition to all other requirements of the Code of the City of Lancaster, state and federal law.

§ 258-3. Inspection fee.

[Amended 5-12-1998 by Ord. No. 4-1998; 9-14-2004 by Ord. No. 17-2004] All owners of any dumps within the corporate limits shall be required to pay an annual inspection fee of \$250 annually to the City of Lancaster as of September 1 of each and every year. Each applicant shall make application upon blanks obtained from the Secretary of the Department of Housing and Neighborhood Development, which shall contain the written approval of the Chief of the Fire Bureau.

§ 258-4. Prohibited material.

Hereafter no person or corporation, whether as owner, lessee, occupier, ashman or in any other capacity, shall deposit or permit to be deposited on any dump within the City any paper, cardboard, garbage, manure, discarded furniture, household appliances, automobile bodies or fenders, flammable, putrescible, fermentable or disease or vermin breeding matter or rubbish of any nature whatsoever.

§ 258-5. Inspection of dumps.

[Amended 5-12-1998 by Ord. No. 4-1998; 9-14-2004 by Ord. No. 17-2004] All dumps within the City shall at all times be subject to the inspection of the Health Officer, Chief of the Fire Bureau or any duly authorized representative of the Department of Housing and Neighborhood Development.

§ 258-6. Fires; permit fees and term.

A. No person shall kindle or maintain or permit to be kindled or maintained any fire on any dump without first having obtained a written permit from the Chief of the Fire Bureau, which shall be issued only upon:

- (1) Payment to the City Treasurer of a fee of \$5, which fee shall be in addition to the annual inspection fee of \$5;
- (2) The execution and delivery to the City Clerk of a written agreement by the owner of the dump to pay the City the prevailing ordinance rates for all water consumed, as estimated by the Chief of the Fire Bureau by length of flow and number and size of hose lines, in extinguishing dump fires which may escape from or occur outside of incinerators; and
- (3) The approval by the Chief of the Fire Bureau of the incinerator or fireplace in which such fires are to be confined.

B. Such permit shall be valid for a period of one year, subject to compliance with all the provisions of this article, violation of any of which shall be cause for forfeiture thereof.

§ 258-7. Payment for water used in extinguishing fires.

All water consumed in the extinguishment of any dump fire shall be paid by the registered owner of the real estate thereof at the prevailing ordinance water rates.

§ 258-8. Custodian.

The owner, lessee or any other person operating the dump shall furnish a custodian who shall be present at all times whenever a dump is open, and the hours when such custodian is on duty shall be posted in a conspicuous place upon the premises.

§ 258-9. Fireplaces or incinerators to be used; fees.

[Amended 8-22-2000 by Ord. No. 6-2000] No fires shall be started except in the fireplaces or incinerators approved by the Chief of the Fire Bureau and maintained and located as he shall direct.

§ 258-10. Material to be dry.

All paper, litter, refuse and other material brought to the dump to be burned, but not permanently deposited, shall be kept dry until burned, and if not dry when brought to the dump, shall be thoroughly dried in an enclosed place from which it cannot blow away.

§ 258-11. Offensive smoke or odors; when fires prohibited.

No material shall be burned which produces an offensive smoke or odor, and no fires shall be kindled or maintained in damp, cloudy, foggy or windy weather or any time between sunset and sunrise.

§ 258-12. Receptacles which may collect water.

Tin cans and other receptacles which may collect water or other fluids shall not be permitted to remain on any dump, except on the open face which is being used frequently.

§ 258-13. Grade and level of fill.

No dump shall be raised above the street grade as established by the City Engineer. The last three feet before reaching the City grade shall be a clean earth fill.

§ 258-14. Observing dump hours.

No person shall deposit any material upon any dump except during dumping hours as posted.

§ 258-15. Responsibility and liability of owner.

In any prosecution for violation of this article, no owner or occupier of a dump shall be permitted to make defense that acts complained of were done without his knowledge or privy, unless he has maintained a dump tender on the dump throughout dumping hours as posted, shall have locked or barricaded all vehicular access thereto during all other hours and

shall have conspicuously posted notices of the principal provisions hereof at each vehicular entrance to such dump.

§ 258-16. Violations and penalties.

[Amended 8-22-2000 by Ord. No. 6-2000] Whoever violates any provision of this article shall, upon conviction thereof, be fined not less than \$250 nor more than \$1,000 and, in default of the payment thereof, shall be imprisoned for not more than 30 days.

Article II. Litter

[Adopted as Article 727 of the Codified Ordinances]

§ 258-17. Definitions.

As used in this article, certain terms are defined as follows, unless the context clearly indicates otherwise:

AUTHORIZED RECEPTACLE

A litter storage and collection receptacle which is placed on the public right-of-way or on public property by City officials or by private persons who have received written permission from the City Engineer for the placement thereon and is made of a durable material constructed so as to prevent litter from being carried from it by the wind.

HOUSEHOLD OR COMMERCIAL REFUSE

Refers to all matter and materials which are discarded or rejected as offensive or useless by the owners or occupants of dwelling units or commercial and industrial establishments, and includes ashes, garbage, rubbish and other refuse materials.

LITTER

Includes but is not limited to all waste material, garbage, trash or other substances of any nature which, if thrown, scattered or deposited as herein prohibited, tend to injuriously affect public health, safety and welfare or tend to have a detrimental impact on the environment.

PERSON

Every natural person, firm, corporation, partnership, association or institution.

PRIVATE PROPERTY

Any land and the improvements thereon owned by any person, and includes front, side and rear yards; vacant lots, buildings and other structural improvement; walkways and alleyways; and parking areas.

PUBLIC RIGHT-OF-WAY

The total width of any land used, reserved or dedicated as a street, alley, driveway, sidewalk or utility easement, including curb and gutter areas.

§ 258-18. Deposit of litter prohibited.

No person shall throw, scatter, deposit or sweep litter into any public place, such as a street, sidewalk, park or playground, nor onto any private property, except in authorized receptacles.

§ 258-19. Litter in lakes and fountains.

No person shall throw, scatter or deposit litter in any fountain, pond, lake, stream or any other body of water in a park or elsewhere within the City.

§ 258-20. Deposit in authorized receptacles.

Persons shall deposit litter in authorized receptacles and shall do so in such a manner as to prevent it from being carried or deposited by the wind upon any public street, sidewalk or other public place or upon private property, except that no person shall deposit household or commercial refuse in an authorized receptacle.

§ 258-21. Maintenance of private property.

[Amended 8-22-2000 by Ord. No. 6-2000] Any person owning or having charge of any private property shall cause its sidewalks, entranceways and all other portions of the property, including front, side and rear yards to be kept clean and free of litter and shall not deposit litter or refuse in the gutters along the property or on the public streets or highways in the City. Notwithstanding the foregoing, where streets are posted for street sweeping, leaves may be swept from the public sidewalk into the gutters on the day prior to or on the day of the sweeping, provided that the deposit of leaves therein shall be before the hour that a particular street is posted for street sweeping, but shall not be deposited in or on a storm sewer inlet. Leaves on private property, such as side and front yards, however, shall not be swept or deposited in the public right-of-way, but shall be disposed of properly by the property owner or the person responsible for the property.

§ 258-22. Throwing litter from vehicles.

No person shall throw, scatter or deposit litter from a vehicle upon any public street or other public place within the City or upon private property.

§ 258-23. Depositing litter in storm sewer.

No person shall throw, scatter or deposit litter in any storm sewer inlet in the City.

§ 258-24. Depositing glass containers on public or private property.

No person shall throw, scatter or deposit glass containers upon any public street or sidewalk or other public place or on any private property.

§ 258-25. Placing refuse for collection in public right-of-way.

[Amended 9-14-2004 by Ord. No. 17-2004] No household or commercial refuse shall be placed in the public right-of-way, save within the public sidewalk area in accordance with

Article **IV** of this Chapter **258** and the waste management policies and procedures issued thereunder.

§ 258-26. Placing commercial and noncommercial handbills on vehicles.

No person shall place any commercial or noncommercial handbill or other forms of written material in or upon any vehicle parked in the public right-of-way or in municipally owned parking lots or garages, including those of the Parking Authority of the City of Lancaster.

§ 258-27. Enforcement.

[Amended 8-22-2000 by Ord. No. 6-2000; 9-14-2004 by Ord. No. 17-2004]

Responsibility for enforcement of this article and all other regulations of the City of Lancaster pertaining to litter on public and private property and in the public right-of-way shall rest with the Bureau of Police, the Department of Housing and Neighborhood Development and any other City department, official or employee appointed by the Mayor to enforce this article and all other litter regulations of the City, which shall have the authority to institute summary criminal proceedings as a means of enforcement of this article and shall have police powers in regard to all other City regulations pertaining to litter; provided, however, that the Department of Housing and Neighborhood Development and the departments, officials or employees appointed by the Mayor to enforce such regulations shall under no circumstances have the power of arrest.

§ 258-28. Violations and penalties.

[Amended 8-22-2000 by Ord. No. 6-2000] Whoever violates any provision of this article shall, upon conviction thereof by summary proceedings, be fined not less than \$100 nor more than \$600 and costs of prosecution, including attorney's fees, for the first offense and not less than \$200 nor more than \$1,000 and costs of prosecution, including attorney's fees, for each succeeding offense; provided, however, that whoever violates § **258-24** shall, upon conviction thereof by summary proceedings, be fined not less than \$200 nor more than \$600 and costs of prosecution for the first offense and not less than \$300 nor more than \$1,000 and costs of prosecution for each succeeding offense. Upon default of payment of the fine imposed and the costs, the defendant may be imprisoned for not more than 30 days.

Article III. Scavengers

[Adopted as Article 1169 of the Codified Ordinances; amended in its entirety 9-14-2004 by Ord. No. 17-2004]

§ 258-29. License required.

No person or company shall engage in the business of collecting offal or other wastes from the slaughter or butchering of animals without first obtaining a license to do so from the Board of Health.

§ 258-30. License issuance; regulations.

The license shall be granted upon application to the Board of Health on April 1 of each year and shall be good for one year from the date thereof, and all parties to whom licenses are granted shall be furnished with a copy of the rules and regulations of the Board of Health in regard to the business of collecting offal or other wastes from the slaughter or butchering of animals.

§ 258-31. Enforcement.

Any person engaged in the business of collecting offal or other wastes from the slaughter or butchering of animals who violates any of the rules and regulations of the Board of Health in regard to such business shall be subject to the penalty provided in this article, and if such person has a scavenger's license from the Board of Health, in addition to the penalty provided, he shall forfeit such license.

§ 258-31.1. Scavenging prohibited.

It shall be unlawful for any person, except the owner or tenant of a property or the employee of a licensed hauler (as defined in Article IV of this chapter), to remove any garbage, refuse, rubbish or any other solid waste or recyclable materials placed for curbside collection.

§ 258-32. Violations and penalties.

Whoever violates any provision or refuses or neglects to comply with any provision of this article shall, upon conviction, be fined not less than \$50 nor more than \$1,000, together with costs of prosecution, and in default of payment thereof shall be imprisoned for not more than 30 days.

Article IV. Integrated Solid Waste Management

[Adopted 6-11-2002 by Ord. No. 6-2002 *Editor's Note: This ordinance also repealed former Art IV, Solid Waste Management, adopted as Article 971 of the Codified Ordinances, as amended, Art. V, Solid and Municipal Waste, adopted as Article 975 of the Codified Ordinances, as amended, Art. VI, Solid Waste and Recyclables Management, adopted as Article 977 of the Codified Ordinances, as amended, and Art. VII, Lancaster Board of Sanitation and Sanitation Rules and Regulations, adopted 7-11-2000 by Ord. No. 3-2000. ; amended 9-26-2006 by Ord. No. 12-2006* **Editor's Note: This ordinance is a reenactment of the provisions set forth in Ord. No. 8-2006, adopted 7-25-2006.]**

§ 258-33. Definitions.

Any capitalized term, if not defined in this article, shall have the meaning as from time to time set forth in the LCSWMA Rules and Regulations which are incorporated into this article by reference. In addition, as used in this article, the following terms shall have the following meanings:

ACT 97

The Solid Waste Management Act, Act of July 7, 1980, P.S. 380, No. 97, as now or hereafter amended.

ACT 101

The Municipal Waste Planning, Recycling and Waste Reduction Act, Act of July 28, 1988, P.L. 528, No. 101, as now or hereafter amended.

ALUMINUM

All food and beverage cans made of the light in weight, ductile and malleable metallic substance or element commonly known as aluminum. This description excludes aluminum foil, trays, plates, and miscellaneous aluminum products.

BATTERY BAGS

Bags which LCSWMA makes available to Generators of Municipal Waste and which shall be used as disposal containers for batteries which are generated in households.

CLEAR GLASS

Clear Glass consists only of clear food and beverage containers made of glass, of one gallon or less capacity, and comprised of the hard, brittle and transparent or partially transparent substance produced by fusion of silica and silicates or sand containing soda and lime and/or other chemicals and substances usually included in the manufacture of glass.

COLORED GLASS

Colored Glass consists only of green or brown food and beverage containers made of glass, of one gallon or less capacity, and comprised of the hard, brittle and transparent or partially transparent substance produced by fusion of silica and silicates or sand containing soda and lime and/or other chemicals and substances usually included in the manufacture of glass.

COMMENCEMENT DATE

The date upon which the current and subsequent Municipal Contract collection services begin.

COMMINGLED

Designated Recyclable Materials: a) which have been segregated from Regulated Municipal Waste, but which have not been separated into different types of Recyclable Materials; and b) which have been placed in a Recycling Container for the purpose of collection.

COMMUNITY ACTIVITIES

Events that are sponsored by public or private agencies or individuals, including, but not limited to, fairs, bazaars, socials, picnics and organized sporting events attended by 200 or more individuals per day.

COMPOSTING

The process by which solid organic waste is biologically decomposed under controlled aerobic or anaerobic conditions to yield a humus-like product.

CONSTRUCTION/DEMOLITION WASTE

A portion of Municipal Waste resulting from the construction or demolition of buildings and other structures, including wood, plaster, drywall and wallboard, metals, asphaltic

substances, bricks, block, and unsegregated concrete. The term also includes street sweepings and Non-Friable Asbestos Waste. The term does not include the following if they are separated from other Waste and used as clean fill:

- A. Uncontaminated soil, rock, stone, gravel, brick, block, concrete, and used asphalt.
- B. Waste from land clearing, grubbing and excavation including trees, brush, stumps and vegetative material.

CONTRACTOR

The Person, which may include the Municipality, providing Municipal Contract Waste and Designated Recyclable Materials collection services under the Municipal Contract.

CORRUGATED CARDBOARD

Unbleached, unwaxed Kraft paper that is formed into layers with a fluted medium and manufactured into shipping boxes and related products.

CURBSIDE

The correct location for the placement of Refuse Containers and Recycling Containers for the purpose of collection by the Contractor, which shall be: a) adjacent to the Residential Unit; and b) no more than five feet from the public street used by collection vehicles.

DESIGNATED RECYCLABLE MATERIALS

Those Source-Separated Recyclable Materials designated in § 258-38 of this article.

DESIGNATED CONTRACT RECYCLABLE MATERIALS

Those Source-Separated Recyclable Materials designated in § 258-39 of this article.

EXISTING CONTRACT

Any Contract for the storage, collection, transportation, processing or disposal of Regulated Municipal Waste or Designated Recyclable Materials generated or located within the Municipality which: a) was legally entered into prior to the effective date of this article; and b) when entered into was legally enforceable.

EXTRA REFUSE CONTAINERS

Refuse Containers which are in excess of the number of Refuse Containers per collection site limit in the Municipal Contract.

FACILITY

Any specific site designated by LCSWMA (or approved by LCSWMA) as the specific place or site to which Solid Waste or Source-Separated Recyclable Materials, or any portion of Solid Waste or Source-Separated Recyclable Materials, must or may be delivered; or in the absence of a specific site being designated by LCSWMA, any approved site for the delivery of any category of Solid Waste or Source-Separated Recyclable Materials.

FARM

A tract of land containing 10 or more acres which is used for agricultural purposes, which agricultural activities provide the major and primary source of income to the residents of the tract.

GENERATOR

A Person who produces or creates any Solid Waste.

HAZARDOUS WASTE

A. Garbage, refuse, sludge from an industrial or other wastewater treatment plant, sludge from a water supply treatment plant or air pollution control facility and other discarded material including solid, liquid, semisolid or contained gaseous material resulting from municipal, commercial, industrial, institutional, mining or agricultural operations, and from community activities, or a combination of these factors, which because of its quantity, concentration, or physical, chemical or infectious characteristics may:

- (1) Cause or significantly contribute to an increase in mortality or morbidity in either an individual or the total population; or
- (2) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

B. The term does not include: a) coal refuse as defined in the Coal Refuse Disposal Control Act (52 U.S.C.A. §§ 30.51-30.62); b) treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law (35 P.S. §§ 691.1691.1001); c) solid or dissolved material in domestic sewage; d) solid dissolved materials in irrigation return flows; e) industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act (33 U.S.C. § 1342); or f) source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. §§ 2011-2394).

HIGH-GRADE OFFICE PAPER

Desktop generated paper limited to white ledger, copy paper, and computer printout (CPO).

HOUSEHOLD HAZARDOUS WASTE

A portion of Municipal Waste that would be considered hazardous under Act 97 but for the fact that it is produced in quantities smaller than those regulated as Hazardous Waste under Act 97 and is generated by Persons not otherwise covered as Hazardous Waste Generators by Act 97. Household Hazardous Waste includes the following materials and other materials of a similar nature:

Anti-freeze

Batteries

Chlorinated hydrocarbons

Fluorescent light bulbs and other mercury-containing devices

Gasoline and kerosene

Grease and rust solvents

Oven, toilet and drain cleaners

Paints, rust preventatives, stains and wood preservatives

Pesticides, fungicides, herbicides, insecticides, rodenticides, roach and ant killers

Photographic and pool chemicals

Thinners, solvents and furniture strippers

Transmission and brake fluids

Used oil or other hydrocarbon based lubricants

Wood, metal, rug and upholstery cleaners and polishes

Computers and cellular telephones

LCSWMA

The Lancaster County Solid Waste Management Authority, a municipal authority organized and existing under the Municipality Authorities Act, as amended.

LCSWMA FACILITY

Any Facility owned or operated by or on behalf of LCSWMA.

MANIFEST

A form supplied by LCSWMA to be completed and signed by each Person who collects or transports Solid Waste or Source-Separated Recyclable Materials and which specifies, inter alia: a) the source, type, quantity and delivery point for the Solid Waste or Source-Separated Recyclable Materials; b) the applicable license number; and c) other pertinent information.

MULTIFAMILY UNIT

A property with five (5) or more Residential Units, including without limitation, apartment complexes, condominium complexes, retirement homes and mobile home parks, excluding Farms.

MUNICIPAL CONTRACT

The agreement between the Municipality and a Permitted Collector under which collection services are to be provided to Residential Units for Municipal Contract Waste and for Designated Contract Recyclable Materials.

MUNICIPAL CONTRACT WASTE

Those portions of Regulated Municipal Waste which are to be collected and disposed of under this Municipal Contract. Municipal Contract Waste consists exclusively of Refuse and Oversized Refuse Items.

MUNICIPALITY

City of Lancaster, County of Lancaster, Commonwealth of Pennsylvania, also known as City of Lancaster, also known as Lancaster City.

MUNICIPALITY'S POLICIES AND PROCEDURES

The rules and regulations adopted and revised from time to time by the Municipality which govern and pertain to: a) the Municipality's Recycling program; and b) the on-site collection or storage of Regulated Municipal Waste within the Municipality.

NEWSPRINT

Paper which has been used for the production of daily, weekend and special edition publications commonly known as newspapers.

NONPROCESSABLE WASTE

Nonprocessable Waste is a portion of Municipal Waste consisting of materials which cannot be handled by LCSWMA's normal processing or disposal methods. Nonprocessable Waste includes items greater than six feet in any dimension, such as mattresses, large furniture and recreational vehicles. Nonprocessable Waste (oversized) may consist of large auto parts, machines, and any other items deemed appropriate by LCSWMA.

NONRESIDENTIAL UNITS

All commercial, municipal and institutional establishment, all Community Activities and all Farms, excluding Residential Units and Multifamily Units.

OPEN BURNING

A fire, the air contaminants from which are emitted directly into the outdoor atmosphere and not directed thereto through a flue.

OVERSIZED REFUSE ITEMS

Refuse which will not fit into Refuse Containers, but which is not Nonprocessable Waste, including small furniture, carpet, portable televisions and the like, but excluding Tires and White Goods.

PERMITTED COLLECTOR

A Person, which includes the Municipality, who is in possession of all pertinent permits and licenses which may be required by: a) the Municipality; and b) LCSWMA, for the collection, storage or disposal of Solid Waste or Recyclable Materials.

PERSON

Any individual, firm, partnership, corporation, association, institution, cooperative enterprise, municipality, municipal authority, governmental entity or agency, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

PLASTICS

Recyclable Plastics are identified on the bottom of the container and consist of two (2) types of containers, namely: #1 PETE (such as soda bottles) and #2 HDPE (such as milk, spring water, and detergent bottles).

PUTRESCIBLE WASTE

A portion of Municipal Waste consisting of organic waste materials which due to biological decomposition are, or have a tendency to be, rotten, foul, or odorous, including dead animals and spoiled foods, but not including sludge.

RECYCLABLE MATERIALS

Any material which would be Regulated Municipal Waste but for Source Separation and which will be processed into raw materials or products which are beneficially reused.

RECYCLING

The separation, collection, recovery and sale or reuse of metals, glass, paper, yard waste, plastics and other materials which would otherwise be disposed of or processed as Solid Waste or the mechanized separation and treatment of Solid Waste and creation and recovery of reusable materials.

RECYCLING CONTAINER

For Residential Units, the term "Recycling Container" shall refer to the container supplied by the Municipality. For Multifamily Units and Nonresidential Units, the term "Recycling Container" shall refer to a receptacle which is constructed of plastic, metal or fiberglass and has handles of adequate strength for lifting.

REFUSE

Refuse is that portion of Regulated Municipal Waste except:

- A. Construction/Demolition Waste;
- B. Nonprocessable Waste;
- C. Putrescible Waste; and
- D. Household Hazardous Waste.

REFUSE CONTAINER

A receptacle which is: a) constructed of plastic, metal, or fiberglass, having handles of adequate strength for lifting and having a tight fitting lid capable of preventing entrance into the container by vectors; or b) a polyethylene bag which is specifically designed for storage and collection; is protected against animal damage and overloading so as to prevent littering or attraction of insects or rodents; and has a holding strength capable of withstanding normal stresses until it is collected. With respect to Residential Units, the weight of a Refuse Container and its contents shall not exceed thirty (30) pounds nor shall its capacity exceed thirty-two (32) gallons.

REGULATED MUNICIPAL WASTE

Any Solid Waste generated or collected within the Municipality which is garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material, resulting from operation of residential, municipal, commercial or institutional establishments and from community activities, and any sludge meeting the definition of Residual Waste or Hazardous Waste from a municipal, commercial or institutional water supply treatment plant, wastewater treatment plant or air pollution control facility. The term does not include Designated Recyclable Materials or Unacceptable Waste.

RESIDENTIAL UNIT

Any single family detached, semidetached or townhouse dwelling, or a dwelling unit within a Multifamily building containing four or fewer dwelling units, excluding Farms. When used in this article or the Municipality's Policies and Procedures, the term "Residential Unit" shall also refer to any Multifamily Unit or Nonresidential Unit that requests and receives approval from the Municipality to use the collection services provided under the Municipal Contract.

RESIDUAL WASTE

Any garbage, refuse, other discarded material or other Waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and any sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, provided that it is not hazardous. The term does not include: a) coal refuse as defined in the Coal Refuse Disposal Control Act; or b) treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law.

SCAVENGING

The removal of Designated Recyclable Materials in violation of § 258-43 of this article.

SINGLE STREAM

A system where Recyclable Materials, commonly fibers and glass, metal and plastic containers, are collected and processed together.

SOLID WASTE OR WASTE

Any waste, including but not limited to Municipal, Residual, or Hazardous Wastes, including solid, liquid, semisolid or contained gaseous materials.

SOURCE SEPARATE or SOURCE SEPARATION

The process of separating, or the separation of, Designated Recyclable Materials from other Solid Waste at the location where generated for the purpose of Recycling.

STEEL CANS

The ferrous metal food or beverage containers commonly known as tin cans.

TIRES

Any pneumatic rubber automobile, truck, or farm implement tire.

UNACCEPTABLE WASTE

The following types of Solid Waste are Unacceptable Waste unless approved by LCSWMA on a case-by-case basis:

- A. Chemotherapeutic Waste;
- B. Drums, barrels, buckets and paint cans unless lids have been removed and interiors are cleaned and free of any residue;
- C. Explosives and Ordnance Materials;
- D. Gas cylinders, unless empty and delivered separate from other Solid Waste;

- E. Hazardous Waste;
- F. Infectious/Pathological Waste; and
- G. Radioactive Materials.

WHITE GOODS

A portion of Regulated Municipal Waste consisting of large appliances, including the following: clothes washers, clothes dryers, dishwashers, freezers, refrigerators, stoves, ovens, hot water heaters, air conditioners, dehumidifiers, furnaces and electrical heaters.

YARD WASTE

All garden residues, leaves, shrubbery, tree trimmings, grass clippings, and sod.

§ 258-34. Mandatory recycling.

All Persons within the Municipality shall Source Separate Designated Recyclable Materials generated by such Person or generated within a Residential Unit, Multifamily Unit or Nonresidential Unit occupied by such Person.

§ 258-35. On-site collection and disposal.

Each Person who owns or occupies a Residential Unit, Multifamily Unit or Nonresidential Unit within the Municipality shall ensure that Regulated Municipal Waste and Designated Recyclable Material generated at such Residential Unit, Multifamily Unit or Nonresidential Unit are collected and disposed of in accordance with this article, the Municipality's Policies and Procedures, and LCSWMA Rules and Regulations.

§ 258-36. Residential units.

Collection services for Municipal Contract Waste, and for Designated Contract Recyclable Materials shall be provided to Residential Units by the Contractor at a frequency of not less than once per week. Each Person who owns or occupies a Residential Unit shall prepare Designated Contract Recyclable Materials and Municipal Contract Waste for collection in accordance with the Municipality's Policies and Procedures. With respect to Regulated Municipal Waste, which is not Municipal Contract Waste, and Designated Contract Recyclable Materials, Persons who own or occupy Residential Units shall elect to provide proper on-site collection and disposal by either: a) themselves delivering such materials to a Facility; or b) utilizing a Permitted Collector to collect and deliver such materials to a Facility.

§ 258-37. Multifamily units and nonresidential units.

- A. Each Person who owns or occupies a Nonresidential Unit or Multifamily Unit shall provide proper collection and disposal for Regulated Municipal Waste, at a frequency of not less than once per week, and Designated Recyclable Materials by utilizing a Permitted Collector to collect and deliver such materials to a Facility. With respect to Municipal Contract Waste and Designated Contract Recyclable Materials, a Person who owns or occupies a Multifamily Unit or Nonresidential Unit may request Municipality approval to receive the services under the Municipal Contract.

- B. Each Person who owns or occupies a Multifamily Unit or Nonresidential Unit approved to receive services under the Municipal Contract shall comply with the Municipality's Policies and Procedures established for Residential Units and notwithstanding the provisions of § 258-38B and C of this article, shall Source Separate the Recyclable Materials designated in § 258-38A.
- C. Each Person who owns a Multifamily Unit or Nonresidential Unit that does not receive services under the Municipal Contract shall:
- (1) Provide Recycling Containers at easily accessible locations for Source Separation of Designated Recyclable Materials;
 - (2) Provide written instructions to all Persons occupying each Multifamily Unit and Nonresidential Unit to ensure that all Designated Recyclable Materials are Source Separated; and
 - (3) Provide collection and delivery of Source-Separated Designated Recyclable Materials at a frequency of not less than once per month.

§ 258-38. Designated Recyclable Materials.

- A. Each Person who owns or occupies a Residential Unit shall Source Separate the following Recyclable Materials: 1) Clear Glass; 2) Colored Glass; 3) Aluminum; 4) Steel Cans; 5) Plastic; 6) Newsprint; 7) Yard Waste; 8) Tires; and 9) White Goods.
- B. Each Person who owns or occupies a Multifamily Unit shall Source Separate the following Recyclable Materials: 1) Clear Glass; 2) Colored Glass; 3) Aluminum; 4) Steel Cans; 5) Plastic; 6) Newsprint; 7) Yard Waste; 8) Tires; and 9) White Goods.
- C. Each Person who owns or occupies a Nonresidential Unit shall Source Separate the following Recyclable Materials: 1) Clear Glass; 2) Colored Glass; 3) Aluminum; 4) Steel Cans; 5) Plastic; 6) Yard Waste; 7) High Grade Office Paper; 8) Corrugated Cardboard; 9) Tires; and 10) White Goods.

§ 258-39. Designated contract recyclable materials.

Each Person who owns or occupies a Residential Unit shall Source Separate the following Recyclable Materials for collection by the Contractor: a) Clear Glass; b) Colored Glass; c) Aluminum; d) Steel Cans; e) Plastic; and f) Newsprint.

§ 258-40. Approved haulers.

- A. With respect to Municipal Contract Waste and Designated Contract Recyclable Materials identified in § 258-39, no Person other than the Contractor shall collect, transport, store, process or dispose of such Contract Waste and Designated Contract Recyclable Materials. With respect to Regulated Municipal Waste other than Municipal Contract Waste and Designated Recyclable Materials other than Designated Contract Recyclable Materials

which is generated at Residential Units and Regulated Municipal Waste or Designated Recyclable Materials generated at Multifamily Units or Nonresidential Units, no Person other than a Permitted Collector shall collect, store, process or dispose of such waste. The Municipality shall arrange for the collection of Leaves/Yard Waste in accordance with the Municipality's Policies and Procedures. Each Permitted Collector that collects or transports Regulated Municipal Waste or Designated Recyclable Materials generated in any Residential Unit, Nonresidential Unit or Multifamily Unit shall complete monthly LCSWMA Manifests reporting the amount of Regulated Municipal Waste and Designated Recyclable Material collected in the Municipality.

- B. No Person who generates, owns or possesses Designated Recyclable Materials or Regulated Municipal Waste shall, by contract for collection services or otherwise, cause, permit or assist in the collection, storage, processing or disposal of such Waste by any Person other than: 1) the Contractor with respect to Municipal Contract Waste or Designated Contract Recyclable Materials generated at Residential Units; and 2) a Permitted Collector with respect to: a) Regulated Municipal Waste other than Municipal Contract Waste and Designated Contract Recyclable Materials generated at Residential Units and b) Regulated Municipal Waste or Designated Recyclable Materials generated at Multifamily Units or Nonresidential Units. The Municipality shall arrange for the collection of Leaves/Yard Waste in accordance with the Municipality's Policies and Procedures.
- C. No Permitted Collector who collects or disposes of Designated Recyclable Materials or Regulated Municipal Waste shall, by Municipal Contract for such services or otherwise, cause, permit or assist in the storage, collection, processing or disposal of Designated Recyclable Materials in a manner which treats such materials as Regulated Municipal Waste, or which is otherwise inconsistent with Source Separation or Recycling. Any delivery of Designated Recyclable Materials to a LCSWMA Facility in accordance with the LCSWMA Rules and Regulations shall be deemed to satisfy the requirements of this § **258-40C**.
- D. Notwithstanding the provisions of § **258-40A** and **B** above, any Person who occupies a Residential Unit may deliver to a Facility the Regulated Municipal Waste and Designated Recyclable Materials which were generated at such Person's residence.
- E. All Regulated Municipal Waste and Designated Recyclable Materials generated or collected in the Municipality shall be delivered directly to a Facility in accordance with the LCSWMA Rules and Regulations and without any intervening transfer, unloading, processing, sorting, salvaging, scavenging, or reuse of any portion of any load of such Regulated Municipal Waste and Designated Recyclable Materials from the time of its collection until the time of its delivery to the Facility.
- F. The Contractor shall collect and deliver, separately to a LCSWMA Facility battery dropoff location, all Battery Bags placed at Curbside by Residential Units.

§ 258-41. Refuse hauling equipment.

[Adopted 6-11-2002 by Ord. No. 6-2002] Haulers' vehicles and equipment (including Refuse Containers) shall comply with applicable law and the following standards:

- A. Collection and transportation equipment shall be designed and constructed so as to be leakproof, easily loaded, readily emptied and easily cleanable.
- B. Solid Waste shall be suitably enclosed or covered so as to prevent roadside littering, attraction of vectors or creation of other nuisances.
- C. All vehicles used for the collection or disposal of Refuse shall have enclosed bodies or shall have the body covered with a waterproof tarpaulin or canvas cover without rips or holes.
- D. All vehicles used for the collection or disposal of Refuse shall have watertight, metal or metal-lined bodies of easily cleanable construction, shall not leak or discharge any liquid, shall be cleaned at sufficient frequency to prevent nuisance or insect breeding, and shall be maintained in good repair. **[Amended 9-14-2004 by Ord. No. 17-2004]**
- E. Each vehicle, roll off, dumpster, bulk container or similar Refuse Container used by a hauler for collection, storage or transportation of Solid Waste shall have permanently painted or affixed to both sides in lettering no less than six inches in height and clearly legible the name of the hauler, the local (toll-free) telephone number of the hauler, and the type of materials contained within (Municipal Waste and/or Recyclable Materials).
- F. Each vehicle must be kept in a clean and sanitary condition, be in good operating condition, comply with applicable law, as determined by annual and other inspections by the City for issuance of a licensed hauler permit or otherwise required under the waste management policies and procedures.

§ 258-42. Illegal dumping and open burning.

- A. No Person shall store, process or dispose of any Regulated Municipal Waste or Designated Recyclable Materials except at a Facility. Notwithstanding the foregoing or § 258-38, Yard Waste may be composted to the extent and in the manner provided in the Municipality's Policies and Procedures on the property on which such Yard Waste was generated.
- B. No Person shall process or dispose of any Designated Recyclable Materials through Open Burning.

§ 258-43. Collection service fees.

Fees for services provided by the Municipality shall be charged to all Residential Units within the Municipality. The amount of fees and the schedule for payment of fees shall be as adopted by Resolution from time to time by the Mayor of the Municipality, upon recommendation by the Director of Public Works. The Municipality's Policies and Procedures may provide for the amount of annual fees, discount fees, dates fees are due, and interest and penalties for late payments.

§ 258-44. Scavenging.

- A. From the time of placement for collection of any Designated Contract Recyclable Materials, all such Designated Contract Recyclable Materials shall be the property of the Generator or the Contractor who has been contracted by the Municipality to provide on-site collection, as provided in the Municipal Contract. It shall be a violation of this article for any Person, other than the Contractor, to collect or pick up, or cause to be collected or picked up, any such Designated Contract Recyclable Materials.
- B. From the time of placement for collection of any Designated Recyclable Materials other than Designated Contract Recyclable Materials, all such Designated Recyclable Materials shall be the property of the Generator or the Permitted Collector who has made arrangements with a Generator to provide on-site collection. It shall be a violation of this article for any Person, other than such Permitted Collector, to collect or pick up, or cause to be collected or picked up, any such Designated Recyclable Materials. The collection of Leaves and Yard Waste shall be arranged by the Municipality in accordance with the Municipality's Policies and Procedures.

§ 258-45. Existing contracts.

- A. Nothing in this article shall be construed to impair the obligations of any Existing Contract.
- B. No renewal or modification of any Existing Contract, and no new contract for the storage, on-site collection, processing or disposal of Regulated Municipal Waste or Designated Recyclable Materials, shall be entered into after the effective date of this article unless such renewal or modification or new contract shall conform to the requirements of this article and the Municipality's Policies and Procedures.
- C. No contract which is entered into, renewed, extended, modified or assigned after the effective date of this § **258-45** shall provide for on-site collection services to be performed after the Commencement Date for Contract Waste or Designated Recyclable Materials generated at Residential Units. This provision shall not apply to the Contract between the Municipality and the Contractor. With respect to any contract which violates this § **258-45C**, such contract shall be deemed void and the hauler that is a party to such contract: 1) shall reimburse to the applicable Residential Units any funds which have been paid for such on-site collection services; and 2) shall not collect or attempt to collect any funds for such on-site collection services.

§ 258-46. Authorization of municipality.

The Municipality shall have the power to issue the Municipality's Policies and Procedures governing all matters set forth in this article and any other related matters be necessary or convenient by the Municipality. The Municipality's Policies and Procedures shall be effective when issued in writing, upon recommendation of the Director of Public Works, and signed by the Mayor of the Municipality. The Municipality shall have the power to establish record and reporting requirements, and standards and procedures for the issuance, administration and revocation of permits, as deemed necessary, including without limitation: a) application

procedures, fees, standards and conditions for permits; b) the fixing of a monetary bond, with or without surety, to secure the compliance by any Permitted Collector with any such requirements, standards or procedures; and c) any other matters deemed necessary or convenient by the Municipality. In the event of suspension or revocation of any permit which is issued by the Municipality or LCSWMA, the Person whose Collection Permit is suspended or revoked shall refund to each Customer any prepaid fees. Further, the Mayor or his designees are authorized and directed to solicit bids from persons to serve as the Contractor and to take any and all other actions which are needed for the Municipality to enter into the Contract and to implement the provisions of this article.

§ 258-47. Unlawful activity.

It shall be unlawful for any Person to violate, or cause or permit or assist in the violation of, any provision of this article or any provision of the Municipality's Policies and Procedures. All unlawful conduct shall also constitute a public nuisance.

§ 258-48. Violations and penalties.

Any Person violating any provision of this article or any provision of the Municipality's Policies and Procedures, shall, upon conviction thereof in a summary proceeding, be sentenced for each violation to pay a fine of not more than \$600 and costs of prosecution and, in default of the payment of such fine and costs, to undergo imprisonment for not more than thirty (30) days. Each violation of any provision of this article or of any provision of the Municipality's Policies and Procedures, and each day that such a violation shall exist, shall constitute a separate violation and offense. In addition to the remedies set forth above, any unpaid fees or costs incurred as a result of the City's performance of a property owner's responsibilities under this article may be assessed against the property for which such fees or costs were incurred as a municipal claim in accordance with Chapter **36** of the Code of the City of Lancaster.

§ 258-49. Persons liable.

For purposes of the obligations established by this article or the Municipality's Policies and Procedures, and for purposes of any fine, penalty, imprisonment or other sanction, the terms "Person," "Residential Unit," "Multifamily Unit" and "Nonresidential Unit" shall: a) include officers and directors of any corporation or other legal entity having officers and directors; and b) refer to, and impose joint and several liability upon, both the persons residing in or occupying any such Residential, Multifamily or Nonresidential Units and the owner, landlord, condominium owner's association and/or agent of an owner, landlord or condominium owner's association of such premises.

§ 258-50. Injunctive relief.

In addition to any other remedy provided in this article, the Municipality may institute proceedings to restrain any violation of, or to require compliance with, this article and/or the Municipality's Policies and Procedures.

§ 258-51. Concurrent remedies.

The penalties and remedies set forth in this article are in addition to, not in lieu of, any fines, penalties or remedies provided in the Municipality's Policies and Procedures. The existence or exercise of any remedy shall not prevent the Municipality from exercising any other remedy provided under this article or the Municipality's Policies and Procedures, or available at law or equity.

§ 258-52. Prior ordinances.

Any ordinances which pertain to Regulated Municipal Waste or Designated Recyclable Materials, including those set forth in Chapter **258** of the Code of the City of Lancaster, are hereby repealed to the extent of any inconsistency with this article.

§ 258-53. Severability.

The provisions of this article are severable, and if any section, sentence, clause, part or provision hereof shall be held to be illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this article. It is hereby declared to be the intent of the Municipality that this article would have been enacted if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

§ 258-54. Savings clause.

All actions of the Mayor and any other member of the staff of the City of Lancaster in ordering any supplies and taking any actions needed to implement a single hauler system/waste management plan be and hereby are ratified and approved.

§ 258-55. Effective date.

This article shall take effect and be in force as provided by law.



THE 25 GALLON CAPACITY *TRIPLE*R*CAN*®

DESIGN FEATURES:

- Cylindrical in shape and designed for a commingled curbside collection program.
- One piece, seamless high pressure injection molded construction designed for strength, resilience and long life.
- Sturdy comfort designed handles for easy carry to the curb, safety and cleanliness.
- Three year warranty against defects in material and workmanship.
- Choice of branding areas for logos and recycling slogans.
- Four drain holes or solid bottom.
- Available in a wide range of colors.

MATERIAL:

- Each container is manufactured in high density polyethylene (HDPE).
- Recycled material can be used at the rate required by the buyer.
- Ultra violet stabilizers are added to the material to protect it from prolonged exposure to the sun.

CAPACITY, WEIGHT & DIMENSIONS:

- Capacity: 25 gallons
- Weight: 7.1 pounds
- Exterior Top Diameter: 19.5"
- Interior Bottom Diameter: 15.25"
- Exterior Height: 29.3"
- Interior Height: 27.6"
- Nesting Ratio: 5.58:1
- Minimum Wall Thickness: 0.118"

T.M. FITZGERALD & ASSOCIATES

TRIPLERCAN® Custom Recycling Containers



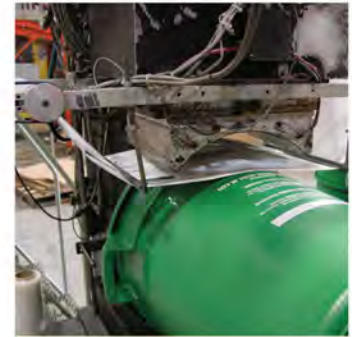
■ We deliver the most options available to help you "go green"

From the top down, this country is embracing "green initiatives". Municipalities, universities, corporations and military bases – they're all gearing up to do their part to reduce, reuse and recycle. And T.M. Fitzgerald & Associates is there to support them with **TRIPLERCAN®** custom recycling containers nationwide.

Our **TRIPLERCAN®** line provides everything you need for any size project – perfect for commingled recycling, green waste, trash and yard waste. You can choose capacities of 20, 25 or 32 gallons – or go with our new 50-quart model.

But size is just one option. You can also add a lid. Or a lid with a beverage hole or paper slot. Choose a solid bottom or one with drain holes.

We offer a large selection of standard colors, or you can request a custom color. Finish it all off with your choice of recycling logos or a custom imprint.



20 Gallon

25 Gallon

32 Gallon

100% recyclable material.

Made with recycled content.



Perfect for a family of four with weekly pick-ups



Extra height means greater capacity without more floor space



Holds more materials for less frequent collection

| | | | |
|-------------------------------------|-----------------|-----------------|-----------------|
| Container weight: | 5.9 lbs | 7.1 lbs | 7.8 lbs |
| Container exterior height: | 22.8" | 29.3" | 27.5" |
| Container interior height: | 21.1" | 27.6" | 25.9" |
| Container diameter – top: | 19.5" | 19.5" | 22.1" |
| Container diameter – bottom: | 15.75" | 15.25" | 17.7" |
| Lid weight: | 1.5 lbs | 1.5 lbs | 2.0 lbs |
| Lid style: | flat | flat | domed |
| Lid with hole available: | yes | yes | yes |
| Lid with slot available: | yes | yes | yes |
| Logo area: | center/shoulder | center/shoulder | center/shoulder |
| Reinforcing radial ribs (rim/base): | 34/24 | 34/24 | 34/20 |

■ 50-quart capacity container with flip-top lid

This high-impact polypropylene container can be used inside a house, apartment or business to store recycling or solid waste without taking up too much valuable floor space. The UV stabilizers protect the container whether it is used indoors or outdoors.



Exterior dimensions

| | |
|--------------------------|------------------------|
| Height: | 21.5" |
| Top width: | 17.25" |
| Top depth: | 11.75" |
| Bottom width: | 13.0" |
| Bottom depth: | 9.0" |
| Container weight: | 2.65 lbs |
| Lid weight: | 0.55 lbs |
| Wall thickness: | 0.085" |
| Pallet pack: | 100 containers & lids |
| Full truckload quantity: | 5200 containers & lids |

"In all our years of doing business together I can honestly say we have never had one problem. Besides being competitively priced, all shipments have been on time and without incident."

Larry Stevenson – Purchasing Agent
Solid Waste Management Authority, Rockland County

■ Quality and service come standard

We offer a lot of options and choices when it comes to creating your custom containers – but our commitment to quality and service comes standard with every order. All of our products are made in America with impact-resistant, all-weather material containing UV stabilizers to protect against sun damage. We use seamless, high-pressure injection molding that puts plastic where it is needed most for strength and resilience. That includes reinforcing radial ribs under the rim and base for added durability.

And our containers are designed with users in mind – featuring large, open handles that are easy for a gloved hand to grip. The height of our containers means less bending and lifting for homeowners and collection workers.

Available Options

- Four drain holes for water run-off
- Solid bottom to contain liquid
- Solid lid to protect from rain
- Lid with 4.25" beverage hole
- Lid with slot for paper collection
- Eight standard colors
- Color match available for orders over 10,000 units
- Choice of logo color
- Serial numbers
- Multiple branding areas





"Upper Darby recently changed its recycling program to single-stream recycling. Working with T.M. Fitzgerald & Associates was the easiest part of the process. They provided unbeatable customer service from the first call to the last delivery. The **TRIPLERCAN®** is doing the job for us – it's a bright reminder in neighborhoods that it is pick-up day, it's easy to handle for my residents and collection workers, and it is problem-free!"

Fernando Baldivieso, P.E.

Township Engineer & Director of Public Works, Upper Darby Township



T.M. Fitzgerald & Associates

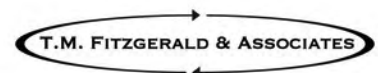
850 West Chester Pike, Suite 303
Havertown, Pennsylvania 19083-4439

Toll-free: 888-795-0660

Phone: 610-853-2008 / Fax: 610-789-5168

Email: info@tmfitzgerald.com

Web: www.tmfitzgerald.com





CITY OF LANCASTER
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SOLID WASTE & RECYCLING
717-291-4744
OFFICIAL S.W.E.E.P. NOTICE

Date: _____ Officer #: _____

Location: _____
THE FOLLOWING SOLID WASTE CODE VIOLATIONS HAVE BEEN
OBSERVED AND REQUIRE CORRECTION. ENSURE THE
VIOLATIONS ARE CORRECTED WITHIN THE ALLOTTED TIME AS
DENOTED ON THIS NOTICE.

NOTED VIOLATIONS/TIME ALLOTTED FOR COMPLIANCE:

- ☐ **Littered Property/Sidewalk** _____
Please clean up litter and trash from in front of your property.
- ☐ **Trash/Recycle Out too Early for Collection** _____
Trash/Recycle may not be placed out for collection before 6 P.M. the night before scheduled collection.
- ☐ **Loose or Messy Trash** _____
Place only tied up bags without rips or tears or in refuse cans with tight fitting lids.
- ☐ **Improper Trash/Recycle Storage** _____
Trash/Recycle containers may not be stored in front of your property, on your porch or in view of the public.
- ☐ **Trash Out on Wrong Day for Collection** _____
Trash may only be placed at curbside the night before scheduled collection. Your service day is _____.
- ☐ **Exceeding Trash Limit** _____
Each unit may only have 6-(32) gallon bags/cans or 4-(32) gallon cans/bags with a large refuse item. Tags for extra bags may be purchased at Treasury located at 39 W. Chestnut St.
- ☐ **Failure to Recycle** _____
City and State law require aluminum and steel cans, plastic containers w/neck labeled #1 or #2, glass jars and bottles and newspaper to be placed in the green recycling bin for weekly collection.
- ☐ **Trash in Recycle Bin** _____
No pizza boxes, napkins, paper towels, food waste, plastic toys or kitchen dishes, lightbulbs or window glass. Please rinse containers and remove lids.
- ☐ **Brush/Weeds/Grass** _____
Property owners shall remove, trim or cut all grass, weeds or other vegetation. May not exceed six inches in height.
- ☐ **Indoor Stuffed Furniture on Porch** _____
Furniture that is designed for indoor use may not be kept in the exterior of the property.
- ☐ **Other** _____

IF YOU HAVE QUESTIONS PLEASE CONTACT THE
BUREAU OF SOLID WASTE & RECYCLING AT 717-291-4744

**Future violations may result in a
\$25 Administraion Ticket.**



CITY OF LANCASTER
DEPARTMENT OF PUBLIC WORKS
BUREAU OF SOLID WASTE & RECYCLING
717-291-4744
OFFICIAL S.W.E.E.P. NOTICE

Date: _____ Officer #: _____

Location:

EL SIGUIENTE las INFRACCIONES SOLIDAS de CODIGO de DESECHO HAN SIDO OBSERVADAS Y REQUIEREN la CORRECCION. ASEGURE que LAS INFRACCIONES SEAN CORREGIDAS DENTRO DEL TIEMPO ASIGNADO COMO DENOTADO EN ESTA NOTA.

NOTED VIOLATIONS/TIME ALLOTTED FOR COMPLIANCE:

- ☐ La propiedad/acera limpia por favor basura y basura de delante de su propiedad.
- ☐ Fuera también temprano para la Basura/Recirculación de la colección no puede ser colocado fuera para colección antes de 6 de la tarde la noche antes de la colección planificada.
- ☐ O el Lugar desordenado de basura sólo ató bolsas sin rasgones o lágrimas o en el desecho puede con quedar apretado las tapas.
- ☐ Los contenedores de la Basura/Recirculación del almacenamiento de la basura/recirculación no pueden ser almacenados delante de su propiedad, en su porche ni en vista del público.
- ☐ Fuera en día equivocado para la colección. Desechar sólo puede ser colocado en el curbside la noche antes de la colección planificada. Su día del servicio es _____.
- ☐ Desechar el Límite Cada unidad sólo puede tener 6-32 bolsas/puede de galón o 4-32 puede/bolsas de galón con un artículo grande del desecho. Las etiquetas para bolsas extra pueden ser compradas en el Tesoro localizado en 39 W. S. de castaña.
- ☐ Para Reciclar la ley de Ciudad y el Estado requiere aluminio y el acero puede, W/cuello plástico de contenedores marcó #1 o #2, los frascos de vidrio y embotella and newspaper para ser colocado en el cajón verde del reciclaje para la colección semanal.
- ☐ En el Cajón de la Recirculación no cajas de la pizza, las servilletas, las toallitas de papel, el desecho de alimento, juguetes de plástico ni cocina sirven, vidrio de bombillas ni ventana. Por favor contenedores de aclarado y quita las tapas.
- ☐ Los dueños de propiedades quitarán, recortarán o cortarán todo césped, las hierbas u otra vegetación. No puede exceder seis inches en la altura.
- ☐ Llenó Muebles en Muebles de Porche que es diseñado para el uso interior no pueden ser mantenidos en el exterior de la propiedad.

SI USTED TIENE las PREGUNTAS CONTACTAN POR FAVOR
LA OFICINA DE el DESECHO SOLIDO & RECICLANDO EN
717-291-4744

**Futuras Infracciones pueden resultar
en una multa de \$25**

Appendix D

| Cities of Lancaster and City of Harrisburg, PA Municipal Solid Waste and Recyclables Collection Profiles | | |
|---|---|---|
| Feature | Lancaster | Harrisburg |
| Customer Types Served | Residential buildings up to 4 units. Small businesses with six or less cans trash per week are not required but can sign up as well. | All residences, businesses, and institutions, except approximately 240 businesses with a waiver. Some non-residential customers arrange their own recycling. |
| Customer Fees | Residential curbside trash/recycling: \$210.00 annually Commercial trash/recycling: Varies | Residential curbside trash/recycling: \$388.00 annually Commercial trash/recycling: Varies |
| Units Serviced | ~ 17,700 households | ~ 21,400 households ~1,400 non-residential customers (not all of these non-residential customers participate in the City recycling collection) |
| Trash Limits | 6 bags/cans up to 30 gallons or Four bags/cans and one bulky item per week | No bag or can limits. Bulky item pickup by appointment at \$10-\$25 per item. |
| Recyclable Materials | <ul style="list-style-type: none"> • Commingled containers: plastic, glass, bi-metal, and aluminum • Magazines and newsprint (soon adding cardboard) | <ul style="list-style-type: none"> • Commingled containers (same materials as Lancaster) • Newsprint |
| Yard Waste | <ul style="list-style-type: none"> • Once per month, same day as trash/recycling. • In paper yard waste bags | <ul style="list-style-type: none"> • Collected bi-monthly. • No containers used. |
| Recycling Container | <ul style="list-style-type: none"> • 18 or 22-gallon rectangular curbside bins New 25-gallon round and more durable plastic containers are being distributed. • All residents receive free containers • Residents discouraged from using ad hoc containers | <ul style="list-style-type: none"> • 14 gallon rectangular “blue bins” • Had been issued at a cost to residents of \$5.00, but in spring 2013 began offering for free. • Numerous residents use ad hoc containers (e.g. laundry baskets) |
| Litter and waste and Recycling Enforcement | Two (2) S.W.E.P. officers issuing warnings and administrative tickets. Residents may be ticketed for not recycling. | Ad hoc. No program or designated sanitation enforcement personnel. |
| Recycling Trucks | <ul style="list-style-type: none"> • Two (2) Heil Side-Loading 25-30 Cu. Yd. • With compaction. • Manageable load height • 4 - 5.5 ton capacity | <ul style="list-style-type: none"> • Two (2) SAC Side-Loading 30 Cubic Yard. • No compaction. • High load height. • ~ 1.9 Ton capacity |
| Crew Size | Usually one staff; but on routes with 1,400+ recycling stops | One or two, depending on staff availability |

Appendix D

| Potential Cost Savings and Revenues from Expanded Residential Recycling | | | | | | |
|---|------------------|-----------------------------------|--|--|--|--|
| | Tons Recycled | Materials Recovery Revenue* | 904 Performance Grant for Residential Recycling | Avoided Tip Fees @ \$190 per ton | Total Revenues and Tip Fee Savings | |
| Expanded Program Potential | 2,806 | \$ 14,030 | \$ 115,608 | \$ 533,140 | \$ 662,778 | |
| Less: existing recycling | (1,041) | \$ - | (59,052) | \$ (197,790) | \$ (256,842) | |
| Gains from program improvement | 1,765 | 14,030 | 56,556 | 335,350 | 405,936 | |
| *Current no revenue. \$5.00 per ton is reasonably achievable with a program and arrangement that meets the performance benchmark. | | | | | | |

Appendix D

| City of Harrisburg Act 101, Section 904 Grant Award Calculation | | | | | |
|---|---------------|-------------------------------|-----------------|------------------|------------------|
| | Population | Total Waste Generation (tons) | Diversion Rate | | |
| 2011 | 49,528 | 39,622.4 | 5.25% | | |
| | Tons Recycled | Base Award | Diversion Award | Commercial Bonus | Total |
| Residential | 1,041 | \$5,205 | \$5,470 | | \$10,675 |
| Commercial | 8,748 | \$5,205 | \$5,470 | \$77,070 | \$87,745 |
| Total | 9,789 | \$10,410 | \$10,940 | \$77,070 | \$98,420 |
| Total Grant Award at 60% | | | | | \$59,052 |
| At Lancaster Benchmark | | | | | |
| | Population | Total Waste Generation (tons) | Diversion Rate | | |
| | 49,528 | 39,622.4 | 14.16% | | |
| | Tons Recycled | Base Award | Diversion Award | Commercial Bonus | Total |
| Residential | 2,806 | \$39,743 | \$39,743 | | \$79,487 |
| Commercial | 8,748 | \$14,000 | \$39,743 | \$59,420 | \$79,487 |
| Total | 11,554 | \$53,773 | \$79,487 | \$59,420 | \$192,680 |
| Total Grant Award at 60% | | | | | \$115,608 |

Appendix D

| Residential Recycling Potential for Harrisburg | | | |
|--|--|-------------------------|---------------|
| | Tons per Household per Year ¹ | Households ² | Tons per Year |
| Recycling | | | |
| Small Buildings (1-4 Units) | 0.14 | 17,600 | 2,397 |
| Multi-Family | 0.10 | 4,000 | 409 |
| Subtotal | | 21,600 | 2,806 |

¹ Small Building rate is generation rate experienced in City of Lancaster residential contract. Multi-Family is assumed as 75% of this rate.

² From City Billing database for March 2013, rounded to nearest hundred. Two hundred units small commercial included with small building count.

City of Harrisburg
Recycling Field Audit Summary
Recycling Technical Assistance Program - PSATs & PADEP Program
April 04, 2013

April 04, 2013

Arrival: 4:45 a.m.

Departure: 8:30 a.m.

Conditions: Mostly sunny/cool. Audit Conducted by: Steve Deasy, Gannett Fleming, Inc.

Recycling Route Summary

Steve Deasy of Gannett Fleming met with the Public Works Recycling crew at the Public Works Administrative offices across from the incinerator and then followed a 30-CY Open Recycling Truck manufactured by SAC for two (2) hours. The 2-hour audit did not represent a full route and the truck was half full when the audit was complete. The recycling truck departed at 5:10 a.m. from the City Waste Incinerator and was tracked for approximately 8 miles over the 2 hour audit. The route time was tracked in minutes per mile and route was mapped using a tracking application. Gannett Fleming tracked participation rates, but participation rates shown on route tracking sheets are rough estimates only because the number of serviceable commercial and residential accounts was unknown. At the end of the 2-hour audit, the SAC truck was visually estimated to be 45% full, with plastics making up the majority of the material volume.

The initial portion of the route included collection of commingled container recyclables from commercial and multifamily apartments in the area of "downtown Harrisburg" in and along the side street perpendicular to Second Street. 64-gallon and 96-gallon carts were the dominant containers observed collected along the commercial portion of the route, but sizes and container types varied. Carts were placed on an automated loading bar and lifted and dumped hydraulically. When non-cart receptacles were used, containers were dumped manually. Some carts were placed at the curb, while other carts were inside or under buildings or in alley locations as many as 25 steps away (one-way) from the recycling truck. After completing the commercial portion of the route, the recycling truck passed over the State Street Bridge to 16th Street where it fueled up with diesel at the City's #2 Fire Company. Recycling resumed in dense residential areas along 17th and Market Streets. Residential participation rates were variable from street to street. Participation was always less than 50% of the households setting out recyclables. The dominant recycling container was 14-gallon blue bins, but various container types were utilized (laundry baskets, clear bags, boxes, etc.). Frequently, 14-gallon bins were overfilled with some recyclables lying on the ground adjacent to containers. The Public Works Crews picked up the recyclables on the ground near recycling containers. It was observed that recycling appeared to be contagious; meaning, that where participation was better, it appeared better on both sides of the street and for a greater distance along the street. Where recycling participation was very poor, it was consistently poor along the street and appeared to coincide with less blue bins being visible (used or unused).

City of Harrisburg – Recycling Route Review –Photographs



Photo 1: 04-04-13. Recycling Route Review



Photo 2: 04-04-13. Recycling Route Review



Photo 3: 04-04-13. Recycling Route Review

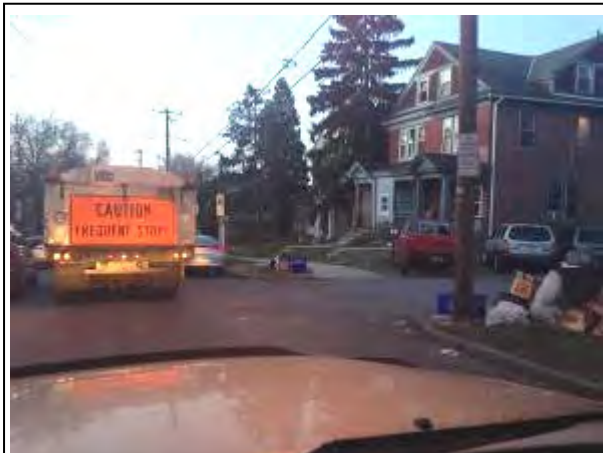


Photo 4: 04-04-13. Recycling Route Review



Photo 5: 04-04-13. Recycling Route Review



Photo 6: 04-04-13. Recycling Route Review

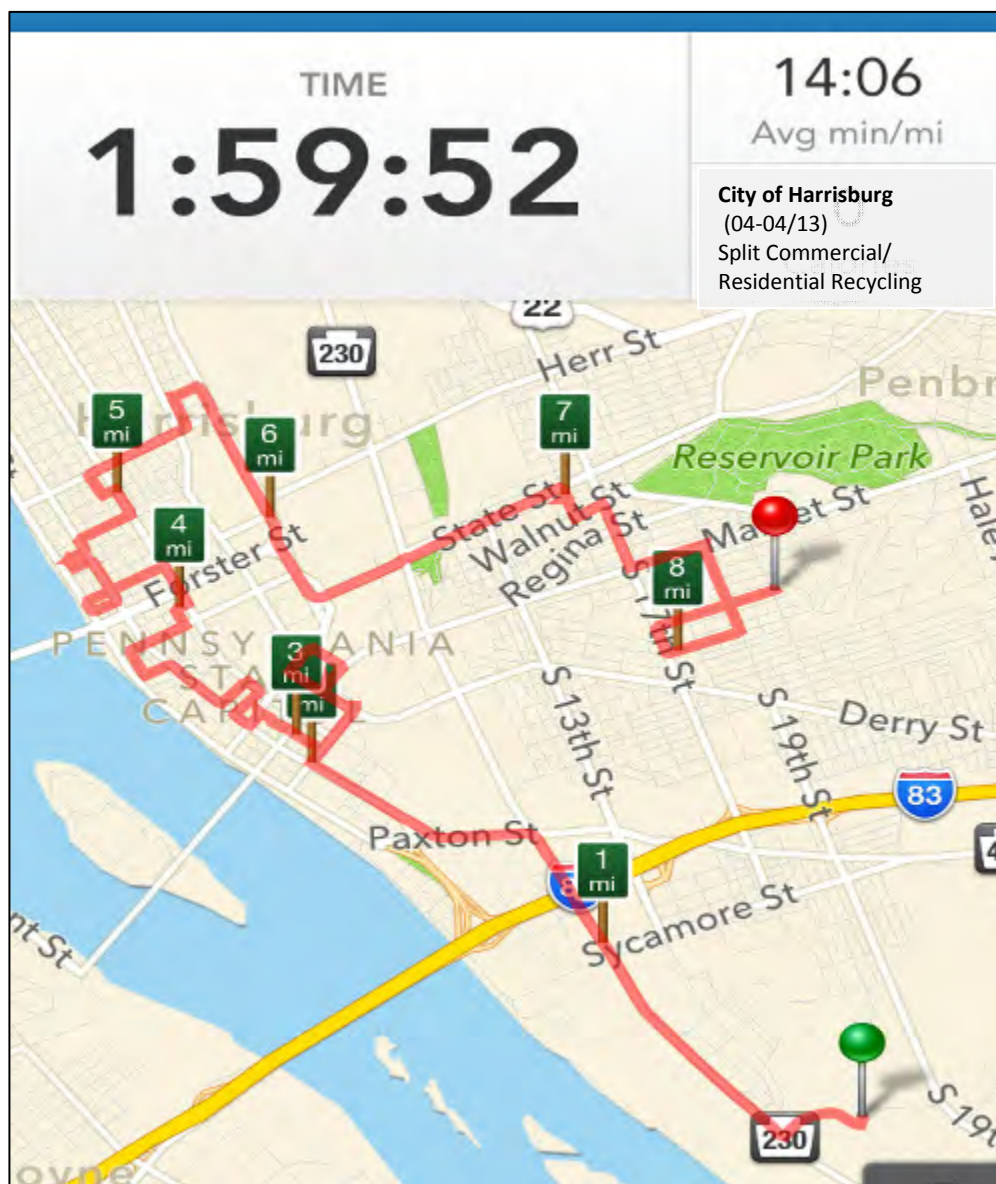
City of Harrisburg – Recycling Route Review – Photographs (cont.)



Photo 7: 04-04-13. Recycling Route Review



Photo 8: 04-04-13. Recycling Route Review



April 04, 2013

Arrival: 10 a.m.

Departure: 11:30 a.m.

Conditions: Mostly sunny and cool.

Audit Conducted by: Steve Deasy, Gannett Fleming, Inc.

Commercial Dumpster Summary

Steve Deasy of Gannett Fleming met with City Sanitation Department Crews at 10 a.m. on April 04, 2013 to complete visual inspections of commercial trash dumpster and to review the Commonwealth Building recycling program that is conducted by Harrisburg Waste Paper. Visual inspections of commercial dumpsters provided some confirmation regarding recoverable quantities of cardboard and office paper being disposed as trash from several Sanitation Department commercial accounts. As can be seen in the Commercial Dumpster photographs, cardboard represents a substantial volume of disposed material (estimated to exceed 50% of total waste volume) by some commercial establishments. Plastic, aluminum and steel-bimetallic cans along with small amounts of office paper were also observed being disposed with regular trash in commercial refuse dumpsters.

Commonwealth Building Recycling Summary

Based on visual inspection of trash and recycling consolidation areas of several State buildings, including those in the Capital Complex, recycling of office paper and cardboard is well established. Recycling of segregated books, magazines, glass and other recyclable materials is also occurring at some Commonwealth buildings, but the program details and material types recover can vary by building. Although recycling is in place, there was evidence that State office building recycling could be improved. For example, shredded office paper, mixed office paper, and cardboard were regularly observed mixed with trash.

City of Harrisburg – Commercial Dumpster Survey – Photographs



Photo 1: 04-04-13. Commercial Dumpster Survey



Photo 2: 04-04-13. Commercial Dumpster Survey



Photo 3: 04-04-13. Commercial Dumpster Survey



Photo 4: 04-04-13. Commercial Dumpster Survey



Photo 5: 04-04-13. Commercial Dumpster Survey



Photo 6: 04-04-13. Commercial Dumpster Survey

City of Harrisburg - Commonwealth Building Recycling - Photographs



Photo 7: 04-04-13. Commonwealth Building
Cardboard Paper Recycling



Photo 8: 04-04-13. Commonwealth Building
Newspaper recycling.



Newspaper recycling.



Various paper recycling.



Photo 11: 04-04-13. Commonwealth Building
White and mixed paper recycling.



Photo 12: 04-04-13. Commonwealth Building
Dumping cardboard into packer truck.

March 22, 2013

Arrival: 9 a.m.

Departure: 9:20 a.m.

Conditions: Mostly sunny and cool.

Audit Conducted by: Steve Deasy, Gannett Fleming, Inc.

Transfer Station Audit Summary

Gannett Fleming visited and photographed the recyclables transfer area on March 22, 2013. The recyclables transfer area is a low-tech transfer area between the incinerator and Dauphin County Recycling Center. Recycling trucks drive up a dirt road to an elevated area, tilt the recycling truck bed and dump into 90-cubic yard transfer trailers. The transfer station has capacity in its current configuration and design to stage only one 90-cubic yard transfer trailer. This is a limiting factor, particularly if the City increases incoming recyclable materials. The transfer area is not a sustainable consolidation point for delivery of materials to distant recycling markets.

City of Harrisburg – Recyclables Transfer Facility – Photographs



Photo 1: 04-04-13. Recyclables Transfer Facility



Photo 2: 04-04-13. Recyclables Transfer Facility



Photo 3: 04-04-13. Recyclables Transfer Facility



Photo 4: 04-04-13. Recyclables Transfer Facility



Photo 5: 04-04-13. Recyclables Transfer Facility



Photo 6: 04-04-13. Recyclables Transfer Facility

