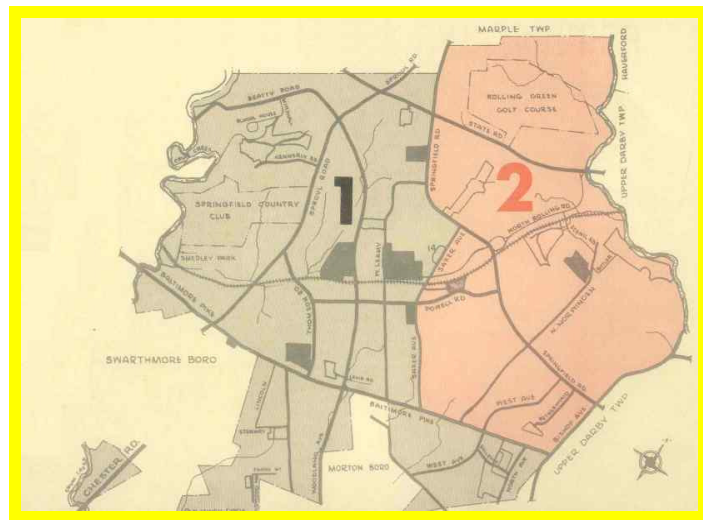


**SWANA RECYCLING
TECHNICAL ASSISTANCE STUDY**

FINAL REPORT

**SPRINGFIELD TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA**

**IMPROVING THE EXISTING RECYCLABLES
COLLECTION SYSTEM**



GANNETT FLEMING, INC.



HARRISBURG, PENNSYLVANIA

MAY 2010

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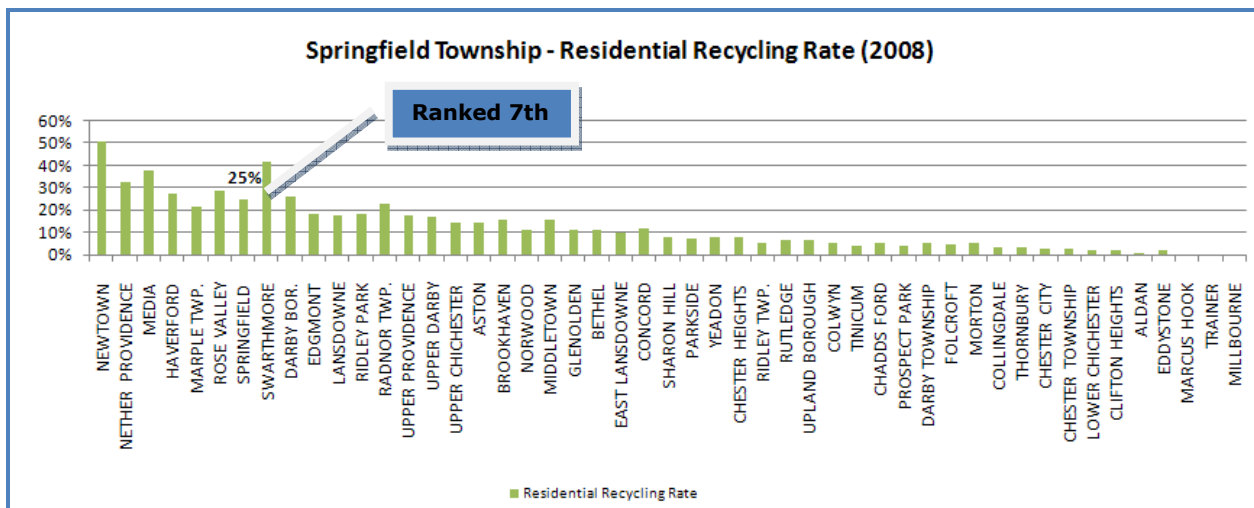
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SWANA RECYCLING TECHNICAL ASSISTANCE STUDY

EXECUTIVE SUMMARY

SPRINGFIELD TOWNSHIP IMPROVING THE EXISTING RECYCLABLES COLLECTION SYSTEM

Springfield Township, in Delaware County Pennsylvania, has offered curbside recycling to its residents for over 10 years. Each year, the Township’s curbside recycling program recovers approximately 4,000 tons of material that is sent to local recyclers. Compared with other Delaware County municipalities, the Township ranks 7th in reported curbside recyclables diversion (see chart below). In order for the Township to reach its curbside recycling potential (achievable curbside rates observed in top-performing Pennsylvania programs), Gannett Fleming, Inc. (GF) concludes that the Township will need to increase recyclables recovery by 8 percent. Although increased recycling is feasible, GF believes that the existing twice-per-week trash services competes with recycling - the convenient level of trash service offered will be an ongoing problem both as it relates to recycling performance and for waste system cost management.



Recently, the waste system has gone through two substantial changes that require the Township to take a critical and comprehensive look at its waste system:

- The Delaware County Solid Waste Authority began assessing tip fees (\$23.35) for every ton of waste disposed, which costs the Township approximately **\$275,000 annually**.
- The Public Works Department took over the responsibility of commingled recyclables collection, and now operates the entire waste management and recyclables collection system.

Based on Gannett Fleming's evaluation, the following recommendations are provided to improve the overall performance and cost efficiency of the waste management program:

- **Cost Reduction:** The Township should plan for, and implement (in phases as needed) a system to offset and recover the cost of recently implemented tipping fees to assure the current trash and recycling fees are equitable, and fairly represent the true cost of the program, as follows:
 - *Disposal Fees:* Reduce the tipping fee burden by reducing the total amount of trash disposed (see efficiency recommendations).
 - *Reduce operational expenses:* Offset a portion of tip fee expenses by reducing solid waste management operational and related costs (e.g. operational cost reduction through once-per-week-trash collection and single-stream recycling).
 - *Residential fee adjustment:* Adjust the residential waste management fee (or tax allocation) to recover the tipping fee cost increase within the context of the full program costs. Manage the cost burden to residents by actively implementing measures to improve program collection efficiency.
- **Efficiency:** Improve the overall waste system program efficiency as follows:
 - *Once-per-week-trash collection:* Transition from twice-per-week to once-per-week trash collection.
 - *Single-stream recycling:* Single-stream collection costs are lower than dual-stream when markets are equal distances. Evaluate the cost of the dual-stream recycling routes plus recyclables revenue generation and compare this cost with operating a single-stream system including single-stream revenue potential – and transition to single-stream recycling as a measure to reduce total program costs, if feasible.
 - *Incentives:* Incorporate a Pay-As-You-Throw (PAYT) incentive into the existing program. Include a standard base rate paid by the average size household. Households setting out “additional” trash at the curb beyond the standard level of service would pay more for extra service. For example, households that place more than two trash containers out for pick up (the base level of service at a fixed fee) would be required to pay for the additional service. This system can use tags or labeled bags made available for purchase at stores and/or at the Township office.
- **Small-businesses:** It is recommended the Township implement an “opt-in” program for small businesses to participate in the residential waste and recycling collection program.
- **Public Participation:** Carefully manage public concerns, particularly about the “need” for twice-per-week trash service if the once-per-week alternative is considered.

SWANA RECYCLING TECHNICAL ASSISTANCE STUDY

FINAL REPORT

SPRINGFIELD TOWNSHIP IMPROVING THE EXISTING RECYCLABLES COLLECTION SYSTEM

1.0 INTRODUCTION

Spurred by the recent decline in recyclables commodities pricing and by new waste disposal tipping fees, Springfield Township (Township) determined it was necessary to take a closer look at the operation and feasibility of its recyclables collection program. Through the partnership with the Solid Waste Association of North America (SWANA), the Pennsylvania State Association of Township Supervisors, and the Pennsylvania Department of Environmental Protection (PADEP), the Township was awarded \$7,500 in technical assistance provided by Gannett Fleming, Inc. (GF).

1.1 Scope of Work

Under this project, GF worked with the Township to develop and complete the following tasks:

- Task #1** Gather and review background information provided by the Township related to existing waste management and recycling activities. This task will include a review of historic recycling and refuse data and relevant contracts with collectors, processors or other entities.
- Task #2** GF will identify alternatives or variations to the existing collection system that can enhance recycling and/or optimize collection system efficiency. GF will develop findings and recommendations for implementation of an alternative/modified recyclables collection system.
- Task #3** GF will prepare and provide the Township with a summary report of findings and recommendations. This task includes a review of the Report by PADEP and response to PADEP comments. An electronic file of the final report will be submitted to PADEP. Both an electronic and hardcopy version of the final report will be provided to the Township.

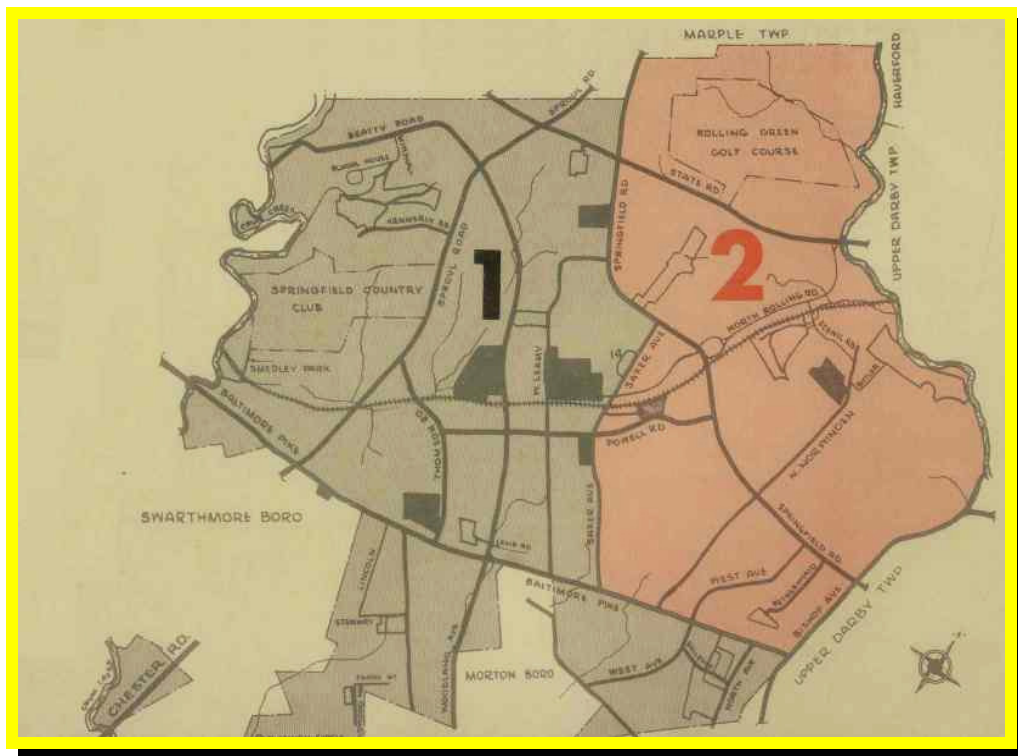
2.0 BACKGROUND

Springfield Township is a relatively dense suburban community located in Delaware County, within 15 miles of Philadelphia. There are roughly 24,000 residents in the community according to US Census Bureau data. Springfield Township has had curbside recycling for over 10 years. The Public Works Department (PWD) municipal crews recently took over collection of commingled containers (plastic, steel, and glass bottles and cans) after an unfavorable bid response for residential recycling services revealed that outsourcing of commingled recycling would be cost-prohibitive. The municipal crews have made adjustments and now operate the entire curbside waste and recyclables collection system. The Township is currently working with FCR/Blue Mountain Recyclery to secure processing capacity and pricing for recyclables.

3.0 EXISTING WASTE COLLECTION SYSTEM

Residential refuse is collected twice-per-week as shown below and noted in the collection map. Refuse receptacles are required to have a water-tight lid and should not exceed forty (40) pounds. Trash bags are accepted. After collection, waste is delivered to the Delaware County Solid Waste Authority waste-to-energy facility.

Area 1 - Monday & Thursday
Area 2 - Tuesday & Friday



3.1 Bulky Item Collection

The PWD collects bulky items on Wednesdays from households that have scheduled for collection. Residents must visit the Township Building located at 50 Powell Road or the Public Works Department located at 1258 Church Road to pre-pay and pre-schedule a pick-up. The cut-off time for scheduling pickup is noon on Tuesday. The fees are \$30.00 for a standard pick-up truck, \$40.00 for a dump truck and an additional \$20.00 for each appliance.

4.0 RESIDENTIAL CURBSIDE RECYCLABLES COLLECTION

Estimates from windshield surveys show that approximately 90 percent of households participate in curbside set-outs of recyclables at least once per month. The program is a “dual-stream” recycling program where paper is collected in 14-gallon bins and comingled bottles and cans are collected in 24-gallon containers. The materials are collected using separate 20-25 cubic yard waste packers that utilize 3-man crews. The Township’s PWD has historically collected paper at the curb and delivered it to Smurfit-Stone Recycling for payment based on tonnage. Curbside recyclables collections are conducted weekly on the designated recycling day. In 2008, the Township diverted **4,000 tons** of material through curbside recycling. The PWD curbside collections include the following materials:

Paper/Fiber

- newspapers
- magazines
- periodicals
- phone books
- junk mail
- miscellaneous mixed paper

Comingled Containers

- aluminum cans
- steel/bi-metallic cans
- mixed clear, green & brown glass
- plastic bottles & containers (#1-#2)

4.1 Disposal and Recycling Habits

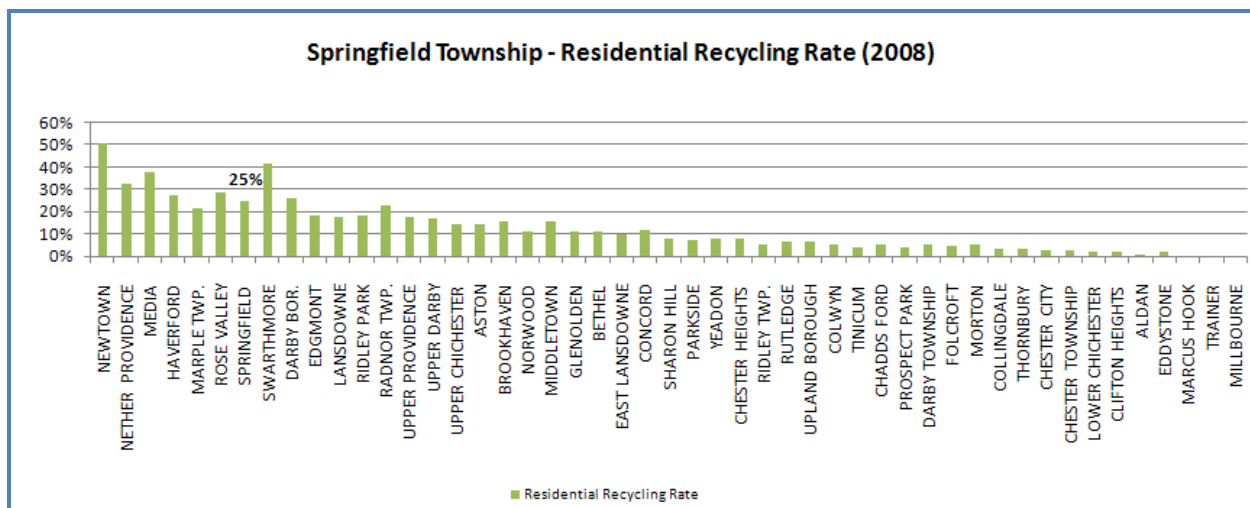
Springfield Township is an aging community within Delaware County. Residents still read the newspaper. This community is home to fewer beer drinkers than many Pennsylvania communities, and consequently, less aluminum is generated than might be expected. Suburban lots and good yard-keeping habits combine to produce high participation levels in the leaf collection program, which diverts above average quantities of organics to recycling.

4.2 Success and Ranking of the Current Recycling Program

GF reviewed historic recycling data provided by the Township and 2008 recycling data provided by the Delaware County Solid Waste Authority for all 49 County municipalities. In the Chart below, Springfield Township residential recycling is ranked

against other Delaware County municipalities based on reported recycling rates (provided by Delaware County). Recovery rates were calculated based on 2008 municipal waste and recycling totals. Rankings are provided for the residential recycling rate, commercial recycling rate, and the total recycling rate (ranking tables are provided in **Appendix A**). Out of 49 Delaware County Municipalities, Springfield Township ranks as follows:

- ✓ **Reported Residential Recycling Rate - 7th**
- ✓ **Reported Commercial Recycling Rate - 20th**
- ✓ **Reported Total Recycling Rate (commercial and residential) - 11th**



A majority of municipal programs in the County with a high recycling ranking divert and report substantial quantities of leaf waste for recycling. Based on reported data and rankings, the Township waste diversion program is above the regional municipal average. Consequently, the strategies for improving recycling have to encourage diversion of the remaining portion of recyclables in the waste stream. The Township’s residential recycling rate, including leaf waste, is 25 percent of the total municipal solid waste disposed. Note that commercial recycling is not counted in the total MSW generated while calculating the residential rate. The Township’s focused efforts on residential paper recycling contribute to the above average curbside recycling rate.

Based on GF’s experience with municipal recycling programs, an optimal curbside recycling program and curbside leaf and/or yard waste program can divert 35 percent of the total municipal waste stream. Notably, leaf waste diversion and reporting is not viewed as important to many municipalities because leaf waste tons are not eligible for Act 101, Section 904 Performance Grants.

At a 25 percent diversion rate, the Township has an opportunity to increase residential curbside recycling by roughly **10 percent** to become an “optimal” curbside program. This can be achieved by diverting more of the materials already collected, and possibly by

generating less total waste material that requires disposal - thus decreasing the bottom line. Targeting specific materials, enhancing education and program incentives can each play a role in waste diversion. Additional investigations can determine where the Township may focus its recycling efforts to recover additional quantities of recyclables and/or new materials.

Diversion to recycling (or reuse) of additional items generated by the commercial sector presents another opportunity to boost recycling rates. Residential and commercial recycling, including residential bulky-item collections (appliances, aluminum sheeting, etc.), combined with special collection events and drop-off recycling programs, can push overall municipal recycling rates to above 50 percent.

5.0 PRELIMINARY EVALUATION AND FINDINGS

The following sections note some preliminary observations and findings based on Gannett Fleming's understanding of the existing waste system.

5.1 Cost Impact From Waste Disposal Tipping Fees

As of 2009, the Township was financially impacted by a new cost when the Delaware County Solid Waste Authority stopped being subsidized by the County and began assessing municipal waste tip fees to cover the 3.6 million dollar Authority operating budget plus funding reserves.

The 2010 residential waste disposal tip fee assessed to the Township is **\$23.45 per ton**. Based on year 2009 data provided by the Township, **11,643 tons** of municipal residential waste was collected curbside by Township crews and disposed at the Authority's Plant #3 in Marple Township (does not include bulk waste tip fees). At current disposal rates, the 2009 annual disposal fees for curbside municipal waste totaled **\$273,028**. Since the Authority indicated that residential tip fees will remain stable for the next 4 years and because generation rates should not change much in the near future, disposal costs should remain relatively constant. Using 8,618 occupied households (US Census Bureau), the disposal cost is equivalent to about **\$31.70** per household per year. Fully or partially offsetting these relatively new tipping fees will require one or more adjustments to the waste system, which could include:

- 1) Directly reducing the tipping fee burden by reducing the amount of trash disposed.
- 2) Offsetting a portion of tip fee expenses by reducing solid waste management operational and related costs. For example, implement measures to improve curbside collection efficiency.

- 3) Increasing the residential waste management fee to recover the increase. Optimally, this pass through will be fairly balanced to the extent feasible by implementing active measures for numbers one and two above.

5.2 Recycling Performance

Reported recycling totals reveal the township is above the average municipal curbside recovery rate. However, the Township could still increase the recyclables diversion rate by **10 percent** or greater to reach an achievable, optimal recycling rate that is consistent with other effective municipal waste systems across Pennsylvania.

5.3 Negative Impacts from Twice-Per-Week Trash Collection

Offering twice-per-week trash service sends the wrong message to residents and adds to program costs. By offering disposal twice as often as recycling, Township residents throw away items that could be recycled simply out of convenience. Gannett Fleming believes that twice-per-week trash service is a leading factor that degrades the overall performance of the waste system for the following reasons:

- Twice-per-week trash service competes with recycling efforts. Comparing generated volume (not weight), recyclables require nearly the same capacity (or level of service) as trash.
- According to several private hauling waste companies and review of bid responses showing once and twice-per-week collection options, twice-per-week trash collection adds 15-20 percent to the cost of waste collection.
- Twice-per-week collection increases negative social and environmental impacts by placing more waste trucks on the roadways as compared with once-per-week trash collection. The added trash routes increase fuel consumption and harmful emissions, degrade roadways, and affect public transit safety.

Notably, nationwide and across Pennsylvania, the vast majority of municipalities receive once-per-week trash collection.

5.4 Bulky Item Service

Collecting bulky items (e.g. furniture) on a separate day from regular trash is not a widely preferred method in the waste hauling industry because it is inefficient when compared with other bulk collection strategies. However, bulky collection service cannot be integrated into the standard waste collection program because bulky items must get sent to a separate disposal facility from regular trash on Wednesdays or Thursdays.

5.5 Pay-As-You-Throw (PAYT) Waste Management

With above average curbside recycling already occurring in the Township, it is worthwhile to consider incentives to optimize waste diversion. GF has evaluated the feasibility and success of implementing Pay-As-You-Throw (PAYT) waste collection programs in a number of Pennsylvania municipalities and determined PAYT to be a program structure that optimizes waste management. In PAYT programs, residents pay a fee based on the number or capacity of trash bags/containers that are used for curbside set-out of waste. Because residents are charged a fee that is based on the quantity of waste disposed, PAYT creates a financial incentive for residents to divert materials to recycling. In other words, households that increase their recycling can pay less for trash disposal.

GF did not complete a detailed analysis of implementing PAYT waste collection in the Township, but a PAYT program will increase residential awareness about recycling and waste costs, and reduce tip fees from increased recycling. PAYT programs are implemented in many ways. For the Township, it appears feasible to implement a “hybrid” PAYT program. In a hybrid PAYT, the Township would establish a base-level of trash and recycling service that has a standard fee. For example, two standard trash cans with up to four, 35-gallon bags of trash may be included in the standard service and fee. Households that desire to set out additional trash (beyond the base level of service) would be required to buy stickers or bags to pay for and identify their extra trash placed at the curbside. Bags or stickers would be purchased in packs at local stores and/or the Township office, and typically range from \$2- \$4.50 per bag.

5.6 Small Commercial Customers

Small offices, mom-and-pop shops, and various other small businesses can be a “win-win situation” when incorporated into the Township’s collection system. Small businesses often utilize dumpsters and pay a fee for the service. Often, recyclables are not collected as part of the dumpster service. For small businesses that generate small or household-like quantities of trash, the municipality can provide standard residential service that uses regular trash cans or totes plus recycling containers (same as the residential program). For the Township, it could charge a higher fee than regular residential fees for these units that are typically located along routes already travelled by the trash truck. The win-win is more recyclables are recovered, increased service revenue, and a savings to the businesses that typically pay more for dumpster service than standard trash pickup. The key will be to assure that staffing is available and that the Township identifies willing and suitable businesses.

6.0 CONCLUSIONS AND RECOMMENDED PROGRAM MODIFICATIONS

6.1 Conclusions

Springfield Township's residential waste system is a program that has an above average curbside recycling rate. At the same time, certain waste collection methods limit the ability of the Township to optimize the overall performance of the program. The current twice-per-week trash service not only adds cost, but also increases fuel consumption, increases emissions and has other avoidable impacts (e.g. truck traffic safety or road surface damage) when compared with once-per-week trash service. Some specific conclusions include:

- **Tip Fees:** Annually, the Township will spend about **\$270,000** in tipping fees for disposal of residential municipal waste, which falls between 10 – 20 percent of total waste system costs. These recently assessed disposal fees are equivalent to a cost of about **\$32.00 per household**.
- **Collection is the Bulk of Program Costs:** According to the Environmental Protection Agency (EPA), waste and recyclables collection makes up roughly 50 percent of the cost of a typical municipal waste management system. With disposal fees assessment to municipalities being implemented by the Delaware County Solid Waste Authority in 2009, the Township is still adjusting to disposal costs.
- **Dual-stream versus Single-stream:** Recyclables are collected “dual-stream” on the premise and fact that recyclables, particularly paper, generate high revenue returns for the Township. GF cautions the Township to accurately account for full costs. Two separate routes are conducted in the current system; one for paper and one for commingled bottles and cans. The additional routes increase collection costs when compared to single-stream collection where recyclables are consolidated into one container for pickup into a single packer truck. Based on information provided by private haulers, the transition for dual-stream recycling to single-stream recycling increases recyclables recovery by over 20 percent. The increase is largely due to the simplicity and convenience of using one container for recyclables.

Based on GF's past comparisons of single-stream commodity rates and dual-stream rates in the region, it has been determined that although revenue returns are substantially higher for dual-stream materials, the additional single-stream tonnage will bring the total revenue return to near dual-stream revenue returns. Because the annual operating costs for single-stream collection are less than dual-stream, and because this could result in more material per route and likely eliminate one or more routes, there are cost advantages for single-stream service.

- **Recyclables Revenue and Markets:** The Township has historically worked hard to recover and market paper from its curbside program, but the commodity market crash has dramatically reduced revenues. In 2009, the Township generated \$51,177 through the sale of residential mixed paper and cardboard delivered to Smurfit-Stone Recycling. In the same year the Township paid (\$162,600) for residential commingled that was removed by McCusker & Osborne and then by the PWD and delivered to FCR/Blue Mountain). Recyclable market commodity pricing has been rising gradually, but most markets are still hesitant to secure arrangements that lock in favorable pricing. Single-stream markets are available locally.

Facing a number of ongoing financial challenges, it is a critical time for the Township to evaluate and modify its waste system. It is no secret that change is difficult and uncomfortable, and perhaps even more challenging in a Township setting. However, based on this study, a few changes are necessary if the Township wishes to be proactive in optimizing its program on behalf of the economic, social, and environmental community. Improved efficiency for the Township's waste program does not need to translate to fewer Township jobs, but more practically means reallocating staff to complete a variety of other important municipal tasks.

6.2 Recommendations

Recognizing that waste management system changes require time, planning and agreement, the following recommendations can, and should be implemented in phases with input and educational outreach from and to the Public Works Department, Township staff and the public. Based on Gannett Fleming's evaluation, the following recommendations are provided to improve the overall performance and cost efficiency of the existing waste management program:

- **Cost Reduction:** The Township should plan for, and implement a system to offset and recover the cost of recently implemented tipping fees to assure the current trash and recycling fees are equitable and fairly represent the true cost of the program. To achieve this, the Township should do one or more of the following:
 - *Disposal Fees:* Reduce the tipping fee burden by reducing the total amount of trash disposed (as recommended below).
 - *Reduce operational expenses:* Offset at least a portion of tip fee expenses by reducing solid waste management operational and related costs (e.g. once-per-week trash and single-stream recycling)
 - *Residential fee adjustment:* Adjust the residential waste management fee (or tax allocation) to accurately recover the increase, representing the actual program costs. Optimally, any fee increase deemed necessary to account for disposal

- fees should be managed to the extent feasible by implementing active measures to reduce program costs; particularly through collection efficiency.
- **Efficiency:** The Township should improve the overall waste system program efficiency as follows:
 - *Once-per-week-trash collection:* Transition from twice-per-week to once-per-week trash collection.
 - *Single-stream recycling:* Operational costs for single-stream collection are lower than dual-stream when markets are equal distances. This region has two single-stream markets and another market is being constructed. Carefully evaluate the cost of the dual-stream recycling routes plus recyclables revenue generation and compare this cost with operating a single-stream system including single-stream revenue potential. If feasible, transition to single-stream recycling as a measure to reduce total program costs. It is important to clarify that it is not easy or cost-effective to transition back to dual-stream service because of the need for two curbside containers and the difficulty of re-education.
 - *Incentives:* Incorporate a financial incentive or Pay-As-You-Throw (PAYT) system into the existing program. This program should include a standard base rate paid by the average-sized household. Households setting out “additional” trash at the curb beyond the standard level of service would pay more for the service. For example, households that place more than two trash containers out for pick up (the base level of service at a fixed fee) would be required to pay for the additional service. This system can be set up so tags or labeled bags are available for purchase at local stores or at the Township office.
 - **Small-businesses:** It is recommended the Township implement an “opt-in” program for small businesses to participate in the residential waste and recycling collection program. Small business would include those that generate waste within a specified quantity similar to residential household generation (say up to 6, 35-gallon trash bags per week and two, 24-gallon recycling bins) A letter questionnaire should be sent in advance to validate interested businesses.
 - **Public Participation:** Carefully manage public concerns, particularly about the “need” for twice-per-week trash service if the once-per-week alternative is considered. Notably, most households across the United States have once-per-week trash collection.

Appendix A
Recycling Rankings

Delaware County Recycling 2008 - Springfield Township Residential Recycling Ranking

Residential Recycling Ranking	Municipality	Population (2000 Census)	Residential & Commercial Recycling	Residential Curbside & Drop-off	Recycled Leaf (at Transfer Station)	Residential Recycling Rate	Total Disposed MSW	Total MSW & Recycling
1	NEWTOWN	11,700	4,984.86	3,848.62	3,115.50	80%	3,676.45	8,661.31
2	NETHER PROVIDENCE	13,456	3,154.67	2,558.42	1,821.00	52%	5,250.98	8,405.65
3	MEDIA	984	1,591.20	793.77	287.19	37%	1,316.24	2,907.44
4	HAVERFORD	48,498	9,677.35	8,243.47	3,236.46	36%	21,912.61	31,589.96
5	MARPLE TWP.	23,737	5,579.50	3,235.56	1,777.70	29%	11,647.90	17,227.40
6	ROSE VALLEY	944	138.01	132.55	0.00	28%	332.27	470.28
7	SPRINGFIELD	23,677	7,121.91	4,064.56	1,175.70	27%	12,209.27	19,331.18
8	SWARTHMORE	6,170	3,149.06	1,042.45	167.99	26%	1,458.92	4,607.98
9	DARBY BOR.	10,299	1,822.39	1,689.35	17.28	26%	4,833.79	6,656.18
10	EDGMONT	3,918	2,155.63	342.51	500.00	23%	1,541.36	3,696.99
11	LANSDOWNE	2,802	1,408.59	996.70	297.58	21%	4,617.96	6,026.55
12	RIDLEY PARK	7,196	1,065.41	636.40	185.28	21%	2,805.05	3,870.46
13	RADNOR TWP.	30,878	13,478.33	2,235.78	2,149.00	21%	7,529.24	21,007.57
14	UPPER PROVIDENCE	39,125	1,159.66	955.69	118.42	19%	4,535.82	5,695.48
15	UPPER DARBY	81,821	12,428.94	7,843.44	696.00	17%	38,088.53	50,517.47
16	UPPER CHICHESTER	16,842	2,263.69	1,132.40	400.65	17%	6,857.92	9,121.61
17	ASTON	18,203	2,648.34	1,258.11	458.24	17%	7,684.99	10,333.33
18	BROOKHAVEN	7,985	1,722.72	612.05	162.47	15%	3,347.70	5,070.42
19	NORWOOD	1,598	515.99	440.19	124.42	14%	3,567.12	4,083.11
20	MIDDLETOWN	16,064	3,546.24	1,302.48	109.79	14%	6,892.00	10,438.24
21	GLENOLDEN	7,476	1,160.53	407.22	150.17	13%	3,184.93	4,345.46
22	BETHEL	1,940	507.21	428.04	4.01	11%	3,479.11	3,986.32
23	EAST LANSDOWNE	2,586	123.76	113.50	6.00	10%	1,079.60	1,203.36
24	CONCORD	9,933	3,071.59	937.94	44.20	10%	7,179.74	10,251.33
25	SHARON HILL	5,468	786.08	239.88	76.48	8%	2,943.10	3,729.18
26	PARKSIDE	2,267	96.89	90.67	12.00	8%	1,123.27	1,220.16
27	YEADON	10,509	1,426.31	334.71	112.86	8%	4,040.51	5,466.82
28	CHESTER HEIGHTS	2,481	197.09	119.69	0.00	7%	1,431.25	1,628.34
29	RIDLEY TWP.	30,791	4,832.18	922.30	589.70	7%	16,967.42	21,799.60
30	RUTLEDGE	860	46.01	46.01	0.00	6%	670.26	716.27
31	UPLAND BOROUGH	2,977	949.93	107.24	31.92	6%	1,506.95	2,456.88
32	COLWYN	2,453	33.13	30.58	0.00	5%	535.04	568.17
33	TINICUM	4,353	326.32	106.13	45.56	5%	2,711.85	3,038.17
34	CHADDS FORD	3,170	259.04	103.87	0.00	5%	1,843.51	2,102.55
35	PROSPECT PARK	6,594	750.58	133.98	58.40	5%	3,201.88	3,952.46
36	DARBY TOWNSHIP	9,622	1,746.66	266.65	38.77	5%	4,786.06	6,532.72
37	FOLCROFT	6,978	712.51	149.91	31.50	4%	3,334.06	4,046.57
38	MORTON	2,715	402.45	62.40	1.82	4%	1,141.48	1,543.93
39	COLLINGDALE	8,664	205.42	141.51	10.00	4%	3,869.85	4,075.27
40	THORNBURY	7,093	162.55	137.59	0.00	3%	3,785.23	3,947.78
41	CHESTER CITY	36,854	4,570.33	339.44	120.00	3%	13,293.52	17,863.85
42	CHESTER TOWNSHIP	4,604	453.77	51.21	9.59	2%	2,011.54	2,465.31
43	LOWER CHICHESTER	3,591	137.22	45.79	0.00	2%	1,948.30	2,085.52
44	CLIFTON HEIGHTS	6,779	565.23	68.19	6.99	2%	3,188.45	3,753.68
45	ALDAN	4,313	678.87	23.06	0.00	1%	2,397.89	3,076.76
46	EDDYSTONE	2,442	2,163.36	23.45	0.00	1%	1,238.55	3,401.91
47	MARCUS HOOK	2,314	1,690.50	3.60	2.60	0.2%	1,133.47	2,823.97
48	TRAINER	1,901	2,646.07	2.72	0.00	0%	1,073.17	3,719.24
49	MILLBOURNE	943	-	0.14	0.00	0%	418.30	418.30

* Leaves double counted because they are recycled, not disposed.

Delaware County Recycling 2008 - Springfield Township - Total Recycling Ranking

Commercial Recycling Rate Ranking	Municipality	Population (2000 US Census)	Residential & Commercial Recycling	Residential Curbside & Drop-off	Commercial Recycling	Commercial Recycling Rate	Total Disposed MSW	Total MSW & Recycling
1	TRAINER	1,901	2,646.07	2.72	2,643.35	71%	1,073.17	3,719.24
2	EDDYSTONE	2,442	2,163.36	23.45	2,139.91	63%	1,238.55	3,401.91
3	MARCUS HOOK	2,314	1,690.50	3.60	1,686.90	60%	1,133.47	2,823.97
4	RADNOR TWP.	30,878	13,478.33	2,235.78	11,242.55	54%	7,529.24	21,007.57
5	EDGMONT	3,918	2,155.63	342.51	1,813.12	49%	1,541.36	3,696.99
6	SWARTHMORE	6,170	3,149.06	1,042.45	2,106.61	46%	1,458.92	4,607.98
7	UPLAND BOROUGH	2,977	949.93	107.24	842.69	34%	1,506.95	2,456.88
8	MEDIA	984	1,591.20	793.77	797.43	27%	1,316.24	2,907.44
9	CHESTER CITY	36,854	4,570.33	339.44	4,230.89	24%	13,293.52	17,863.85
10	DARBY TOWNSHIP	9,622	1,746.66	266.65	1,480.01	23%	4,786.06	6,532.72
11	MORTON	2,715	402.45	62.40	340.05	22%	1,141.48	1,543.93
12	BROOKHAVEN	7,985	1,722.72	612.05	1,110.67	22%	3,347.70	5,070.42
13	MIDDLETOWN	16,064	3,546.24	1,302.48	2,243.76	21%	6,892.00	10,438.24
14	ALDAN	4,313	678.87	23.06	655.81	21%	2,397.89	3,076.76
15	CONCORD	9,933	3,071.59	937.94	2,133.65	21%	7,179.74	10,251.33
16	YEADON	10,509	1,426.31	334.71	1,091.60	20%	4,040.51	5,466.82
17	RIDLEY TWP.	30,791	4,832.18	922.30	3,909.88	18%	16,967.42	21,799.60
18	GLENOLDEN	7,476	1,160.53	407.22	753.31	17%	3,184.93	4,345.46
19	CHESTER TOWNSHIP	4,604	453.77	51.21	402.56	16%	2,011.54	2,465.31
20	SPRINGFIELD	23,677	7,121.91	4,064.56	3,057.35	16%	12,209.27	19,331.18
21	PROSPECT PARK	6,594	750.58	133.98	616.60	16%	3,201.88	3,952.46
22	SHARON HILL	5,468	786.08	239.88	546.20	15%	2,943.10	3,729.18
23	FOLCROFT	6,978	712.51	149.91	562.60	14%	3,334.06	4,046.57
24	MARPLE TWP.	23,737	5,579.50	3,235.56	2,343.94	14%	11,647.90	17,227.40
25	ASTON	18,203	2,648.34	1,258.11	1,390.23	13%	7,684.99	10,333.33
26	CLIFTON HEIGHTS	6,779	565.23	68.19	497.04	13%	3,188.45	3,753.68
27	NEWTOWN	11,700	4,984.86	3,848.62	1,136.24	13%	3,676.45	8,661.31
28	UPPER CHICHESTER	16,842	2,263.69	1,132.40	1,131.29	12%	6,857.92	9,121.61
29	RIDLEY PARK	7,196	1,065.41	636.40	429.01	11%	2,805.05	3,870.46
30	UPPER DARBY	81,821	12,428.94	7,843.44	4,585.50	9%	38,088.53	50,517.47
31	CHADDS FORD	3,170	259.04	103.87	155.17	7%	1,843.51	2,102.55
32	TINICUM	4,353	326.32	106.13	220.19	7%	2,711.85	3,038.17
33	NETHER PROVIDENCE	13,456	3,154.67	2,558.42	596.25	7%	5,250.98	8,405.65
34	LANSDOWNE	2,802	1,408.59	996.70	411.89	7%	4,617.96	6,026.55
35	CHESTER HEIGHTS	2,481	197.09	119.69	77.40	5%	1,431.25	1,628.34
36	HAVERFORD	48,498	9,677.35	8,243.47	1,433.88	5%	21,912.61	31,589.96
37	LOWER CHICHESTER	3,591	137.22	45.79	91.43	4%	1,948.30	2,085.52
38	UPPER PROVIDENCE	39,125	1,159.66	955.69	203.97	4%	4,535.82	5,695.48
39	DARBY BOR.	10,299	1,822.39	1,689.35	133.04	2%	4,833.79	6,656.18
40	BETHEL	1,940	507.21	428.04	79.17	2%	3,479.11	3,986.32
41	NORWOOD	1,598	515.99	440.19	75.80	2%	3,567.12	4,083.11
42	COLLINGDALE	8,664	205.42	141.51	63.91	2%	3,869.85	4,075.27
43	ROSE VALLEY	944	138.01	132.55	5.46	1%	332.27	470.28
44	EAST LANSDOWNE	2,586	123.76	113.50	10.26	1%	1,079.60	1,203.36
45	THORNBURY	7,093	162.55	137.59	24.96	1%	3,785.23	3,947.78
46	PARKSIDE	2,267	96.89	90.67	6.22	1%	1,123.27	1,220.16
47	COLWYN	2,453	33.13	30.58	2.55	0%	535.04	568.17
48	RUTLEDGE	860	46.01	46.01	0.00	0%	670.26	716.27
49	MILLBOURNE	943	0.14	0.14	0.00	0%	418.30	418.30

Delaware County Recycling 2008 - Springfield Township Residential Recycling Ranking

Residential Recycling Ranking	Municipality	Population (2000 Census)	Residential & Commercial Recycling	Residential Curbside & Drop-off (w/ leaf waste)	Residential Recycling Rate	Total Disposed MSW	Total MSW & Residential Recycling	Total MSW & Recycling
1	NEWTOWN	11,700	4,984.86	3,848.62	51%	3,676.45	7,525.07	8,661.31
2	NETHER PROVIDENCE	13,456	3,154.67	2,558.42	33%	5,250.98	7,809.40	8,405.65
3	MEDIA	984	1,591.20	793.77	38%	1,316.24	2,110.01	2,907.44
4	HAVERFORD	48,498	9,677.35	8,243.47	27%	21,912.61	30,156.08	31,589.96
5	MARPLE TWP.	23,737	5,579.50	3,235.56	22%	11,647.90	14,883.46	17,227.40
6	ROSE VALLEY	944	138.01	132.55	29%	332.27	464.82	470.28
7	SPRINGFIELD	23,677	7,121.91	4,064.56	25%	12,209.27	16,273.83	19,331.18
8	SWARTHMORE	6,170	3,149.06	1,042.45	42%	1,458.92	2,501.37	4,607.98
9	DARBY BOR.	10,299	1,822.39	1,689.35	26%	4,833.79	6,523.14	6,656.18
10	EDGMONT	3,918	2,155.63	342.51	18%	1,541.36	1,883.87	3,696.99
11	LANSDOWNE	2,802	1,408.59	996.70	18%	4,617.96	5,614.66	6,026.55
12	RIDLEY PARK	7,196	1,065.41	636.40	18%	2,805.05	3,441.45	3,870.46
13	RADNOR TWP.	30,878	13,478.33	2,235.78	23%	7,529.24	9,765.02	21,007.57
14	UPPER PROVIDENCE	39,125	1,159.66	955.69	17%	4,535.82	5,491.51	5,695.48
15	UPPER DARBY	81,821	12,428.94	7,843.44	17%	38,088.53	45,931.97	50,517.47
16	UPPER CHICHESTER	16,842	2,263.69	1,132.40	14%	6,857.92	7,990.32	9,121.61
17	ASTON	18,203	2,648.34	1,258.11	14%	7,684.99	8,943.10	10,333.33
18	BROOKHAVEN	7,985	1,722.72	612.05	15%	3,347.70	3,959.75	5,070.42
19	NORWOOD	1,598	515.99	440.19	11%	3,567.12	4,007.31	4,083.11
20	MIDDLETOWN	16,064	3,546.24	1,302.48	16%	6,892.00	8,194.48	10,438.24
21	GLENOLDEN	7,476	1,160.53	407.22	11%	3,184.93	3,592.15	4,345.46
22	BETHEL	1,940	507.21	428.04	11%	3,479.11	3,907.15	3,986.32
23	EAST LANSDOWNE	2,586	123.76	113.50	10%	1,079.60	1,193.10	1,203.36
24	CONCORD	9,933	3,071.59	937.94	12%	7,179.74	8,117.68	10,251.33
25	SHARON HILL	5,468	786.08	239.88	8%	2,943.10	3,182.98	3,729.18
26	PARKSIDE	2,267	96.89	90.67	7%	1,123.27	1,213.94	1,220.16
27	YEADON	10,509	1,426.31	334.71	8%	4,040.51	4,375.22	5,466.82
28	CHESTER HEIGHTS	2,481	197.09	119.69	8%	1,431.25	1,550.94	1,628.34
29	RIDLEY TWP.	30,791	4,832.18	922.30	5%	16,967.42	17,889.72	21,799.60
30	RUTLEDGE	860	46.01	46.01	6%	670.26	716.27	716.27
31	UPLAND BOROUGH	2,977	949.93	107.24	7%	1,506.95	1,614.19	2,456.88
32	COLWYN	2,453	33.13	30.58	5%	535.04	565.62	568.17
33	TINICUM	4,353	326.32	106.13	4%	2,711.85	2,817.98	3,038.17
34	CHADDS FORD	3,170	259.04	103.87	5%	1,843.51	1,947.38	2,102.55
35	PROSPECT PARK	6,594	750.58	133.98	4%	3,201.88	3,335.86	3,952.46
36	DARBY TOWNSHIP	9,622	1,746.66	266.65	5%	4,786.06	5,052.71	6,532.72
37	FOLCROFT	6,978	712.51	149.91	4%	3,334.06	3,483.97	4,046.57
38	MORTON	2,715	402.45	62.40	5%	1,141.48	1,203.88	1,543.93
39	COLLINGDALE	8,664	205.42	141.51	4%	3,869.85	4,011.36	4,075.27
40	THORNBURY	7,093	162.55	137.59	4%	3,785.23	3,922.82	3,947.78
41	CHESTER CITY	36,854	4,570.33	339.44	2%	13,293.52	13,632.96	17,863.85
42	CHESTER TOWNSHIP	4,604	453.77	51.21	2%	2,011.54	2,062.75	2,465.31
43	LOWER CHICHESTER	3,591	137.22	45.79	2%	1,948.30	1,994.09	2,085.52
44	CLIFTON HEIGHTS	6,779	565.23	68.19	2%	3,188.45	3,256.64	3,753.68
45	ALDAN	4,313	678.87	23.06	1%	2,397.89	2,420.95	3,076.76
46	EDDYSTONE	2,442	2,163.36	23.45	2%	1,238.55	1,262.00	3,401.91
47	MARCUS HOOK	2,314	1,690.50	3.60	0%	1,133.47	1,137.07	2,823.97
48	TRAINER	1,901	2,646.07	2.72	0%	1,073.17	1,075.89	3,719.24
49	MILLBOURNE	943	-	0.14	0%	418.30	418.44	418.30

* Leaves double counted because they are recycled, not disposed.

Delaware County Recycling 2008 - Springfield Township Ranking - Total Recycling Rate

Recycling Ranking	Municipality	Population (2000 US Census)	Residential & Comm. Recycling	Total Disposed MSW	Total MSW & Recycling	Total Recycling Rate
1	TRAINER	1,901	2,646.07	1,073.17	3,719.24	71%
2	SWARTHMORE	6,170	3,149.06	1,458.92	4,607.98	68%
3	RADNOR TWP.	30,878	13,478.33	7,529.24	21,007.57	64%
4	EDDYSTONE	2,442	2,163.36	1,238.55	3,401.91	64%
5	MARCUS HOOK	2,314	1,690.50	1,133.47	2,823.97	60%
6	EDGMONT	3,918	2,155.63	1,541.36	3,696.99	58%
7	NEWTOWN	11,700	4,984.86	3,676.45	8,661.31	58%
8	MEDIA	984	1,591.20	1,316.24	2,907.44	55%
9	UPLAND BOROUGH	2,977	949.93	1,506.95	2,456.88	39%
10	NETHER PROVIDENCE	13,456	3,154.67	5,250.98	8,405.65	38%
11	SPRINGFIELD	23,677	7,121.91	12,209.27	19,331.18	37%
12	BROOKHAVEN	7,985	1,722.72	3,347.70	5,070.42	34%
13	MIDDLETOWN	16,064	3,546.24	6,892.00	10,438.24	34%
14	MARPLE TWP.	23,737	5,579.50	11,647.90	17,227.40	32%
15	HAVERFORD	48,498	9,677.35	21,912.61	31,589.96	31%
16	CONCORD	9,933	3,071.59	7,179.74	10,251.33	30%
17	ROSE VALLEY	944	138.01	332.27	470.28	29%
18	RIDLEY PARK	7,196	1,065.41	2,805.05	3,870.46	28%
19	DARBY BOR.	10,299	1,822.39	4,833.79	6,656.18	27%
20	DARBY TOWNSHIP	9,622	1,746.66	4,786.06	6,532.72	27%
21	GLENOLDEN	7,476	1,160.53	3,184.93	4,345.46	27%
22	YEADON	10,509	1,426.31	4,040.51	5,466.82	26%
23	MORTON	2,715	402.45	1,141.48	1,543.93	26%
24	ASTON	18,203	2,648.34	7,684.99	10,333.33	26%
25	CHESTER CITY	36,854	4,570.33	13,293.52	17,863.85	26%
26	UPPER CHICHESTER	16,842	2,263.69	6,857.92	9,121.61	25%
27	UPPER DARBY	81,821	12,428.94	38,088.53	50,517.47	25%
28	LANSDOWNE	2,802	1,408.59	4,617.96	6,026.55	23%
29	RIDLEY TWP.	30,791	4,832.18	16,967.42	21,799.60	22%
30	ALDAN	4,313	678.87	2,397.89	3,076.76	22%
31	SHARON HILL	5,468	786.08	2,943.10	3,729.18	21%
32	UPPER PROVIDENCE	39,125	1,159.66	4,535.82	5,695.48	20%
33	PROSPECT PARK	6,594	750.58	3,201.88	3,952.46	19%
34	CHESTER TOWNSHIP	4,604	453.77	2,011.54	2,465.31	18%
35	FOLCROFT	6,978	712.51	3,334.06	4,046.57	18%
36	CLIFTON HEIGHTS	6,779	565.23	3,188.45	3,753.68	15%
37	BETHEL	1,940	507.21	3,479.11	3,986.32	13%
38	NORWOOD	1,598	515.99	3,567.12	4,083.11	13%
39	CHADDS FORD	3,170	259.04	1,843.51	2,102.55	12%
40	CHESTER HEIGHTS	2,481	197.09	1,431.25	1,628.34	12%
41	TINICUM	4,353	326.32	2,711.85	3,038.17	11%
42	EAST LANSDOWNE	2,586	123.76	1,079.60	1,203.36	10%
43	PARKSIDE	2,267	96.89	1,123.27	1,220.16	8%
44	LOWER CHICHESTER	3,591	137.22	1,948.30	2,085.52	7%
45	RUTLEDGE	860	46.01	670.26	716.27	6%
46	COLWYN	2,453	33.13	535.04	568.17	6%
47	COLLINGDALE	8,664	205.42	3,869.85	4,075.27	5%
48	THORNBURY	7,093	162.55	3,785.23	3,947.78	4%
49	MILLBOURNE	943	0.14	418.30	418.30	0%