



TOWN OF WELLFLEET

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To: Board of Selectmen, Board of Health
From: Harry Sarkis Terkanian, Town Administrator
Subject: Twelve Month Review of Save Money and Reduce Trash ("SMART")
Date: April 28, 2015

Executive Summary - The first year of program operation continue to show significant reductions in the amount of solid waste processed and in the increase in the amount of recyclable materials processed. During the first year 19,800 five bag packages of SMART bags were delivered to retailers. The Town also purchased 200 packages which were used during transition to the program as well as for distribution to persons qualifying for assistance and to ease retailer shortages. Town receipts for bag sales for the period, net of bag manufacturing and processing costs, totaled \$99,045.

Part of the program included reducing the price of residential transfer station permits from \$55 to \$40 in fiscal 2014 and then from \$40 to \$25 for fiscal 2015. The result of the permit fee decrease was to reduce residential permit cost in for FY 2014 from the FY 2013 cost by \$33,085 and in 2015 from the FY 2013 total by \$68,455. As the number of residential permits has remained essentially constant, this reduction in permit charges to residents is due entirely to the fee reductions in FY 2014 and 2015.

Large commercial vehicle permits decreased from 9 in FY 2014 to 3 in FY 2015 indicating that some commercial haulers may be delivering trash elsewhere.

The amount of municipal solid waste ("MSW") handled through the transfer station decreased by 708.96 tons, representing a 35.54%. The amount of recyclable materials handled through the transfer station increased by 171.5 tons, representing a 39.92% increase.

The cost of disposing of MSW, estimated at \$45.50 per ton (\$18.50 tipping fee plus an estimated \$27 hauling cost), decreased by an estimated \$32,257.68. This decrease is due to the reduced amount of MSW. This cost savings was partially offset by the cost of the bag program which was \$20,159.44 for the period (approximately 20.3 cents per bag.) In September, 2016 the Town's tipping fee will increase from \$18.50 to \$55 making continued reduction in MSW even more important

Background – Program Description

See the October 28, 2014 nine month comparison report¹. http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/nine_month_smart_analysis_dec_2013_to_aug_2014_with_exhibits_-_revised.pdf

¹ See the board of health regulations for rules governing commercial hauler and single bag fees. http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/boh_regs_2014_2014-05-06_1.pdf

Background – Statutory Basis

See the March 13, 2014 three month comparison report.² http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/three_month_smart_analysis_dec_2013_to_feb_2014_-_2014-03-22.pdf

Background – Transfer Station Fees

See the October 28, 2014 nine month comparison report. http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/nine_month_smart_analysis_dec_2013_to_aug_2014_with_exhibits_-_revised.pdf

Twelve Month Data

Exhibit A is the raw transfer station data for the period December 1, 2013 through November 30, 2014 and, for comparison purposes, from the corresponding period one year earlier. (Exhibit A-1 is the recycling data and Exhibit A-2 is the MSW data.) Exhibit B is a chart showing the monthly average MSW tonnage for the first year of the program as compared with the average for the corresponding months of the previous three years. Against the three year average a reduction in MSW is clearly apparent.

This is the first reporting period which covers a twelve month period. All twelve months show MSW tonnage less than the three year average for the corresponding month.

SMART Bag Sales. Bag deliveries to retailers for the twelve months beginning December 1, 2013 total 493 cases (98,600 bags – 19,720 five bag packages). The breakdown by month, bag size cost and receipts is detailed on Exhibit C. Town gross receipts from bag sales for the twelve month period totaled \$119,200. Net receipts after bag program costs were \$99,045. See Exhibit C.

Transfer Station Permits Sold. There has been almost no change in the number of transfer station permits sold. In analyzing this data I have looked at the figures for the period from June through October for 2013 and 2014. After October sales drop off sharply. Between the beginning of November, 2013 and the end of May, 2014 17 residential first vehicle permits were sold, no additional second or third residential permits were sold and only one small vehicle commercial permit was sold. So I consider June through October to be representative of an entire 12 month period. In 2013 2,470 residential first vehicles permits were sold compared with 2,485 for the same period in 2014. This represents an increase in the number sold of less than 1%. Second residential vehicle sticker sales for 2013 were 799 and for 2014 were 844; showing an increase over the previous year. Third vehicle residential sticker sales in 2013 were zero. 29 were sold in 2014.

Revenue from residential stickers reflected the price decrease from \$40 to \$25. During 2013 first vehicle revenue was \$98,960 compared with 2014 revenue of \$62,125, a decrease of \$36,835. The net change in revenue considering all types of residential stickers was a decrease of \$35,370 in 2014 over 2013. When measured against the original \$55 sticker cost, the \$30 decrease in fees charged for transfer station permits represents approximately \$68,455 in cost avoidance for residential sticker purchasers during fiscal 2014.

² http://www.wellfleet-ma.gov/sites/wellfleetma/files/file/file/three_month_smart_analysis_dec_2013_to_feb_2014_-_2014-03-22.pdf

Small vehicle commercial permits sold in 2013 totaled 66 and in 2014 total 67 to date. The price of this type of sticker did not change so the net revenue increase for this type of sticker was \$65.

Large vehicle commercial permits decreased from 9 sold in 2013 to 3 sold in 2014 with a corresponding decrease in revenue of \$505.

Overall, revenue from transfer station permits decreased \$35,875 from 2013 to 2014. See Exhibit D.

Recyclable Materials. Recyclable tonnage during December, 2013 through November 2014 totaled 601.12 tons compared with the same pre program period recycled tonnage of 429.62³ tons. This is a 12 month increase of 40%⁴. A clear effect of the program has been to increase the amount of material recycled.

Overall Transfer Station Tonnage. Even with the increase in recycling tonnage processed, the overall tonnage processed through the Transfer Station has been reduced. During the first three months there was a net decrease of 25.1%, 126.42 tons⁵. During the first six months the overall decrease was 24%, 134.49 tons. During nine month program period the overall decrease was 25%, 370.12 tons. For the full twelve months the overall decrease was 18.5%, 448.36 tons. Possible causes for the reduction in total tonnage could include: 1) commercial haulers deciding to dispose of trash at other locations such as the SEMASS transfer station at Yarmouth as evidenced by the drop in large commercial permits from 9 to 3; 2) increases in disposal at home through composting, etc.; 3) possibly other as yet unidentified reasons. This decrease is significant.

Bag Sales Receipts. Revenue from bag sales is a “trailing” figure. This is because the bag vendor, WasteZero, invoices retailers on a net 45 days basis and then, after receipt of retailer payments, accounts to and remits to the Town. There can be a delay of 60 days or more between a bag shipment to a retailer and the corresponding receipt by the Town. The cost of manufacturing and shipping bags and handling invoicing collection and remittance of proceeds is done by WasteZero under contract to the Town. For the 493 cases delivered the cost of WasteZero’s services totaled \$20,159.44, about 20.3 cents per bag⁶.

Changes in the Cost of Handling Recyclable Materials. Another factor clouding the analysis is the fact that in December, 2013 the Town’s recycling contractor imposed a \$40 per ton charge for providing containers and transporting recyclables and is no longer furnishing recycling containers. Theretofore they had provided these services without charge, relying on the revenue generated by processing and selling the recyclables picked up from Wellfleet. When the DPW is unable to locate a market for these materials they now have to haul them to facilities which will accept them with either a nominal or, in many cases, with no payment

³ Corrected from 492.62 in the original.

⁴ Corrected from “nine month increase of 22%” in the original.

⁵ Other Massachusetts communities have seen similar reductions in trash tonnage and operating costs. Cohasset: 25% reduction, first year savings of \$100,000. Duxbury: 48% reduction and \$240,000 annual savings. Sandwich: 42% reduction and \$120,000 first year savings. Wrentham: 33% reduction. Attleboro 43% reduction. Dartmouth: 51% reduction. The latter three communities have curbside pickup. Plymouth: 42% reduction. Data from March 1, 2014 SMART Workshop slides.

⁶ Cost per case for the WasteZero services are \$46.87 for large bags, \$37.05 for medium bags and \$31.38 for small bags. There are 200 bags in a case.

to the Town. We have also had to replace the recycling containers withdrawn by contractors and increased the number of containers to meet the increased volume. The same change in charging has been experienced by other Cape towns. The DPW continues to explore other outlets for these materials. In some cases the DPW is using its own staff and equipment, and therefore bearing the cost, to haul plastic, glass and tin to recycling centers. It is important to note, that even if the Town bears the cost of storing and then transporting recyclables, there is no tipping fee for recyclables, so any shift from MSW to recyclables represents a savings.

Conclusions

With all of these caveats in mind, some conclusions can still be drawn:

- The change in the ratio of recyclables to MSW and the reduction in MSW tonnage are consistent with those observed in other towns who have recently adopted SMART programs. SMART programs do increase recycling and do decrease MSW volumes.
- The reduction in the cost of a residential first vehicle transfer station sticker from \$55 to \$40 in fiscal 2014 resulted in a reduction in transfer station sticker fees paid by Wellfleet residents of \$33,085. A further reduction in cost to residents about \$35,370 was realized with the change in first vehicle residential permit fees from \$40 to \$25 in fiscal 2015 so the total reduction in FY 2015 fees compared with the pre program fees in FY 2013 is \$68,455.
- The 708.96 ton reduction in MSW delivered to SEMASS for the first year of the program resulted in a reduction in tipping fees of 13,115.76 (at \$18.50 per ton.) The town also saved an estimated \$19,141.92 in transportation costs (estimated at \$27 per ton.) These two items total \$32,257.68.⁷

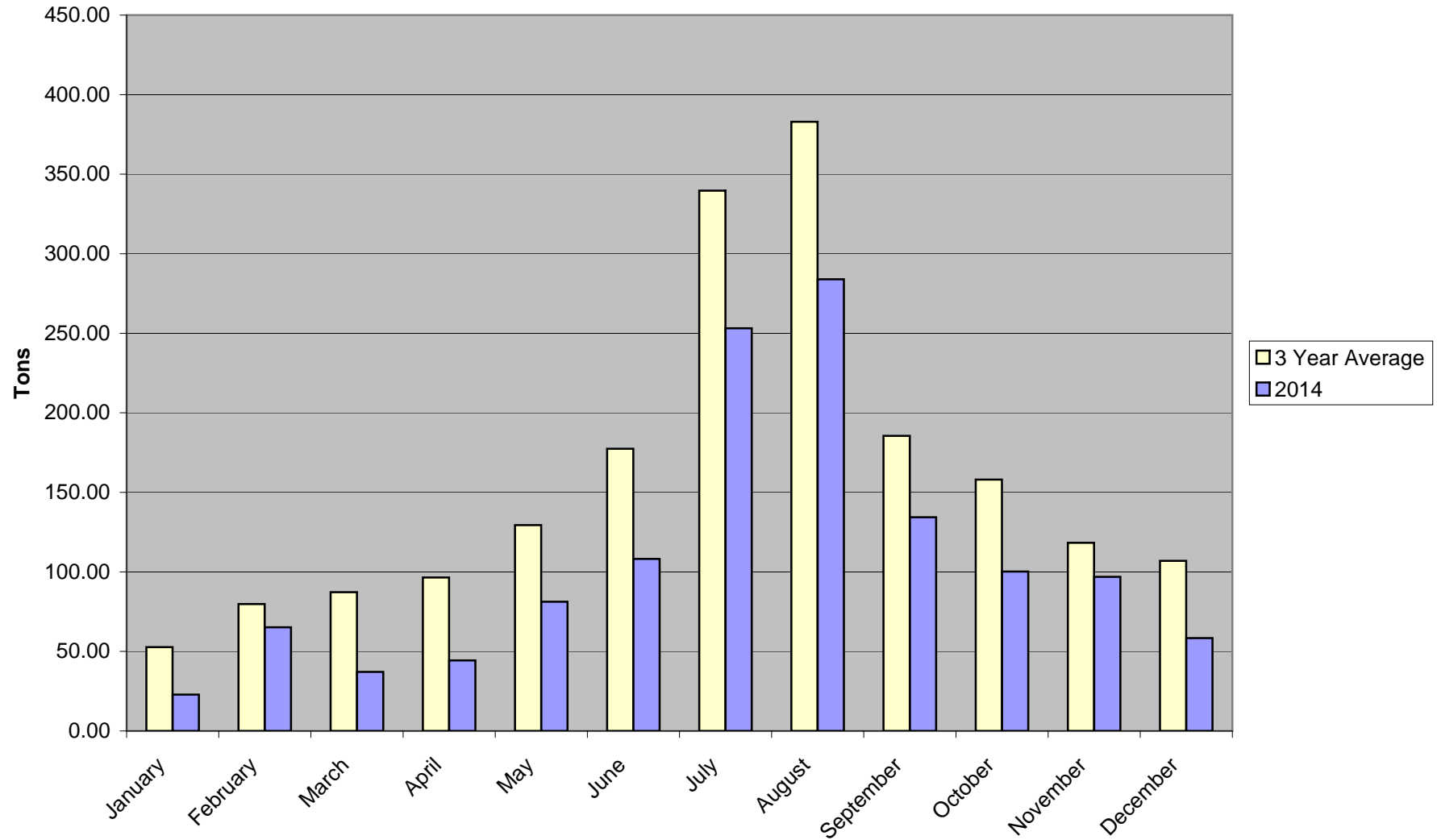
⁷ When the current MSW contract with Covanta expires tipping fees under the new contract with ABC Disposal will be \$55.00 per ton. The cost avoidance on the 708.96 ton reduction would then be a \$38992.80 reduction in tipping fees and the same \$19,141.92 estimated savings in transportation costs (disregarding any future increase in personnel costs, fuel, etc.) for a total of \$58,134.72.

Recycling							Recycling											
		Plastic & Tin	Newspaper & Cardboard	Glass					Plastic & Tin	Newspaper & Cardboard	Glass							
Dec '12	12/11	0.00	10.16	0.00			Dec '13	12/13	4.36	0.00	0.00							
	12/14	1.53	0.00	18.78				12/17	0.00	12.36	0.00							
								12/31	0.00	12.99	0.00			Month's Total	Running Total			
		Totals	1.53	10.16	18.78	30.47	30.47			Totals	4.36	25.35	12.99	42.70	42.70			
Jan '13	1/8	0.00	10.49	0.00			Jan '14	1/10	0.00	4.01	18.76							
	1/15	2.04	5.14	0.00				1/21	1.45	5.19	0.00							
								1/31	2.72	5.22	0.00			Month's Total	Running Total			
		Totals	2.04	15.63	0.00	17.67	48.14			Totals	4.17	14.42	18.76	37.35	80.05			
Feb '13	2/26	2.37	4.87	0.00			Feb '14	2/7	2.40	3.08	0.00							
								2/19	1.73	4.50	0.00			Month's Total	Running Total			
										Totals	4.13			7.58	0.00	11.71	91.76	
March '13	3/1	0.00	11.51	0.00			March '14			0.00	16.52	20.09						
	3/15	1.93	0.00	19.13														
												Month's Total			Running Total			
		Totals	1.93	11.51	13.44	39.39	94.77			0.00	16.52	20.09	36.61	128.37				
April '13	4/2	0.00	11.61	0.00			April '14			6.40	17.12	0.00						
	4/9	2.38	5.19	0.00														
	4/25	0.00	10.12	0.00								Month's Total			Running Total			
		Totals	2.38	26.92	0.00	29.30	124.07			6.40	17.12	23.52	47.04	175.41				
May '13	5/8	2.43	4.86	0.00			May '14			2.86	30.23	16.67						
	5/14	0.00	6.42	0.00														
	5/16	0.00	2.42	18.15								Month's Total			Running Total			
		5/29	2.54	5.73	0.00	Month's Total	Running Total			Totals	2.86	30.23	16.67	49.76	225.17			
		Totals	4.97	19.43	18.15	42.55	166.62											
June '13	6/6	2.51	4.14	0.00			June '14			9.93	38.11	7.00						
	6/13	0.00	10.03	0.00														
	6/27	0.00	3.88	18.90								Month's Total			Running Total			
		Totals	2.51	18.05	18.90	39.46	206.08			Totals	9.93	38.11	7.00	55.04	280.21			
July '13	7/2	2.29	0.00	0.00			July '14			11.72	48.56	48.71						
	7/11	0.00	10.75	0.00														
	7/18	0.00	5.84	16.58								Month's Total			Running Total			
		7/24	1.92	5.27	0.00	Month's Total	Running Total			Totals	11.72	48.56	48.71	108.99	389.20			
		Totals	4.21	21.86	16.58	42.65	248.73											
August '13	8/6	2.32	6.27	0.00			August '14			8.72	50.18	34.88						
	8/13	0.00	10.25	0.00														
	8/14	0.00	5.00	23.18								Month's Total			Running Total			
	8/20	2.55	5.11	0.00														
	8/22	4.09	2.22	0.00								Month's Total	Running Total					
	8/28	2.19	4.81	0.00								Month's Total	Running Total					
		Totals	11.15	33.66	23.18	67.99	316.72			Totals	8.72	50.18	34.88	93.78	482.98			
Sept '13	9/5	0.00	4.97	17.62			Sept '14			11.72	22.27	13.03						
	9/11	2.62	5.51	0.00														
	9/24	0.00	11.21	0.00								Month's Total			Running Total			
		Totals	2.62	21.69	17.62	41.93	358.65			Totals	11.72	22.27	13.03	47.02	530.00			
Oct '13	10/1	2.40	0.00	0.00			Oct '14			3.24	19.00	23.01						
	10/2	0.00	1.44	0.00														
	10/8	1.01	0.00	18.60								Month's Total			Running Total			
		10/18	0.00	9.69	0.00					Totals	3.24	19.00	23.01	45.25	575.25			
		10/29	2.02	5.26	0.00	Month's Total	Running Total											
		Totals	5.43	16.39	18.60	40.42	399.07											
Nov '13	11/8	0.00	4.61	15.08			Nov '14			5.95	19.92	0.00						
	11/26	0.00	10.86	0.00								Month's Total			Running Total			
										Totals	5.95	19.92			0.00	25.87	601.12	
				Plastic & Tin	Newspaper & Cardboard	Glass					Plastic & Tin	Newspaper & Cardboard	Glass					
						12 Month Total							12 Month Total					
Totals for Dec'12		41.14	215.64	160.33	429.62		Totals for		73.20	309.26	218.66	601.12						

Solid Waste	Date	Tonnage	
Dec '12	12/5	20.02	
	12/7	19.68	
	12/18	23.43	
	12/19	26.47	
	12/28	24.43	
		Running Total	
		Total	114.03
Jan '13	1/31	21.23	Running Total
	Total	21.23	135.26
Feb '13	2/13	21.92	
	2/20	20.26	
	2/28	21.99	
	Total	64.17	Running Total
		Total	199.43
March'13	3/5	18.32	
	3/15	18.08	
	3/21	20.33	
	3/27	19.36	
		Running Total	
		Total	76.09
		Total	275.52
April'13	4/5	16.47	
	4/9	16.77	
	4/18	17.93	
	4/22	17.02	
	4/23	18.09	
	4/29	16.90	
		Running Total	
		Total	103.18
		Total	378.70
May'13	5/3	14.70	
	5/8	17.70	
	5/13	18.30	
	5/15	19.28	
	5/23	18.58	
	5/28	22.09	
	5/29	23.89	
		Running Total	
		Total	134.54
		Total	513.24
June'13	6/3	25.35	
	6/4	20.80	
	6/7	15.36	
	6/11	22.27	
	6/18	24.31	
	6/20	21.20	
	6/21	23.77	
	6/26	24.96	
	6/27	17.03	
		Running Total	
		Total	195.05
		Total	708.29
July'13	7/1	44.81	
	7/3	20.67	
	7/5	25.61	
	7/8	45.97	
	7/10	21.38	
	7/12	28.93	
	7/16	52.96	
	7/19	20.91	
	7/22	21.33	
	7/23	20.13	
	7/26	26.41	
	7/29	48.20	
		Running Total	
		Total	377.31
		Total	1085.60
Aug '13	8/2	25.71	
	8/5	27.56	
	8/6	28.31	
	8/7	29.14	
	8/9	30.27	
	8/12	25.80	
	8/13	21.62	
	8/15	24.96	
	8/19	50.76	
	8/22	45.35	
	8/26	24.61	
	8/28	20.70	
	8/29	24.53	
	8/31	25.90	
		Running Total	
		Total	405.22
		Total	1490.82
Sept '13	9/4	25.23	
	9/5	24.91	
	9/6	24.14	
	9/11	21.27	
	9/12	24.02	
	9/18	26.21	
	9/23	19.01	
	9/26	23.71	
		Running Total	
		Total	188.50
		Total	1679.32
Oct '13	10/2	23.30	
	10/3	21.27	
	10/9	26.58	
	10/11	24.83	
	10/16	22.69	
	10/22	22.82	
	10/25	24.13	
	10/30	17.77	
		Running Total	
		Total	183.39
		Total	1862.71
Nov '13	11/1	18.95	
	11/7	18.60	
	11/15	21.35	
	11/19	20.50	
	11/22	15.29	
	11/29	37.46	
		Running Total	
		Total	132.15
		Total	1994.86

Solid Waste	Date	Tonnage	
Dec '13	12/3	18.47	
	12/20	20.87	
	12/30	19.02	
		Running Total	
		Total	58.36
		Total	58.36
Jan '14	1/14	22.83	Running Total
	Total	22.83	81.19
Feb '14	2/21	40.54	
	2/25	24.64	
	Total	65.18	Running Total
		Total	146.37
March'14	3/11	18.26	
	4/2	18.86	
		Running Total	
		Total	37.12
		Total	183.49
April'14	4/16	23.59	
	4/29	20.89	
	Total	44.48	Running Total
		Total	227.97
May'14	5/2	21.50	
	5/13	17.75	
	5/21	20.48	
	5/28	21.50	
	Total	81.23	Running Total
		Total	309.20
June'14	6/4	20.95	
	6/9	18.48	
	6/17	21.42	
	6/23	26.13	
	6/27	21.18	
	Total	108.16	Running Total
		Total	417.36
July'14	7/1	20.75	
	7/8	30.03	
	7/8	26.14	
	7/11	26.64	
	7/15	30.13	
	7/17	31.38	
	7/21	31.73	
	7/25	29.89	
	7/28	26.41	
	Total	253.10	Running Total
		Total	670.46
Aug '14	8/1	30.36	
	8/4	27.06	
	8/7	26.46	
	8/11	30.59	
	8/18	31.44	
	8/18	29.72	
	8/21	26.20	
	8/26	34.39	
	8/26	27.08	
	8/29	20.68	
	Total	283.98	Running Total
		Total	954.44
Sept '14	9/2	21.80	
	9/8	23.46	
	9/11	23.30	
	9/16	22.80	
	9/23	18.70	
	9/29	24.33	
	Total	134.39	Running Total
		Total	1088.83
Oct '14	10/6	24.39	
	10/14	24.98	
	10/20	26.33	
	10/24	24.48	
		Running Total	
		Total	100.18
		Total	1189.01
Nov '14	11/3	24.78	
	11/12	25.86	
	11/17	22.17	
	11/25	24.08	
	Total	96.89	Running Total
		Total	1285.90

EXHIBIT B
Tons of MSW by Month



Three Month Bag Sales Analysis

EXHIBIT C

Bag Sales by Month - November, 2013 through November 2014

Retailers=====					Town of Wellfleet===	
Month	Retailer Cases	Bags	Cost	Receipts	Cases	Cost
December	50	10,000	\$11,600	\$9,900	0	
January	27	5,400	\$6,200	\$13,900	0	
February	6	1,200	\$1,500	\$5,700	1	\$200
March	30	6,000	\$7,000	\$3,800	0	
April	41	8,200	\$9,100	\$6,500	0	
May	63	12,600	\$14,500	\$3,000	0	
June	104	20,800	\$22,700	\$11,300	4	\$900
July	31	6,200	\$7,600	\$16,700	0	
August	82	16,400	\$19,000	\$7,900	0	
September	22	4,400	\$5,400	\$33,800	0	
October	8	1,600	\$1,800	\$6,700	0	
November	29	5,800	\$7,500	\$0	0	
Total	493	98,600	\$113,900	\$119,200	5	\$1,100

Bag Sales by Size - November 2013 through July 2014

Size	Cases	Bags	Cost	Fee/case	Extension
Small	73	14,600	\$7,300	\$31.38	\$2,290.74
Medium	185	37,000	\$37,000	\$37.05	\$6,854.25
Large	235	47,000	\$70,500	\$46.87	\$11,014.45
Total	493	98,600	\$114,800		\$20,159.44

Note: \$300 discrepancy caused by mis pricing of bags sold to one retailer in November, 2013