



### Residential Cost/Benefit (for discussion 7-16-18)

For this analysis, we are presenting the sector-specific diversion rates and the assumptions are based on average, industry standard, costs. The City's current costs for residential collection vary based on contract provisions and bid specifications.

	Services	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Household Per Month
A1.	Residential and Commercial Organics Diversion	39,000	16%	\$2,193,000	\$56	\$0.80
A2.	Reuse Collection and Facilities	6,000	2%	\$64,000	\$11	\$0.00
A3.	Residential Collection System	28,000	12%	\$1,578,000	\$56	\$0.50
A4.	Neighborhood Drop-off Centers	4,000	2%	\$560,000	\$140	\$0.20
A5.	Zero Waste Research Initiative	1,000	1%	\$20,000	\$20	\$0.00
A6.	City Leads by Example	-	-	-	-	-
A7.	City-Owned Transfer and Processing Facilities	-	0%	\$520,000		\$0.20
	Rules	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Household Per Month
B1.	Waste Reduction and Recycling Requirements	34,000	14%	\$371,000	\$11	\$0.10
B2.	Commercial Hauler and Generator Requirements	-	-	-	-	-
B3.	Product and Packaging Waste Reduction	6,000	2%	\$64,000	\$11	\$0.00
B4.	Environmentally Preferable Purchasing	-	-	-	-	-
B5.	Zero Waste Venues & Events	1,000	0%	\$33,000	\$33	\$0.00
B6.	Reusables Disposal Ban	2,000	1%	\$22,000	\$11	\$0.00
B7.	Deconstruction, Construction and Demolition Requirements	1,000	0%	\$31,000	\$31	\$0.00
	Outreach & Education	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Household Per Month
C1.	Outreach and Technical Assistance	4,000	2%	\$248,000	\$62	\$0.10
C2.	Behavior Change Marketing	6,000	2%	\$268,000	\$45	\$0.10
C3.	Awards and Certifications	-	-	-	-	-
C4.	Community Waste Prevention and Recycling Grants	2,000	1%	\$26,000	\$13	\$0.00
C5.	Zero Waste Market Development	2,000	1%	\$46,000	\$23	\$0.00
	<b>Total</b>	<b>136,000</b>	<b>57%</b>	<b>\$6,044,000</b>	<b>\$44</b>	<b>\$2.10</b>

**Assumptions:**

There are 239,528 households in Boston  
 The residential sector is 21% of total generation  
 Staff costs are \$50 per hour  
 Capital costs are amortized over 20 years

Equipment costs are amortized over 10 years  
 Processing costs are \$25 per ton for recyclables  
 Processing costs are \$40 per ton for organics  
 Collection costs are \$50 per ton  
 Disposal costs are \$65 per ton



### Commercial Cost/Benefit (for discussion 7-16-18)

For this analysis, we are presenting the sector-specific diversion rates and the assumptions are based on average, industry standard, costs. The costs per business are based on dividing total costs evenly by business. However, actual costs would be based on service volumes (large generators would pay more and smaller generators would pay less).

	Services	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Business Per Month
A1.	Residential and Commercial Organics Diversion	147,000	16%	\$3,889,000	\$26	\$12.00
A2.	Reuse Collection and Facilities	16,000	2%	\$176,000	\$11	\$0.50
A3.	Residential Collection System	-	-	-	-	-
A4.	Neighborhood Drop-off Centers	-	-	-	-	-
A5.	Zero Waste Research Initiative	5,000	1%	\$90,000	\$18	\$0.30
A6.	City Leads by Example	7,000	1%	\$130,000	\$19	\$0.40
A7.	City-Owned Transfer and Processing Facilities	-	0%	\$1,980,000		\$6.10
	Rules	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Business Per Month
B1.	Waste Reduction and Recycling Requirements	127,000	14%	\$1,389,000	\$11	\$4.30
B2.	Commercial Hauler and Generator Requirements	110,000	12%	\$1,250,000	\$11	\$3.90
B3.	Product and Packaging Waste Reduction	13,000	1%	\$146,000	\$11	\$0.50
B4.	Environmentally Preferable Purchasing	10,000	1%	\$120,000	\$12	\$0.40
B5.	Zero Waste Venues & Events	4,000	0%	\$127,000	\$32	\$0.40
B6.	Reusables Disposal Ban	4,000	0%	\$48,000	\$12	\$0.10
B7.	Deconstruction, Construction and Demolition Requirements	5,000	1%	\$129,000	\$26	\$0.40
	Outreach & Education	Diversion Tons	Diversion Rate	Total Net Annual Cost	\$/Ton Diverted	Net New Cost Per Business Per Month
C1.	Outreach and Technical Assistance	14,000	1%	\$932,000	\$67	\$2.90
C2.	Behavior Change Marketing	20,000	2%	\$992,000	\$50	\$3.10
C3.	Awards and Certifications	3,000	0%	\$60,000	\$20	\$0.20
C4.	Community Waste Prevention and Recycling Grants	7,000	1%	\$94,000	\$13	\$0.30
C5.	Zero Waste Market Development	10,000	1%	\$199,000	\$20	\$0.60
	<b>Total</b>	<b>502,000</b>	<b>55%</b>	<b>\$11,751,000</b>	<b>\$23</b>	<b>\$36.30</b>

**Assumptions:**

There are 27,000 businesses in Boston  
 The commercial sector is 79% of total generation  
 Staff costs are \$50 per hour  
 Capital costs are amortized over 20 years

Equipment costs are amortized over 10 years  
 Processing costs are \$25 per ton for recyclables  
 Processing costs are \$40 per ton for organics  
 Collection costs are \$50 per ton  
 Disposal costs are \$65 per ton