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New York State Case Study – Expanded Bottle Bill Impact on Municipal Collections

Prepared April 2025

Report For

Reloop Platform

Project Team

Approved By

Sarah Edwards

(Project Director)

Eunomia Research & Consulting, Inc.
61 Greenpoint Ave
New York, New York, 11222

Tel +1 929 484 3550
Fax +44 (0)8717 142942
Web www.eunomia-inc.com

1.0 Introduction

This one-pager discusses the impacts to key stakeholders that a 90% return rate, best in class deposit return system could have in New York State.

2.0 Impact on MRFs

This section evaluates the impact of an improved deposit return system (DRS) on Material Recovery Facilities (MRFs) in New York State. New York currently has a beverage container recycling rate of 66% which could improve to 91% under a modernized DRS. This improvement could potentially shift material away from the curbside MRF stream and into the deposit return stream. This shift of material can impact the revenue for MRFs in two ways:

1) Lower material throughput would lead to reduced tipping fee revenue if the fee per ton remains the same.

2) Aluminum cans and PET bottles have positive material revenue when sold as commodities from MRFs. If they were to shift away from the MRF stream, the MRF could see lower material sales. Additionally, PET and aluminum bales could see lower material revenue per ton as beverage containers are removed.

Table 1 below shows the combined impact of statewide MRF revenues from a 90% deposit scenario, assuming the MRF does not yet raise tipping fees to cover lower revenues.

Table 1: Annual Revenue Impact on MRFs in New York State ($ Millions)

Costs in $M	Current Value	Loss under 90% DRS Return Rate	Total Future Revenue
MRF Tipping Fee Revenue	148.79	-15.22	133.57
Total MRF Material Revenue	1,325.57	-42.21	1,283.36
Loss From Fewer Tons but Same Bale Value		-33.23	
Additional Loss From lower Bale Value		-8.98	
Total	**1,474.36**	**-57.43**	**1,416.93**

At baseline, MRFs have a total estimated revenue of $1.474 billion. If MRFs were to keep their tipping fees constant under the 90% DRS return rate scenario, they would see an estimated revenue loss of $57.43 million dollars. This would result in a future total revenue of $1.417 billion, a total decrease of 4%. Tipping fee losses would amount to $15.22 million, while material revenue losses would equal $42.21 million. In order to avoid revenue losses under the 90% scenario, MRFs would have to raise tipping fees by an average of $38 per ton, from $90 per ton to $128 per ton.

This modelling does not assume, however, that there is additional compensation for MRFs on an annual basis within the deposit return system. Under the expanded bottle bill, there could be opportunity for MRFs to take advantage of the deposit bearing containers going through their streams to capture some of the 10-cent value of the containers.

3.0 Municipal Cost Changes

A deposit return system has the potential to decrease the cost of municipal waste collections by reducing the tonnage of material collected through those programs, in turn reducing the resource and tipping fees needed for municipal collections. Ultimately, municipal collections are paid by ratepayers (often households). Table 2 and Table 3 show both the potential savings for municipal collections, as well as the annual savings per household, by displaying the costs under the current baseline system. Table 2 shows the low estimated savings value, while Table 3 shows the high estimated savings value. Costs are calculated by estimating savings associated with reducing the number of collections vehicles, tipping fees, and support staff needed for a municipal collection program when less material is collected. High and low values for savings are based on the variation a municipal collection program can have when determining the number of vehicles, resourcing support, fuel costs and administration which can have high and low values. These costs are then compared with the current cost of waste collection in New York State.

Table 2: Impact of 90% DRS on Municipal Collection Costs – Low Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$1,730.57	$36.84	$21.25	$242.79	$5.17	$2.98
Recycling Collection ($)	$608.50	$70.07	$23.57	$85.37	$9.83	$3.31
Disposal ($)	$787.30	$16.76	$23.15	$110.45	$2.35	$3.25
MRF Sorting Cost ($)	$148.83	$17.14	-$42.16	$20.88	$2.40	-$5.92
Litter Management ($)	$17.36	$17.36	$13.67	$2.44	$2.44	$1.92
Total Cost ($)	**$3,292.56**	**$158.17**	**$39.48**	**$461.92**	**$22.19**	**$5.54**

Table 3: Impact of 90% DRS on Municipal Collection Costs – High Savings Value

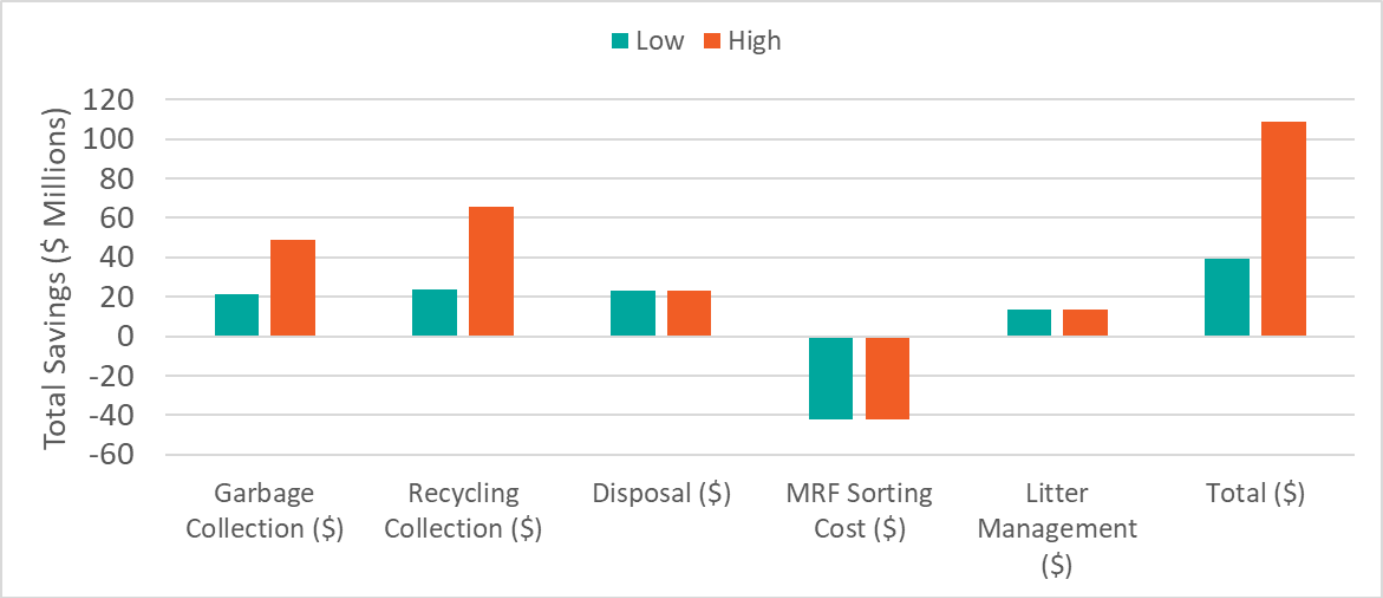
Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$1,730.57	$36.84	$48.57	$242.79	$5.17	$6.81
Recycling Collection ($)	$608.50	$70.07	$65.34	$85.37	$9.83	$9.17
Disposal ($)	$787.30	$16.76	$23.15	$110.45	$2.35	$3.25
MRF Sorting Cost ($)	$148.83	$17.14	-$42.16	$20.88	$2.40	-$5.92
Litter Management ($)	$17.36	$17.36	$13.67	$2.44	$2.44	$1.92
Total Cost ($)	**$3,292.56**	**$158.17**	**$108.56**	**$461.92**	**$22.19**	**$15.23**

New York state could see savings between $39.5 million and $108.6 million per year in municipal collection costs, while households could save between $5.5 and $15.2 per year. Savings are realized for garbage collection, recycling collection, disposal tipping fees and litter management. There is an increase in costs for sorting as MRFs are assumed to raise tipping fees to cover the revenue losses discussed in Section 2.0.

4.0 Summary

A graphical summary of the cost impacts to municipalities is shown in Figure 1 below. As seen in the figure, garbage collection, recycling collection, disposal costs and litter management are all positive savings, while MRF tipping fees are a budget to the system. The total system sees savings.

Figure 1: Summary of Savings New York State Municipal Collections Under 90% DRS Scenario



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1.0 Introduction

This brief discusses the estimated impacts to key stakeholders that a 90% deposit return rate in New York City would produce. The brief discusses the impact on Material Recovery Facilities (MRFs) and on municipal collection systems.

2.0 Impact on MRFs

New York City's curbside program sends it's mixed glass and plastic recycling (MGP) stream to the Sunset Park MRF operated by Balcones. Balcones would not supply a tipping fee estimate for 2025, however in previous years the tipping fee per ton was stated at around $80/ton. Under a 90% deposit return program, material could potentially shift away from the curbside MRF stream and into the deposit return stream. This can impact the revenue for MRFs in two ways:

1) Lower material throughput would lead to reduced tipping fee revenue if the fee per ton remains the same.

2) Aluminum cans and PET bottles have positive material revenue when sold as commodities from MRFs. If they were to shift away from the MRF stream, the MRF could see lower material sales. Additionally, PET and aluminum bales could see lower material revenue per ton as beverage containers are removed.

The table below shows the impact on the MRF from a 90% deposit scenario, assuming the MRF does not yet raise tipping fees to cover lower revenues.

Table 1: Revenue Impact on MRFs in New York City

Costs in $M	Current Value	Loss under 90% DRS Return Rate Scenario	Total Future Revenue under 90% DRS Return Rate Scenario
MRF Tipping Fee	20.55	-6.96	13.59
Total MRF Material Revenue	38.87	-13.93	24.94
Loss From Fewer Tons but Same Bale Value		-9.72	
Additional Loss from Lower Bale Value		-4.21	
Total	**59.41**	**-20.89**	**38.53**

Absent lowering tipping fees, MRFs could see their revenue decrease from $59.31 million to $38.53 million. The total loss of $20.89 million is split between lower tipping fees (-$6.96 million) and material revenue loss (-$13.93 million). If the MRFs were to raise their tipping fees by $120 per ton, it would cover all the losses from the lower throughput.

This modelling does not assume, however, that there is additional compensation for MRFs on an annual basis within the deposit return system. Under the expanded bottle bill, there could be opportunity for MRFs to take advantage of the deposit bearing containers going through their streams to capture some of the 10-cent value of the containers.

3.0 Municipal Cost Changes

A deposit return system has the potential to decrease the cost of residential municipal waste collections by reducing the tonnage of material collected through those programs, in turn reducing the resource and tipping fees needed for municipal collections. Ultimately, municipal collections are paid by ratepayers (often households). Table 2 and Table 3 shows both the potential savings for municipal collections, as well as the annual savings per household, by displaying the costs under the current baseline system. Table 2 shows the low estimated savings value, while Table 3 shows the high estimated savings value. Costs are calculated by estimating savings associated with reducing the number of collections vehicles, tipping fees, and support staff needed for a municipal collection program when less material is collected. High and low values for savings are based on the variation a municipal collection program can have when determining the number of vehicles, resourcing support, fuel costs and administration which can have high and low values. These savings are then compared with the current cost of waste collection for New York City.

Table 2: Impact of 90% DRS on Municipal Collection Costs – Low Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$842.41	$49.34	$13.76	$265.99	$15.58	$4.35
Recycling Collection ($)	$175.84	$35.35	$8.55	$55.52	$11.16	$2.70
Disposal ($)	$424.01	$24.83	$17.54	$133.88	$7.84	$5.54
MRF Sorting Cost ($)	$20.59	$4.14	-$13.89	$6.50	$1.31	-$4.39
Litter Management ($)	$11.32	$11.32	$8.92	$3.58	$3.58	$2.82
Total Cost ($)	**$1,474.17**	**$124.98**	**$34.88**	**$465.47**	**$39.46**	**$11.01**

Table 3: Impact of 90% DRS on Municipal Collection Costs - High Savings Value

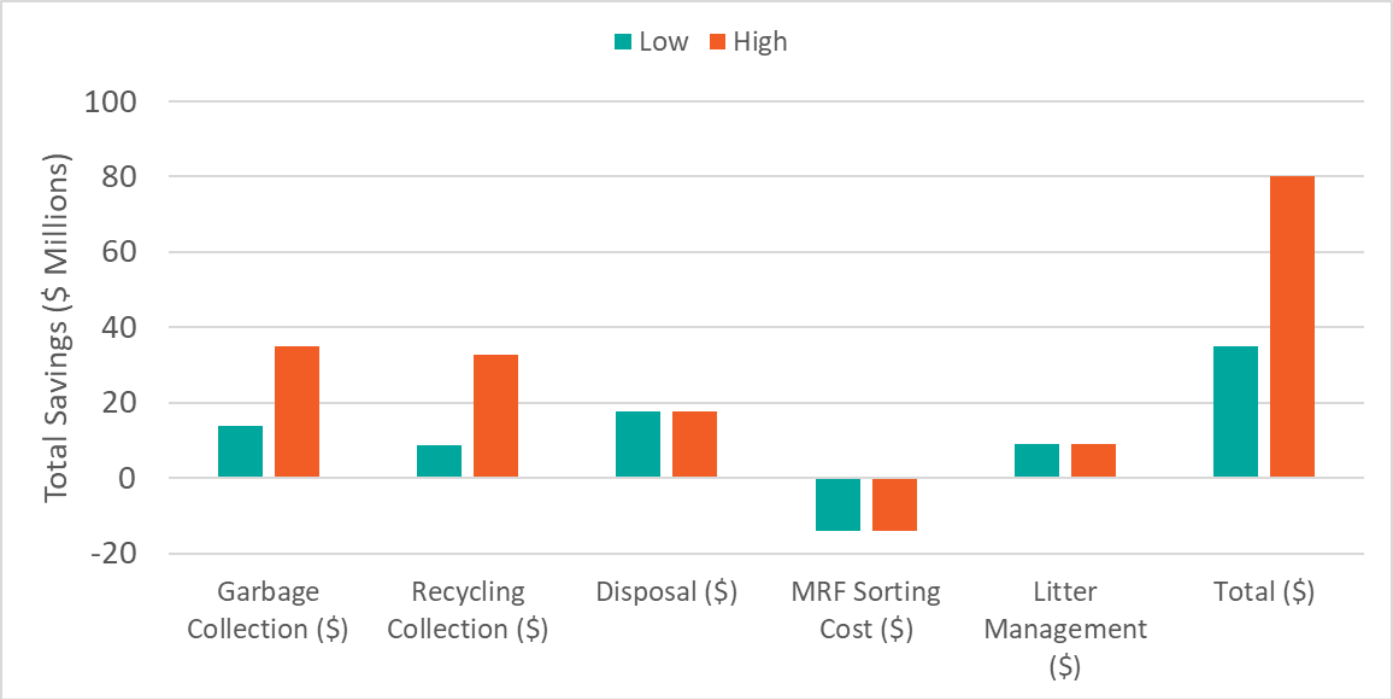
Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$842.41	$49.34	$34.85	$265.99	$15.58	$11.00
Recycling Collection ($)	$175.84	$35.35	$32.61	$55.52	$11.16	$10.30
Disposal ($)	$424.01	$24.83	$17.54	$133.88	$7.84	$5.54
MRF Sorting Cost ($)	$20.59	$4.14	-$13.89	$6.50	$1.31	-$4.39
Litter Management ($)	$11.32	$11.32	$8.92	$3.58	$3.58	$2.82
Total Cost ($)	**$1,474.17**	**$124.98**	**$80.03**	**$465.47**	**$39.46**	**$25.27**

New York City could see savings between $34.9 million and $80 million per year in municipal collection costs, while households could save between $11.0 and $25.3 per year. Savings are realized for garbage collection, recycling collection, disposal tipping fees and litter management. There is an increase in costs for sorting as MRFs are assumed to raise tipping fees to cover the revenue losses discussed in Section 2.0.

4.0 Summary

A graphical summary of the cost impacts to municipalities is shown in Figure 1 below. As seen in the figure, garbage collection, recycling collection, disposal costs and litter management are all positive savings, while MRF tipping fees are a budget to the system. The total system sees savings.

Figure 1: Summary of Savings to New York City Under 90% DRS Scenario



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Three Municipality Case Study – Expanded Bottle Bill Impact on Municipal Collections

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(Project Director)

Eunomia Research & Consulting, Inc.
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Fax +44 (0)8717 142942
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1.0 Introduction

This one pager describes the impacts to key stakeholders of a 90% DRS return rate in New York State to three different municipalities:

1) Clarkstown, New York (Suburban town)

2) Troy, New York (Small urban town)

3) Riverhead, New York (Rural area)

The brief shows the impacts to Material Recovery Facilities (MRFs) first, followed by municipalities, and lastly an overall summary.

2.0 Impact on MRFs

This section evaluates the impact of an improved deposit return system (DRS) on Material Recovery Facilities (MRFs) in three municipalities In New York State. Under a 90% deposit return program, more material could potentially shift away from the curbside MRF stream in these municipalities and into the deposit return stream. This shift of material can impact the revenue for MRFs in two ways:

1) Lower material throughput would lead to reduced tipping fee revenue if the fee per ton remains the same.

2) Aluminum cans and PET bottles have positive material revenue when sold as commodities from MRFs. If they were to shift away from the MRF stream, the MRF could see lower material sales. PET and aluminum bales could see lower material revenue per ton as beverage containers are removed.

This section shows the impacts to MRFs from three different municipalities in New York.

2.1 Clarkstown, NY

Table 1 below shows the impact on the MRF serving Clarkstown, NY from a 90% deposit scenario, assuming the MRF does not yet raise tipping fees to cover lower revenues.

Table 1: Annual Revenue Impact to MRF Serving Clarkstown, NY ($ Millions)

Costs in $M	Current Value	Loss under 90% DRS Scenario	Total Future Revenue under 90% DRS Scenario
MRF Tipping Fee	0.65	-0.04	0.61
Total MRF Material Revenue	6.56	-0.14	6.42
Loss From Fewer Tons but Same Bale Value		*-0.12*	
Additional Loss From lower Bale Value		*-0.02*	
Total	**7.22**	**-0.19**	**7.03**

At baseline, Clarkstown produces $7.22 million in revenue for the MRF it uses. This revenue could decrease by $190k under a 90% DRS scenario, assuming the MRF dos not-raise tipping fees. The municipality would therefore produce $7.03 million in revenue for the MRF. $40k in revenue losses would come from decreased tipping fees, while $140k would come from material revenue losses. To avoid losses, the MRF would have to raise its tipping fees by $27 per ton, from $90 to $117 per ton.

2.2 Troy, NY

Table 2 below shows the impact on the MRF serving Troy, NY from a 90% deposit scenario, assuming the MRF does not yet raise tipping fees to cover lower revenues.

Table 2: Annual Revenue Impact to MRF Serving Troy, NY ($ Millions)

Costs in $M	Current Value	Loss under 90% DRS Scenario	Total Future Revenue under 90% DRS Scenario
MRF Tipping Fee	0.33	-0.02	0.31
Total MRF Material Revenue	3.29	-0.07	3.22
Loss From Fewer Tons but Same Bale Value		*-0.06*	
Additional Loss From lower Bale Value		*-0.01*	
Total	**3.62**	**-0.09**	**3.53**

At baseline, Clarkstown produces $3.63 million in revenue for the MRF it uses. This revenue could decrease by $90k under a 90% DRS scenario, assuming the MRF dos not-raise tipping fees. The municipality would therefore produce $3.53 million in revenue for the MRF. $20k in revenue losses would come from decreased tipping fees, while $70k would come from material revenue losses. To avoid losses, the MRF would have to raise its tipping fees by $27 per ton, from $90 to $117 per ton.

2.3 Riverhead, NY

Table 3 below shows the impact on the MRF serving Riverhead, NY from a 90% deposit scenario, assuming the MRF does not yet raise tipping fees to cover lower revenues.

Table 3: Annual Revenue Impact to MRF Serving Riverhead, NY ($ Millions)

Costs in $M	Current Value	Loss under 90% DRS Scenario	Total Future Revenue under 90% DRS Scenario
MRF Tipping Fee	0.22	-0.01	0.21
Total MRF Material Revenue	2.22	-0.05	2.17
Loss From Fewer Tons but Same Bale Value		*-0.04*	
Additional Loss From lower Bale Value		*-0.01*	

Costs in $M	Current Value	Loss under 90% DRS Scenario	Total Future Revenue under 90% DRS Scenario
Total	**2.44**	**-0.06**	**2.38**

At baseline, Riverhead produces $2.44 million in revenue for the MRF it uses. This revenue could decrease by $60k under a 90% DRS scenario, assuming the MRF dos not-raise tipping fees. The municipality would therefore produce $2.38 million in revenue for the MRF. $10k in revenue losses would come from decreased tipping fees, while $50k would come from material revenue losses. To avoid losses, the MRF would have to raise its tipping fees by $27 per ton, from $90 to $117 per ton.

This modelling does not assume, however, that there is additional compensation for MRFs on an annual basis within the deposit return system. Under the expanded bottle bill, there could be opportunity for MRFs to take advantage of the deposit bearing containers going through their streams to capture some of the 10-cent value of the containers.

3.0 Municipal Cost changes

A deposit return system has the potential to decrease the cost of residential municipal waste collections by reducing the tonnage of material collected through those programs, in turn reducing the resource and tipping fees needed for municipal collections. Ultimately, municipal collections are paid by ratepayers (often households). This section will describe the cost changes to municipalities based on a 90% DRS return rate scenario. The section will describe each of the three municipalities separately.

Costs are calculated by estimating savings associated with reducing the number of collections vehicles, tipping fees, and support staff needed for a municipal collection program when less material is collected. High and low values for savings are based on the variation a municipal collection program can have when determining the number of vehicles, resourcing support, fuel costs and administration which can have high and low values. These costs are then compared with the current cost of waste collection in each of the jurisdictions.

3.1 Clarkstown

Table 4 and Table 5 below shows both the potential savings for municipal collections in Clarkstown, as well as the annual savings per household. The table displays the municipal collection costs under the current baseline system and an estimated range of the costs under a 90% DRS scenario. Table 4 shows the low estimate of cost savings, while Table 5 shows the high estimate of cost savings.

Table 4: Impact of a 90% DRS on Municipal Collection Costs in Clarkstown – Low Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$6.56	$0.14	$0.06	$221.05	$4.71	$1.91
Recycling Collection ($)	$2.23	$0.26	$0.08	$75.11	$8.65	$2.58
Disposal ($)	$2.76	$0.06	$0.04	$92.83	$1.98	$1.43
MRF Sorting Cost ($)	$0.65	$0.08	-$0.14	$22.03	$2.54	-$4.84
Litter Management ($)	$0.05	$0.05	$0.04	$1.54	$1.54	$1.21
Total Cost ($)	**$12.25**	**$0.58**	**$0.07**	**$412.57**	**$19.41**	**$2.30**

Table 5: Impact of a 90% DRS on Municipal Collection Costs in Clarkstown - High Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$6.56	$0.14	$0.10	$221.05	$4.71	$3.41
Recycling Collection ($)	$2.23	$0.26	$0.17	$75.11	$8.65	$5.68
Disposal ($)	$2.76	$0.06	$0.04	$92.83	$1.98	$1.43
MRF Sorting Cost ($)	$0.65	$0.08	-$0.14	$22.03	$2.54	-$4.84
Litter Management ($)	$0.05	$0.05	$0.04	$1.54	$1.54	$1.21
Total Cost ($)	**$12.25**	**$0.58**	**$0.20**	**$412.57**	**$19.41**	**$6.90**

Clarkstown could see savings between $70k and $200k per year in municipal collection costs, while households could save between $2.3 and $6.9 per year. Savings are realized for garbage collection, recycling collection, disposal tipping fees and litter management. There is an increase in costs for sorting as MRFs are assumed to raise tipping fees to cover the revenue losses discussed in Section 2.0

3.2 Troy

Table 6 and Table 7 below shows both the potential savings for municipal collections in Troy, as well as the annual savings per household. The table displays the municipal collection costs under the current baseline system and an estimated range of the costs under a 90% DRS scenario Table 6 shows the low savings estimate while Table 7 shows the high savings value.

Table 6: Impact of a 90% DRS on Municipal Collection Costs in Troy - Low Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$2.31	$0.05	$0.03		$135.85	$2.89	$1.96
Recycling Collection ($)		$0.79	$0.09	$0.04		$46.21	$5.32	$2.26
Disposal ($)		$1.38	$0.03	$0.02		$81.29	$1.73	$1.26
MRF Sorting Cost ($)		$0.33	$0.04	-$0.07		$19.29	$2.22	-$4.24
Litter Management ($)		$0.03	$0.03	$0.02		$1.58	$1.58	$1.24
Total Cost ($)		**$4.83**	**$0.23**	**$0.04**		**$284.23**	**$13.75**	**$2.49**

Table 7: Impact of a 90% DRS on Municipal Collection Costs in Troy - High Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$2.31	$0.05	$0.04		$135.85	$2.89	$2.10
Recycling Collection ($)		$0.79	$0.09	$0.06		$46.21	$5.32	$3.50
Disposal ($)		$1.38	$0.03	$0.02		$81.29	$1.73	$1.26
MRF Sorting Cost ($)		$0.33	$0.04	-$0.07		$19.29	$2.22	-$4.24
Litter Management ($)		$0.03	$0.03	$0.02		$1.58	$1.58	$1.24
Total Cost ($)		**$4.83**	**$0.23**	**$0.07**		**$284.23**	**$13.75**	**$3.86**

Troy could see savings between $40k and $70k per year in municipal collection costs, while households could save between $2.14 and $3.6 per year. Savings are realized for garbage collection, recycling collection, disposal tipping fees and litter management. There is an increase in costs for sorting as MRFs are assumed to raise tipping fees to cover the revenue losses discussed in Section 2.0

3.3 Riverhead

Table 8 and Table 9 below shows both the potential savings for municipal collections in Riverhead, as well as the annual savings per household. The table displays the municipal collection costs under the current baseline system and an estimated range of the costs under a 90% DRS scenario. Table 8 shows the low estimate for savings while Table 9 shows the high estimated for savings.

Table 8: Impact of a 90% DRS on Municipal Collection Costs in Riverhead – Low Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$3.06	$0.07	$0.02		$227.37	$4.84	$1.75
Recycling Collection ($)		$1.04	$0.12	$0.03		$77.19	$8.89	$1.93
Disposal ($)		$0.93	$0.02	$0.01		$69.28	$1.47	$1.07
MRF Sorting Cost ($)		$0.22	$0.03	-$0.05		$16.44	$1.89	-$3.60
Litter Management ($)		$0.02	$0.02	$0.01		$1.41	$1.41	$1.11
Total Cost ($)		**$5.28**	**$0.25**	**$0.03**		**$391.69**	**$18.51**	**$2.25**

Table 9: Impact of a 90% DRS on Municipal Collection Costs in Riverhead - High Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$3.06	$0.07	$0.05		$227.37	$4.84	$3.51
Recycling Collection ($)		$1.04	$0.12	$0.08		$77.19	$8.89	$5.84
Disposal ($)		$0.93	$0.02	$0.01		$69.28	$1.47	$1.07
MRF Sorting Cost ($)		$0.22	$0.03	-$0.05		$16.44	$1.89	-$3.60
Litter Management ($)		$0.02	$0.02	$0.01		$1.41	$1.41	$1.11
Total Cost ($)		**$5.28**	**$0.25**	**$0.11**		**$391.69**	**$18.51**	**$7.93**

Riverhead could see savings between $30k and $110k per year in municipal collection costs, while households could save between $1.96 and $7.79 per year. Savings are realized for garbage collection, recycling collection, disposal tipping fees and litter management. There is an increase in costs for sorting as MRFs are assumed to raise tipping fees to cover the revenue losses discussed in Section 2.0.

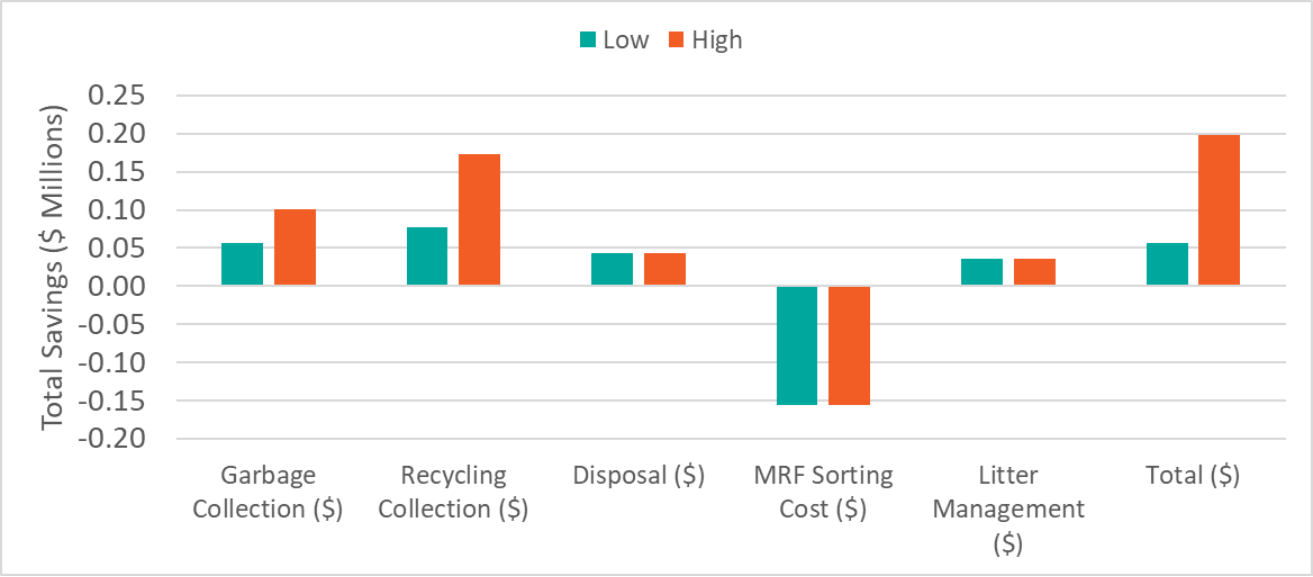
4.0 Summary

This section shows a graphical summary of the municipal cost savings, and increases in MRF sorting costs, as a result of a 90% DRS in New York. Each municipality has its own chart with savings and "budget" for

additional MRF sorting costs. In total, each municipality has a net savings after the 90% return rate under the modernized DRS system.

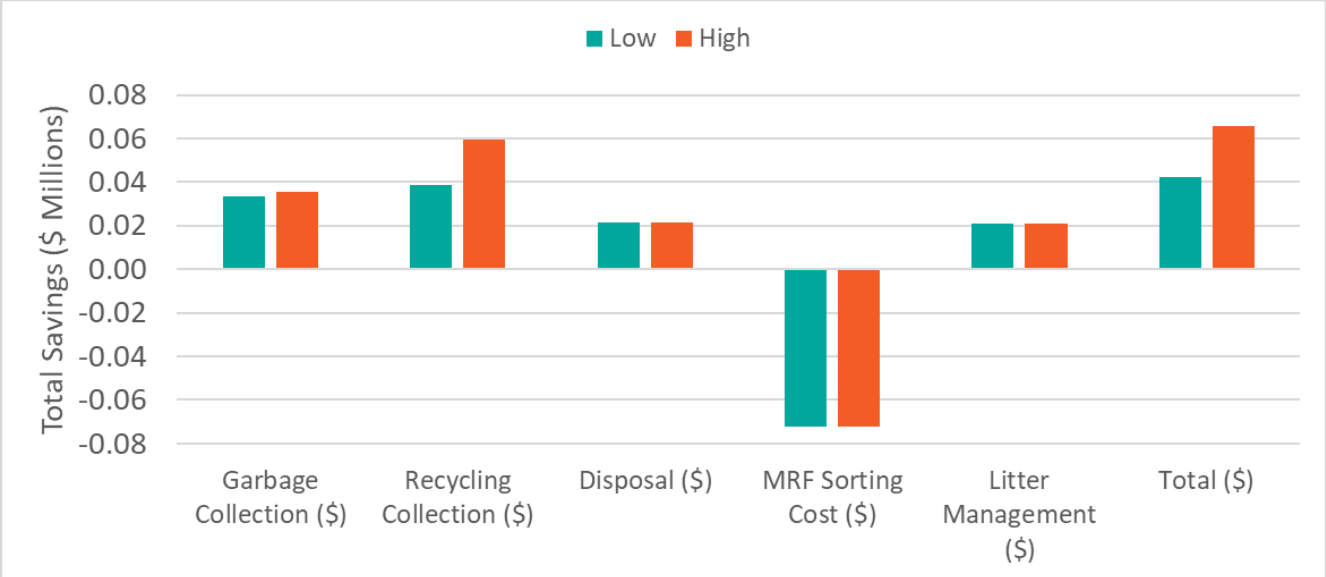
4.1 Clarkstown

Figure 1: Summary of Savings for Clarkstown Under a 90% Return Rate DRS Scenario



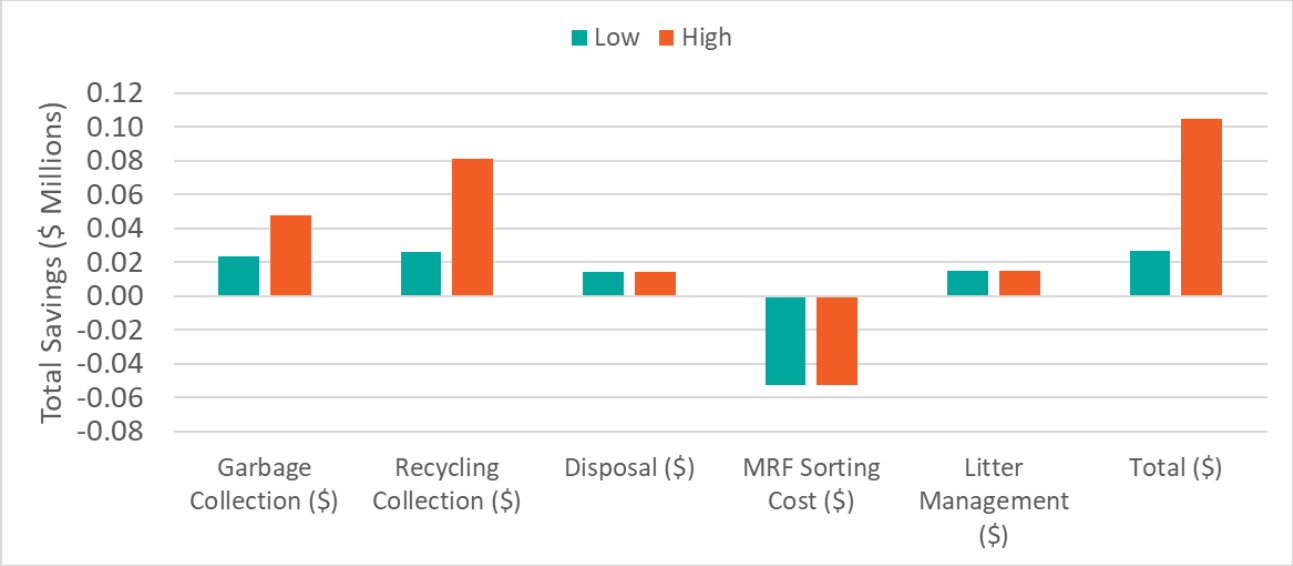
4.2 Troy

Figure 2: Summary of Savings for Troy Under a 90% Return Rate DRS Scenario



4.3 Riverhead

Figure 3: Summary of Savings for Riverhead under a 90% Return Rate DRS Scenario



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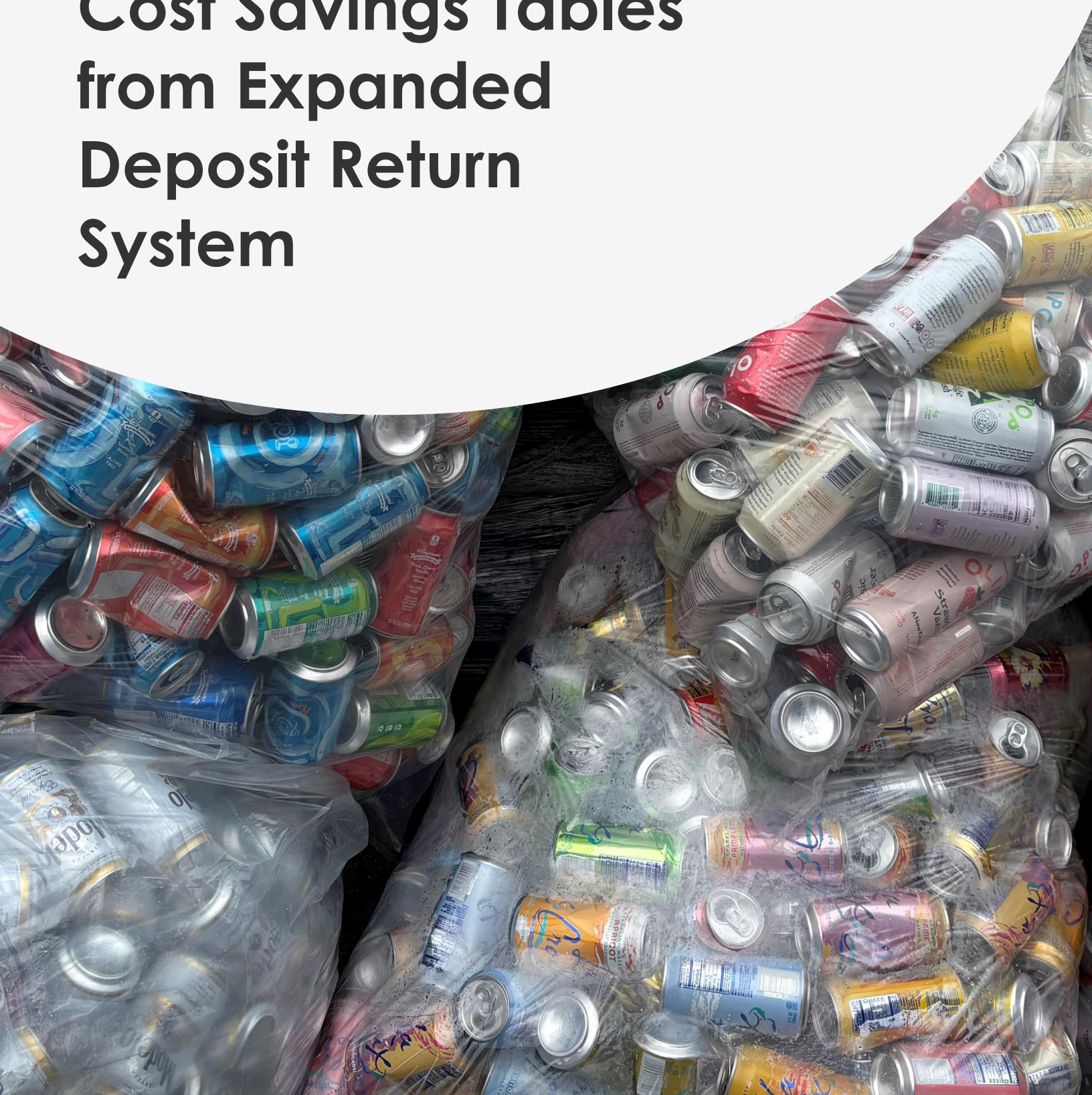
Buffalo and Syracuse Cost Savings Tables from Expanded Deposit Return System



1.0 Impact on MRFs

1.1 Syracuse

Table 1: Annual Revenue Impact to MRF Serving Syracuse, NY ($ millions)

Costs in $M	Current Value	Loss	Total Future Revenue
MRF Tipping Fee	0.79	-0.05	0.74
Total MRF Material Revenue	7.94	-0.17	7.77
Loss From Fewer Tons but Same Bale Value		*-0.15*	
Additional Loss From lower Bale Value		*-0.03*	
Total	**8.73**	**-0.23**	**8.51**

1.2 Buffalo

Table 2: Annual Revenue Impact to MRF Serving Buffalo, NY ($ Millions)

Costs in $M	Current Value	Loss	Total Future Revenue
MRF Tipping Fee	1.45	-0.09	1.36
Total MRF Material Revenue	14.56	-0.32	14.24
Loss From Fewer Tons but Same Bale Value		*-0.27*	
Additional Loss From lower Bale Value		*-0.05*	
Total	**16.01**	**-0.41**	**15.60**

2.0 Municipal Cost Changes

2.1 Syracuse

Table 3: Impact of a 90% DRS on Municipal Collection Costs in Syracuse - Low Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$6.41	$0.14	$0.07		$150.86	$3.21	$1.62
Recycling Collection ($)		$2.17	$0.25	$0.09		$51.11	$5.89	$2.18
Disposal ($)		$3.34	$0.07	$0.05		$78.48	$1.67	$1.21
MRF Sorting Cost ($)		$0.79	$0.09	-$0.17		$18.63	$2.14	-$4.10
Litter Management ($)		$0.06	$0.06	$0.06		$1.31	$1.31	$1.31
Total Cost ($)		**$12.77**	**$0.60**	**$0.09**		**$300.39**	**$14.22**	**$2.21**

Table 4: Impact of a 90% DRS on Municipal Collection Costs in Syracuse, High Savings Value

Cost Item		Total Cost ($M)				Cost per Household ($/HH/Year)		
		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario		Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)		$6.41	$0.14	$0.10		$150.86	$3.21	$2.33
Recycling Collection ($)		$2.17	$0.25	$0.16		$51.11	$5.89	$3.87
Disposal ($)		$3.34	$0.07	$0.05		$78.48	$1.67	$1.21
MRF Sorting Cost ($)		$0.79	$0.09	-$0.17		$18.63	$2.14	-$4.10
Litter Management ($)		$0.06	$0.06	$0.06		$1.31	$1.31	$1.31
Total Cost ($)		**$12.77**	**$0.60**	**$0.20**		**$300.39**	**$14.22**	**$4.61**

2.2 Buffalo

Table 5: Impact of a 90% DRS on Municipal Collections Costs in Buffalo, Low Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$8.38	$0.18	$0.13	$98.61	$2.10	$1.51
Recycling Collection ($)	$2.84	$0.33	$0.17	$33.41	$3.85	$2.00
Disposal ($)	$8.18	$0.17	$0.13	$96.22	$2.05	$1.49
MRF Sorting Cost ($)	$1.45	$0.17	-$0.32	$17.07	$1.97	-$3.76
Litter Management ($)	$0.10	$0.10	$0.10	$1.22	$1.22	$1.22
Total Cost ($)	**$20.96**	**$0.95**	**$0.21**	**$246.53**	**$11.18**	**$2.46**

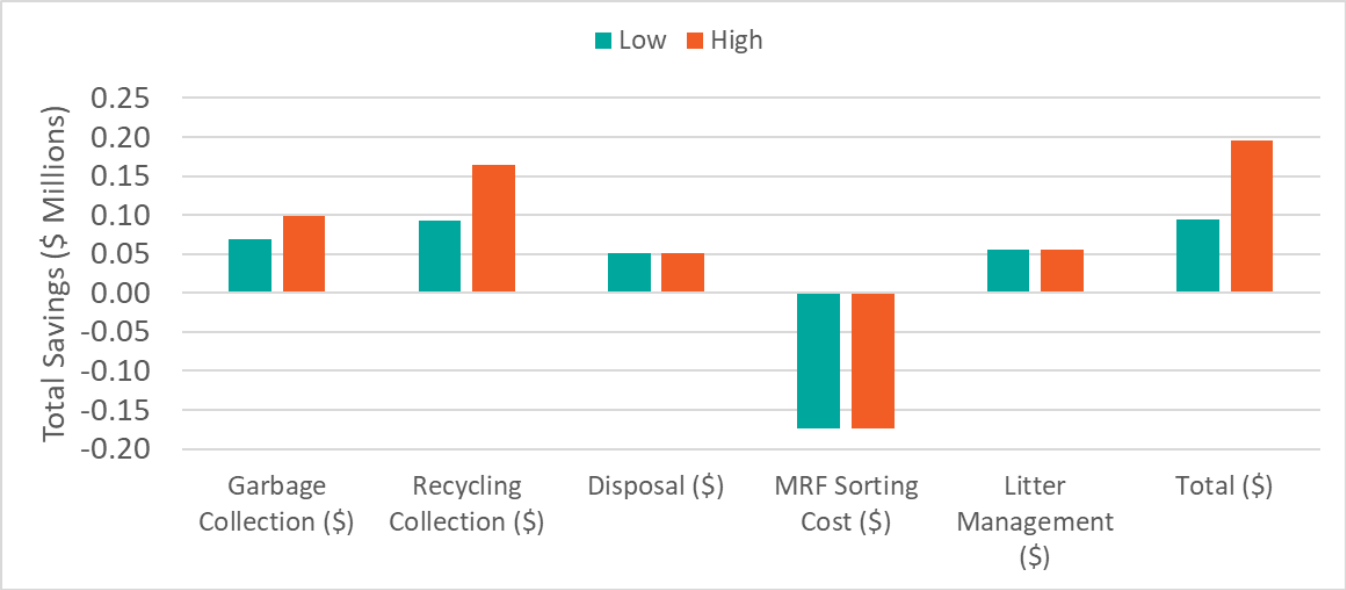
Table 6: Impact of a 90% DRS on Municipal Collections Costs in Bufallo, High Savings Value

Cost Item	Total Cost ($M)			Cost per Household ($/HH/Year)		
	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario	Cost of All Materials	Cost of Beverage Containers at Baseline	Savings under 90 DRS Scenario
Garbage Collection ($)	$8.38	$0.18	$0.13	$98.61	$2.10	$1.52
Recycling Collection ($)	$2.84	$0.33	$0.21	$33.41	$3.85	$2.53
Disposal ($)	$8.18	$0.17	$0.13	$96.22	$2.05	$1.49
MRF Sorting Cost ($)	$1.45	$0.17	-$0.32	$17.07	$1.97	-$3.76
Litter Management ($)	$0.10	$0.10	$0.10	$1.22	$1.22	$1.22
Total Cost ($)	**$20.96**	**$0.95**	**$0.25**	**$246.53**	**$11.18**	**$3.00**

3.0 Summary

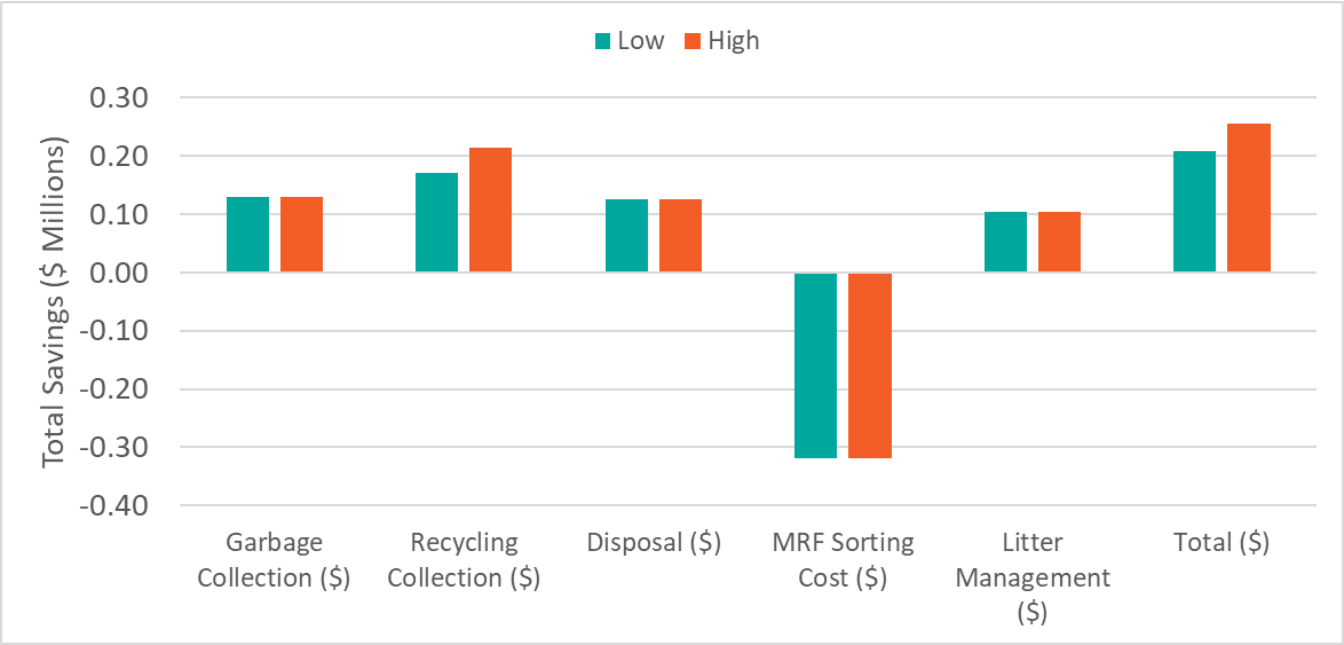
3.1 Syracuse

Figure 1: Summary of Savings for Syracuse under a 90% Return Rate DRS Scenario



3.2 Buffalo

Figure 2: Summary of Savings for Buffalo under a 90% Return Rate DRS Scenario



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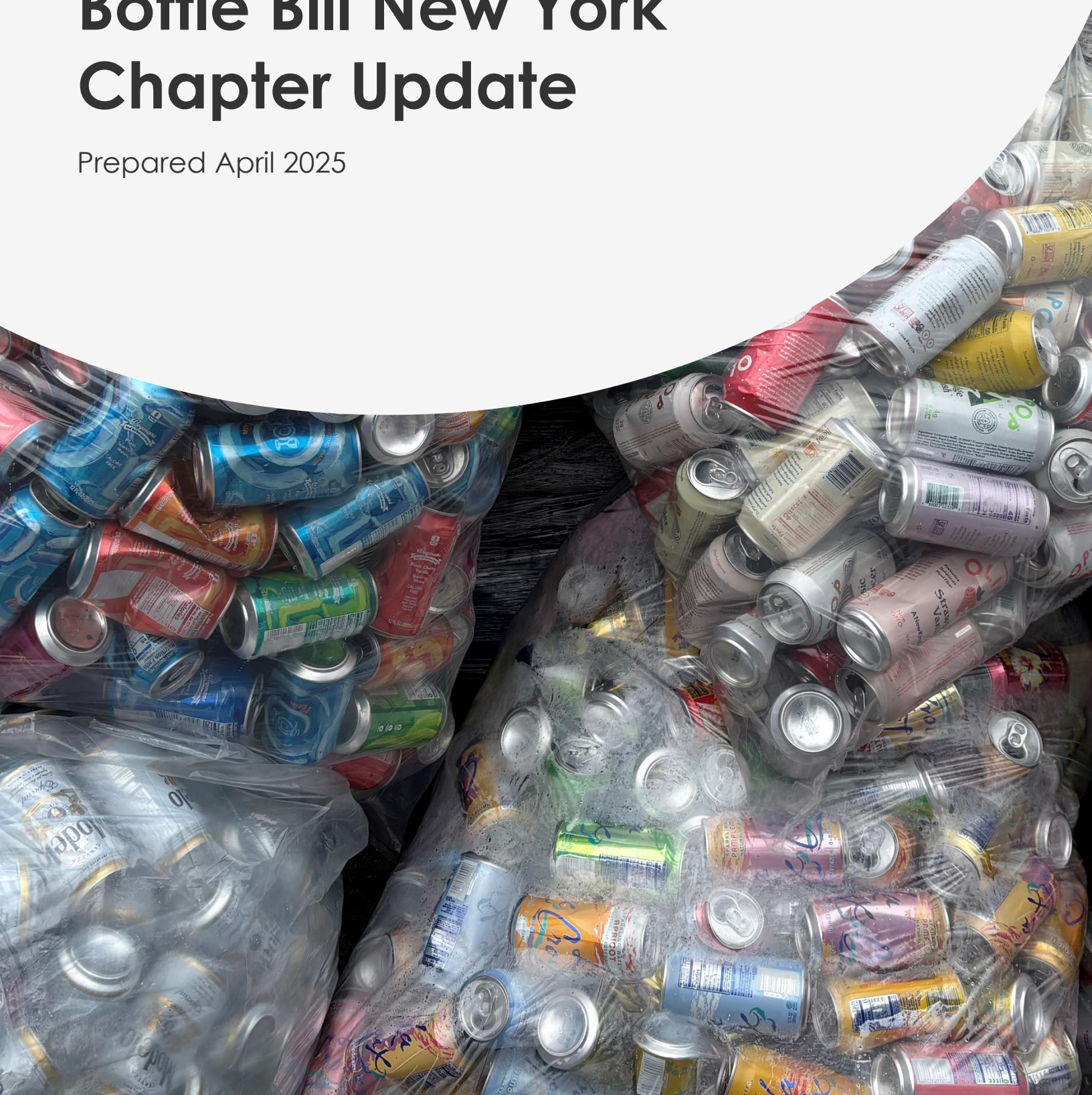
Reimagining the Bottle Bill New York Chapter Update

Prepared April 2025



Report For

Reloop Platform

Project Team

eunomia

Approved By

Sarah Edwards

(Project Director)

Eunomia Research & Consulting, Inc.
61 Greenpoint Ave
New York, New York, 11222

Tel +1 929 484 3550
Fax +44 (0)8717 142942
Web www.eunomia-inc.com

1.0 Introduction

This brief contains the data updates for the New York chapter of the 2022 Reimagining the Bottle Bill report (pages 40 and 41 of original report). The brief provides the data point figure, as well as a brief description of the figure.

2.0 Accessible & Accountable

Increase in Recycling Rate. Under a best-in-class DRS program which achieves a 90% return rate, beverage containers are expected to have a recycling rate of **91%.** This is a **25-percentage point** increase over the current recycling rate of beverage containers in New York Sate of **66%.**

Residents per Redemption Point. The best-in-class DRS program is estimated to have over 14,000 redemption points statewide. This relates to a high level of convenience of **1,380 residents per redemption point.** This would potentially make the system even more convenient than Oregon's program, which achieves 87% redemption rates while have 2,100 residents per return point. [1]

Additional Beverage Containers Recycled. The modernized DRS would lead to an additional **5.5 billion** beverage containers recycled and diverted from disposal (e.g., landfill, incineration) or littered annually. This is estimated to be equivalent to three times the total number of beverage containers sold in Connecticut annually.[2]

GHG Equivalent Cars off the Road. The modernized DRS would reduce greenhouse gas emissions in New York State by 358 thousand metric tons of CO2 equivalent annually. This is equivalent to removing **83,500 gasoline-power passenger vehicles** from the road per year.

Overall Litter Reduction. The modernized DRS would lead to an approximate **34% litter reduction for beverage containers** across New York state.

3.0 Industry Financed

GVA (Additional Economic Activity Generated). The modernized bottle bill program would lead to **$962 billion in gross value added (GVA)** to the economy. This would be realized in the state of New York as well as in the surrounding geographies.

Added Net Jobs. The expanded and high performing DRS would lead to an estimated **1,866 additional jobs** compared to today. This accounts for potential lower throughputs at landfills and MRFs. New jobs created include servicing retail RVMs, operators at redemption centers, beverage container collections truck drivers, among other recycling positions.

Revenue Available to State for Reinvestment. As a result of unclaimed deposits in the first three years of the program, there could be **$590M** in revenue available for the state.

[1] 2023-BeverageContainerReturnData.pdf
[2] bottle-bill-data---nov-2024---thru-q3-2024---table.pdf

System Cost per Container. The net cost per container of a DRS system which achieves 90% return rates for New York is estimated to be between **2.5 and 2.9 cents per container.**

4.0 Well Managed and Regulated

Return to Retail Redemption. 84% of the population will have convenient access to retail return. Areas without retail returns will be able to redeem containers at redemption center locations throughout the state.

Allocation for State Agency Oversight. Under the 90% DRS system, there is **$27 million** allocated for agency management and oversight of the program.