

Improving Oregon Recycling Systems Infrastructure Research

Initial Alternative Scenario Selection (Phase 2 Task 5)

April 7, 2020

Draft Alternative Recycling Infrastructure Scenario Definitions

Based on research on customer engagement, collection, and processing, the Cascadia Consulting Group team (Cascadia) has developed four initial alternative recycling infrastructure scenarios to analyze in Phase 2 Task 5. These scenarios represent a range of infrastructure system alternatives, focusing mainly on variations in the collection and processing infrastructure and to some extent on the accepted materials lists by groupings provided by DEQ — Metro Area; Willamette Valley, etc.; Other Areas with Curbside; and Areas Without Curbside¹. Cascadia limited variations in other system parts so the varying effects of collection and processing elements could be compared more directly. The more elements that are changed in a scenario, the more difficult it is to determine the effects of individual changes.

- **Scenario A: Single-Stream with Modern MRFs** — Single-stream/glass on side — same list as current and modernized MRFs in Metro Area (paper/containers). Please note that the accepted materials list is reduced compared to the baseline, which was based on pre-National Sword accepted lists. For example, Scenario A models not accepting PET thermoforms, tubs outside of Metro, and accepted other steel outside of Metro.
- **Scenario A+: Single-Stream with Modern MRFs and Expanded List** — Single-stream/glass on side — expanded list and modernized MRFs in Metro Area (paper/containers).
- **Scenario B: Single-Stream with CRF** — Single-stream/glass on side — expanded list and modernized MRFs in Metro Area plus out-of-state CRF.
- **Scenario C: Dual-Stream Statewide** — Dual-stream/glass on side everywhere — expanded list, modernize and create dual-stream fiber MRFs in Metro Area; add/upgrade one or two container lines in Metro Area, modernize fiber MRF in Eugene-area.

¹ Grouping descriptions can be found in the “FINAL Phase 2 Task 4 Research Plan” at www.oregon.gov/deq/recycling/Documents/BaseCaseModelingPlan.pdf.

Scenario Summaries

Oregon Baseline	Scenario A: Single-Stream with Modern MRFs	Scenario A+: Single-Stream with Modern MRFs and Expanded List	Scenario B: Single-Stream with CRF	Scenario C: Dual-Stream Statewide
No changes — base-case	<p>Contamination reduction: direct feedback, refusal to collect, monitoring inbound and outbound quality at MRFs</p> <p>On-route material list: reduced compared to baseline to reflect current list</p> <p>On-route collection method: no change.</p> <p>Depot list: expand to “emerging” in Metro Area grouping; expand to variable elsewhere.</p> <p>Depot type(s): no change.</p> <p>Sortation: modernize MRF paper-lines and add/upgrade one or two container lines in Metro Area grouping.</p>	<p>Contamination reduction: direct feedback, refusal to collect, monitoring inbound and outbound quality at MRFs</p> <p>On-route material list: widely expand</p> <p>On-route collection method: no change.</p> <p>Depot list: widely expand in Metro Area grouping; moderately expand elsewhere.</p> <p>Depot type(s): no change.</p> <p>Sortation: modernize MRF paper-lines and add/upgrade one or two container lines in Metro Area grouping.</p>	<p>Contamination reduction: direct feedback, refusal to collect, monitoring inbound and outbound quality at MRFs</p> <p>On-route material list: widely expand except in Other Areas with Curbside grouping.</p> <p>On-route collection method: no change.</p> <p>Depot list: widely expand in Metro Area and Willamette Valley, etc. groupings.</p> <p>Depot type(s): no change.</p> <p>Sortation: modernize paper-lines of MRFs in Metro Area grouping and send containers to CRF outside state.</p>	<p>Contamination reduction: direct feedback, refusal to collect, monitoring inbound and outbound quality at MRFs</p> <p>On-route material list: widely expand</p> <p>On-route collection method: all on-route collection is dual-stream with glass on side.</p> <p>Depot list: widely expand in Metro Area and Willamette Valley, etc. groupings.</p> <p>Depot type(s): no change.</p> <p>Sortation: modernize paper-lines of MRFs to accept dual-stream paper and add/upgrade one or two container lines in Metro Area grouping. Sort all containers in Metro Area. For non-Metro dual-stream fiber: sort half in Eugene and the other half in Metro Area.</p>

Improving Oregon Recycling Systems Infrastructure Research

Initial Alternative Scenario Analysis - Evaluation Criteria Summary

June 5, 2020

IMPORTANT NOTE: Please take the following factors into account when reviewing this summary.

Figures in this report represent the consultant team's reasonable modeling estimates but should be considered to have substantial error ranges. Where data were limited, the consultant team used professional judgement and prior experience to develop inputs. Data were especially limited regarding current processing costs, revenues, bales produced, and bale quality. Figures represent 2025. Dollars are 2025\$ and weights are in short tons (2000 pounds).

Access to Recycling	Baseline	Scenario A Modern MRFs	Scenario A+ Modern MRFs & Longer List	Scenario B Out-of-State CRF	Scenario C Dual-Stream
Alternative scenarios expanded material lists but did not include changes to participation or recycling access.					
Number of Customers (participation rates)					
On-Route Single-Family Residential (weekly)	993,281	No changes.			
On-Route Single-Family Residential (not weekly)	927,616				
On-Route Multifamily Residential Customers	34,230				
On-Route Commercial Customers	131,934				
Depot	NA (see population)				
Population with Access					
On-Route and Depot Collection	3,856,631	No changes.			
Depot Collection Only	654,847				

Materials Collected	Scenario A+				
	Baseline	Scenario A Modern MRFs	Modern MRFs & Longer List	Scenario B Out-of-State CRF	Scenario C Dual-Stream

This section summarizes in-scope materials collected, including those collected commingled and source-separated. Tonnages include contamination in collection, which largely drives the reduction in collected tons between the baseline and Scenario A.

Inbound Collection Quantities (tons)	592,621	559,194	616,038	616,038	616,615
Single-Family Residential	243,032	228,345	254,703	254,703	255,673
Multifamily Residential	23,984	21,846	25,177	25,177	25,167
Commercial	246,985	230,902	252,881	252,881	252,891
Depot	78,621	78,101	83,278	83,278	82,885

Customer engagement methods include providing direct feedback to customers, with refusal to collect from customers with repeated contamination. While customers appreciate clear instructions, there may be negative feedback from customers who habitually contaminate recycling.

Contamination Rates in Commingled SS and DS Collection					
Single-Family Residential	15.4%	9.1%	7.6%	7.6%	7.4%
Multifamily Residential	22.4%	13.6%	12.0%	12.0%	11.8%
Commercial	15.0%	8.5%	6.5%	6.5%	6.2%
Depot	16.1%	9.6%	5.3%	5.3%	5.5%

Bale/Commodity Tonnages	Baseline	Scenario A Modern MRFs	Scenario A+ Modern MRFs & Longer List	Scenario B Out-of-State CRF	Scenario C Dual-Stream
This section presents bale/commodity tonnages for all in-scope recyclables, including materials collected commingled and source-separated. Tonnages include bale contamination, such as PET bottles in corrugated cardboard bales. Reductions in total baled tonnages between Scenario A and the baseline are due to reduced accepted material lists to reflect current lists as well as reduced contamination.					
Total Bale Weights	523,713	515,042	567,983	567,867	574,999
Paper Bales	376,090	372,982	394,908	394,895	400,921
OCC (corrugated cardboard)	204,924	229,768	232,243	232,204	235,428
Sorted clean newsprint	1,121	1,121	1,121	1,121	1,121
Sorted residential paper and news	12,862	83,642	91,009	90,993	93,509
Mixed paper	155,580	56,877	67,966	68,009	68,085
Paperboard/old boxboard	940	940	940	940	940
Aseptic and gable-top cartons	664	634	1,628	1,628	1,839
Plastics Bales	23,809	20,537	40,615	40,513	41,745
PET #1 bottles and jars	7,496	6,847	6,786	7,591	7,352
PET #1 thermoforms and tubs	24	24	2,530	1,776	2,806
HDPE #2 natural bottles	2,163	2,047	2,083	2,072	2,181
HDPE #2 colored bottles	2,986	2,827	2,877	2,861	3,012
HDPE #2 and PP #5 tubs	397	320	1,406	1,391	1,447
PE clear film	3,684	3,684	3,817	3,817	3,817
Mixed bulky rigid plastics (mainly PE and PP)	2,840	1,799	14,137	14,165	13,730
PP #5 bottles and jars	65	62	195	191	216
PP #5 small rigid plastic	998	697	6,060	5,949	6,314
Solid PS #6 (rigid)	0	19	565	541	711
Foam PS #6 (transport block and shape, densified)	1	1	134	134	134
#3-7 bottles and small rigid plastics	3,154	2,210	25	25	25
Glass	58,421	58,421	64,552	64,552	64,552
Container glass	58,421	58,421	64,552	64,552	64,552
Metal Bales	65,393	63,103	67,908	67,908	67,781
Aluminum cans and foil	1,414	1,153	1,468	1,469	1,509
Steel cans	28,446	27,948	29,915	29,912	29,945
Scrap metal	35,532	34,002	36,525	36,527	36,327

Material Quality: Bale Contamination Rates	Baseline	Scenario A Modern MRFs	Scenario A+	Scenario B Out-of-State CRF	Scenario C Dual-Stream
			Modern MRFs & Longer List		
This section presents bale contamination rates for materials that are sorted at MRFs.					
Paper Bales					
OCC (corrugated cardboard)	2.4%	1.4%	2.1%	2.0%	1.5%
Sorted residential paper and news	1.2%	0.7%	0.8%	0.8%	0.4%
Mixed paper	1.5%	0.9%	1.1%	1.0%	0.9%
Aseptic and gable-top cartons	2.3%	1.3%	3.7%	3.8%	4.0%
Plastics Bales					
PET #1 bottles and jars	9.0%	3.6%	2.9%	3.1%	3.0%
PET #1 thermoforms and tubs			2.9%	3.1%	3.0%
HDPE #2 natural bottles	9.0%	3.6%	4.0%	4.0%	3.6%
HDPE #2 colored bottles	9.0%	3.6%	4.0%	4.0%	3.6%
HDPE #2 and PP #5 tubs	9.1%	3.5%	4.3%	4.7%	3.7%
Mixed bulky rigid plastics (mainly PE and PP)	9.2%	3.6%	3.3%	3.3%	3.8%
PP #5 bottles and jars	9.1%	3.5%	4.3%	4.8%	3.8%
PP #5 small rigid plastic	9.2%	3.6%	4.0%	4.0%	3.7%
Solid PS #6 (rigid)		3.5%	4.2%	4.5%	3.6%
#3-7 bottles and small rigid plastics	7.6%	3.0%			
Metal Bales					
Aluminum cans and foil	1.0%	0.3%	0.3%	0.3%	0.0%
Steel cans	8.7%	3.2%	2.8%	2.8%	3.2%
Scrap metal	0.1%	0.0%	0.0%	0.0%	0.2%

Material Quantities Baled Excluding Contamination (tons)	Baseline	Scenario A Modern MRFs	Scenario A+	Scenario B Out-of-State CRF	Scenario C Dual-Stream
			Modern MRFs & Longer List		

This section presents tonnages for all in-scope recyclables that are assumed to reach their intended markets.
Tonnages include materials at MRFs that are sorted into their intended bales as well as materials collected source-separated.
Tonnages exclude bale contamination, such as PET bottles in corrugated cardboard bales.

Total Materials	510,665	506,527	556,824	556,753	565,428
Paper Materials	369,136	368,963	388,998	389,051	396,714
Corrugated cardboard	229,539	230,516	230,936	230,960	235,152
Newspaper	42,229	42,229	43,380	43,381	43,375
Printing and writing paper	50,392	50,392	56,582	56,593	58,997
Other paper recyclable with newspaper	2,652	2,652	4,304	4,305	4,346
Paperboard	35,558	35,558	39,015	39,020	38,987
Other paper not recyclable with newspaper	5,286	5,286	5,770	5,775	5,738
Gable tops & aseptics	1,128	882	1,703	1,703	1,768
Polycoated containers & cups	2,353	1,448	7,308	7,314	8,351

Figures in this report represent the consultant team's reasonable modeling estimates, but they should be considered to have meaningful error ranges.

DRAFT

Plastic Materials	18,428	16,292	35,642	35,517	36,715
PET bottles (BB)	1,501	1,501	1,630	1,630	1,724
HDPE bottles (BB)	15	15	17	16	17
PP bottles (BB)	5	5	15	15	17
Other deposit plastic bottles	-	-	-	-	-
Other PET bottles & jars	4,756	4,756	4,815	4,846	5,124
HDPE bottles & jars	4,693	4,693	4,754	4,728	4,999
PP bottles & jars	55	55	172	167	191
Other other bottles	-	-	-	-	-
PET tubs	77	50	201	201	212
HDPE tubs	1,129	922	1,348	1,329	1,396
PP tubs and small rigids	1,683	1,358	1,941	1,914	2,011
Other accepted tubs & pails	77	63	6	6	6
PP rigid products	1,615	974	4,074	4,074	3,684
Other bulky rigids	1,038	804	9,718	9,718	9,718
PET thermoforms	601	367	2,412	2,412	2,809
Other other rigid plastic containers	-	-	-	-	-
PP rigid packaging and products	1,181	709	3,864	3,811	3,989
Polystyrene foam	1	1	134	134	134
Solid polystyrene	0	18	542	517	686
PE film	3,684	3,684	3,817	3,817	3,817
Glass Materials	58,421	58,421	64,552	64,552	64,552
Deposit glass bottles	10,516	10,516	11,731	11,731	11,731
Container glass	47,905	47,905	52,821	52,821	52,821
Metal Materials	64,680	62,852	67,631	67,633	67,447
Deposit and accepted aluminum cans	514	529	567	567	577
Accepted other aluminum	887	621	897	898	931
Deposit and accepted steel cans	7,795	7,795	9,722	9,722	9,718
Accepted other steel	30,934	29,558	32,067	32,068	32,062
Scrap metals	24,551	24,350	24,378	24,378	24,160

Transactional Costs	Baseline	Scenario A+			
		Scenario A Modern MRFs	Modern MRFs & Longer List	Scenario B Out-of-State CRF	Scenario C Dual-Stream

This section presents the transactional costs and revenues from recycling in-scope materials. It includes direct costs, avoided disposal, and bale sales. Alternative scenarios include MRF capital investments to allow for sorting more materials with a long accepted materials list and less sort-line labor. Alternative scenarios also include costs for contamination reduction through customer engagement, refusal to collect contaminated load, inbound load monitoring, at MRFs and outbound bale quality monitoring through artificial intelligence visioning before the balers. Costs in the dual-stream scenario are largely driven by the increase in single-family customers receiving collection effectively weekly instead of less than weekly. Commodity values in the baseline scenario are \$2 per ton lower than in alternative scenarios to reflect differences in bale quality.

Total System Dollar Costs and Avoided Disposal	\$ 199,802,688	\$ 204,401,333	\$ 208,285,970	\$ 207,315,307	\$ 266,765,265
Per ton (excluding commodity revenues)	\$ 391	\$ 404	\$ 374	\$ 372	\$ 472
Customer Engagement Costs	\$ 6,086,162	\$ 18,507,838	\$ 18,507,838	\$ 18,507,838	\$ 18,507,838
Collection Engagement Labor and Expenses	\$ 1,210,256	\$ 13,631,932	\$ 13,631,932	\$ 13,631,932	\$ 13,631,932
Local Government Engagement Labor and Expenses	\$ 4,875,906	\$ 4,875,906	\$ 4,875,906	\$ 4,875,906	\$ 4,875,906
Collection	\$ 176,055,583	\$ 171,134,618	\$ 178,247,227	\$ 178,247,227	\$ 238,485,586
Collection Capital - Containers	\$ 3,628,813	\$ 3,363,251	\$ 4,473,091	\$ 4,473,091	\$ 17,243,772
Collection Capital - Trucks	\$ 12,968,386	\$ 12,968,386	\$ 12,968,386	\$ 12,968,386	\$ 23,465,135
Collection Labor	\$ 73,876,678	\$ 70,193,268	\$ 75,025,793	\$ 75,025,793	\$ 93,472,934
Collection Operations	\$ 35,060,830	\$ 34,315,522	\$ 35,195,617	\$ 35,195,617	\$ 44,680,916
Collection Administrative	\$ 32,906,324	\$ 32,679,638	\$ 32,969,787	\$ 32,969,787	\$ 34,817,769
Collection Margin and Franchise Fee	\$ 17,614,553	\$ 17,614,553	\$ 17,614,553	\$ 17,614,553	\$ 24,805,060
Cost Savings from Reduced Garbage Disposal	\$ (60,579,399)	\$ (57,145,058)	\$ (61,988,408)	\$ (61,988,408)	\$ (61,994,987)
Initial Transfer Transport	\$ 11,077,089	\$ 10,630,668	\$ 11,946,373	\$ 11,946,373	\$ 12,875,557
Sortation	\$ 67,163,253	\$ 61,273,267	\$ 61,572,939	\$ 60,602,276	\$ 58,891,272
Sortation Labor	\$ 31,319,707	\$ 27,049,491	\$ 24,743,617	\$ 24,034,975	\$ 23,537,150
Sortation Capital	\$ 1,947,466	\$ 5,519,062	\$ 5,888,844	\$ 5,309,320	\$ 5,620,928
Sortation Facility	\$ 11,821,810	\$ 10,967,097	\$ 12,123,427	\$ 12,192,242	\$ 12,207,004
Glass and Container Transfer	\$ 442,772	\$ 442,772	\$ 947,213	\$ 1,677,566	\$ 480,483
Sortation Residual Disposal	\$ 10,824,727	\$ 6,924,369	\$ 7,514,530	\$ 7,158,866	\$ 6,854,468
Sortation Administrative & Marketing	\$ 5,864,513	\$ 5,864,513	\$ 5,864,513	\$ 5,864,513	\$ 5,864,513
Sortation Margin	\$ 4,942,258	\$ 4,505,963	\$ 4,490,795	\$ 4,364,793	\$ 4,326,725

Sensitivity Analysis of Total System Dollar Costs and Avoided Disposal

Lower Range		\$	173,106,094	\$	177,833,873	\$	181,300,079	\$	180,523,548	\$	234,199,612
-10%	Customer Engagement Costs	\$	5,477,545	\$	16,657,054	\$	16,657,054	\$	16,657,054	\$	16,657,054
-10%	Collection	\$	158,450,025	\$	154,021,157	\$	160,422,504	\$	160,422,504	\$	214,637,027
-10%	Cost Savings from Reduced Garbage Disposal	\$	(54,521,459)	\$	(51,430,552)	\$	(55,789,567)	\$	(55,789,567)	\$	(55,795,489)
-10%	Initial Transfer Transport	\$	9,969,380	\$	9,567,601	\$	10,751,736	\$	10,751,736	\$	11,588,001
-20%	Sortation	\$	53,730,603	\$	49,018,613	\$	49,258,351	\$	48,481,821	\$	47,113,017
Upper Range		\$	226,499,282	\$	230,968,794	\$	235,271,861	\$	234,107,065	\$	299,330,919
+10%	Customer Engagement Costs	\$	6,694,778	\$	20,358,622	\$	20,358,622	\$	20,358,622	\$	20,358,622
+10%	Collection	\$	193,661,142	\$	188,248,080	\$	196,071,950	\$	196,071,950	\$	262,334,144
+10%	Cost Savings from Reduced Garbage Disposal	\$	(66,637,339)	\$	(62,859,564)	\$	(68,187,249)	\$	(68,187,249)	\$	(68,194,486)
+10%	Initial Transfer Transport	\$	12,184,798	\$	11,693,735	\$	13,141,011	\$	13,141,011	\$	14,163,113
+20%	Sortation	\$	80,595,904	\$	73,527,920	\$	73,887,527	\$	72,722,731	\$	70,669,526

Commodity Revenues

Commodity Revenues											
	Commodity Sales (lower range)	\$	11,267,395	\$	14,578,790	\$	16,712,549	\$	14,672,766	\$	16,843,202
	Commodity Sales (mid-point)	\$	42,557,316	\$	42,102,986	\$	48,067,521	\$	44,321,975	\$	47,782,881
	Commodity Sales (upper range)	\$	73,847,238	\$	69,627,183	\$	79,422,494	\$	73,971,185	\$	78,722,560
Total System Cost net of Revenues (mid-point)		\$	157,245,372	\$	162,298,347	\$	160,218,449	\$	162,993,331	\$	218,982,384
	Per ton	\$	308	\$	320	\$	288	\$	293	\$	387

Employment

Full-Time Equivalent (FTE) Employees	1,302	1,257	1,314	1,303	1,412
Recycling Customer Engagement	-	96	96	96	96
Local Government Engagement	61	61	61	61	61
New Engagement (costs in collection engagement)	-	96	96	96	96
Recycling Collection	762	688	781	781	896
Route Drivers, Route Operations, Depot Operations	672	598	690	690	786
Management and Administrative	90	90	90	90	110
Sortation	540	473	438	427	420
Sorting Labor	406	342	300	289	276
Equipment Operators, Supervisors, Maintenance	89	87	94	93	99
Admininstrative and Marketing	45	45	45	45	45

Other Qualitative Criteria

Equity Considerations

Alternative scenarios do not address equity in access to recycling beyond expanding and standardizing materials collected in geographic groupings. For single-family customers with recycling collected less than weekly, the substantial increase in collection costs in Scenario C (dual-stream) may affect affordability of waste collection or worsen other affordability issues, which has equity implications.

Worker Safety

Worker safety will improve because wrap-resistant screens will require less frequent cleaning and removal of tangles, which is a dangerous task. Optical sorters and robots will replace some manual sorters, reducing the prevalence of repetitive motion injuries and needle sticks. Fewer manual sorters will also reduce the potential for the spread of infectious diseases among the workers.

Resiliency/Adaptability

Multiple Scenarios
Investments in fiber cleanup in all of the MRFs in all of the scenarios provided greatly improved bale quality and thus provide more market resiliency. Fiber-line optical sorters can also change the grades being produced to either make sorted residential paper and news, mixed paper, or sorted office paper when running commercial fiber in response to market pricing and demand shifts. Scenarios A+, B, and C also provide advanced sorting of containers that meets end-market specifications and avoids producing mixed plastic bales.

Scenario A Modern MRFs
See above.

Scenario A+ Modern MRFs & Longer List
Scenario A+ includes high-technology container sorting at one MRF in Portland, in lieu of making investments in all Oregon MRFs. If this MRF could not receive and sort loose containers for a period of time, contingency measures would be needed, which could include:

- (1) Baling and storing the mixed containers at the source MRFs until container sorting line is returned to operation.
- (2) Placing temporary manual sorters at the source MRFs to manually sort the material as is the case today.
- (3) Baling and sending the mixed containers to container-sorting facilities in British Columbia or California.

Scenario B Out-of-State CRF
Scenario B (out-of-state CRF) has similar adaptability options as Scenario A+. The existing in-state MRFs can resume sorting containers manually if there is a disruption to an out-of-state plastics recycling facility.

Scenario C Dual-Stream
Scenario C sends all collected containers to a container-sorting facility. If there were a disruption to that facility, the container stream could be blended into the residential fiber on the tip floors of the MRFs and sorted temporarily as single-stream recyclables.

Stranded Assets

To prevent stranded assets, capital investment inputs assume that capital equipment with remaining lifespans will continue to be used.
Capital equipment includes assumptions regarding current equipment and planned upgrades that have been publicly announced.
Capital investments largely replace sort-line labor or allow MRFs to sort addition materials or commodities.

Social and Environmental Outcomes

Social and environmental outcomes will be presented separately by DEQ.

Material	Baseline (S0)											
	DRAFT - Statewide 2025: On-Route Residential & Commercial, Self-Haul (excluding Bottle Bill)											
	Generation	Collection for Recycling and Composting					Bales for Marketing			Disposal (Landfill and Other)		
	Generated (tons)	Collected for Organics (tons)	Collected for Recycling (tons)	Recycling Collection Rate (inbound)	Recycling Collected Separately: glass and depot (tons)	Recycling Collected Commingled or Dual-stream (tons)	Bales: target materials and contamination (tons)	Bales: only target materials (tons)	Recycling Capture Rate (baled for marketing)	Disposed as Residue: originally collected for recycling (tons)	Directly disposed: originally collected as garbage (tons)	Total Disposed (tons)
Paper	594,947	-	387,007	65.0%	22,551	364,456	372,810	369,136	62.0%	14,198	207,940	222,137
Corrugated cardboard	319,486	-	237,064	74.2%	18,809	218,255	230,516	229,539	71.8%	6,548	82,422	88,970
Newspaper	51,635	-	43,500	84.2%	1,121	42,379	42,314	42,229	81.8%	1,187	8,135	9,321
Printing and writing paper	110,233	-	55,835	50.7%	1,412	54,422	51,481	50,392	45.7%	4,354	54,398	58,752
Paperboard	65,019	-	37,379	57.5%	940	36,439	36,286	35,558	54.7%	1,093	27,640	28,733
Other paper recyclable with newspaper	8,983	-	2,939	32.7%	74	2,864	2,710	2,652	29.5%	229	6,044	6,273
Other paper not recyclable with newspaper	9,449	-	5,856	62.0%	149	5,708	5,742	5,286	55.9%	114	3,593	3,707
Gable tops & aseptics	4,564	-	1,820	39.9%	46	1,774	1,199	1,128	24.7%	621	2,744	3,365
Polycoated containers & cups	25,577	-	2,614	10.2%	-	2,614	2,562	2,353	9.2%	52	22,963	23,015
Plastic	180,565	-	30,333	16.8%	4,544	25,790	23,173	22,112	12.2%	7,160	150,231	157,392
PET bottles (BB)	7,582	-	1,625	21.4%	82	1,543	1,548	1,501	19.8%	77	5,957	6,034
Other PET bottles & jars	13,355	-	5,146	38.5%	262	4,884	4,902	4,756	35.6%	244	8,209	8,453
PET tubs	714	-	191	26.7%	10	181	85	77	10.8%	106	523	629
PET thermoforms	7,872	-	1,595	20.3%	14	1,581	671	601	7.6%	924	6,277	7,200
HDPE bottles & jars	11,090	-	4,927	44.4%	251	4,676	4,787	4,693	42.3%	140	6,164	6,304
HDPE bottles (BB)	73	-	16	21.5%	1	15	15	15	20.5%	0	57	58
HDPE tubs	4,459	-	1,185	26.6%	61	1,124	1,152	1,129	25.3%	34	3,274	3,308
Other deposit plastic bottles	146	-	31	21.5%	2	30	3	-	0.0%	28	115	143
Other other bottles	834	-	327	39.2%	16	311	31	-	0.0%	295	507	803
Other accepted tubs & pails	414	-	111	26.7%	6	105	81	77	18.6%	29	303	332
Other bulky rigids	27,871	-	1,038	3.7%	29	1,010	1,038	1,038	3.7%	-	26,833	26,833
Other other rigid plastic containers	10,512	-	1,229	11.7%	22	1,206	121	-	0.0%	1,108	9,284	10,392
PP bottles & jars	442	-	188	42.5%	10	178	71	55	12.5%	117	254	371
PP bottles (BB)	73	-	16	21.5%	1	15	6	5	6.3%	10	57	67
PP rigid packaging and products	11,523	-	1,243	10.8%	1	1,242	1,206	1,181	10.2%	37	10,280	10,317
PP rigid products	11,551	-	1,615	14.0%	12	1,603	1,615	1,615	14.0%	-	9,935	9,935
PP tubs and small rigids	5,747	-	1,767	30.7%	79	1,688	1,716	1,683	29.3%	51	3,980	4,031
Solid polystyrene	2,406	-	125	5.2%	0	125	13	0	0.0%	112	2,281	2,393
Polystyrene foam	5,311	-	318	6.0%	1	317	33	1	0.0%	285	4,992	5,278
PE film	57,781	-	7,641	13.2%	3,684	3,957	4,080	3,684	6.4%	3,561	50,140	53,701
Other recoverable film	809	-	-	0.0%	-	-	-	-	0.0%	-	809	809
Metals	126,841	-	65,193	51.4%	44,627	20,565	64,978	64,680	51.0%	215	61,648	61,863
Deposit and accepted aluminum cans	4,127	-	553	13.4%	65	488	548	514	12.5%	5	3,574	3,579
Deposit and accepted steel cans	25,842	-	7,941	30.7%	613	7,328	7,868	7,795	30.2%	73	17,901	17,974
Accepted other aluminum	5,397	-	977	18.1%	76	901	959	887	16.4%	18	4,420	4,438
Accepted other steel	44,141	-	31,161	70.6%	19,823	11,338	31,047	30,934	70.1%	113	12,980	13,094
Scrap metals	47,333	-	24,561	51.9%	24,050	510	24,556	24,551	51.9%	5	22,773	22,778
Glass	94,109	-	63,257	67.2%	58,421	4,837	58,517	58,421	62.1%	4,740	30,851	35,591
Deposit glass bottles	23,584	-	11,753	49.8%	10,516	1,237	10,540	10,516	44.6%	1,212	11,831	13,043
Container glass	70,525	-	51,505	73.0%	47,905	3,600	47,977	47,905	67.9%	3,528	19,020	22,548
Other	2,646,776	452,888	46,830		129	46,702	4,234	-		42,596	2,147,058	2,189,654
Compostables	1,287,783	452,888	12,933		-	12,933	857	-		12,075	821,963	834,038
Other recoverables	256,809	-	-		-	-	-	-		-	256,809	256,809
Other materials	1,102,184	-	33,898		129	33,769	3,377	-		30,521	1,068,287	1,098,807
Total in-scope materials	3,643,237	452,888	592,621	16.3%	130,272	462,349	523,713	514,349	14.1%	68,908	2,597,729	2,666,637
Total in-scope recoverables	996,461	-	545,791	54.8%	130,143	415,648	519,478	514,349	51.6%	26,312	450,670	476,983
Total MRF inbound contamination tons						71,929						
Total MRF inbound contamination rate						15.6%						

Material	Scenario A: Single-Stream with Modern MRF (S1)											
	DRAFT - Statewide 2025: On-Route Residential & Commercial, Self-Haul (excluding Bottle Bill)											
	Generation	Collection for Recycling and Composting					Bales for Marketing			Disposal (Landfill and Other)		
	Generated (tons)	Collected for Organics (tons)	Collected for Recycling (tons)	Recycling Collection Rate (inbound)	Recycling Collected Separately: glass and depot (tons)	Recycling Collected Commingled or Dual-stream (tons)	Bales: target materials and contamination (tons)	Bales: only target materials (tons)	Recycling Capture Rate (baled for marketing)	Disposed as Residue: originally collected for recycling (tons)	Directly disposed: originally collected as garbage (tons)	Total Disposed (tons)
Paper	594,947	-	385,654	64.8%	22,551	363,102	370,475	368,963	62.0%	15,178	209,293	224,472
Corrugated cardboard	319,486	-	237,064	74.2%	18,809	218,255	230,953	230,516	72.2%	6,111	82,422	88,534
Newspaper	51,635	-	43,500	84.2%	1,121	42,379	42,314	42,229	81.8%	1,187	8,135	9,321
Printing and writing paper	110,233	-	55,835	50.7%	1,412	54,422	50,664	50,392	45.7%	5,170	54,398	59,568
Paperboard	65,019	-	37,379	57.5%	940	36,439	35,630	35,558	54.7%	1,749	27,640	29,389
Other paper recyclable with newspaper	8,983	-	2,939	32.7%	74	2,864	2,710	2,652	29.5%	229	6,044	6,273
Other paper not recyclable with newspaper	9,449	-	5,856	62.0%	149	5,708	5,742	5,286	55.9%	114	3,593	3,707
Gable tops & aseptics	4,564	-	1,512	33.1%	46	1,466	940	882	19.3%	571	3,052	3,623
Polycoated containers & cups	25,577	-	1,568	6.1%	-	1,568	1,522	1,448	5.7%	47	24,009	24,056
Plastic	180,565	-	24,050	13.3%	4,544	19,506	20,626	19,976	11.1%	3,424	156,515	159,938
PET bottles (BB)	7,582	-	1,625	21.4%	82	1,543	1,553	1,501	19.8%	72	5,957	6,029
Other PET bottles & jars	13,355	-	5,146	38.5%	262	4,884	4,902	4,756	35.6%	244	8,209	8,453
PET tubs	714	-	118	16.6%	10	108	55	50	7.0%	63	595	659
PET thermoforms	7,872	-	963	12.2%	14	948	409	367	4.7%	554	6,909	7,463
HDPE bottles & jars	11,090	-	4,927	44.4%	251	4,676	4,787	4,693	42.3%	140	6,164	6,304
HDPE bottles (BB)	73	-	16	21.5%	1	15	15	15	20.5%	0	57	58
HDPE tubs	4,459	-	968	21.7%	61	906	940	922	20.7%	27	3,492	3,519
Other deposit plastic bottles	146	-	31	21.5%	2	30	3	-	0.0%	28	115	143
Other other bottles	834	-	327	39.2%	16	311	31	-	0.0%	295	507	803
Other accepted tubs & pails	414	-	91	22.0%	6	85	67	63	15.3%	24	323	347
Other bulky rigids	27,871	-	804	2.9%	29	775	804	804	2.9%	-	27,067	27,067
Other other rigid plastic containers	10,512	-	746	7.1%	22	724	72	-	0.0%	674	9,766	10,440
PP bottles & jars	442	-	188	42.5%	10	178	71	55	12.5%	117	254	371
PP bottles (BB)	73	-	16	21.5%	1	15	6	5	6.3%	10	57	67
PP rigid packaging and products	11,523	-	746	6.5%	1	745	724	709	6.2%	22	10,777	10,799
PP rigid products	11,551	-	974	8.4%	12	962	974	974	8.4%	-	10,577	10,577
PP tubs and small rigids	5,747	-	1,425	24.8%	79	1,347	1,385	1,358	23.6%	40	4,322	4,362
Solid polystyrene	2,406	-	75	3.1%	0	75	26	18	0.8%	49	2,331	2,380
Polystyrene foam	5,311	-	192	3.6%	1	190	20	1	0.0%	171	5,119	5,290
PE film	57,781	-	4,674	8.1%	3,684	989	3,783	3,684	6.4%	890	53,108	53,998
Other recoverable film	809	-	-	0.0%	-	-	-	-	0.0%	-	809	809
Metals	126,841	-	63,289	49.9%	44,627	18,661	63,096	62,852	49.6%	193	63,552	63,745
Deposit and accepted aluminum cans	4,127	-	553	13.4%	65	488	548	529	12.8%	5	3,574	3,579
Deposit and accepted steel cans	25,842	-	7,941	30.7%	613	7,328	7,868	7,795	30.2%	73	17,901	17,974
Accepted other aluminum	5,397	-	681	12.6%	76	605	669	621	11.5%	12	4,715	4,727
Accepted other steel	44,141	-	29,756	67.4%	19,823	9,934	29,657	29,558	67.0%	99	14,385	14,484
Scrap metals	47,333	-	24,357	51.5%	24,050	306	24,353	24,350	51.4%	3	22,977	22,980
Glass	94,109	-	61,323	65.2%	58,421	2,902	58,479	58,421	62.1%	2,844	32,786	35,630
Deposit glass bottles	23,584	-	11,258	47.7%	10,516	742	10,531	10,516	44.6%	727	12,326	13,053
Container glass	70,525	-	50,065	71.0%	47,905	2,160	47,948	47,905	67.9%	2,117	20,460	22,577
Other	2,646,776	452,888	24,879		129	24,750	2,366	-		22,513	2,169,010	2,191,523
Compostables	1,287,783	452,888	5,394		-	5,394	430	-		4,964	829,501	834,465
Other recoverables	256,809	-	-		-	-	-	-		-	256,809	256,809
Other materials	1,102,184	-	19,484		129	19,355	1,936	-		17,549	1,082,700	1,100,249
Total in-scope materials	3,643,237	452,888	559,194	15.3%	130,272	428,921	515,042	510,211	14.0%	44,151	2,631,156	2,675,308
Total in-scope recoverables	996,461	-	534,315	53.6%	130,143	404,172	512,676	510,211	51.2%	21,639	462,146	483,785
Total MRF inbound contamination tons						38,501						
Total MRF inbound contamination rate						9.0%						

Material	Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)											
	DRAFT - Statewide 2025: On-Route Residential & Commercial, Self-Haul (excluding Bottle Bill)											
	Generation	Collection for Recycling and Composting					Bales for Marketing			Disposal (Landfill and Other)		
	Generated (tons)	Collected for Organics (tons)	Collected for Recycling (tons)	Recycling Collection Rate (inbound)	Recycling Collected Separately: glass and depot (tons)	Recycling Collected Commingled or Dual-stream (tons)	Bales: target materials and contamination (tons)	Bales: only target materials (tons)	Recycling Capture Rate (baled for marketing)	Disposed as Residue: originally collected for recycling (tons)	Directly disposed: originally collected as garbage (tons)	Total Disposed (tons)
Paper	594,947	-	406,778	68.4%	22,672	384,106	391,850	388,998	65.4%	14,928	188,169	203,097
Corrugated cardboard	319,486	-	237,337	74.3%	18,809	218,528	231,206	230,936	72.3%	6,131	82,149	88,280
Newspaper	51,635	-	44,681	86.5%	1,121	43,560	43,461	43,380	84.0%	1,220	6,954	8,174
Printing and writing paper	110,233	-	62,624	56.8%	1,412	61,212	57,721	56,582	51.3%	4,903	47,609	52,512
Paperboard	65,019	-	40,989	63.0%	940	40,049	39,065	39,015	60.0%	1,925	24,030	25,955
Other paper recyclable with newspaper	8,983	-	4,762	53.0%	124	4,638	4,391	4,304	47.9%	371	4,221	4,592
Other paper not recyclable with newspaper	9,449	-	6,359	67.3%	149	6,210	6,233	5,770	61.1%	127	3,090	3,217
Gable tops & aseptics	4,564	-	1,960	42.9%	46	1,914	1,871	1,703	37.3%	89	2,604	2,693
Polycoated containers & cups	25,577	-	8,066	31.5%	71	7,995	7,902	7,308	28.6%	163	17,512	17,675
Plastic	180,565	-	44,903	24.9%	7,221	37,681	40,904	39,459	21.9%	3,998	135,662	139,660
PET bottles (BB)	7,582	-	1,866	24.6%	82	1,784	1,719	1,630	21.5%	148	5,715	5,863
Other PET bottles & jars	13,355	-	5,546	41.5%	262	5,284	5,110	4,815	36.1%	436	7,809	8,245
PET tubs	714	-	235	32.9%	10	225	216	201	28.1%	19	479	498
PET thermoforms	7,872	-	2,839	36.1%	17	2,822	2,586	2,412	30.6%	252	5,033	5,285
HDPE bottles & jars	11,090	-	5,249	47.3%	251	4,998	4,968	4,754	42.9%	281	5,842	6,123
HDPE bottles (BB)	73	-	18	24.6%	1	17	17	17	22.6%	1	55	56
HDPE tubs	4,459	-	1,466	32.9%	61	1,405	1,395	1,348	30.2%	71	2,993	3,064
Other deposit plastic bottles	146	-	36	24.6%	2	34	4	-	0.0%	32	110	142
Other other bottles	834	-	359	43.1%	16	344	38	-	0.0%	321	475	796
Other accepted tubs & pails	414	-	136	32.9%	6	130	20	6	1.4%	116	278	393
Other bulky rigids	27,871	-	9,718	34.9%	1,519	8,199	9,718	9,718	34.9%	-	18,154	18,154
Other other rigid plastic containers	10,512	-	911	8.7%	26	885	98	-	0.0%	813	9,601	10,414
PP bottles & jars	442	-	201	45.4%	10	191	186	172	38.9%	15	241	256
PP bottles (BB)	73	-	18	24.6%	1	17	17	15	21.1%	1	55	56
PP rigid packaging and products	11,523	-	4,192	36.4%	288	3,904	3,995	3,864	33.5%	197	7,330	7,527
PP rigid products	11,551	-	4,074	35.3%	629	3,445	4,074	4,074	35.3%	-	7,476	7,476
PP tubs and small rigids	5,747	-	2,112	36.8%	79	2,033	2,010	1,941	33.8%	102	3,635	3,738
Solid polystyrene	2,406	-	712	29.6%	10	701	655	542	22.5%	57	1,694	1,751
Polystyrene foam	5,311	-	354	6.7%	134	220	161	134	2.5%	194	4,956	5,150
PE film	57,781	-	4,860	8.4%	3,817	1,043	3,917	3,817	6.6%	943	52,921	53,864
Other recoverable film	809	-	-	0.0%	-	-	-	-	0.0%	-	809	809
Metals	126,841	-	68,178	53.8%	44,627	23,551	67,933	67,631	53.3%	245	58,663	58,908
Deposit and accepted aluminum cans	4,127	-	593	14.4%	65	528	588	567	13.7%	5	3,535	3,540
Deposit and accepted steel cans	25,842	-	9,903	38.3%	613	9,290	9,811	9,722	37.6%	93	15,939	16,032
Accepted other aluminum	5,397	-	986	18.3%	76	909	967	897	16.6%	18	4,411	4,429
Accepted other steel	44,141	-	32,311	73.2%	19,823	12,489	32,186	32,067	72.6%	125	11,830	11,955
Scrap metals	47,333	-	24,385	51.5%	24,050	334	24,381	24,378	51.5%	3	22,949	22,952
Glass	94,109	-	67,457	71.7%	64,552	2,905	64,607	64,552	68.6%	2,850	26,651	29,501
Deposit glass bottles	23,584	-	12,477	52.9%	11,731	745	11,745	11,731	49.7%	731	11,107	11,839
Container glass	70,525	-	54,981	78.0%	52,821	2,160	52,862	52,821	74.9%	2,119	15,544	17,663
Other	2,646,776	452,888	28,722		129	28,593	2,688	-		26,034	2,165,167	2,191,201
Compostables	1,287,783	452,888	6,072		-	6,072	462	-		5,610	828,824	834,433
Other recoverables	256,809	-	-		-	-	-	-		-	256,809	256,809
Other materials	1,102,184	-	22,650		129	22,522	2,226	-		20,425	1,079,534	1,099,959
Total in-scope materials	3,643,237	452,888	616,038	16.9%	139,201	476,837	567,983	560,641	15.4%	48,055	2,574,312	2,622,367
Total in-scope recoverables	996,461	-	587,316	58.9%	139,073	448,243	565,295	560,641	56.3%	22,021	409,145	431,166
Total MRF inbound contamination tons						34,527						
Total MRF inbound contamination rate						7.2%						

Material	Scenario B: Single-Stream with CRF (S3)											
	DRAFT - Statewide 2025: On-Route Residential & Commercial, Self-Haul (excluding Bottle Bill)											
	Generation	Collection for Recycling and Composting					Bales for Marketing			Disposal (Landfill and Other)		
	Generated (tons)	Collected for Organics (tons)	Collected for Recycling (tons)	Recycling Collection Rate (inbound)	Recycling Collected Separately: glass and depot (tons)	Recycling Collected Commingled or Dual-stream (tons)	Bales: target materials and contamination (tons)	Bales: only target materials (tons)	Recycling Capture Rate (baled for marketing)	Disposed as Residue: originally collected for recycling (tons)	Directly disposed: originally collected as garbage (tons)	Total Disposed (tons)
Paper	594,947	-	406,778	68.4%	22,672	384,106	391,846	389,051	65.4%	14,932	188,169	203,101
Corrugated cardboard	319,486	-	237,337	74.3%	18,809	218,528	231,205	230,960	72.3%	6,132	82,149	88,282
Newspaper	51,635	-	44,681	86.5%	1,121	43,560	43,461	43,381	84.0%	1,220	6,954	8,174
Printing and writing paper	110,233	-	62,624	56.8%	1,412	61,212	57,720	56,593	51.3%	4,904	47,609	52,513
Paperboard	65,019	-	40,989	63.0%	940	40,049	39,065	39,020	60.0%	1,925	24,030	25,955
Other paper recyclable with newspaper	8,983	-	4,762	53.0%	124	4,638	4,390	4,305	47.9%	372	4,221	4,592
Other paper not recyclable with newspaper	9,449	-	6,359	67.3%	149	6,210	6,232	5,775	61.1%	127	3,090	3,217
Gable tops & aseptics	4,564	-	1,960	42.9%	46	1,914	1,871	1,703	37.3%	89	2,604	2,693
Polycoated containers & cups	25,577	-	8,066	31.5%	71	7,995	7,902	7,314	28.6%	164	17,512	17,675
Plastic	180,565	-	44,903	24.9%	7,221	37,681	40,801	39,334	21.8%	4,102	135,662	139,764
PET bottles (BB)	7,582	-	1,866	24.6%	82	1,784	1,719	1,630	21.5%	148	5,715	5,863
Other PET bottles & jars	13,355	-	5,546	41.5%	262	5,284	5,108	4,846	36.3%	438	7,809	8,247
PET tubs	714	-	235	32.9%	10	225	216	201	28.1%	19	479	498
PET thermoforms	7,872	-	2,839	36.1%	17	2,822	2,586	2,412	30.6%	252	5,033	5,285
HDPE bottles & jars	11,090	-	5,249	47.3%	251	4,998	4,929	4,728	42.6%	320	5,842	6,161
HDPE bottles (BB)	73	-	18	24.6%	1	17	17	16	22.3%	1	55	56
HDPE tubs	4,459	-	1,466	32.9%	61	1,405	1,384	1,329	29.8%	82	2,993	3,076
Other deposit plastic bottles	146	-	36	24.6%	2	34	4	-	0.0%	32	110	142
Other other bottles	834	-	359	43.1%	16	344	40	-	0.0%	320	475	794
Other accepted tubs & pails	414	-	136	32.9%	6	130	21	6	1.4%	115	278	393
Other bulky rigids	27,871	-	9,718	34.9%	1,519	8,199	9,718	9,718	34.9%	-	18,154	18,154
Other other rigid plastic containers	10,512	-	911	8.7%	26	885	102	-	0.0%	809	9,601	10,411
PP bottles & jars	442	-	201	45.4%	10	191	184	167	37.8%	17	241	258
PP bottles (BB)	73	-	18	24.6%	1	17	16	15	20.5%	2	55	57
PP rigid packaging and products	11,523	-	4,192	36.4%	288	3,904	3,964	3,811	33.1%	228	7,330	7,559
PP rigid products	11,551	-	4,074	35.3%	629	3,445	4,074	4,074	35.3%	-	7,476	7,476
PP tubs and small rigids	5,747	-	2,112	36.8%	79	2,033	1,993	1,914	33.3%	119	3,635	3,754
Solid polystyrene	2,406	-	712	29.6%	10	701	647	517	21.5%	65	1,694	1,759
Polystyrene foam	5,311	-	354	6.7%	134	220	163	134	2.5%	192	4,956	5,148
PE film	57,781	-	4,860	8.4%	3,817	1,043	3,917	3,817	6.6%	943	52,921	53,865
Other recoverable film	809	-	-	0.0%	-	-	-	-	0.0%	-	809	809
Metals	126,841	-	68,178	53.8%	44,627	23,551	67,933	67,633	53.3%	245	58,663	58,908
Deposit and accepted aluminum cans	4,127	-	593	14.4%	65	528	588	567	13.7%	5	3,535	3,540
Deposit and accepted steel cans	25,842	-	9,903	38.3%	613	9,290	9,811	9,722	37.6%	93	15,939	16,032
Accepted other aluminum	5,397	-	986	18.3%	76	909	967	898	16.6%	18	4,411	4,429
Accepted other steel	44,141	-	32,311	73.2%	19,823	12,489	32,186	32,068	72.6%	125	11,830	11,955
Scrap metals	47,333	-	24,385	51.5%	24,050	334	24,381	24,378	51.5%	3	22,949	22,952
Glass	94,109	-	67,457	71.7%	64,552	2,905	64,607	64,552	68.6%	2,850	26,651	29,502
Deposit glass bottles	23,584	-	12,477	52.9%	11,731	745	11,745	11,731	49.7%	731	11,107	11,839
Container glass	70,525	-	54,981	78.0%	52,821	2,160	52,862	52,821	74.9%	2,119	15,544	17,663
Other	2,646,776	452,888	28,722		129	28,593	2,680	-		26,042	2,165,167	2,191,208
Compostables	1,287,783	452,888	6,072		-	6,072	459	-		5,613	828,824	834,436
Other recoverables	256,809	-	-		-	-	-	-		-	256,809	256,809
Other materials	1,102,184	-	22,650		129	22,522	2,222	-		20,429	1,079,534	1,099,963
Total in-scope materials	3,643,237	452,888	616,038	16.9%	139,201	476,837	567,867	560,571	15.4%	48,171	2,574,312	2,622,483
Total in-scope recoverables	996,461	-	587,316	58.9%	139,073	448,243	565,187	560,571	56.3%	22,129	409,145	431,274
Total MRF inbound contamination tons						34,527						
Total MRF inbound contamination rate						7.2%						

Material	Scenario C: Dual-Stream Statewide (S4)											
	DRAFT - Statewide 2025: On-Route Residential & Commercial, Self-Haul (excluding Bottle Bill)											
	Generation	Collection for Recycling and Composting					Bales for Marketing			Disposal (Landfill and Other)		
	Generated (tons)	Collected for Organics (tons)	Collected for Recycling (tons)	Recycling Collection Rate (inbound)	Recycling Collected Separately: glass and depot (tons)	Recycling Collected Commingled or Dual-stream (tons)	Bales: target materials and contamination (tons)	Bales: only target materials (tons)	Recycling Capture Rate (baled for marketing)	Disposed as Residue: originally collected for recycling (tons)	Directly disposed: originally collected as garbage (tons)	Total Disposed (tons)
Paper	594,947	-	407,984	68.6%	22,672	385,312	399,180	396,714	66.7%	8,805	186,963	195,767
Corrugated cardboard	319,486	-	237,337	74.3%	18,809	218,528	235,152	235,152	73.6%	2,185	82,149	84,335
Newspaper	51,635	-	44,681	86.5%	1,121	43,560	43,505	43,375	84.0%	1,176	6,954	8,130
Printing and writing paper	110,233	-	62,624	56.8%	1,412	61,212	60,221	58,997	53.5%	2,403	47,609	50,012
Paperboard	65,019	-	40,989	63.0%	940	40,049	38,987	38,987	60.0%	2,002	24,030	26,033
Other paper recyclable with newspaper	8,983	-	4,762	53.0%	124	4,638	4,439	4,346	48.4%	323	4,221	4,544
Other paper not recyclable with newspaper	9,449	-	6,359	67.3%	149	6,210	6,235	5,738	60.7%	124	3,090	3,214
Gable tops & aseptics	4,564	-	1,960	42.9%	46	1,914	1,921	1,768	38.7%	38	2,604	2,642
Polycoated containers & cups	25,577	-	9,272	36.2%	71	9,201	8,719	8,351	32.7%	552	16,306	16,858
Plastic	180,565	-	44,410	24.6%	7,221	37,189	41,427	40,532	22.4%	2,984	136,155	139,138
PET bottles (BB)	7,582	-	1,866	24.6%	82	1,784	1,777	1,724	22.7%	89	5,715	5,805
Other PET bottles & jars	13,355	-	5,546	41.5%	262	5,284	5,282	5,124	38.4%	264	7,809	8,073
PET tubs	714	-	235	32.9%	10	225	223	212	29.7%	11	479	490
PET thermoforms	7,872	-	3,119	39.6%	17	3,101	2,964	2,809	35.7%	155	4,753	4,908
HDPE bottles & jars	11,090	-	5,249	47.3%	251	4,998	5,099	4,999	45.1%	150	5,842	5,991
HDPE bottles (BB)	73	-	18	24.6%	1	17	17	17	23.4%	1	55	56
HDPE tubs	4,459	-	1,466	32.9%	61	1,405	1,424	1,396	31.3%	42	2,993	3,036
Other deposit plastic bottles	146	-	36	24.6%	2	34	3	-	0.0%	33	110	143
Other other bottles	834	-	359	43.1%	16	344	34	-	0.0%	325	475	799
Other accepted tubs & pails	414	-	136	32.9%	6	130	19	6	1.4%	117	278	395
Other bulky rigids	27,871	-	9,718	34.9%	1,519	8,199	9,718	9,718	34.9%	-	18,154	18,154
Other other rigid plastic containers	10,512	-	653	6.2%	26	627	63	-	0.0%	590	9,859	10,450
PP bottles & jars	442	-	201	45.4%	10	191	195	191	43.2%	6	241	247
PP bottles (BB)	73	-	18	24.6%	1	17	17	17	23.4%	1	55	56
PP rigid packaging and products	11,523	-	4,184	36.3%	288	3,896	4,067	3,989	34.6%	117	7,338	7,455
PP rigid products	11,551	-	3,684	31.9%	629	3,054	3,684	3,684	31.9%	-	7,867	7,867
PP tubs and small rigids	5,747	-	2,112	36.8%	79	2,033	2,051	2,011	35.0%	61	3,635	3,696
Solid polystyrene	2,406	-	805	33.5%	10	795	765	686	28.5%	40	1,601	1,641
Polystyrene foam	5,311	-	354	6.7%	134	220	156	134	2.5%	198	4,956	5,155
PE film	57,781	-	4,651	8.1%	3,817	834	3,867	3,817	6.6%	784	53,130	53,914
Other recoverable film	809	-	-	0.0%	-	-	-	-	0.0%	-	809	809
Metals	126,841	-	68,178	53.8%	44,627	23,551	67,735	67,447	53.2%	443	58,663	59,106
Deposit and accepted aluminum cans	4,127	-	593	14.4%	65	528	588	577	14.0%	5	3,535	3,540
Deposit and accepted steel cans	25,842	-	9,903	38.3%	613	9,290	9,811	9,718	37.6%	93	15,939	16,032
Accepted other aluminum	5,397	-	986	18.3%	76	909	968	931	17.3%	18	4,411	4,429
Accepted other steel	44,141	-	32,311	73.2%	19,823	12,489	32,186	32,062	72.6%	125	11,830	11,955
Scrap metals	47,333	-	24,385	51.5%	24,050	334	24,183	24,160	51.0%	202	22,949	23,151
Glass	94,109	-	67,457	71.7%	64,552	2,905	64,610	64,552	68.6%	2,847	26,651	29,499
Deposit glass bottles	23,584	-	12,477	52.9%	11,731	745	11,746	11,731	49.7%	731	11,107	11,838
Container glass	70,525	-	54,981	78.0%	52,821	2,160	52,864	52,821	74.9%	2,117	15,544	17,661
Other	2,646,776	452,888	28,586		129	28,457	2,048	-		26,538	2,165,303	2,191,841
Compostables	1,287,783	452,888	6,072		-	6,072	413	-		5,659	828,824	834,482
Other recoverables	256,809	-	-		-	-	-	-		-	256,809	256,809
Other materials	1,102,184	-	22,514		129	22,385	1,634	-		20,880	1,079,670	1,100,550
Total in-scope materials	3,643,237	452,888	616,615	16.9%	139,201	477,414	574,999	569,245	15.6%	41,617	2,573,734	2,615,351
Total in-scope recoverables	996,461	-	588,030	59.0%	139,073	448,957	572,951	569,245	57.1%	15,078	408,432	423,510
Total MRF inbound contamination tons						33,371						
Total MRF inbound contamination rate						7.0%						

Figures in this report represent the consultant team's reasonable modeling estimates, but they should be considered to have meaningful error ranges.

This table shows the percent of materials collected for recycling that are disposed of as residue.
This table does not include recoverable materials that end up as contamination in the wrong bale.

Material	Disposed as Residue (Pct of Inbound MRF)				
	S0	S1	S2	S3	S4
Paper	3.9%	4.2%	3.9%	3.9%	2.3%
Corrugated cardboard	3.0%	2.8%	2.8%	2.8%	1.0%
Newspaper	2.8%	2.8%	2.8%	2.8%	2.7%
Printing and writing paper	8.0%	9.5%	8.0%	8.0%	3.9%
Paperboard	3.0%	4.8%	4.8%	4.8%	5.0%
Other paper recyclable with newspaper	8.0%	8.0%	8.0%	8.0%	7.0%
Other paper not recyclable with newspaper	2.0%	2.0%	2.0%	2.0%	2.0%
Gable tops & aseptics	35.0%	39.0%	4.6%	4.6%	2.0%
Polycoated containers & cups	2.0%	3.0%	2.0%	2.0%	6.0%
Plastic	27.8%	17.6%	10.6%	10.9%	8.0%
PET bottles (BB)	5.0%	4.7%	8.3%	8.3%	5.0%
Other PET bottles & jars	5.0%	5.0%	8.3%	8.3%	5.0%
PET tubs	58.5%	58.5%	8.3%	8.3%	5.0%
PET thermoforms	58.4%	58.4%	8.9%	8.9%	5.0%
HDPE bottles & jars	3.0%	3.0%	5.6%	6.4%	3.0%
HDPE bottles (BB)	3.0%	3.0%	5.0%	5.9%	3.0%
HDPE tubs	3.0%	3.0%	5.0%	5.9%	3.0%
Other deposit plastic bottles	95.4%	95.4%	93.6%	93.2%	94.7%
Other other bottles	95.0%	95.0%	93.5%	93.1%	94.6%
Other accepted tubs & pails	27.9%	28.2%	88.9%	88.5%	90.0%
Other bulky rigids	0.0%	0.0%	0.0%	0.0%	0.0%
Other other rigid plastic containers	91.9%	93.1%	91.9%	91.5%	94.2%
PP bottles & jars	65.8%	65.8%	7.7%	8.9%	3.0%
PP bottles (BB)	65.8%	65.8%	7.7%	9.0%	3.0%
PP rigid packaging and products	3.0%	3.0%	5.0%	5.9%	3.0%
PP rigid products	0.0%	0.0%	0.0%	0.0%	0.0%
PP tubs and small rigids	3.0%	3.0%	5.0%	5.9%	3.0%
Solid polystyrene	90.0%	65.7%	8.1%	9.3%	5.0%
Polystyrene foam	90.0%	90.0%	87.9%	87.0%	90.0%
PE film	90.0%	90.0%	90.4%	90.5%	94.0%
Other recoverable film					
Metals	1.0%	1.0%	1.0%	1.0%	1.9%
Deposit and accepted aluminum cans	1.0%	1.0%	1.0%	1.0%	1.0%
Deposit and accepted steel cans	1.0%	1.0%	1.0%	1.0%	1.0%
Accepted other aluminum	2.0%	2.0%	2.0%	2.0%	2.0%
Accepted other steel	1.0%	1.0%	1.0%	1.0%	1.0%
Scrap metals	1.0%	1.0%	1.0%	1.0%	60.3%
Glass	98.0%	98.0%	98.1%	98.1%	98.0%
Deposit glass bottles	98.0%	98.0%	98.1%	98.1%	98.0%
Container glass	98.0%	98.0%	98.1%	98.1%	98.0%
Other	91.2%	91.0%	91.1%	91.1%	93.3%
Compostables	93.4%	92.0%	92.4%	92.4%	93.2%
Other recoverables					
Other materials	90.4%	90.7%	90.7%	90.7%	93.3%
Total in-scope materials					
Total in-scope recoverables	6.3%	5.4%	4.9%	4.9%	3.4%
Total MRF inbound contamination tons					
Total MRF inbound contamination rate					

DRAFT

This table shows the percent of materials baled for market into the intended bale(s).
This table does not include recoverable materials that end up as contamination in the wrong bale.

Material	Properly Baled (Pct of Generated)				
	S0	S1	S2	S3	S4
Paper	62.0%	62.0%	65.4%	65.4%	66.7%
Corrugated cardboard	71.8%	72.2%	72.3%	72.3%	73.6%
Newspaper	81.8%	81.8%	84.0%	84.0%	84.0%
Printing and writing paper	45.7%	45.7%	51.3%	51.3%	53.5%
Paperboard	54.7%	54.7%	60.0%	60.0%	60.0%
Other paper recyclable with newspaper	29.5%	29.5%	47.9%	47.9%	48.4%
Other paper not recyclable with newspaper	55.9%	55.9%	61.1%	61.1%	60.7%
Gable tops & aseptics	24.7%	19.3%	37.3%	37.3%	38.7%
Polycoated containers & cups	9.2%	5.7%	28.6%	28.6%	32.7%
Plastic	12.2%	11.1%	21.9%	21.8%	22.4%
PET bottles (BB)	19.8%	19.8%	21.5%	21.5%	22.7%
Other PET bottles & jars	35.6%	35.6%	36.1%	36.3%	38.4%
PET tubs	10.8%	7.0%	28.1%	28.1%	29.7%
PET thermoforms	7.6%	4.7%	30.6%	30.6%	35.7%
HDPE bottles & jars	42.3%	42.3%	42.9%	42.6%	45.1%
HDPE bottles (BB)	20.5%	20.5%	22.6%	22.3%	23.4%
HDPE tubs	25.3%	20.7%	30.2%	29.8%	31.3%
Other deposit plastic bottles	0.0%	0.0%	0.0%	0.0%	0.0%
Other other bottles	0.0%	0.0%	0.0%	0.0%	0.0%
Other accepted tubs & pails	18.6%	15.3%	1.4%	1.4%	1.4%
Other bulky rigids	3.7%	2.9%	34.9%	34.9%	34.9%
Other other rigid plastic containers	0.0%	0.0%	0.0%	0.0%	0.0%
PP bottles & jars	12.5%	12.5%	38.9%	37.8%	43.2%
PP bottles (BB)	6.3%	6.3%	21.1%	20.5%	23.4%
PP rigid packaging and products	10.2%	6.2%	33.5%	33.1%	34.6%
PP rigid products	14.0%	8.4%	35.3%	35.3%	31.9%
PP tubs and small rigids	29.3%	23.6%	33.8%	33.3%	35.0%
Solid polystyrene	0.0%	0.8%	22.5%	21.5%	28.5%
Polystyrene foam	0.0%	0.0%	2.5%	2.5%	2.5%
PE film	6.4%	6.4%	6.6%	6.6%	6.6%
Other recoverable film	0.0%	0.0%	0.0%	0.0%	0.0%
Metals	51.0%	49.6%	53.3%	53.3%	53.2%
Deposit and accepted aluminum cans	12.5%	12.8%	13.7%	13.7%	14.0%
Deposit and accepted steel cans	30.2%	30.2%	37.6%	37.6%	37.6%
Accepted other aluminum	16.4%	11.5%	16.6%	16.6%	17.3%
Accepted other steel	70.1%	67.0%	72.6%	72.6%	72.6%
Scrap metals	51.9%	51.4%	51.5%	51.5%	51.0%
Glass	62.1%	62.1%	68.6%	68.6%	68.6%
Deposit glass bottles	44.6%	44.6%	49.7%	49.7%	49.7%
Container glass	67.9%	67.9%	74.9%	74.9%	74.9%
Other	0.0%	0.0%	0.0%	0.0%	0.0%
Compostables	0.0%	0.0%	0.0%	0.0%	0.0%
Other recoverables	0.0%	0.0%	0.0%	0.0%	0.0%
Other materials	0.0%	0.0%	0.0%	0.0%	0.0%
Total in-scope materials					
Total in-scope recoverables	51.6%	51.2%	56.3%	56.3%	57.1%
Total MRF inbound contamination tons					
Total MRF inbound contamination rate					

Baseline (\$0)					
DRAFT - Statewide 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 2,657,886	\$ 1,060,354	\$ 2,367,922	\$ -	\$ 6,086,162
Collection Engagement Labor and Expenses	\$ 1,113,886	\$ 19,833	\$ 76,537	\$ -	\$ 1,210,256
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 76,453,880	\$ 16,974,784	\$ 68,939,478	\$ 13,687,441	\$ 176,055,583
Direct Collection Costs	\$ 52,932,903	\$ 11,861,692	\$ 47,989,590	\$ 12,750,521	\$ 125,534,706
Collection Capital - Containers	\$ 1,781,410	\$ 210,715	\$ 898,452	\$ 738,235	\$ 3,628,813
Collection Capital - Trucks	\$ 7,518,420	\$ 1,011,532	\$ 4,438,435	NA	\$ 12,968,386
Collection Labor	\$ 29,490,793	\$ 6,903,202	\$ 27,765,814	\$ 9,716,869	\$ 73,876,678
Collection Operations	\$ 14,142,281	\$ 3,736,243	\$ 14,886,889	\$ 2,295,416	\$ 35,060,830
Indirect Collection Costs	\$ 23,520,977	\$ 5,113,092	\$ 20,949,888	\$ 936,920	\$ 50,520,877
Collection Administrative	\$ 15,506,657	\$ 3,198,358	\$ 13,264,390	\$ 936,920	\$ 32,906,324
Collection Margin and Franchise Fee	\$ 8,014,321	\$ 1,914,734	\$ 7,685,498	NA	\$ 17,614,553
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 25,588,011	\$ 2,974,760	\$ 26,048,201	\$ 5,968,428	\$ 60,579,399
Initial Transfer Transport	\$ 2,499,930	\$ 132,476	\$ 3,951,345	\$ 4,493,339	\$ 11,077,089
Consolidation and Transfer to MRF	\$ 2,499,930	\$ 132,476	\$ 3,951,345	\$ 4,493,339	\$ 11,077,089
Sortation	\$ 30,345,629	\$ 3,043,440	\$ 32,733,610	\$ 555,332	\$ 67,163,253
Sortation Labor	\$ 14,150,837	\$ 1,419,223	\$ 15,264,405		\$ 31,319,707
Sortation Capital	\$ 879,902	\$ 88,248	\$ 949,144	\$ 30,172	\$ 1,947,466
Sortation Facility	\$ 5,341,317	\$ 535,694	\$ 5,761,640	\$ 183,158	\$ 11,821,810
Glass and Unsorted Container Transfer	\$ 200,053	\$ 20,064	\$ 215,795	\$ 6,860	\$ 442,772
Sortation Residual Disposal	\$ 4,890,817	\$ 490,512	\$ 5,275,689	\$ 167,710	\$ 10,824,727
Sortation Administrative & Marketing	\$ 2,649,698	\$ 265,745	\$ 2,858,210	\$ 90,860	\$ 5,864,513
Sortation Margin	\$ 2,233,006	\$ 223,954	\$ 2,408,727	\$ 76,571	\$ 4,942,258
Overall System Costs					
Total Costs	\$ 111,957,325	\$ 21,211,054	\$ 107,992,355	\$ 18,736,111	\$ 260,382,087

Baseline (S0)					
DRAFT - Statewide 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	243,032	23,984	246,985	78,621	592,621
Tons Collected Commingled	208,898	20,951	225,337	7,163	462,349
Tons Collected Source-Separated	34,133	3,033	21,648	71,458	130,272
Tons Marketed	220,292	21,740	223,876	71,265	537,172
Tons Marketed (excluding bale contamination)	220,292	21,740	223,876	71,265	537,172
Total Cost per Ton Collected	\$ 461	\$ 884	\$ 437	\$ 238	\$ 439
Total Cost per Ton Marketed	\$ 508	\$ 976	\$ 482	\$ 263	\$ 485

Commodity Revenues					
Commodity Revenues					
Commodity Sales (lower range)	\$ 14,150,837	\$ 1,419,223	\$ 15,264,405	\$ 485,243	\$ 11,267,395
Commodity Sales (mid-point)	\$ 879,902	\$ 88,248	\$ 949,144	\$ 30,172	\$ 42,557,316
Commodity Sales (upper range)	\$ 5,341,317	\$ 535,694	\$ 5,761,640	\$ 183,158	\$ 73,847,238

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	20	13	28	-	61
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	250	54	216	242	762
Route Drivers, Route Operations, Depot Operations	187	48	194	242	672
Management and Administrative	63	5	22	-	90
Sortation	244	24	263	8	540
Sorting Labor	183	18	198	6	406
Equipment Operators, Supervisors, Maintenance	40	4	43	1	89
Admininstrative and Marketing	20	2	22	1	45
Overall Recycling System FTEs	514	91	507	250	1,362

Scenario A: Single-Stream with Modern MRF (S1)					
DRAFT - Statewide 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 5,442,601	\$ 3,043,625	\$ 10,021,612	\$ -	\$ 18,507,838
Collection Engagement Labor and Expenses	\$ 3,898,601	\$ 2,003,104	\$ 7,730,227	\$ -	\$ 13,631,932
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 76,453,880	\$ 16,974,784	\$ 68,939,478	\$ 8,766,476	\$ 171,134,618
Direct Collection Costs	\$ 52,932,903	\$ 11,861,692	\$ 47,989,590	\$ 8,056,243	\$ 120,840,428
Collection Capital - Containers	\$ 1,781,410	\$ 210,715	\$ 898,452	\$ 472,674	\$ 3,363,251
Collection Capital - Trucks	\$ 7,518,420	\$ 1,011,532	\$ 4,438,435	NA	\$ 12,968,386
Collection Labor	\$ 29,490,793	\$ 6,903,202	\$ 27,765,814	\$ 6,033,460	\$ 70,193,268
Collection Operations	\$ 14,142,281	\$ 3,736,243	\$ 14,886,889	\$ 1,550,109	\$ 34,315,522
Indirect Collection Costs	\$ 23,520,977	\$ 5,113,092	\$ 20,949,888	\$ 710,233	\$ 50,294,190
Collection Administrative	\$ 15,506,657	\$ 3,198,358	\$ 13,264,390	\$ 710,233	\$ 32,679,638
Collection Margin and Franchise Fee	\$ 8,014,321	\$ 1,914,734	\$ 7,685,498	NA	\$ 17,614,553
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 24,098,739	\$ 2,713,144	\$ 24,403,986	\$ 5,929,190	\$ 57,145,058
Initial Transfer Transport	\$ 2,350,879	\$ 123,121	\$ 3,673,528	\$ 4,483,139	\$ 10,630,668
Consolidation and Transfer to MRF	\$ 2,350,879	\$ 123,121	\$ 3,673,528	\$ 4,483,139	\$ 10,630,668
Sortation	\$ 27,743,942	\$ 2,687,547	\$ 29,892,792	\$ 948,985	\$ 61,273,267
Sortation Labor	\$ 12,247,748	\$ 1,186,436	\$ 13,196,372	\$ 418,936	\$ 27,049,491
Sortation Capital	\$ 2,498,978	\$ 242,075	\$ 2,692,531	\$ 85,478	\$ 5,519,062
Sortation Facility	\$ 4,965,795	\$ 481,035	\$ 5,350,411	\$ 169,856	\$ 10,967,097
Glass and Unsorted Container Transfer	\$ 200,483	\$ 19,421	\$ 216,011	\$ 6,858	\$ 442,772
Sortation Residual Disposal	\$ 3,135,287	\$ 303,714	\$ 3,378,125	\$ 107,243	\$ 6,924,369
Sortation Administrative & Marketing	\$ 2,655,395	\$ 257,227	\$ 2,861,063	\$ 90,828	\$ 5,864,513
Sortation Margin	\$ 2,040,256	\$ 197,639	\$ 2,198,280	\$ 69,787	\$ 4,505,963
Overall System Costs					
Total Costs	\$ 111,991,302	\$ 22,829,078	\$ 112,527,410	\$ 14,198,601	\$ 261,546,392

Scenario A: Single-Stream with Modern MRF (S1)
DRAFT - Statewide 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
<i>Tons Collected for Recycling</i>	228,345	21,846	230,902	78,101	559,194
<i>Tons Collected Commingled</i>	194,211	18,813	209,254	6,643	428,921
<i>Tons Collected Source-Separated</i>	34,133	3,033	21,648	71,458	130,272
<i>Tons Marketed</i>	219,353	20,986	221,809	75,025	537,172
<i>Tons Marketed (excluding bale contamination)</i>	219,353	20,986	221,809	75,025	537,172
Total Cost per Ton Collected	\$ 490	\$ 1,045	\$ 487	\$ 182	\$ 468
Total Cost per Ton Marketed	\$ 511	\$ 1,088	\$ 507	\$ 189	\$ 487

Commodity Revenues						
Commodity Sales (lower range)	\$ 13,155,959	\$ 1,274,414	\$ 14,174,927	\$ 450,001	\$ 14,578,790	
Commodity Sales (mid-point)	\$ 818,040	\$ 79,243	\$ 881,400	\$ 27,981	\$ 42,102,986	
Commodity Sales (upper range)	\$ 4,965,795	\$ 481,035	\$ 5,350,411	\$ 169,856	\$ 69,627,183	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	41	28	87	-	156
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	21	15	59	-	
Recycling Collection	250	54	216	169	688
Route Drivers, Route Operations, Depot Operations	187	48	194	169	598
Management and Administrative	63	5	22	-	90
Sortation	214	21	231	7	473
Sorting Labor	155	15	167	5	342
Equipment Operators, Supervisors, Maintenance	39	4	42	1	87
Admininstrative and Marketing	20	2	22	1	45
Overall Recycling System FTEs	505	103	534	176	1,318

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)						
DRAFT - Statewide 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 5,442,601	\$ 3,043,625	\$ 10,021,612	\$ -	\$ 18,507,838	
Collection Engagement Labor and Expenses	\$ 3,898,601	\$ 2,003,104	\$ 7,730,227	\$ -	\$ 13,631,932	
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906	
Collection	\$ 76,453,880	\$ 16,974,784	\$ 68,939,478	\$ 15,879,085	\$ 178,247,227	
Direct Collection Costs	\$ 52,932,903	\$ 11,861,692	\$ 47,989,590	\$ 14,878,702	\$ 127,662,888	
Collection Capital - Containers	\$ 1,781,410	\$ 210,715	\$ 898,452	\$ 1,582,514	\$ 4,473,091	
Collection Capital - Trucks	\$ 7,518,420	\$ 1,011,532	\$ 4,438,435	NA	\$ 12,968,386	
Collection Labor	\$ 29,490,793	\$ 6,903,202	\$ 27,765,814	\$ 10,865,985	\$ 75,025,793	
Collection Operations	\$ 14,142,281	\$ 3,736,243	\$ 14,886,889	\$ 2,430,204	\$ 35,195,617	
Indirect Collection Costs	\$ 23,520,977	\$ 5,113,092	\$ 20,949,888	\$ 1,000,382	\$ 50,584,339	
Collection Administrative	\$ 15,506,657	\$ 3,198,358	\$ 13,264,390	\$ 1,000,382	\$ 32,969,787	
Collection Margin and Franchise Fee	\$ 8,014,321	\$ 1,914,734	\$ 7,685,498	NA	\$ 17,614,553	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 26,243,156	\$ 3,038,394	\$ 26,309,079	\$ 6,397,779	\$ 61,988,408	
Initial Transfer Transport	\$ 3,006,867	\$ 168,911	\$ 4,041,217	\$ 4,729,379	\$ 11,946,373	
Consolidation and Transfer to MRF	\$ 3,006,867	\$ 168,911	\$ 4,041,217	\$ 4,729,379	\$ 11,946,373	
Sortation	\$ 27,836,703	\$ 2,838,843	\$ 29,732,352	\$ 1,165,041	\$ 61,572,939	
Sortation Labor	\$ 11,186,419	\$ 1,140,814	\$ 11,948,203	\$ 468,182	\$ 24,743,617	
Sortation Capital	\$ 2,662,306	\$ 271,507	\$ 2,843,606	\$ 111,425	\$ 5,888,844	
Sortation Facility	\$ 5,480,918	\$ 558,955	\$ 5,854,163	\$ 229,391	\$ 12,123,427	
Glass and Unsorted Container Transfer	\$ 428,228	\$ 43,672	\$ 457,390	\$ 17,923	\$ 947,213	
Sortation Residual Disposal	\$ 3,397,268	\$ 346,460	\$ 3,628,618	\$ 142,185	\$ 7,514,530	
Sortation Administrative & Marketing	\$ 2,651,306	\$ 270,386	\$ 2,831,857	\$ 110,964	\$ 5,864,513	
Sortation Margin	\$ 2,030,257	\$ 207,050	\$ 2,168,516	\$ 84,972	\$ 4,490,795	
Overall System Costs						
Total Costs	\$ 112,740,051	\$ 23,026,164	\$ 112,734,659	\$ 21,773,505	\$ 270,274,378	

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)

DRAFT - Statewide 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	254,703	25,177	252,881	83,278	616,038
Tons Collected Commingled	215,575	21,985	230,255	9,022	476,837
Tons Collected Source-Separated	39,128	3,192	22,626	74,256	139,201
Tons Marketed	222,096	21,953	220,507	72,617	537,172
Tons Marketed (excluding bale contamination)	222,096	21,953	220,507	72,617	537,172
Total Cost per Ton Collected	\$ 443	\$ 915	\$ 446	\$ 261	\$ 439
Total Cost per Ton Marketed	\$ 508	\$ 1,049	\$ 511	\$ 300	\$ 503

Commodity Revenues						
Commodity Sales (lower range)	\$ 14,603,105	\$ 1,489,254	\$ 15,597,561	\$ 611,179	\$ 16,712,549	
Commodity Sales (mid-point)	\$ 908,024	\$ 92,602	\$ 969,859	\$ 38,003	\$ 48,067,521	
Commodity Sales (upper range)	\$ 5,512,029	\$ 562,128	\$ 5,887,392	\$ 230,693	\$ 79,422,494	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	41	28	87	-	156
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	21	15	59	-	
Recycling Collection	250	54	216	261	781
Route Drivers, Route Operations, Depot Operations	187	48	194	261	690
Management and Administrative	63	5	22	-	90
Sortation	198	20	212	8	438
Sorting Labor	135	14	145	6	300
Equipment Operators, Supervisors, Maintenance	42	4	45	2	94
Admininstrative and Marketing	20	2	22	1	45
Overall Recycling System FTEs	489	102	514	269	1,375

Scenario B: Single-Stream with CRF (S3)						
DRAFT - Statewide 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 5,442,601	\$ 3,043,625	\$ 10,021,612	\$ -	\$ 18,507,838	
Collection Engagement Labor and Expenses	\$ 3,898,601	\$ 2,003,104	\$ 7,730,227	\$ -	\$ 13,631,932	
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906	
Collection	\$ 76,453,880	\$ 16,974,784	\$ 68,939,478	\$ 15,879,085	\$ 178,247,227	
Direct Collection Costs	\$ 52,932,903	\$ 11,861,692	\$ 47,989,590	\$ 14,878,702	\$ 127,662,888	
Collection Capital - Containers	\$ 1,781,410	\$ 210,715	\$ 898,452	\$ 1,582,514	\$ 4,473,091	
Collection Capital - Trucks	\$ 7,518,420	\$ 1,011,532	\$ 4,438,435	NA	\$ 12,968,386	
Collection Labor	\$ 29,490,793	\$ 6,903,202	\$ 27,765,814	\$ 10,865,985	\$ 75,025,793	
Collection Operations	\$ 14,142,281	\$ 3,736,243	\$ 14,886,889	\$ 2,430,204	\$ 35,195,617	
Indirect Collection Costs	\$ 23,520,977	\$ 5,113,092	\$ 20,949,888	\$ 1,000,382	\$ 50,584,339	
Collection Administrative	\$ 15,506,657	\$ 3,198,358	\$ 13,264,390	\$ 1,000,382	\$ 32,969,787	
Collection Margin and Franchise Fee	\$ 8,014,321	\$ 1,914,734	\$ 7,685,498	NA	\$ 17,614,553	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 26,243,156	\$ 3,038,394	\$ 26,309,079	\$ 6,397,779	\$ 61,988,408	
Initial Transfer Transport	\$ 3,006,867	\$ 168,911	\$ 4,041,217	\$ 4,729,379	\$ 11,946,373	
Consolidation and Transfer to MRF	\$ 3,006,867	\$ 168,911	\$ 4,041,217	\$ 4,729,379	\$ 11,946,373	
Sortation	\$ 27,397,872	\$ 2,794,090	\$ 29,263,638	\$ 1,146,675	\$ 60,602,276	
Sortation Labor	\$ 10,866,047	\$ 1,108,141	\$ 11,606,013	\$ 454,773	\$ 24,034,975	
Sortation Capital	\$ 2,400,307	\$ 244,788	\$ 2,563,765	\$ 100,459	\$ 5,309,320	
Sortation Facility	\$ 5,512,029	\$ 562,128	\$ 5,887,392	\$ 230,693	\$ 12,192,242	
Glass and Unsorted Container Transfer	\$ 758,416	\$ 77,345	\$ 810,063	\$ 31,742	\$ 1,677,566	
Sortation Residual Disposal	\$ 3,236,474	\$ 330,062	\$ 3,456,875	\$ 135,455	\$ 7,158,866	
Sortation Administrative & Marketing	\$ 2,651,306	\$ 270,386	\$ 2,831,857	\$ 110,964	\$ 5,864,513	
Sortation Margin	\$ 1,973,293	\$ 201,240	\$ 2,107,672	\$ 82,588	\$ 4,364,793	
Overall System Costs						
Total Costs	\$ 112,301,220	\$ 22,981,411	\$ 112,265,945	\$ 21,755,138	\$ 269,303,714	

Scenario B: Single-Stream with CRF (S3)
DRAFT - Statewide 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
<i>Tons Collected for Recycling</i>	254,703	25,177	252,881	83,278	616,038
<i>Tons Collected Commingled</i>	215,575	21,985	230,255	9,022	476,837
<i>Tons Collected Source-Separated</i>	39,128	3,192	22,626	74,256	139,201
<i>Tons Marketed</i>	222,096	21,953	220,507	72,617	537,172
<i>Tons Marketed (excluding bale contamination)</i>	222,096	21,953	220,507	72,617	537,172
Total Cost per Ton Collected	\$ 441	\$ 913	\$ 444	\$ 261	\$ 437
Total Cost per Ton Marketed	\$ 506	\$ 1,047	\$ 509	\$ 300	\$ 501

Commodity Revenues						
Commodity Revenues						
Commodity Sales (lower range)	\$ 14,603,105	\$ 1,489,254	\$ 15,597,561	\$ 611,179	\$ 14,672,766	
Commodity Sales (mid-point)	\$ 908,024	\$ 92,602	\$ 969,859	\$ 38,003	\$ 44,321,975	
Commodity Sales (upper range)	\$ 5,512,029	\$ 562,128	\$ 5,887,392	\$ 230,693	\$ 73,971,185	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	41	28	87	-	156
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	21	15	59	-	
Recycling Collection	250	54	216	261	781
Route Drivers, Route Operations, Depot Operations	187	48	194	261	690
Management and Administrative	63	5	22	-	90
Sortation	193	20	206	8	427
Sorting Labor	131	13	140	5	289
Equipment Operators, Supervisors, Maintenance	42	4	45	2	93
Admininstrative and Marketing	20	2	22	1	45
Overall Recycling System FTEs	484	102	509	269	1,364

Scenario C: Dual-Stream Statewide (S4)						
DRAFT - Statewide 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 5,442,601	\$ 3,043,625	\$ 10,021,612	\$ -	\$	18,507,838
Collection Engagement Labor and Expenses	\$ 3,898,601	\$ 2,003,104	\$ 7,730,227	\$ -	\$	13,631,932
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$	4,875,906
Collection	\$ 129,928,625	\$ 18,395,659	\$ 74,332,399	\$ 15,828,902	\$	238,485,586
Direct Collection Costs	\$ 98,387,117	\$ 13,068,833	\$ 52,571,188	\$ 14,835,619	\$	178,862,757
Collection Capital - Containers	\$ 8,776,081	\$ 1,417,700	\$ 5,472,722	\$ 1,577,270	\$	17,243,772
Collection Capital - Trucks	\$ 18,035,884	\$ 1,007,274	\$ 4,421,977	NA	\$	23,465,135
Collection Labor	\$ 47,928,665	\$ 6,911,281	\$ 27,796,066	\$ 10,836,922	\$	93,472,934
Collection Operations	\$ 23,646,488	\$ 3,732,579	\$ 14,880,423	\$ 2,421,427	\$	44,680,916
Indirect Collection Costs	\$ 31,541,508	\$ 5,326,826	\$ 21,761,211	\$ 993,284	\$	59,622,829
Collection Administrative	\$ 17,361,878	\$ 3,198,315	\$ 13,264,292	\$ 993,284	\$	34,817,769
Collection Margin and Franchise Fee	\$ 14,179,629	\$ 2,128,510	\$ 8,496,920	NA	\$	24,805,060
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 26,307,419	\$ 3,035,910	\$ 26,297,543	\$ 6,354,115	\$	61,994,987
Initial Transfer Transport	\$ 3,655,384	\$ 205,742	\$ 4,225,282	\$ 4,789,149	\$	12,875,557
Consolidation and Transfer to MRF	\$ 3,655,384	\$ 205,742	\$ 4,225,282	\$ 4,789,149	\$	12,875,557
Sortation	\$ 26,711,764	\$ 2,710,721	\$ 28,404,340	\$ 1,064,447	\$	58,891,272
Sortation Labor	\$ 10,675,925	\$ 1,083,397	\$ 11,352,399	\$ 425,429	\$	23,537,150
Sortation Capital	\$ 2,549,527	\$ 258,727	\$ 2,711,077	\$ 101,597	\$	5,620,928
Sortation Facility	\$ 5,536,824	\$ 561,879	\$ 5,887,662	\$ 220,639	\$	12,207,004
Glass and Unsorted Container Transfer	\$ 217,936	\$ 22,116	\$ 231,746	\$ 8,685	\$	480,483
Sortation Residual Disposal	\$ 3,109,033	\$ 315,506	\$ 3,306,035	\$ 123,893	\$	6,854,468
Sortation Administrative & Marketing	\$ 2,660,012	\$ 269,939	\$ 2,828,562	\$ 106,000	\$	5,864,513
Sortation Margin	\$ 1,962,506	\$ 199,156	\$ 2,086,859	\$ 78,205	\$	4,326,725
Overall System Costs						
Total Costs	\$ 165,738,373	\$ 24,355,748	\$ 116,983,634	\$ 21,682,498	\$	328,760,253

Scenario C: Dual-Stream Statewide (S4)

DRAFT - Statewide 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	255,673	25,167	252,891	82,885	616,615
Tons Collected Commingled	216,544	21,975	230,266	8,629	477,414
Tons Collected Source-Separated	39,128	3,192	22,626	74,256	139,201
Tons Marketed	222,732	21,924	220,309	72,206	537,172
Tons Marketed (excluding bale contamination)	222,732	21,924	220,309	72,206	537,172
Total Cost per Ton Collected	\$ 648	\$ 968	\$ 463	\$ 262	\$ 533
Total Cost per Ton Marketed	\$ 744	\$ 1,111	\$ 531	\$ 300	\$ 612

Commodity Revenues						
Commodity Sales (lower range)	\$ 14,668,796	\$ 1,488,596	\$ 15,598,276	\$ 584,542	\$ 16,843,202	
Commodity Sales (mid-point)	\$ 912,109	\$ 92,561	\$ 969,904	\$ 36,347	\$ 47,782,881	
Commodity Sales (upper range)	\$ 5,536,824	\$ 561,879	\$ 5,887,662	\$ 220,639	\$ 78,722,560	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	41	28	87	-	156
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	21	15	59	-	
Recycling Collection	367	54	216	259	896
Route Drivers, Route Operations, Depot Operations	284	48	194	259	786
Management and Administrative	83	5	22	-	110
Sortation	190	19	202	8	420
Sorting Labor	125	13	133	5	276
Equipment Operators, Supervisors, Maintenance	45	5	48	2	99
Admininstrative and Marketing	20	2	22	1	45
Overall Recycling System FTEs	599	102	505	267	1,473

Baseline (S0)					
DRAFT - 1 - Metro area 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 2,065,229	\$ 1,048,601	\$ 2,331,116	\$ -	\$ 5,444,946
Collection Engagement Labor and Expenses	\$ 521,229	\$ 8,080	\$ 39,731	\$ -	\$ 569,040
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 39,745,454	\$ 8,123,348	\$ 39,945,977	\$ 205,320	\$ 88,020,099
Direct Collection Costs	\$ 28,649,580	\$ 5,608,089	\$ 27,577,373	\$ 154,309	\$ 61,989,352
Collection Capital - Containers	\$ 954,637	\$ 98,918	\$ 486,422	\$ 12,080	\$ 1,552,057
Collection Capital - Trucks	\$ 4,600,118	\$ 662,009	\$ 3,255,384	NA	\$ 8,517,511
Collection Labor	\$ 16,550,867	\$ 3,161,137	\$ 15,544,664	\$ 114,719	\$ 35,371,387
Collection Operations	\$ 6,543,959	\$ 1,686,025	\$ 8,290,904	\$ 27,510	\$ 16,548,397
Indirect Collection Costs	\$ 11,095,874	\$ 2,515,259	\$ 12,368,604	\$ 51,010	\$ 26,030,747
Collection Administrative	\$ 6,851,851	\$ 1,642,421	\$ 8,076,488	\$ 51,010	\$ 16,621,771
Collection Margin and Franchise Fee	\$ 4,244,023	\$ 872,838	\$ 4,292,116	NA	\$ 9,408,976
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 17,374,781	\$ 2,681,155	\$ 17,751,843	\$ 656,317	\$ 38,464,096
Initial Transfer Transport	\$ 280,371	\$ 69,702	\$ 319,896	\$ 24,363	\$ 694,331
Consolidation and Transfer to MRF	\$ 280,371	\$ 69,702	\$ 319,896	\$ 24,363	\$ 694,331
Sortation	\$ 16,910,570	\$ 2,684,627	\$ 18,292,889	\$ 31,308	\$ 37,943,203
Sortation Labor	\$ 7,304,778	\$ 1,159,666	\$ 7,901,892		\$ 16,390,144
Sortation Capital	\$ 454,213	\$ 72,108	\$ 491,341	\$ 1,480	\$ 1,019,142
Sortation Facility	\$ 2,757,232	\$ 437,723	\$ 2,982,616	\$ 8,987	\$ 6,186,557
Glass and Unsorted Container Transfer	\$ 103,269	\$ 16,394	\$ 111,710	\$ 337	\$ 231,710
Sortation Residual Disposal	\$ 2,524,680	\$ 400,804	\$ 2,731,054	\$ 8,229	\$ 5,664,767
Sortation Administrative & Marketing	\$ 2,613,703	\$ 414,937	\$ 2,827,355	\$ 8,519	\$ 5,864,513
Sortation Margin	\$ 1,152,696	\$ 182,996	\$ 1,246,921	\$ 3,757	\$ 2,586,369
Overall System Costs					
Total Costs	\$ 59,001,623	\$ 11,926,278	\$ 60,889,878	\$ 260,991	\$ 132,102,579

Baseline (S0)						
DRAFT - 1 - Metro area 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Tons Collected for Recycling	129,008	19,908	131,808	4,873	285,596	
Tons Collected Commingled	107,835	17,119	116,650	351	241,955	
Tons Collected Source-Separated	21,173	2,788	15,158	4,522	43,641	
Tons Marketed	242,648	37,444	247,914	9,166	537,172	
Tons Marketed (excluding bale contamination)	242,648	37,444	247,914	9,166	537,172	
Total Cost per Ton Collected	\$ 457	\$ 599	\$ 462	\$ 54	\$ 463	
Total Cost per Ton Marketed	\$ 243	\$ 319	\$ 246	\$ 28	\$ 246	

Commodity Revenues						
Commodity Revenues						
Commodity Sales (lower range)	\$ 7,304,778	\$ 1,159,666	\$ 7,901,892	\$ 23,809	\$ 11,267,395	
Commodity Sales (mid-point)	\$ 454,213	\$ 72,108	\$ 491,341	\$ 1,480	\$ 42,557,316	
Commodity Sales (upper range)	\$ 2,757,232	\$ 437,723	\$ 2,982,616	\$ 8,987	\$ 73,847,238	

Full-Time Equivalent (FTE) Employment						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling Customer Engagement	20	13	28	-	61	
Local Government Engagement	20	13	28	-	61	
New Engagement (costs in collection engagement)	-	-	-	-	-	
Recycling Collection	148	25	122	14	308	
Route Drivers, Route Operations, Depot Operations	113	22	110	14	259	
Management and Administrative	35	3	12	-	50	
Sortation	126	20	136	0	283	
Sorting Labor	95	15	102	0	212	
Equipment Operators, Supervisors, Maintenance	21	3	22	0	47	
Admininstrative and Marketing	10	2	11	0	24	
Overall Recycling System FTEs	293	58	286	14	652	

Scenario A: Single-Stream with Modern MRF (S1)					
DRAFT - 1 - Metro area 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 3,368,301	\$ 1,856,563	\$ 6,304,209	\$ -	\$ 11,529,073
Collection Engagement Labor and Expenses	\$ 1,824,301	\$ 816,041	\$ 4,012,824	\$ -	\$ 6,653,167
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 39,745,454	\$ 8,123,348	\$ 39,945,977	\$ 203,743	\$ 88,018,522
Direct Collection Costs	\$ 28,649,580	\$ 5,608,089	\$ 27,577,373	\$ 153,124	\$ 61,988,167
Collection Capital - Containers	\$ 954,637	\$ 98,918	\$ 486,422	\$ 11,988	\$ 1,551,964
Collection Capital - Trucks	\$ 4,600,118	\$ 662,009	\$ 3,255,384	NA	\$ 8,517,511
Collection Labor	\$ 16,550,867	\$ 3,161,137	\$ 15,544,664	\$ 113,838	\$ 35,370,506
Collection Operations	\$ 6,543,959	\$ 1,686,025	\$ 8,290,904	\$ 27,298	\$ 16,548,185
Indirect Collection Costs	\$ 11,095,874	\$ 2,515,259	\$ 12,368,604	\$ 50,618	\$ 26,030,355
Collection Administrative	\$ 6,851,851	\$ 1,642,421	\$ 8,076,488	\$ 50,618	\$ 16,621,379
Collection Margin and Franchise Fee	\$ 4,244,023	\$ 872,838	\$ 4,292,116	NA	\$ 9,408,976
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 16,447,418	\$ 2,449,765	\$ 16,707,639	\$ 652,526	\$ 36,257,348
Initial Transfer Transport	\$ 262,468	\$ 66,266	\$ 310,592	\$ 24,289	\$ 663,615
Consolidation and Transfer to MRF	\$ 262,468	\$ 66,266	\$ 310,592	\$ 24,289	\$ 663,615
Sortation	\$ 15,665,324	\$ 2,389,960	\$ 16,898,571	\$ 50,173	\$ 35,004,028
Sortation Labor	\$ 6,366,260	\$ 971,260	\$ 6,867,442	\$ 20,390	\$ 14,225,352
Sortation Capital	\$ 1,298,944	\$ 198,172	\$ 1,401,203	\$ 4,160	\$ 2,902,480
Sortation Facility	\$ 2,581,172	\$ 393,793	\$ 2,784,374	\$ 8,267	\$ 5,767,606
Glass and Unsorted Container Transfer	\$ 104,209	\$ 15,899	\$ 112,413	\$ 334	\$ 232,854
Sortation Residual Disposal	\$ 1,629,692	\$ 248,632	\$ 1,757,989	\$ 5,220	\$ 3,641,532
Sortation Administrative & Marketing	\$ 2,624,541	\$ 400,410	\$ 2,831,157	\$ 8,406	\$ 5,864,513
Sortation Margin	\$ 1,060,505	\$ 161,795	\$ 1,143,993	\$ 3,397	\$ 2,369,690
Overall System Costs					
Total Costs	\$ 59,041,547	\$ 12,436,137	\$ 63,459,349	\$ 278,205	\$ 135,215,238

Scenario A: Single-Stream with Modern MRF (S1)

DRAFT - 1 - Metro area 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	122,122	18,190	124,054	4,845	269,211
Tons Collected Commingled	100,949	15,401	108,896	323	225,570
Tons Collected Source-Separated	21,173	2,788	15,158	4,522	43,641
Tons Marketed	243,677	36,295	247,533	9,668	537,172
Tons Marketed (excluding bale contamination)	243,677	36,295	247,533	9,668	537,172
Total Cost per Ton Collected	\$ 483	\$ 684	\$ 512	\$ 57	\$ 502
Total Cost per Ton Marketed	\$ 242	\$ 343	\$ 256	\$ 29	\$ 252

Commodity Revenues						
Commodity Sales (lower range)	\$ 6,838,340	\$ 1,043,283	\$ 7,376,686	\$ 21,902	\$ 14,578,790	
Commodity Sales (mid-point)	\$ 425,209	\$ 64,872	\$ 458,684	\$ 1,362	\$ 42,102,986	
Commodity Sales (upper range)	\$ 2,581,172	\$ 393,793	\$ 2,784,374	\$ 8,267	\$ 69,627,183	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	30	19	59	-	108
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	10	6	31	-	
Recycling Collection	148	25	122	13	308
Route Drivers, Route Operations, Depot Operations	113	22	110	13	259
Management and Administrative	35	3	12	-	50
Sortation	111	17	120	0	249
Sorting Labor	80	12	87	0	180
Equipment Operators, Supervisors, Maintenance	20	3	22	0	46
Admininstrative and Marketing	11	2	11	0	24
Overall Recycling System FTEs	289	61	301	14	665

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)					
DRAFT - 1 - Metro area 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 3,368,301	\$ 1,856,563	\$ 6,304,209	\$ -	\$ 11,529,073
Collection Engagement Labor and Expenses	\$ 1,824,301	\$ 816,041	\$ 4,012,824	\$ -	\$ 6,653,167
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 39,745,454	\$ 8,123,348	\$ 39,945,977	\$ 382,762	\$ 88,197,541
Direct Collection Costs	\$ 28,649,580	\$ 5,608,089	\$ 27,577,373	\$ 310,888	\$ 62,145,931
Collection Capital - Containers	\$ 954,637	\$ 98,918	\$ 486,422	\$ 35,773	\$ 1,575,749
Collection Capital - Trucks	\$ 4,600,118	\$ 662,009	\$ 3,255,384	NA	\$ 8,517,511
Collection Labor	\$ 16,550,867	\$ 3,161,137	\$ 15,544,664	\$ 236,355	\$ 35,493,022
Collection Operations	\$ 6,543,959	\$ 1,686,025	\$ 8,290,904	\$ 38,761	\$ 16,559,648
Indirect Collection Costs	\$ 11,095,874	\$ 2,515,259	\$ 12,368,604	\$ 71,873	\$ 26,051,610
Collection Administrative	\$ 6,851,851	\$ 1,642,421	\$ 8,076,488	\$ 71,873	\$ 16,642,634
Collection Margin and Franchise Fee	\$ 4,244,023	\$ 872,838	\$ 4,292,116	NA	\$ 9,408,976
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 16,975,877	\$ 2,633,243	\$ 17,399,755	\$ 858,169	\$ 37,867,044
Initial Transfer Transport	\$ 272,670	\$ 68,990	\$ 316,759	\$ 26,778	\$ 685,197
Consolidation and Transfer to MRF	\$ 272,670	\$ 68,990	\$ 316,759	\$ 26,778	\$ 685,197
Sortation	\$ 14,847,811	\$ 2,373,361	\$ 16,145,006	\$ 181,287	\$ 33,547,464
Sortation Labor	\$ 5,441,986	\$ 869,879	\$ 5,917,431	\$ 66,445	\$ 12,295,741
Sortation Capital	\$ 1,295,163	\$ 207,026	\$ 1,408,316	\$ 15,813	\$ 2,926,318
Sortation Facility	\$ 2,666,365	\$ 426,207	\$ 2,899,315	\$ 32,555	\$ 6,024,443
Glass and Unsorted Container Transfer	\$ 208,325	\$ 33,300	\$ 226,526	\$ 2,544	\$ 470,694
Sortation Residual Disposal	\$ 1,652,708	\$ 264,178	\$ 1,797,098	\$ 20,179	\$ 3,734,164
Sortation Administrative & Marketing	\$ 2,595,582	\$ 414,893	\$ 2,822,348	\$ 31,691	\$ 5,864,513
Sortation Margin	\$ 987,683	\$ 157,877	\$ 1,073,973	\$ 12,059	\$ 2,231,591
Overall System Costs					
Total Costs	\$ 58,234,236	\$ 12,422,262	\$ 62,711,951	\$ 590,826	\$ 133,959,275

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)
DRAFT - 1 - Metro area 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
<i>Tons Collected for Recycling</i>	126,046	19,552	129,193	6,372	281,163
<i>Tons Collected Commingled</i>	104,873	16,764	114,035	1,280	236,952
<i>Tons Collected Source-Separated</i>	21,173	2,788	15,158	5,091	44,211
<i>Tons Marketed</i>	240,815	37,355	246,829	12,174	537,172
<i>Tons Marketed (excluding bale contamination)</i>	240,815	37,355	246,829	12,174	537,172
Total Cost per Ton Collected	\$ 462	\$ 635	\$ 485	\$ 93	\$ 476
Total Cost per Ton Marketed	\$ 242	\$ 333	\$ 254	\$ 49	\$ 249

Commodity Revenues						
Commodity Revenues						
Commodity Sales (lower range)	\$ 7,104,140	\$ 1,135,567	\$ 7,724,801	\$ 86,739	\$ 16,712,549	
Commodity Sales (mid-point)	\$ 441,737	\$ 70,610	\$ 480,330	\$ 5,393	\$ 48,067,521	
Commodity Sales (upper range)	\$ 2,681,500	\$ 428,627	\$ 2,915,772	\$ 32,740	\$ 79,422,494	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	30	19	59	-	108
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	10	6	31	-	
Recycling Collection	148	25	122	19	314
Route Drivers, Route Operations, Depot Operations	113	22	110	19	264
Management and Administrative	35	3	12	-	50
Sortation	96	15	105	1	218
Sorting Labor	66	11	72	1	149
Equipment Operators, Supervisors, Maintenance	21	3	22	0	47
Admininstrative and Marketing	10	2	11	0	22
Overall Recycling System FTEs	274	59	286	20	639

Scenario B: Single-Stream with CRF (S3)					
DRAFT - 1 - Metro area 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 3,368,301	\$ 1,856,563	\$ 6,304,209	\$ -	\$ 11,529,073
Collection Engagement Labor and Expenses	\$ 1,824,301	\$ 816,041	\$ 4,012,824	\$ -	\$ 6,653,167
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 39,745,454	\$ 8,123,348	\$ 39,945,977	\$ 382,762	\$ 88,197,541
Direct Collection Costs	\$ 28,649,580	\$ 5,608,089	\$ 27,577,373	\$ 310,888	\$ 62,145,931
Collection Capital - Containers	\$ 954,637	\$ 98,918	\$ 486,422	\$ 35,773	\$ 1,575,749
Collection Capital - Trucks	\$ 4,600,118	\$ 662,009	\$ 3,255,384	NA	\$ 8,517,511
Collection Labor	\$ 16,550,867	\$ 3,161,137	\$ 15,544,664	\$ 236,355	\$ 35,493,022
Collection Operations	\$ 6,543,959	\$ 1,686,025	\$ 8,290,904	\$ 38,761	\$ 16,559,648
Indirect Collection Costs	\$ 11,095,874	\$ 2,515,259	\$ 12,368,604	\$ 71,873	\$ 26,051,610
Collection Administrative	\$ 6,851,851	\$ 1,642,421	\$ 8,076,488	\$ 71,873	\$ 16,642,634
Collection Margin and Franchise Fee	\$ 4,244,023	\$ 872,838	\$ 4,292,116	NA	\$ 9,408,976
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 16,975,877	\$ 2,633,243	\$ 17,399,755	\$ 858,169	\$ 37,867,044
Initial Transfer Transport	\$ 272,670	\$ 68,990	\$ 316,759	\$ 26,778	\$ 685,197
Consolidation and Transfer to MRF	\$ 272,670	\$ 68,990	\$ 316,759	\$ 26,778	\$ 685,197
Sortation	\$ 14,634,328	\$ 2,339,237	\$ 15,912,872	\$ 178,680	\$ 33,065,117
Sortation Labor	\$ 5,286,131	\$ 844,966	\$ 5,747,959	\$ 64,542	\$ 11,943,598
Sortation Capital	\$ 1,167,705	\$ 186,653	\$ 1,269,723	\$ 14,257	\$ 2,638,338
Sortation Facility	\$ 2,681,500	\$ 428,627	\$ 2,915,772	\$ 32,740	\$ 6,058,639
Glass and Unsorted Container Transfer	\$ 368,955	\$ 58,976	\$ 401,189	\$ 4,505	\$ 833,626
Sortation Residual Disposal	\$ 1,574,485	\$ 251,675	\$ 1,712,041	\$ 19,224	\$ 3,557,425
Sortation Administrative & Marketing	\$ 2,595,582	\$ 414,893	\$ 2,822,348	\$ 31,691	\$ 5,864,513
Sortation Margin	\$ 959,971	\$ 153,447	\$ 1,043,839	\$ 11,721	\$ 2,168,978
Overall System Costs					
Total Costs	\$ 58,020,753	\$ 12,388,138	\$ 62,479,817	\$ 588,220	\$ 133,476,928

Scenario B: Single-Stream with CRF (S3)

DRAFT - 1 - Metro area 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	126,046	19,552	129,193	6,372	281,163
Tons Collected Commingled	104,873	16,764	114,035	1,280	236,952
Tons Collected Source-Separated	21,173	2,788	15,158	5,091	44,211
Tons Marketed	240,815	37,355	246,829	12,174	537,172
Tons Marketed (excluding bale contamination)	240,815	37,355	246,829	12,174	537,172
Total Cost per Ton Collected	\$ 460	\$ 634	\$ 484	\$ 92	\$ 475
Total Cost per Ton Marketed	\$ 241	\$ 332	\$ 253	\$ 48	\$ 248

Commodity Revenues						
Commodity Sales (lower range)	\$ 7,104,140	\$ 1,135,567	\$ 7,724,801	\$ 86,739	\$ 14,672,766	
Commodity Sales (mid-point)	\$ 441,737	\$ 70,610	\$ 480,330	\$ 5,393	\$ 44,321,975	
Commodity Sales (upper range)	\$ 2,681,500	\$ 428,627	\$ 2,915,772	\$ 32,740	\$ 73,971,185	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	30	19	59	-	108
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	10	6	31	-	
Recycling Collection	148	25	122	19	314
Route Drivers, Route Operations, Depot Operations	113	22	110	19	264
Management and Administrative	35	3	12	-	50
Sortation	94	15	102	1	212
Sorting Labor	64	10	69	1	144
Equipment Operators, Supervisors, Maintenance	20	3	22	0	46
Admininstrative and Marketing	10	2	11	0	22
Overall Recycling System FTEs	271	59	283	20	634

Scenario C: Dual-Stream Statewide (S4)					
DRAFT - 1 - Metro area 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 3,368,301	\$ 1,856,563	\$ 6,304,209	\$ -	\$ 11,529,073
Collection Engagement Labor and Expenses	\$ 1,824,301	\$ 816,041	\$ 4,012,824	\$ -	\$ 6,653,167
Local Government Engagement Labor and Expenses	\$ 1,544,000	\$ 1,040,521	\$ 2,291,385	\$ -	\$ 4,875,906
Collection	\$ 54,490,756	\$ 8,689,962	\$ 42,732,261	\$ 368,237	\$ 106,281,217
Direct Collection Costs	\$ 41,334,193	\$ 6,089,394	\$ 29,944,156	\$ 299,772	\$ 77,667,516
Collection Capital - Containers	\$ 4,065,586	\$ 578,155	\$ 2,843,034	\$ 34,158	\$ 7,520,933
Collection Capital - Trucks	\$ 8,131,172	\$ 659,914	\$ 3,245,079	NA	\$ 12,036,165
Collection Labor	\$ 21,146,985	\$ 3,164,096	\$ 15,559,211	\$ 228,691	\$ 40,098,983
Collection Operations	\$ 7,990,450	\$ 1,687,230	\$ 8,296,832	\$ 36,923	\$ 18,011,435
Indirect Collection Costs	\$ 13,156,562	\$ 2,600,568	\$ 12,788,105	\$ 68,465	\$ 28,613,700
Collection Administrative	\$ 7,297,206	\$ 1,642,424	\$ 8,076,503	\$ 68,465	\$ 17,084,598
Collection Margin and Franchise Fee	\$ 5,859,357	\$ 958,144	\$ 4,711,602	NA	\$ 11,529,102
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 16,963,864	\$ 2,629,409	\$ 17,373,321	\$ 825,191	\$ 37,791,786
Initial Transfer Transport	\$ 243,077	\$ 65,986	\$ 302,770	\$ 26,651	\$ 638,484
Consolidation and Transfer to MRF	\$ 243,077	\$ 65,986	\$ 302,770	\$ 26,651	\$ 638,484
Sortation	\$ 14,237,930	\$ 2,273,943	\$ 15,468,352	\$ 140,717	\$ 32,120,942
Sortation Labor	\$ 5,165,984	\$ 825,060	\$ 5,612,421	\$ 51,057	\$ 11,654,522
Sortation Capital	\$ 1,233,693	\$ 197,033	\$ 1,340,307	\$ 12,193	\$ 2,783,227
Sortation Facility	\$ 2,679,219	\$ 427,899	\$ 2,910,754	\$ 26,479	\$ 6,044,351
Glass and Unsorted Container Transfer	\$ 105,457	\$ 16,843	\$ 114,571	\$ 1,042	\$ 237,913
Sortation Residual Disposal	\$ 1,504,433	\$ 240,273	\$ 1,634,444	\$ 14,869	\$ 3,394,019
Sortation Administrative & Marketing	\$ 2,599,504	\$ 415,167	\$ 2,824,150	\$ 25,692	\$ 5,864,513
Sortation Margin	\$ 949,639	\$ 151,667	\$ 1,031,705	\$ 9,386	\$ 2,142,397
Overall System Costs					
Total Costs	\$ 72,340,064	\$ 12,886,454	\$ 64,807,592	\$ 535,606	\$ 150,569,715

Scenario C: Dual-Stream Statewide (S4)

DRAFT - 1 - Metro area 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	125,957	19,523	128,997	6,127	280,604
Tons Collected Commingled	104,784	16,735	113,839	1,036	236,394
Tons Collected Source-Separated	21,173	2,788	15,158	5,091	44,211
Tons Marketed	241,124	37,374	246,944	11,729	537,172
Tons Marketed (excluding bale contamination)	241,124	37,374	246,944	11,729	537,172
Total Cost per Ton Collected	\$ 574	\$ 660	\$ 502	\$ 87	\$ 537
Total Cost per Ton Marketed	\$ 300	\$ 345	\$ 262	\$ 46	\$ 280

Commodity Revenues						
Commodity Sales (lower range)	\$ 7,098,098	\$ 1,133,639	\$ 7,711,506	\$ 70,153	\$ 16,843,202	
Commodity Sales (mid-point)	\$ 441,361	\$ 70,490	\$ 479,503	\$ 4,362	\$ 47,782,881	
Commodity Sales (upper range)	\$ 2,679,219	\$ 427,899	\$ 2,910,754	\$ 26,479	\$ 78,722,560	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	30	19	59	-	108
Local Government Engagement	20	13	28	-	61
New Engagement (costs in collection engagement)	10	6	31	-	
Recycling Collection	172	25	122	18	337
Route Drivers, Route Operations, Depot Operations	133	22	110	18	283
Management and Administrative	39	3	12	-	54
Sortation	92	15	100	1	208
Sorting Labor	60	10	66	1	136
Equipment Operators, Supervisors, Maintenance	22	3	24	0	49
Admininstrative and Marketing	10	2	11	0	22
Overall Recycling System FTEs	294	59	281	19	652

Baseline (S0)					
DRAFT - 2 - Willamette Valley, etc. 2025					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling System Costs					
Customer Engagement Costs	\$ 423,868	\$ 10,136	\$ 26,523	\$ -	\$ 460,528
Collection Engagement Labor and Expenses	\$ 423,868	\$ 10,136	\$ 26,523	\$ -	\$ 460,528
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Collection	\$ 22,521,628	\$ 7,293,401	\$ 19,084,400	\$ 4,191,289	\$ 53,090,719
Direct Collection Costs	\$ 15,078,871	\$ 5,172,047	\$ 13,533,523	\$ 3,723,647	\$ 37,508,088
Collection Capital - Containers	\$ 591,653	\$ 79,875	\$ 209,007	\$ 224,716	\$ 1,105,252
Collection Capital - Trucks	\$ 1,581,556	\$ 277,803	\$ 726,918	NA	\$ 2,586,277
Collection Labor	\$ 8,109,104	\$ 3,093,068	\$ 8,093,528	\$ 2,630,523	\$ 21,926,223
Collection Operations	\$ 4,796,558	\$ 1,721,301	\$ 4,504,070	\$ 868,408	\$ 11,890,337
Indirect Collection Costs	\$ 7,442,758	\$ 2,121,354	\$ 5,550,877	\$ 467,641	\$ 15,582,631
Collection Administrative	\$ 5,060,878	\$ 1,257,664	\$ 3,290,888	\$ 467,641	\$ 10,077,072
Collection Margin and Franchise Fee	\$ 2,381,879	\$ 863,690	\$ 2,259,989	NA	\$ 5,505,558
Cost Savings from Reduced Garbage Disposal					
Avoided Disposal Tip Fees	\$ 6,587,942	\$ 247,605	\$ 5,263,574	\$ 1,696,052	\$ 13,795,174
Initial Transfer Transport	\$ 1,057,816	\$ 30,460	\$ 728,668	\$ 667,279	\$ 2,484,223
Consolidation and Transfer to MRF	\$ 1,057,816	\$ 30,460	\$ 728,668	\$ 667,279	\$ 2,484,223
Sortation	\$ 13,715,428	\$ 562,380	\$ 11,521,095	\$ 453,575	\$ 26,552,459
Sortation Labor	\$ 5,459,943	\$ 223,876	\$ 4,586,406		\$ 10,570,207
Sortation Capital	\$ 339,500	\$ 13,921	\$ 285,184	\$ 18,653	\$ 657,258
Sortation Facility	\$ 2,060,888	\$ 84,503	\$ 1,731,166	\$ 113,230	\$ 3,989,788
Glass and Unsorted Container Transfer	\$ 77,188	\$ 3,165	\$ 64,839	\$ 4,241	\$ 149,433
Sortation Residual Disposal	\$ 1,887,067	\$ 77,376	\$ 1,585,155	\$ 103,680	\$ 3,653,279
Sortation Administrative & Marketing	\$ 3,029,260	\$ 124,210	\$ 2,544,609	\$ 166,434	\$ 5,864,513
Sortation Margin	\$ 861,580	\$ 35,328	\$ 723,736	\$ 47,337	\$ 1,667,981
Overall System Costs					
Total Costs	\$ 37,718,740	\$ 7,896,377	\$ 31,360,687	\$ 5,312,143	\$ 82,587,929

Baseline (S0)

DRAFT - 2 - Willamette Valley, etc. 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	91,460	3,437	73,074	23,546	191,517
Tons Collected Commingled	80,601	3,305	67,706	4,428	156,040
Tons Collected Source-Separated	10,859	133	5,368	19,118	35,477
Tons Marketed	256,529	9,642	204,959	66,043	537,172
Tons Marketed (excluding bale contamination)	256,529	9,642	204,959	66,043	537,172
Total Cost per Ton Collected	\$ 412	\$ 2,297	\$ 429	\$ 226	\$ 431
Total Cost per Ton Marketed	\$ 147	\$ 819	\$ 153	\$ 80	\$ 154

Commodity Revenues						
Commodity Sales (lower range)	\$ 5,459,943	\$ 223,876	\$ 4,586,406	\$ 299,982	\$ 11,267,395	
Commodity Sales (mid-point)	\$ 339,500	\$ 13,921	\$ 285,184	\$ 18,653	\$ 42,557,316	
Commodity Sales (upper range)	\$ 2,060,888	\$ 84,503	\$ 1,731,166	\$ 113,230	\$ 73,847,238	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	70	24	64	68	226
Route Drivers, Route Operations, Depot Operations	50	22	57	68	197
Management and Administrative	20	2	6	-	29
Sortation	94	4	79	5	182
Sorting Labor	71	3	59	4	137
Equipment Operators, Supervisors, Maintenance	16	1	13	1	30
Admininstrative and Marketing	8	0	7	0	15
Overall Recycling System FTEs	164	28	143	73	408

Scenario A: Single-Stream with Modern MRF (S1)						
DRAFT - 2 - Willamette Valley, etc. 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$ 5,186,176	
Collection Engagement Labor and Expenses	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$ 5,186,176	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 22,521,628	\$ 7,293,401	\$ 19,084,400	\$ 4,118,625	\$ 53,018,056	
Direct Collection Costs	\$ 15,078,871	\$ 5,172,047	\$ 13,533,523	\$ 3,659,091	\$ 37,443,532	
Collection Capital - Containers	\$ 591,653	\$ 79,875	\$ 209,007	\$ 220,820	\$ 1,101,356	
Collection Capital - Trucks	\$ 1,581,556	\$ 277,803	\$ 726,918	NA	\$ 2,586,277	
Collection Labor	\$ 8,109,104	\$ 3,093,068	\$ 8,093,528	\$ 2,584,918	\$ 21,880,619	
Collection Operations	\$ 4,796,558	\$ 1,721,301	\$ 4,504,070	\$ 853,352	\$ 11,875,281	
Indirect Collection Costs	\$ 7,442,758	\$ 2,121,354	\$ 5,550,877	\$ 459,534	\$ 15,574,523	
Collection Administrative	\$ 5,060,878	\$ 1,257,664	\$ 3,290,888	\$ 459,534	\$ 10,068,965	
Collection Margin and Franchise Fee	\$ 2,381,879	\$ 863,690	\$ 2,259,989	NA	\$ 5,505,558	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 6,139,723	\$ 221,684	\$ 4,889,353	\$ 1,673,156	\$ 12,923,915	
Initial Transfer Transport	\$ 1,010,773	\$ 27,740	\$ 689,392	\$ 666,300	\$ 2,394,204	
Consolidation and Transfer to MRF	\$ 1,010,773	\$ 27,740	\$ 689,392	\$ 666,300	\$ 2,394,204	
Sortation	\$ 12,638,613	\$ 500,433	\$ 10,621,955	\$ 698,474	\$ 24,459,475	
Sortation Labor	\$ 4,690,599	\$ 185,727	\$ 3,942,152	\$ 259,226	\$ 9,077,704	
Sortation Capital	\$ 957,050	\$ 37,895	\$ 804,340	\$ 52,891	\$ 1,852,176	
Sortation Facility	\$ 1,901,783	\$ 75,302	\$ 1,598,328	\$ 105,102	\$ 3,680,515	
Glass and Unsorted Container Transfer	\$ 76,780	\$ 3,040	\$ 64,529	\$ 4,243	\$ 148,592	
Sortation Residual Disposal	\$ 1,200,741	\$ 47,544	\$ 1,009,147	\$ 66,359	\$ 2,323,791	
Sortation Administrative & Marketing	\$ 3,030,290	\$ 119,986	\$ 2,546,768	\$ 167,469	\$ 5,864,513	
Sortation Margin	\$ 781,370	\$ 30,939	\$ 656,692	\$ 43,183	\$ 1,512,183	
Overall System Costs						
Total Costs	\$ 37,654,553	\$ 8,845,344	\$ 33,074,614	\$ 5,483,400	\$ 85,057,911	

Scenario A: Single-Stream with Modern MRF (S1)

DRAFT - 2 - Willamette Valley, etc. 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	85,237	3,078	67,879	23,228	179,422
Tons Collected Commingled	74,378	2,945	62,510	4,111	143,944
Tons Collected Source-Separated	10,859	133	5,368	19,118	35,477
Tons Marketed	255,193	9,214	203,222	69,543	537,172
Tons Marketed (excluding bale contamination)	255,193	9,214	203,222	69,543	537,172
Total Cost per Ton Collected	\$ 442	\$ 2,874	\$ 487	\$ 236	\$ 474
Total Cost per Ton Marketed	\$ 148	\$ 960	\$ 163	\$ 79	\$ 158

Commodity Revenues						
Commodity Sales (lower range)	\$ 5,038,423	\$ 199,499	\$ 4,234,476	\$ 278,449	\$ 14,578,790	
Commodity Sales (mid-point)	\$ 313,290	\$ 12,405	\$ 263,301	\$ 17,314	\$ 42,102,986	
Commodity Sales (upper range)	\$ 1,901,783	\$ 75,302	\$ 1,598,328	\$ 105,102	\$ 69,627,183	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	8	8	20	-	36
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	8	8	20	-	
Recycling Collection	70	24	64	67	225
Route Drivers, Route Operations, Depot Operations	50	22	57	67	196
Management and Administrative	20	2	6	-	29
Sortation	82	3	69	5	159
Sorting Labor	59	2	50	3	115
Equipment Operators, Supervisors, Maintenance	15	1	13	1	29
Admininstrative and Marketing	8	0	7	0	15
Overall Recycling System FTEs	160	35	153	71	420

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)						
DRAFT - 2 - Willamette Valley, etc. 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$	5,186,176
Collection Engagement Labor and Expenses	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$	5,186,176
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$	-
Collection	\$ 22,521,628	\$ 7,293,401	\$ 19,084,400	\$ 4,551,936	\$	53,451,366
Direct Collection Costs	\$ 15,078,871	\$ 5,172,047	\$ 13,533,523	\$ 4,071,534	\$	37,855,975
Collection Capital - Containers	\$ 591,653	\$ 79,875	\$ 209,007	\$ 462,046	\$	1,342,581
Collection Capital - Trucks	\$ 1,581,556	\$ 277,803	\$ 726,918	NA	\$	2,586,277
Collection Labor	\$ 8,109,104	\$ 3,093,068	\$ 8,093,528	\$ 2,717,385	\$	22,013,086
Collection Operations	\$ 4,796,558	\$ 1,721,301	\$ 4,504,070	\$ 892,103	\$	11,914,032
Indirect Collection Costs	\$ 7,442,758	\$ 2,121,354	\$ 5,550,877	\$ 480,401	\$	15,595,391
Collection Administrative	\$ 5,060,878	\$ 1,257,664	\$ 3,290,888	\$ 480,401	\$	10,089,833
Collection Margin and Franchise Fee	\$ 2,381,879	\$ 863,690	\$ 2,259,989	NA	\$	5,505,558
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 7,070,647	\$ 326,883	\$ 5,768,044	\$ 1,732,088	\$	14,897,662
Initial Transfer Transport	\$ 1,196,288	\$ 44,146	\$ 796,209	\$ 671,029	\$	2,707,671
Consolidation and Transfer to MRF	\$ 1,196,288	\$ 44,146	\$ 796,209	\$ 671,029	\$	2,707,671
Sortation	\$ 12,850,988	\$ 644,297	\$ 11,269,535	\$ 734,351	\$	25,499,171
Sortation Labor	\$ 4,395,174	\$ 220,356	\$ 3,854,300	\$ 251,156	\$	8,720,987
Sortation Capital	\$ 1,046,027	\$ 52,444	\$ 917,302	\$ 59,774	\$	2,075,547
Sortation Facility	\$ 2,153,467	\$ 107,966	\$ 1,888,460	\$ 123,057	\$	4,272,950
Glass and Unsorted Container Transfer	\$ 168,252	\$ 8,435	\$ 147,547	\$ 9,615	\$	333,849
Sortation Residual Disposal	\$ 1,334,796	\$ 66,921	\$ 1,170,534	\$ 76,275	\$	2,648,526
Sortation Administrative & Marketing	\$ 2,955,578	\$ 148,181	\$ 2,591,862	\$ 168,892	\$	5,864,513
Sortation Margin	\$ 797,694	\$ 39,993	\$ 699,529	\$ 45,583	\$	1,582,798
Overall System Costs						
Total Costs	\$ 38,052,442	\$ 9,005,615	\$ 33,829,011	\$ 5,957,316	\$	86,844,384

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)
DRAFT - 2 - Willamette Valley, etc. 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
<i>Tons Collected for Recycling</i>	98,161	4,538	80,077	24,046	206,823
<i>Tons Collected Commingled</i>	84,700	4,247	74,277	4,840	168,063
<i>Tons Collected Source-Separated</i>	13,461	292	5,801	19,206	38,760
<i>Tons Marketed</i>	254,950	11,787	207,981	62,455	537,172
<i>Tons Marketed (excluding bale contamination)</i>	254,950	11,787	207,981	62,455	537,172
Total Cost per Ton Collected	\$ 388	\$ 1,984	\$ 422	\$ 248	\$ 420
Total Cost per Ton Marketed	\$ 149	\$ 764	\$ 163	\$ 95	\$ 162

Commodity Revenues						
Commodity Sales (lower range)	\$ 5,737,599	\$ 287,660	\$ 5,031,525	\$ 327,867	\$ 16,712,549	
Commodity Sales (mid-point)	\$ 356,765	\$ 17,887	\$ 312,861	\$ 20,387	\$ 48,067,521	
Commodity Sales (upper range)	\$ 2,165,691	\$ 108,579	\$ 1,899,179	\$ 123,755	\$ 79,422,494	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	8	8	20	-	36
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	8	8	20	-	
Recycling Collection	70	24	64	70	228
Route Drivers, Route Operations, Depot Operations	50	22	57	70	199
Management and Administrative	20	2	6	-	29
Sortation	78	4	68	4	154
Sorting Labor	53	3	47	3	106
Equipment Operators, Supervisors, Maintenance	17	1	15	1	33
Administrative and Marketing	8	0	7	0	16
Overall Recycling System FTEs	156	36	153	74	419

Scenario B: Single-Stream with CRF (S3)						
DRAFT - 2 - Willamette Valley, etc. 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$ 5,186,176	
Collection Engagement Labor and Expenses	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$ 5,186,176	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 22,521,628	\$ 7,293,401	\$ 19,084,400	\$ 4,551,936	\$ 53,451,366	
Direct Collection Costs	\$ 15,078,871	\$ 5,172,047	\$ 13,533,523	\$ 4,071,534	\$ 37,855,975	
Collection Capital - Containers	\$ 591,653	\$ 79,875	\$ 209,007	\$ 462,046	\$ 1,342,581	
Collection Capital - Trucks	\$ 1,581,556	\$ 277,803	\$ 726,918	NA	\$ 2,586,277	
Collection Labor	\$ 8,109,104	\$ 3,093,068	\$ 8,093,528	\$ 2,717,385	\$ 22,013,086	
Collection Operations	\$ 4,796,558	\$ 1,721,301	\$ 4,504,070	\$ 892,103	\$ 11,914,032	
Indirect Collection Costs	\$ 7,442,758	\$ 2,121,354	\$ 5,550,877	\$ 480,401	\$ 15,595,391	
Collection Administrative	\$ 5,060,878	\$ 1,257,664	\$ 3,290,888	\$ 480,401	\$ 10,089,833	
Collection Margin and Franchise Fee	\$ 2,381,879	\$ 863,690	\$ 2,259,989	NA	\$ 5,505,558	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 7,070,647	\$ 326,883	\$ 5,768,044	\$ 1,732,088	\$ 14,897,662	
Initial Transfer Transport	\$ 1,196,288	\$ 44,146	\$ 796,209	\$ 671,029	\$ 2,707,671	
Consolidation and Transfer to MRF	\$ 1,196,288	\$ 44,146	\$ 796,209	\$ 671,029	\$ 2,707,671	
Sortation	\$ 12,678,570	\$ 635,652	\$ 11,118,335	\$ 724,499	\$ 25,157,056	
Sortation Labor	\$ 4,269,299	\$ 214,045	\$ 3,743,916	\$ 243,963	\$ 8,471,223	
Sortation Capital	\$ 943,087	\$ 47,283	\$ 827,030	\$ 53,891	\$ 1,871,291	
Sortation Facility	\$ 2,165,691	\$ 108,579	\$ 1,899,179	\$ 123,755	\$ 4,297,204	
Glass and Unsorted Container Transfer	\$ 297,984	\$ 14,940	\$ 261,314	\$ 17,028	\$ 591,265	
Sortation Residual Disposal	\$ 1,271,619	\$ 63,754	\$ 1,115,133	\$ 72,665	\$ 2,523,171	
Sortation Administrative & Marketing	\$ 2,955,578	\$ 148,181	\$ 2,591,862	\$ 168,892	\$ 5,864,513	
Sortation Margin	\$ 775,312	\$ 38,871	\$ 679,902	\$ 44,304	\$ 1,538,389	
Overall System Costs						
Total Costs	\$ 37,880,025	\$ 8,996,971	\$ 33,677,811	\$ 5,947,464	\$ 86,502,270	

Scenario B: Single-Stream with CRF (S3)

DRAFT - 2 - Willamette Valley, etc. 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	98,161	4,538	80,077	24,046	206,823
Tons Collected Commingled	84,700	4,247	74,277	4,840	168,063
Tons Collected Source-Separated	13,461	292	5,801	19,206	38,760
Tons Marketed	254,950	11,787	207,981	62,455	537,172
Tons Marketed (excluding bale contamination)	254,950	11,787	207,981	62,455	537,172
Total Cost per Ton Collected	\$ 386	\$ 1,983	\$ 421	\$ 247	\$ 418
Total Cost per Ton Marketed	\$ 149	\$ 763	\$ 162	\$ 95	\$ 161

Commodity Revenues						
Commodity Revenues						
Commodity Sales (lower range)	\$ 5,737,599	\$ 287,660	\$ 5,031,525	\$ 327,867	\$ 14,672,766	
Commodity Sales (mid-point)	\$ 356,765	\$ 17,887	\$ 312,861	\$ 20,387	\$ 44,321,975	
Commodity Sales (upper range)	\$ 2,165,691	\$ 108,579	\$ 1,899,179	\$ 123,755	\$ 73,971,185	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	8	8	20	-	36
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	8	8	20	-	
Recycling Collection	70	24	64	70	228
Route Drivers, Route Operations, Depot Operations	50	22	57	70	199
Management and Administrative	20	2	6	-	29
Sortation	76	4	67	4	151
Sorting Labor	51	3	45	3	102
Equipment Operators, Supervisors, Maintenance	17	1	14	1	33
Admininstrative and Marketing	8	0	7	0	16
Overall Recycling System FTEs	154	36	151	74	415

Scenario C: Dual-Stream Statewide (S4)						
DRAFT - 2 - Willamette Valley, etc. 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$	5,186,176
Collection Engagement Labor and Expenses	\$ 1,483,538	\$ 1,023,771	\$ 2,678,867	\$ -	\$	5,186,176
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$	-
Collection	\$ 49,476,532	\$ 8,048,466	\$ 21,060,153	\$ 4,517,642	\$	83,102,794
Direct Collection Costs	\$ 37,506,311	\$ 5,813,589	\$ 15,212,223	\$ 4,040,872	\$	62,572,995
Collection Capital - Containers	\$ 3,306,171	\$ 723,905	\$ 1,894,219	\$ 458,556	\$	6,382,851
Collection Capital - Trucks	\$ 6,832,754	\$ 275,773	\$ 721,607	NA	\$	7,830,135
Collection Labor	\$ 17,403,929	\$ 3,097,572	\$ 8,105,312	\$ 2,696,957	\$	31,303,770
Collection Operations	\$ 9,963,457	\$ 1,716,338	\$ 4,491,085	\$ 885,359	\$	17,056,239
Indirect Collection Costs	\$ 11,970,221	\$ 2,234,878	\$ 5,847,930	\$ 476,770	\$	20,529,798
Collection Administrative	\$ 6,557,240	\$ 1,257,616	\$ 3,290,763	\$ 476,770	\$	11,582,389
Collection Margin and Franchise Fee	\$ 5,412,981	\$ 977,261	\$ 2,557,168	NA	\$	8,947,410
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 7,064,758	\$ 326,107	\$ 5,759,420	\$ 1,721,832	\$	14,872,117
Initial Transfer Transport	\$ 1,888,875	\$ 85,927	\$ 1,340,845	\$ 734,171	\$	4,049,818
Consolidation and Transfer to MRF	\$ 1,888,875	\$ 85,927	\$ 1,340,845	\$ 734,171	\$	4,049,818
Sortation	\$ 12,357,566	\$ 618,584	\$ 10,829,820	\$ 686,044	\$	24,492,014
Sortation Labor	\$ 4,171,784	\$ 208,827	\$ 3,656,033	\$ 231,601	\$	8,268,246
Sortation Capital	\$ 996,268	\$ 49,870	\$ 873,101	\$ 55,309	\$	1,974,547
Sortation Facility	\$ 2,163,600	\$ 108,303	\$ 1,896,118	\$ 120,115	\$	4,288,137
Glass and Unsorted Container Transfer	\$ 85,162	\$ 4,263	\$ 74,634	\$ 4,728	\$	168,787
Sortation Residual Disposal	\$ 1,214,903	\$ 60,814	\$ 1,064,707	\$ 67,447	\$	2,407,871
Sortation Administrative & Marketing	\$ 2,958,969	\$ 148,117	\$ 2,593,157	\$ 164,270	\$	5,864,513
Sortation Margin	\$ 766,880	\$ 38,388	\$ 672,072	\$ 42,574	\$	1,519,913
Overall System Costs						
Total Costs	\$ 65,206,511	\$ 9,776,747	\$ 35,909,686	\$ 5,937,857	\$	116,830,801

Scenario C: Dual-Stream Statewide (S4)

DRAFT - 2 - Willamette Valley, etc. 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	98,079	4,527	79,958	23,904	206,468
Tons Collected Commingled	84,618	4,236	74,157	4,698	167,708
Tons Collected Source-Separated	13,461	292	5,801	19,206	38,760
Tons Marketed	255,175	11,779	208,027	62,192	537,172
Tons Marketed (excluding bale contamination)	255,175	11,779	208,027	62,192	537,172
Total Cost per Ton Collected	\$ 665	\$ 2,160	\$ 449	\$ 248	\$ 566
Total Cost per Ton Marketed	\$ 256	\$ 830	\$ 173	\$ 95	\$ 217

Commodity Revenues						
Commodity Sales (lower range)	\$ 5,732,061	\$ 286,930	\$ 5,023,415	\$ 318,222	\$ 16,843,202	
Commodity Sales (mid-point)	\$ 356,421	\$ 17,841	\$ 312,357	\$ 19,787	\$ 47,782,881	
Commodity Sales (upper range)	\$ 2,163,600	\$ 108,303	\$ 1,896,118	\$ 120,115	\$ 78,722,560	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	8	8	20	-	36
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	8	8	20	-	
Recycling Collection	140	24	64	69	297
Route Drivers, Route Operations, Depot Operations	108	22	57	69	257
Management and Administrative	32	2	6	-	40
Sortation	74	4	65	4	147
Sorting Labor	49	2	43	3	97
Equipment Operators, Supervisors, Maintenance	18	1	15	1	35
Admininstrative and Marketing	8	0	7	0	16
Overall Recycling System FTEs	222	36	149	73	481

Baseline (S0)						
DRAFT - 3 - Other areas with curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 168,789	\$ 1,617	\$ 10,283	\$ -	\$ 180,688	
Collection Engagement Labor and Expenses	\$ 168,789	\$ 1,617	\$ 10,283	\$ -	\$ 180,688	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 14,186,798	\$ 1,558,035	\$ 9,909,100	\$ 2,259,734	\$ 27,913,666	
Direct Collection Costs	\$ 9,204,452	\$ 1,081,556	\$ 6,878,694	\$ 2,157,997	\$ 19,322,699	
Collection Capital - Containers	\$ 235,120	\$ 31,922	\$ 203,023	\$ 121,967	\$ 592,032	
Collection Capital - Trucks	\$ 1,336,746	\$ 71,719	\$ 456,133	NA	\$ 1,864,598	
Collection Labor	\$ 4,830,821	\$ 648,997	\$ 4,127,622	\$ 1,695,625	\$ 11,303,066	
Collection Operations	\$ 2,801,764	\$ 328,918	\$ 2,091,915	\$ 340,405	\$ 5,563,003	
Indirect Collection Costs	\$ 4,982,346	\$ 476,479	\$ 3,030,406	\$ 101,737	\$ 8,590,968	
Collection Administrative	\$ 3,593,927	\$ 298,272	\$ 1,897,013	\$ 101,737	\$ 5,890,950	
Collection Margin and Franchise Fee	\$ 1,388,419	\$ 178,206	\$ 1,133,393	NA	\$ 2,700,018	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 1,607,236	\$ 44,967	\$ 1,937,604	\$ 845,354	\$ 4,435,161	
Initial Transfer Transport	\$ 1,136,810	\$ 30,957	\$ 1,407,783	\$ 557,350	\$ 3,132,900	
Consolidation and Transfer to MRF	\$ 1,136,810	\$ 30,957	\$ 1,407,783	\$ 557,350	\$ 3,132,900	
Sortation	\$ 5,070,406	\$ 128,953	\$ 6,642,564	\$ 436,379	\$ 12,439,755	
Sortation Labor	\$ 1,369,332	\$ 34,825	\$ 1,793,915		\$ 3,359,525	
Sortation Capital	\$ 85,145	\$ 2,165	\$ 111,546	\$ 10,039	\$ 208,896	
Sortation Facility	\$ 516,863	\$ 13,145	\$ 677,124	\$ 60,941	\$ 1,268,073	
Glass and Unsorted Container Transfer	\$ 19,358	\$ 492	\$ 25,361	\$ 2,282	\$ 47,494	
Sortation Residual Disposal	\$ 473,269	\$ 12,036	\$ 620,013	\$ 55,801	\$ 1,161,120	
Sortation Administrative & Marketing	\$ 2,390,358	\$ 60,793	\$ 3,131,525	\$ 281,838	\$ 5,864,513	
Sortation Margin	\$ 216,081	\$ 5,495	\$ 283,080	\$ 25,477	\$ 530,134	
Overall System Costs						
Total Costs	\$ 20,562,803	\$ 1,719,561	\$ 17,969,729	\$ 3,253,463	\$ 43,667,009	

Baseline (S0)

DRAFT - 3 - Other areas with curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	22,313	624	26,900	11,736	61,573
Tons Collected Commingled	20,214	514	26,482	2,383	49,594
Tons Collected Source-Separated	2,099	110	417	9,353	11,979
Tons Marketed	194,663	5,446	234,676	102,387	537,172
Tons Marketed (excluding bale contamination)	194,663	5,446	234,676	102,387	537,172
Total Cost per Ton Collected	\$ 922	\$ 2,754	\$ 668	\$ 277	\$ 709
Total Cost per Ton Marketed	\$ 106	\$ 316	\$ 77	\$ 32	\$ 81

Commodity Revenues						
Commodity Sales (lower range)	\$ 1,369,332	\$ 34,825	\$ 1,793,915	\$ 161,453	\$ 11,267,395	
Commodity Sales (mid-point)	\$ 85,145	\$ 2,165	\$ 111,546	\$ 10,039	\$ 42,557,316	
Commodity Sales (upper range)	\$ 516,863	\$ 13,145	\$ 677,124	\$ 60,941	\$ 73,847,238	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	33	5	30	45	112
Route Drivers, Route Operations, Depot Operations	24	4	27	45	100
Management and Administrative	9	0	3	-	12
Sortation	24	1	31	3	58
Sorting Labor	18	0	23	2	44
Equipment Operators, Supervisors, Maintenance	4	0	5	0	10
Admininstrative and Marketing	2	0	3	0	5
Overall Recycling System FTEs	56	5	61	48	170

Scenario A: Single-Stream with Modern MRF (S1)						
DRAFT - 3 - Other areas with curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Collection Engagement Labor and Expenses	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 14,186,798	\$ 1,558,035	\$ 9,909,100	\$ 4,444,108	\$ 30,098,041	
Direct Collection Costs	\$ 9,204,452	\$ 1,081,556	\$ 6,878,694	\$ 4,244,027	\$ 21,408,729	
Collection Capital - Containers	\$ 235,120	\$ 31,922	\$ 203,023	\$ 239,866	\$ 709,931	
Collection Capital - Trucks	\$ 1,336,746	\$ 71,719	\$ 456,133	NA	\$ 1,864,598	
Collection Labor	\$ 4,830,821	\$ 648,997	\$ 4,127,622	\$ 3,334,703	\$ 12,942,144	
Collection Operations	\$ 2,801,764	\$ 328,918	\$ 2,091,915	\$ 669,458	\$ 5,892,056	
Indirect Collection Costs	\$ 4,982,346	\$ 476,479	\$ 3,030,406	\$ 200,081	\$ 8,689,312	
Collection Administrative	\$ 3,593,927	\$ 298,272	\$ 1,897,013	\$ 200,081	\$ 5,989,294	
Collection Margin and Franchise Fee	\$ 1,388,419	\$ 178,206	\$ 1,133,393	NA	\$ 2,700,018	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 1,495,428	\$ 40,752	\$ 1,809,880	\$ 832,804	\$ 4,178,865	
Initial Transfer Transport	\$ 1,055,319	\$ 27,885	\$ 1,314,690	\$ 548,203	\$ 2,946,097	
Consolidation and Transfer to MRF	\$ 1,055,319	\$ 27,885	\$ 1,314,690	\$ 548,203	\$ 2,946,097	
Sortation	\$ 4,788,187	\$ 116,891	\$ 6,339,626	\$ 566,812	\$ 11,811,515	
Sortation Labor	\$ 1,176,913	\$ 28,731	\$ 1,558,249	\$ 139,319	\$ 2,903,212	
Sortation Capital	\$ 240,132	\$ 5,862	\$ 317,938	\$ 28,426	\$ 592,359	
Sortation Facility	\$ 477,174	\$ 11,649	\$ 631,785	\$ 56,486	\$ 1,177,094	
Glass and Unsorted Container Transfer	\$ 19,265	\$ 470	\$ 25,507	\$ 2,281	\$ 47,523	
Sortation Residual Disposal	\$ 301,277	\$ 7,355	\$ 398,894	\$ 35,664	\$ 743,190	
Sortation Administrative & Marketing	\$ 2,377,374	\$ 58,037	\$ 3,147,676	\$ 281,427	\$ 5,864,513	
Sortation Margin	\$ 196,053	\$ 4,786	\$ 259,576	\$ 23,208	\$ 483,623	
Overall System Costs						
Total Costs	\$ 20,621,065	\$ 1,866,102	\$ 18,601,953	\$ 5,559,123	\$ 46,648,242	

Scenario A: Single-Stream with Modern MRF (S1)

DRAFT - 3 - Other areas with curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	20,761	566	25,126	11,562	58,015
Tons Collected Commingled	18,662	456	24,709	2,209	46,036
Tons Collected Source-Separated	2,099	110	417	9,353	11,979
Tons Marketed	192,230	5,239	232,651	107,053	537,172
Tons Marketed (excluding bale contamination)	192,230	5,239	232,651	107,053	537,172
Total Cost per Ton Collected	\$ 993	\$ 3,298	\$ 740	\$ 481	\$ 804
Total Cost per Ton Marketed	\$ 107	\$ 356	\$ 80	\$ 52	\$ 87

Commodity Revenues						
Commodity Sales (lower range)	\$ 1,264,185	\$ 30,862	\$ 1,673,798	\$ 149,650	\$ 14,578,790	
Commodity Sales (mid-point)	\$ 78,607	\$ 1,919	\$ 104,077	\$ 9,305	\$ 42,102,986	
Commodity Sales (upper range)	\$ 477,174	\$ 11,649	\$ 631,785	\$ 56,486	\$ 69,627,183	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	3	1	8	-	12
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	3	1	8	-	
Recycling Collection	33	5	30	89	156
Route Drivers, Route Operations, Depot Operations	24	4	27	89	144
Management and Administrative	9	0	3	-	12
Sortation	21	1	27	2	51
Sorting Labor	15	0	20	2	37
Equipment Operators, Supervisors, Maintenance	4	0	5	0	9
Admininstrative and Marketing	2	0	3	0	5
Overall Recycling System FTEs	56	6	65	91	219

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)						
DRAFT - 3 - Other areas with curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Collection Engagement Labor and Expenses	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 14,186,798	\$ 1,558,035	\$ 9,909,100	\$ 2,602,576	\$ 28,256,508	
Direct Collection Costs	\$ 9,204,452	\$ 1,081,556	\$ 6,878,694	\$ 2,493,473	\$ 19,658,175	
Collection Capital - Containers	\$ 235,120	\$ 31,922	\$ 203,023	\$ 262,690	\$ 732,756	
Collection Capital - Trucks	\$ 1,336,746	\$ 71,719	\$ 456,133	NA	\$ 1,864,598	
Collection Labor	\$ 4,830,821	\$ 648,997	\$ 4,127,622	\$ 1,865,733	\$ 11,473,173	
Collection Operations	\$ 2,801,764	\$ 328,918	\$ 2,091,915	\$ 365,050	\$ 5,587,648	
Indirect Collection Costs	\$ 4,982,346	\$ 476,479	\$ 3,030,406	\$ 109,103	\$ 8,598,333	
Collection Administrative	\$ 3,593,927	\$ 298,272	\$ 1,897,013	\$ 109,103	\$ 5,898,315	
Collection Margin and Franchise Fee	\$ 1,388,419	\$ 178,206	\$ 1,133,393	NA	\$ 2,700,018	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 2,179,771	\$ 77,322	\$ 2,113,765	\$ 899,843	\$ 5,270,701	
Initial Transfer Transport	\$ 1,514,630	\$ 54,539	\$ 1,527,189	\$ 597,065	\$ 3,693,422	
Consolidation and Transfer to MRF	\$ 1,514,630	\$ 54,539	\$ 1,527,189	\$ 597,065	\$ 3,693,422	
Sortation	\$ 5,615,620	\$ 209,908	\$ 6,184,912	\$ 632,342	\$ 12,642,782	
Sortation Labor	\$ 1,337,261	\$ 49,986	\$ 1,472,828	\$ 150,581	\$ 3,010,656	
Sortation Capital	\$ 318,261	\$ 11,896	\$ 350,525	\$ 35,837	\$ 716,519	
Sortation Facility	\$ 655,207	\$ 24,491	\$ 721,629	\$ 73,779	\$ 1,475,106	
Glass and Unsorted Container Transfer	\$ 51,192	\$ 1,914	\$ 56,381	\$ 5,764	\$ 115,251	
Sortation Residual Disposal	\$ 406,120	\$ 15,180	\$ 447,291	\$ 45,731	\$ 914,323	
Sortation Administrative & Marketing	\$ 2,604,876	\$ 97,368	\$ 2,868,949	\$ 293,320	\$ 5,864,513	
Sortation Margin	\$ 242,704	\$ 9,072	\$ 267,308	\$ 27,329	\$ 546,413	
Overall System Costs						
Total Costs	\$ 21,907,809	\$ 1,985,773	\$ 18,659,738	\$ 3,831,982	\$ 46,385,301	

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)
DRAFT - 3 - Other areas with curbside 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
<i>Tons Collected for Recycling</i>	30,262	1,073	29,345	12,492	73,173
<i>Tons Collected Commingled</i>	25,770	963	28,383	2,902	58,019
<i>Tons Collected Source-Separated</i>	4,491	110	962	9,591	15,154
<i>Tons Marketed</i>	222,155	7,880	215,428	91,709	537,172
<i>Tons Marketed (excluding bale contamination)</i>	222,155	7,880	215,428	91,709	537,172
Total Cost per Ton Collected	\$ 724	\$ 1,850	\$ 636	\$ 307	\$ 634
Total Cost per Ton Marketed	\$ 99	\$ 252	\$ 87	\$ 42	\$ 86

Commodity Revenues						
Commodity Sales (lower range)	\$ 1,745,702	\$ 65,253	\$ 1,922,676	\$ 196,573	\$ 16,712,549	
Commodity Sales (mid-point)	\$ 108,548	\$ 4,057	\$ 119,552	\$ 12,223	\$ 48,067,521	
Commodity Sales (upper range)	\$ 658,926	\$ 24,630	\$ 725,725	\$ 74,198	\$ 79,422,494	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	3	1	8	-	12
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	3	1	8	-	
Recycling Collection	33	5	30	48	115
Route Drivers, Route Operations, Depot Operations	24	4	27	48	103
Management and Administrative	9	0	3	-	12
Sortation	24	1	26	3	53
Sorting Labor	16	1	18	2	36
Equipment Operators, Supervisors, Maintenance	5	0	6	1	11
Admininstrative and Marketing	2	0	3	0	5
Overall Recycling System FTEs	60	7	64	51	181

Scenario B: Single-Stream with CRF (S3)						
DRAFT - 3 - Other areas with curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Collection Engagement Labor and Expenses	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 14,186,798	\$ 1,558,035	\$ 9,909,100	\$ 2,602,576	\$ 28,256,508	
Direct Collection Costs	\$ 9,204,452	\$ 1,081,556	\$ 6,878,694	\$ 2,493,473	\$ 19,658,175	
Collection Capital - Containers	\$ 235,120	\$ 31,922	\$ 203,023	\$ 262,690	\$ 732,756	
Collection Capital - Trucks	\$ 1,336,746	\$ 71,719	\$ 456,133	NA	\$ 1,864,598	
Collection Labor	\$ 4,830,821	\$ 648,997	\$ 4,127,622	\$ 1,865,733	\$ 11,473,173	
Collection Operations	\$ 2,801,764	\$ 328,918	\$ 2,091,915	\$ 365,050	\$ 5,587,648	
Indirect Collection Costs	\$ 4,982,346	\$ 476,479	\$ 3,030,406	\$ 109,103	\$ 8,598,333	
Collection Administrative	\$ 3,593,927	\$ 298,272	\$ 1,897,013	\$ 109,103	\$ 5,898,315	
Collection Margin and Franchise Fee	\$ 1,388,419	\$ 178,206	\$ 1,133,393	NA	\$ 2,700,018	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 2,179,771	\$ 77,322	\$ 2,113,765	\$ 899,843	\$ 5,270,701	
Initial Transfer Transport	\$ 1,514,630	\$ 54,539	\$ 1,527,189	\$ 597,065	\$ 3,693,422	
Consolidation and Transfer to MRF	\$ 1,514,630	\$ 54,539	\$ 1,527,189	\$ 597,065	\$ 3,693,422	
Sortation	\$ 5,563,160	\$ 207,947	\$ 6,127,135	\$ 626,435	\$ 12,524,677	
Sortation Labor	\$ 1,298,962	\$ 48,554	\$ 1,430,647	\$ 146,269	\$ 2,924,432	
Sortation Capital	\$ 286,940	\$ 10,726	\$ 316,030	\$ 32,311	\$ 646,006	
Sortation Facility	\$ 658,926	\$ 24,630	\$ 725,725	\$ 74,198	\$ 1,483,479	
Glass and Unsorted Container Transfer	\$ 90,663	\$ 3,389	\$ 99,855	\$ 10,209	\$ 204,116	
Sortation Residual Disposal	\$ 386,899	\$ 14,462	\$ 426,121	\$ 43,566	\$ 871,048	
Sortation Administrative & Marketing	\$ 2,604,876	\$ 97,368	\$ 2,868,949	\$ 293,320	\$ 5,864,513	
Sortation Margin	\$ 235,894	\$ 8,818	\$ 259,808	\$ 26,563	\$ 531,082	
Overall System Costs						
Total Costs	\$ 21,855,349	\$ 1,983,812	\$ 18,601,960	\$ 3,826,075	\$ 46,267,197	

Scenario B: Single-Stream with CRF (S3)

DRAFT - 3 - Other areas with curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	30,262	1,073	29,345	12,492	73,173
Tons Collected Commingled	25,770	963	28,383	2,902	58,019
Tons Collected Source-Separated	4,491	110	962	9,591	15,154
Tons Marketed	222,155	7,880	215,428	91,709	537,172
Tons Marketed (excluding bale contamination)	222,155	7,880	215,428	91,709	537,172
Total Cost per Ton Collected	\$ 722	\$ 1,848	\$ 634	\$ 306	\$ 632
Total Cost per Ton Marketed	\$ 98	\$ 252	\$ 86	\$ 42	\$ 86

Commodity Revenues						
Commodity Sales (lower range)	\$ 1,745,702	\$ 65,253	\$ 1,922,676	\$ 196,573	\$ 14,672,766	
Commodity Sales (mid-point)	\$ 108,548	\$ 4,057	\$ 119,552	\$ 12,223	\$ 44,321,975	
Commodity Sales (upper range)	\$ 658,926	\$ 24,630	\$ 725,725	\$ 74,198	\$ 73,971,185	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	3	1	8	-	12
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	3	1	8	-	
Recycling Collection	33	5	30	48	115
Route Drivers, Route Operations, Depot Operations	24	4	27	48	103
Management and Administrative	9	0	3	-	12
Sortation	23	1	25	3	52
Sorting Labor	16	1	17	2	35
Equipment Operators, Supervisors, Maintenance	5	0	6	1	11
Admininstrative and Marketing	2	0	3	0	5
Overall Recycling System FTEs	59	7	63	51	180

Scenario C: Dual-Stream Statewide (S4)						
DRAFT - 3 - Other areas with curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Collection Engagement Labor and Expenses	\$ 590,761	\$ 163,292	\$ 1,038,537	\$ -	\$ 1,792,590	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ 25,961,337	\$ 1,657,230	\$ 10,539,985	\$ 2,601,212	\$ 40,759,764	
Direct Collection Costs	\$ 19,546,612	\$ 1,165,850	\$ 7,414,808	\$ 2,492,168	\$ 30,619,439	
Collection Capital - Containers	\$ 1,404,323	\$ 115,640	\$ 735,469	\$ 262,551	\$ 2,517,983	
Collection Capital - Trucks	\$ 3,071,957	\$ 71,587	\$ 455,290	NA	\$ 3,598,834	
Collection Labor	\$ 9,377,751	\$ 649,614	\$ 4,131,543	\$ 1,864,762	\$ 16,023,670	
Collection Operations	\$ 5,692,581	\$ 329,010	\$ 2,092,506	\$ 364,855	\$ 8,478,952	
Indirect Collection Costs	\$ 6,414,725	\$ 491,380	\$ 3,125,176	\$ 109,044	\$ 10,140,325	
Collection Administrative	\$ 3,507,433	\$ 298,275	\$ 1,897,026	\$ 109,044	\$ 5,811,777	
Collection Margin and Franchise Fee	\$ 2,907,292	\$ 193,105	\$ 1,228,150	NA	\$ 4,328,548	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 2,261,867	\$ 79,445	\$ 2,134,255	\$ 899,412	\$ 5,374,980	
Initial Transfer Transport	\$ 1,502,733	\$ 52,760	\$ 1,372,162	\$ 593,819	\$ 3,521,475	
Consolidation and Transfer to MRF	\$ 1,502,733	\$ 52,760	\$ 1,372,162	\$ 593,819	\$ 3,521,475	
Sortation	\$ 5,642,801	\$ 208,171	\$ 6,011,278	\$ 607,237	\$ 12,469,487	
Sortation Labor	\$ 1,326,710	\$ 48,944	\$ 1,413,345	\$ 142,771	\$ 2,931,770	
Sortation Capital	\$ 316,833	\$ 11,688	\$ 337,522	\$ 34,095	\$ 700,139	
Sortation Facility	\$ 688,068	\$ 25,384	\$ 732,999	\$ 74,045	\$ 1,520,495	
Glass and Unsorted Container Transfer	\$ 27,083	\$ 999	\$ 28,852	\$ 2,914	\$ 59,849	
Sortation Residual Disposal	\$ 386,363	\$ 14,254	\$ 411,593	\$ 41,578	\$ 853,787	
Sortation Administrative & Marketing	\$ 2,653,861	\$ 97,905	\$ 2,827,159	\$ 285,589	\$ 5,864,513	
Sortation Margin	\$ 243,883	\$ 8,997	\$ 259,809	\$ 26,245	\$ 538,934	
Overall System Costs						
Total Costs	\$ 33,697,632	\$ 2,081,454	\$ 18,961,961	\$ 3,802,268	\$ 58,543,315	

Scenario C: Dual-Stream Statewide (S4)

DRAFT - 3 - Other areas with curbside 2025

	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	31,401	1,103	29,630	12,486	74,620
Tons Collected Commingled	26,910	993	28,667	2,896	59,466
Tons Collected Source-Separated	4,491	110	962	9,591	15,154
Tons Marketed	226,050	7,940	213,296	89,887	537,172
Tons Marketed (excluding bale contamination)	226,050	7,940	213,296	89,887	537,172
Total Cost per Ton Collected	\$ 1,073	\$ 1,887	\$ 640	\$ 305	\$ 785
Total Cost per Ton Marketed	\$ 149	\$ 262	\$ 89	\$ 42	\$ 109

Commodity Revenues						
Commodity Sales (lower range)	\$ 1,822,909	\$ 67,250	\$ 1,941,946	\$ 196,168	\$ 16,843,202	
Commodity Sales (mid-point)	\$ 113,349	\$ 4,182	\$ 120,751	\$ 12,198	\$ 47,782,881	
Commodity Sales (upper range)	\$ 688,068	\$ 25,384	\$ 732,999	\$ 74,045	\$ 78,722,560	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	3	1	8	-	12
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	3	1	8	-	
Recycling Collection	56	5	30	48	138
Route Drivers, Route Operations, Depot Operations	43	4	27	48	122
Management and Administrative	13	0	3	-	16
Sortation	24	1	25	3	52
Sorting Labor	16	1	17	2	34
Equipment Operators, Supervisors, Maintenance	6	0	6	1	12
Admininstrative and Marketing	3	0	3	0	6
Overall Recycling System FTEs	83	7	63	51	203

Baseline (S0)						
DRAFT - 4 - Areas without curbside 2025						
	SF Res. (on- route)	MF Res. (on- route)	Commercial (on- route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ -	\$ -	\$ -	\$ 7,031,099	\$ 7,031,099	
Direct Collection Costs	\$ -	\$ -	\$ -	\$ 6,714,568	\$ 6,714,568	
Collection Capital - Containers	\$ -	\$ -	\$ -	\$ 379,472	\$ 379,472	
Collection Capital - Trucks	\$ -	\$ -	\$ -	NA	\$ -	
Collection Labor	\$ -	\$ -	\$ -	\$ 5,276,002	\$ 5,276,002	
Collection Operations	\$ -	\$ -	\$ -	\$ 1,059,094	\$ 1,059,094	
Indirect Collection Costs	\$ -	\$ -	\$ -	\$ 316,531	\$ 316,531	
Collection Administrative	\$ -	\$ -	\$ -	\$ 316,531	\$ 316,531	
Collection Margin and Franchise Fee	\$ -	\$ -	\$ -	NA	\$ -	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 18,052	\$ 1,033	\$ 1,095,180	\$ 2,770,705	\$ 3,884,969	
Initial Transfer Transport	\$ 24,933	\$ 1,357	\$ 1,494,998	\$ 3,244,347	\$ 4,765,635	
Consolidation and Transfer to MRF	\$ 24,933	\$ 1,357	\$ 1,494,998	\$ 3,244,347	\$ 4,765,635	
Sortation	\$ 131,290	\$ 6,693	\$ 7,683,394	\$ -	\$ 7,821,377	
Sortation Labor	\$ 16,783	\$ 856	\$ 982,192		\$ 999,831	
Sortation Capital	\$ 1,044	\$ 53	\$ 61,073	\$ -	\$ 62,170	
Sortation Facility	\$ 6,335	\$ 323	\$ 370,734	\$ -	\$ 377,392	
Glass and Unsorted Container Transfer	\$ 237	\$ 12	\$ 13,885	\$ -	\$ 14,135	
Sortation Residual Disposal	\$ 5,801	\$ 296	\$ 339,466	\$ -	\$ 345,562	
Sortation Administrative & Marketing	\$ 98,442	\$ 5,019	\$ 5,761,053	\$ -	\$ 5,864,513	
Sortation Margin	\$ 2,648	\$ 135	\$ 154,990	\$ -	\$ 157,774	
Overall System Costs						
Total Costs	\$ 156,223	\$ 8,050	\$ 9,178,393	\$ 10,275,446	\$ 19,618,111	

Baseline (S0)

DRAFT - 4 - Areas without curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	251	14	15,204	38,465	53,935
Tons Collected Commingled	248	13	14,499	-	14,760
Tons Collected Source-Separated	3	2	705	38,465	39,175
Tons Marketed	2,496	143	151,430	383,104	537,172
Tons Marketed (excluding bale contamination)	2,496	143	151,430	383,104	537,172
Total Cost per Ton Collected	\$ 623	\$ 561	\$ 604	\$ 267	\$ 364
Total Cost per Ton Marketed	\$ 63	\$ 56	\$ 61	\$ 27	\$ 37

Commodity Revenues							
Commodity Revenues							
Commodity Sales (lower range)	\$	16,783	\$	856	\$	982,192	\$ - \$ 11,267,395
Commodity Sales (mid-point)	\$	1,044	\$	53	\$	61,073	\$ - \$ 42,557,316
Commodity Sales (upper range)	\$	6,335	\$	323	\$	370,734	\$ - \$ 73,847,238

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	-	-	-	115	115
Route Drivers, Route Operations, Depot Operations	-	-	-	115	115
Management and Administrative	-	-	-	-	-
Sortation	0	0	17	-	17
Sorting Labor	0	0	13	-	13
Equipment Operators, Supervisors, Maintenance	0	0	3	-	3
Admininstrative and Marketing	0	0	1	-	1
Overall Recycling System FTEs	0	0	17	115	133

Scenario A: Single-Stream with Modern MRF (S1)						
DRAFT - 4 - Areas without curbside 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ -	\$ -	\$ -	\$ -	\$ -	
Direct Collection Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Capital - Containers	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Capital - Trucks	\$ -	\$ -	\$ -	NA	\$ -	
Collection Labor	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Operations	\$ -	\$ -	\$ -	\$ -	\$ -	
Indirect Collection Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Margin and Franchise Fee	\$ -	\$ -	\$ -	NA	\$ -	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 16,169	\$ 942	\$ 997,114	\$ 2,770,705	\$ 3,784,930	
Initial Transfer Transport	\$ 22,319	\$ 1,231	\$ 1,358,854	\$ 3,244,347	\$ 4,626,751	
Consolidation and Transfer to MRF	\$ 22,319	\$ 1,231	\$ 1,358,854	\$ 3,244,347	\$ 4,626,751	
Sortation	\$ 125,831	\$ 6,458	\$ 7,459,500	\$ -	\$ 7,591,789	
Sortation Labor	\$ 13,976	\$ 717	\$ 828,530	\$ -	\$ 843,223	
Sortation Capital	\$ 2,852	\$ 146	\$ 169,050	\$ -	\$ 172,048	
Sortation Facility	\$ 5,667	\$ 291	\$ 335,924	\$ -	\$ 341,881	
Glass and Unsorted Container Transfer	\$ 229	\$ 12	\$ 13,562	\$ -	\$ 13,803	
Sortation Residual Disposal	\$ 3,578	\$ 184	\$ 212,094	\$ -	\$ 215,856	
Sortation Administrative & Marketing	\$ 97,202	\$ 4,989	\$ 5,762,322	\$ -	\$ 5,864,513	
Sortation Margin	\$ 2,328	\$ 119	\$ 138,018	\$ -	\$ 140,466	
Overall System Costs						
Total Costs	\$ 148,150	\$ 7,690	\$ 8,818,354	\$ 3,244,347	\$ 12,218,541	

Scenario A: Single-Stream with Modern MRF (S1)

DRAFT - 4 - Areas without curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	224	13	13,843	38,465	52,546
Tons Collected Commingled	222	11	13,138	-	13,371
Tons Collected Source-Separated	3	2	705	38,465	39,175
Tons Marketed	2,295	134	141,514	393,229	537,172
Tons Marketed (excluding bale contamination)	2,295	134	141,514	393,229	537,172
Total Cost per Ton Collected	\$ 660	\$ 588	\$ 637	\$ 84	\$ 233
Total Cost per Ton Marketed	\$ 65	\$ 58	\$ 62	\$ 8	\$ 23

Commodity Revenues						
Commodity Sales (lower range)	\$ 15,012	\$ 771	\$ 889,968	\$ -	\$ 14,578,790	
Commodity Sales (mid-point)	\$ 933	\$ 48	\$ 55,338	\$ -	\$ 42,102,986	
Commodity Sales (upper range)	\$ 5,667	\$ 291	\$ 335,924	\$ -	\$ 69,627,183	

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	-	-	-	-	-
Route Drivers, Route Operations, Depot Operations	-	-	-	-	-
Management and Administrative	-	-	-	-	-
Sortation	0	0	14	-	15
Sorting Labor	0	0	10	-	11
Equipment Operators, Supervisors, Maintenance	0	0	3	-	3
Admininstrative and Marketing	0	0	1	-	1
Overall Recycling System FTEs	0	0	14	-	15

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)						
DRAFT - 4 - Areas without curbside 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ -	\$ -	\$ -	\$ 8,341,811	\$ 8,341,811	
Direct Collection Costs	\$ -	\$ -	\$ -	\$ 8,002,806	\$ 8,002,806	
Collection Capital - Containers	\$ -	\$ -	\$ -	\$ 822,005	\$ 822,005	
Collection Capital - Trucks	\$ -	\$ -	\$ -	NA	\$ -	
Collection Labor	\$ -	\$ -	\$ -	\$ 6,046,512	\$ 6,046,512	
Collection Operations	\$ -	\$ -	\$ -	\$ 1,134,289	\$ 1,134,289	
Indirect Collection Costs	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	
Collection Administrative	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	
Collection Margin and Franchise Fee	\$ -	\$ -	\$ -	NA	\$ -	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 16,861	\$ 946	\$ 1,027,515	\$ 2,907,679	\$ 3,953,001	
Initial Transfer Transport	\$ 23,280	\$ 1,236	\$ 1,401,060	\$ 3,434,507	\$ 4,860,083	
Consolidation and Transfer to MRF	\$ 23,280	\$ 1,236	\$ 1,401,060	\$ 3,434,507	\$ 4,860,083	
Sortation	\$ 125,257	\$ 6,187	\$ 7,345,618	\$ -	\$ 7,477,063	
Sortation Labor	\$ 11,998	\$ 593	\$ 703,643	\$ -	\$ 716,235	
Sortation Capital	\$ 2,856	\$ 141	\$ 167,463	\$ -	\$ 170,460	
Sortation Facility	\$ 5,879	\$ 290	\$ 344,758	\$ -	\$ 350,928	
Glass and Unsorted Container Transfer	\$ 459	\$ 23	\$ 26,936	\$ -	\$ 27,418	
Sortation Residual Disposal	\$ 3,644	\$ 180	\$ 213,693	\$ -	\$ 217,517	
Sortation Administrative & Marketing	\$ 98,243	\$ 4,853	\$ 5,761,417	\$ -	\$ 5,864,513	
Sortation Margin	\$ 2,178	\$ 108	\$ 127,706	\$ -	\$ 129,992	
Overall System Costs						
Total Costs	\$ 148,536	\$ 7,423	\$ 8,746,678	\$ 11,776,319	\$ 20,678,957	

Scenario A+: Single-Stream with Modern MRFs and Expanded List (S2)

DRAFT - 4 - Areas without curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	234	13	14,265	40,367	54,879
Tons Collected Commingled	231	11	13,560	-	13,803
Tons Collected Source-Separated	3	2	705	40,367	41,077
Tons Marketed	2,291	129	139,629	395,124	537,172
Tons Marketed (excluding bale contamination)	2,291	129	139,629	395,124	537,172
Total Cost per Ton Collected	\$ 635	\$ 565	\$ 613	\$ 292	\$ 377
Total Cost per Ton Marketed	\$ 65	\$ 58	\$ 63	\$ 30	\$ 38

Commodity Revenues							
Commodity Revenues							
Commodity Sales (lower range)	\$	15,663	\$	774	\$	918,558	\$ - \$ 16,712,549
Commodity Sales (mid-point)	\$	974	\$	48	\$	57,116	\$ - \$ 48,067,521
Commodity Sales (upper range)	\$	5,912	\$	292	\$	346,715	\$ - \$ 79,422,494

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	-	-	-	124	124
Route Drivers, Route Operations, Depot Operations	-	-	-	124	124
Management and Administrative	-	-	-	-	-
Sortation	0	0	12	-	13
Sorting Labor	0	0	9	-	9
Equipment Operators, Supervisors, Maintenance	0	0	3	-	3
Admininstrative and Marketing	0	0	1	-	1
Overall Recycling System FTEs	0	0	12	124	136

Scenario B: Single-Stream with CRF (S3)						
DRAFT - 4 - Areas without curbside 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Collection	\$ -	\$ -	\$ -	\$ 8,341,811	\$ 8,341,811	
Direct Collection Costs	\$ -	\$ -	\$ -	\$ 8,002,806	\$ 8,002,806	
Collection Capital - Containers	\$ -	\$ -	\$ -	\$ 822,005	\$ 822,005	
Collection Capital - Trucks	\$ -	\$ -	\$ -	NA	\$ -	
Collection Labor	\$ -	\$ -	\$ -	\$ 6,046,512	\$ 6,046,512	
Collection Operations	\$ -	\$ -	\$ -	\$ 1,134,289	\$ 1,134,289	
Indirect Collection Costs	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	
Collection Administrative	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	
Collection Margin and Franchise Fee	\$ -	\$ -	\$ -	NA	\$ -	
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 16,861	\$ 946	\$ 1,027,515	\$ 2,907,679	\$ 3,953,001	
Initial Transfer Transport	\$ 23,280	\$ 1,236	\$ 1,401,060	\$ 3,434,507	\$ 4,860,083	
Consolidation and Transfer to MRF	\$ 23,280	\$ 1,236	\$ 1,401,060	\$ 3,434,507	\$ 4,860,083	
Sortation	\$ 124,786	\$ 6,164	\$ 7,318,015	\$ -	\$ 7,448,965	
Sortation Labor	\$ 11,655	\$ 576	\$ 683,491	\$ -	\$ 695,722	
Sortation Capital	\$ 2,575	\$ 127	\$ 150,983	\$ -	\$ 153,685	
Sortation Facility	\$ 5,912	\$ 292	\$ 346,715	\$ -	\$ 352,920	
Glass and Unsorted Container Transfer	\$ 813	\$ 40	\$ 47,706	\$ -	\$ 48,559	
Sortation Residual Disposal	\$ 3,471	\$ 171	\$ 203,579	\$ -	\$ 207,222	
Sortation Administrative & Marketing	\$ 98,243	\$ 4,853	\$ 5,761,417	\$ -	\$ 5,864,513	
Sortation Margin	\$ 2,117	\$ 105	\$ 124,123	\$ -	\$ 126,344	
Overall System Costs						
Total Costs	\$ 148,066	\$ 7,400	\$ 8,719,075	\$ 11,776,319	\$ 20,650,860	

Scenario B: Single-Stream with CRF (S3)

DRAFT - 4 - Areas without curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	234	13	14,265	40,367	54,879
Tons Collected Commingled	231	11	13,560	-	13,803
Tons Collected Source-Separated	3	2	705	40,367	41,077
Tons Marketed	2,291	129	139,629	395,124	537,172
Tons Marketed (excluding bale contamination)	2,291	129	139,629	395,124	537,172
Total Cost per Ton Collected	\$ 633	\$ 564	\$ 611	\$ 292	\$ 376
Total Cost per Ton Marketed	\$ 65	\$ 58	\$ 62	\$ 30	\$ 38

Commodity Revenues							
Commodity Revenues							
Commodity Sales (lower range)	\$	15,663	\$	774	\$	918,558	\$ - \$ 14,672,766
Commodity Sales (mid-point)	\$	974	\$	48	\$	57,116	\$ - \$ 44,321,975
Commodity Sales (upper range)	\$	5,912	\$	292	\$	346,715	\$ - \$ 73,971,185

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	-	-	-	124	124
Route Drivers, Route Operations, Depot Operations	-	-	-	124	124
Management and Administrative	-	-	-	-	-
Sortation	0	0	12	-	12
Sorting Labor	0	0	8	-	8
Equipment Operators, Supervisors, Maintenance	0	0	3	-	3
Admininstrative and Marketing	0	0	1	-	1
Overall Recycling System FTEs	0	0	12	124	136

Scenario C: Dual-Stream Statewide (S4)						
DRAFT - 4 - Areas without curbside 2025						
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total	
Recycling System Costs						
Customer Engagement Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Collection Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Local Government Engagement Labor and Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Collection	\$ -	\$ -	\$ -	\$ 8,341,811	\$ 8,341,811	\$ 8,341,811
Direct Collection Costs	\$ -	\$ -	\$ -	\$ 8,002,806	\$ 8,002,806	\$ 8,002,806
Collection Capital - Containers	\$ -	\$ -	\$ -	\$ 822,005	\$ 822,005	\$ 822,005
Collection Capital - Trucks	\$ -	\$ -	\$ -	NA	\$ -	\$ -
Collection Labor	\$ -	\$ -	\$ -	\$ 6,046,512	\$ 6,046,512	\$ 6,046,512
Collection Operations	\$ -	\$ -	\$ -	\$ 1,134,289	\$ 1,134,289	\$ 1,134,289
Indirect Collection Costs	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	\$ 339,005
Collection Administrative	\$ -	\$ -	\$ -	\$ 339,005	\$ 339,005	\$ 339,005
Collection Margin and Franchise Fee	\$ -	\$ -	\$ -	NA	\$ -	\$ -
Cost Savings from Reduced Garbage Disposal						
Avoided Disposal Tip Fees	\$ 16,930	\$ 949	\$ 1,030,546	\$ 2,907,679	\$ 3,956,105	\$ 3,956,105
Initial Transfer Transport	\$ 20,699	\$ 1,070	\$ 1,209,505	\$ 3,434,507	\$ 4,665,781	\$ 4,665,781
Consolidation and Transfer to MRF	\$ 20,699	\$ 1,070	\$ 1,209,505	\$ 3,434,507	\$ 4,665,781	\$ 4,665,781
Sortation	\$ 124,133	\$ 6,132	\$ 7,272,103	\$ -	\$ 7,402,369	\$ 7,402,369
Sortation Labor	\$ 11,447	\$ 565	\$ 670,600	\$ -	\$ 682,612	\$ 682,612
Sortation Capital	\$ 2,734	\$ 135	\$ 160,147	\$ -	\$ 163,015	\$ 163,015
Sortation Facility	\$ 5,937	\$ 293	\$ 347,791	\$ -	\$ 354,021	\$ 354,021
Glass and Unsorted Container Transfer	\$ 234	\$ 12	\$ 13,690	\$ -	\$ 13,935	\$ 13,935
Sortation Residual Disposal	\$ 3,334	\$ 165	\$ 195,292	\$ -	\$ 198,790	\$ 198,790
Sortation Administrative & Marketing	\$ 98,344	\$ 4,858	\$ 5,761,311	\$ -	\$ 5,864,513	\$ 5,864,513
Sortation Margin	\$ 2,104	\$ 104	\$ 123,273	\$ -	\$ 125,481	\$ 125,481
Overall System Costs						
Total Costs	\$ 144,832	\$ 7,202	\$ 8,481,608	\$ 11,776,319	\$ 20,409,961	\$ 20,409,961

Scenario C: Dual-Stream Statewide (S4)

DRAFT - 4 - Areas without curbside 2025

	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Tons Collected for Recycling	235	13	14,307	40,367	54,922
Tons Collected Commingled	232	11	13,602	-	13,846
Tons Collected Source-Separated	3	2	705	40,367	41,077
Tons Marketed	2,299	129	139,931	394,814	537,172
Tons Marketed (excluding bale contamination)	2,299	129	139,931	394,814	537,172
Total Cost per Ton Collected	\$ 616	\$ 547	\$ 593	\$ 292	\$ 372
Total Cost per Ton Marketed	\$ 63	\$ 56	\$ 61	\$ 30	\$ 38

Commodity Revenues							
Commodity Revenues							
Commodity Sales (lower range)	\$	15,728	\$	777	\$	921,409	\$ - \$ 16,843,202
Commodity Sales (mid-point)	\$	978	\$	48	\$	57,293	\$ - \$ 47,782,881
Commodity Sales (upper range)	\$	5,937	\$	293	\$	347,791	\$ - \$ 78,722,560

Full-Time Equivalent (FTE) Employment					
	SF Res. (on-route)	MF Res. (on-route)	Commercial (on-route)	Self-haul (excluding Bottle Bill)	Total
Recycling Customer Engagement	-	-	-	-	-
Local Government Engagement	-	-	-	-	-
New Engagement (costs in collection engagement)	-	-	-	-	-
Recycling Collection	-	-	-	124	124
Route Drivers, Route Operations, Depot Operations	-	-	-	124	124
Management and Administrative	-	-	-	-	-
Sortation	0	0	12	-	12
Sorting Labor	0	0	8	-	8
Equipment Operators, Supervisors, Maintenance	0	0	3	-	3
Admininstrative and Marketing	0	0	1	-	1
Overall Recycling System FTEs	0	0	12	124	136