2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

PROJECTED 2022 AVERAGE QUARTERLY PRICING (Using CY2021 Material Sales Data)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2021 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$4,123.19	\$4,093.72	\$3,836.11	\$4,530.28	\$4,145.83	0.75%	\$30.89	0.30%	\$12.43
Cardboard	\$87.87	\$95.72	\$97.20	\$142.43	\$105.81	31.12%	\$32.93	43.54%	\$46.07
GLASSMixed	\$69.83	\$5.18	\$114.42	\$91.67	\$70.28	18.03%	\$12.67	20.23%	\$14.22
HDPEMixed	\$206.04	\$277.21	\$326.80	\$266.31	\$269.09	1.52%	\$4.08	0.96%	\$2.59
HDPENatural	\$388.03	\$600.00	\$1,074.65	\$1,378.28	\$860.24	0.52%	\$4.51	1.04%	\$8.92
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$70.25)	5.50%	(\$3.87)	4.97%	(\$3.49)
METAL	\$81.92	\$115.79	\$128.41	\$177.12	\$125.81	4.65%	\$5.85	1.81%	\$2.28
Mixed Plastic	\$20.00	\$18.48	\$22.02	\$80.46	\$35.24	1.23%	\$0.43	1.93%	\$0.68
Newspaper	\$14.93	\$33.24	\$40.25	\$52.05	\$35.12	22.93%	\$8.05	15.01%	\$5.27
PET	\$2,341.87	\$2,296.66	\$2,025.18	\$2,345.99	\$2,252.43	2.24%	\$50.45	1.13%	\$25.42
TIN	\$33.03	\$43.81	\$85.46	\$137.46	\$74.94	0.62%	\$0.47	1.17%	\$0.87
Residue					(\$70.25)	10.62%	(\$7.46)	7.64%	(\$5.37)
				Single Stream Va	alue per Ton	100%	\$139.01	100%	\$109.88

City 70% Material Sales Revenue Share (30% paid to NRWS)	\$97.31		\$76.91
Over-baseline Processing Fee paid to NRWS (3% PPI increase)	 88.73		88.73
Net Revenue Retained by City	\$8.58	×	(\$11.81)
Projected \$/ton Single-Stream Portion of Capital Costs	\$ 11.52	\$	11.52
Recommended Market Variability (14%) Buffer	\$ 19.46	\$	15.38
Net Revenue before Proposed Gate Fee	(\$22.41)		(\$38.72)
Proposed Residential Single-Stream Gate Fee	\$ 25.00		
Proposed Commercial Single-Stream Gate Fee			\$42.00
Net Revenue Retained by City (before 14% market buffer)	\$ 2.59		\$3.28
Net Revenue Retained by City (after 14% market buffer)	\$ 22.05		\$18.66

2022 PROJECTED COUNTY PRICING

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

PROJECTED 2022 COUNTY (NCRWS) PRICING (Using CY2021 Material Sales Data)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2021 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	Most Recent	Average	Most Recent	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$4,123.19	\$4,093.72	\$3,836.11	\$4,530.28	\$4,145.83	1.01%	\$41.87	0.46%	\$18.86
Cardboard	\$87.87	\$95.72	\$97.20	\$142.43	\$105.81	37.23%	\$39.39	53.25%	\$56.34
GLASSMixed	\$69.83	\$5.18	\$114.42	\$91.67	\$70.28	21.48%	\$15.09	20.11%	\$14.13
HDPEMixed	\$206.04	\$277.21	\$326.80	\$266.31	\$269.09	0.70%	\$1.88	0.72%	\$1.92
HDPENatural	\$388.03	\$600.00	\$1,074.65	\$1,378.28	\$860.24	0.25%	\$2.12	1.05%	\$9.03
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$70.25)	2.47%	(\$1.73)	2.65%	(\$1.86)
METAL	\$81.92	\$115.79	\$128.41	\$177.12	\$125.81	2.64%	\$3.32	2.12%	\$2.67
Mixed Plastic	\$20.00	\$18.48	\$22.02	\$80.46	\$35.24	1.47%	\$0.52	1.49%	\$0.52
Newspaper	\$14.93	\$33.24	\$40.25	\$52.05	\$35.12	18.39%	\$6.46	7.04%	\$2.47
PET	\$2,341.87	\$2,296.66	\$2,025.18	\$2,345.99	\$2,252.43	3.74%	\$84.32	2.02%	\$45.50
TIN	\$33.03	\$43.81	\$85.46	\$137.46	\$74.94	0.87%	\$0.65	1.65%	\$1.24
Residue					(\$70.25)	9.37%	(\$6.58)	7.25%	(\$5.09)
				Single Stream Va	alue per Ton	100%	\$187.30	100%	\$145.75

City 70% Material Sales Revenue Share (30% paid to NRWS)	\$131.11	\$102.02
Over-baseline Processing Fee paid to NRWS (3% PPI increase)	88.73	88.73
Net Revenue Retained by City	\$42.38	\$13.30
Projected \$/ton Single-Stream Portion of Capital Costs	\$ 11.52	\$ 11.52
Recommended Market Variability (10%) Buffer	\$ 18.73	\$ 14.57
Net Revenue before Proposed Gate Fee	\$12.13	(\$12.80)
Proposed Residential Single-Stream Gate Fee (or Credit) Proposed Commercial Single-Stream Gate Fee	\$ (9.00)	\$16.00
Net Revenue Retained by City (before 10% market buffer) Net Revenue Retained by City (after 10% market buffer)	\$ 3.13 \$ 21.86	\$3.20 \$17.77

MARKET VOLATILITY (CY14-CY21)

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		CY2020	CY2019	CY2018	CY2017	CY2016	CY2015	CY2014
	CY2021	(Average						
Description	(Average \$/ton)	\$/ton)	\$/ton)	\$/ton)	\$/ton)	\$/ton)	\$/ton)	\$/ton)
Residential Single Stream	\$139.17	\$126.83	\$121.00	\$135.01	\$164.73	\$150.75	\$163.11	\$175.29
Commercial Single Stream	\$110.00	\$91.26	\$88.20	\$103.97	\$133.71	\$118.96	\$137.96	\$152.69
	CY21 vs. CY20	CY20 vs. CY19	CY19 vs. CY18	CY18 vs. CY17	CY17 vs. CY16	CY16 vs. CY15	CY15 vs. CY14	Average Annual Change (CY16 CY21)
Residential \$/ton Change	\$12.34	\$5.83	(\$14.01)	(\$29.72)	\$13.99	(\$12.37)	(\$12.17)	(\$5.16)
Residential \$/ton % Change	10%	5%	-10%	-18%	9%	-8%	-7%	-3%
Residential % Change Absolute Value	10%	- 5%	10%	18%	9%	8%	7%	10%
Commercial \$/ton Change	\$18.75	\$3.06	(\$15.77)	(\$29.74)	\$14.76	(\$19.00)	(\$14.73)	(\$6.10)
Commercial \$/ton % Change	21%	3%	-15%	-22%	12%	-14%	-10%	-3%
Commerical % Change Absolute Value	21%	3%	15%	22%	12%	14%	10%	14%
Recommended Market Volatility Buffer Percentage (Non-County Third Party)			14%					

10%

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2021 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$4,123.19	\$4,093.72	\$3,836.11	\$4,530.28	\$4,145.83	0.75%	\$30.89	0.30%	\$12.43
Cardboard	\$87.87	\$95.72	\$97.20	\$142.43	\$105.81	31.12%	\$32.93	43.54%	\$46.07
GLASSMixed	\$69.83	\$5.18	\$114.42	\$91.67	\$70.28	18.03%	\$12.67	20.23%	\$14.22
HDPEMixed	\$206.04	\$277.21	\$326.80	\$266.31	\$269.09	1.52%	\$4.08	0.96%	\$2.59
HDPENatural	\$388.03	\$600.00	\$1,074.65	\$1,378.28	\$860.24	0.52%	\$4.51	1.04%	\$8.92
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$69.25)	5.50%	(\$3.81)	4.97%	(\$3.44)
METAL	\$81.92	\$115.79	\$128.41	\$177.12	\$125.81	4.65%	\$5.85	1.81%	\$2.28
Mixed Plastic	\$20.00	\$18.48	\$22.02	\$80.46	\$35.24	1.23%	\$0.43	1.93%	\$0.68
Newspaper	\$14.93	\$33.24	\$40.25	\$52.05	\$35.12	22.93%	\$8.05	15.01%	\$5.27
PET	\$2,341.87	\$2,296.66	\$2,025.18	\$2 <i>,</i> 345.99	\$2,252.43	2.24%	\$50.45	1.13%	\$25.42
TIN	\$33.03	\$43.81	\$85.46	\$137.46	\$74.94	0.62%	\$0.47	1.17%	\$0.87
Residue					(\$69.25)	10.62%	(\$7.35)	7.64%	(\$5.29)
				Single Stream V	alue per Ton	100%	\$139.17	100%	\$110.00

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2019 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$3,915.76	\$4,315.26	[~] \$3,614.91	\$3,566.44	\$3,853.09	0.58%	\$22.35	0.29%	\$11.17
Cardboard	\$46.00	\$36.69	\$58.13	\$110.37	\$62.80	28.26%	\$17.75	38.11%	\$23.93
GLASSMixed	\$125.76	\$64.18	\$93.43	\$60.61	\$86.00	21.22%	\$18.25	22.86%	\$19.66
HDPEMixed	\$148.50	\$257.73	\$186.67	\$175.58	\$192.12	1.47%	\$2.82	1.28%	\$2.46
HDPENatural	\$337.86	\$254.46	\$697.73	\$0.00	\$322.51	0.57%	\$1.84	1.37%	\$4.42
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$68.25)	4.51%	(\$3.08)	4.87%	(\$3.32)
METAL	\$90.51	\$41.49	\$60.22	\$64.56	\$64.20	2.83%	\$1.82	1.36%	\$0.87
Mixed Plastic	\$22.97	\$20.00	\$20.00	\$19.61	\$20.65	1.33%	\$0.27	2.42%	\$0.50
Newspaper	(\$13.70)	(\$16.82)	(\$13.42)	(\$2.73)	(\$11.67)	25.51%	(\$2.98)	15.09%	(\$1.76)
PET	\$3,117.35	\$2,286.16	\$2,096.60	\$2,358.52	\$2,464.66	3.01%	\$74.19	1.56%	\$38.45
TIN	\$25.28	\$21.09	\$26.91	\$27.13	\$25.10	0.98%	\$0.25	2.40%	\$0.60
Residue					(\$68.25)	9.73%	(\$6.64)	8.39%	(\$5.73)
				Single Stream V	alue per Ton		\$126.83		\$91.26

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS 2019 AVFRAGE OUARTERLY PRICING

	2019 AVERAGE QUARTERET PRICING											
	1st Quarter Average \$	2nd Quarter Average \$	3rd Quarter Average \$	4th Quarter Average \$	2019 Average Quarterly	Residential 3 Year	Average	Commercial 3 Year	Average			
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton			
Aluminum	\$4,931.63	\$4,535.65	\$4,426.20	\$4,020.76	\$4,478.56	0.53%	\$23.92	0.23%	\$10.39			
Cardboard	\$77.93	\$92.87	\$78.10	\$42.40	\$72.83	23.78%	\$17.32	34.65%	\$25.23			
GLASSMixed	\$43.89	\$51.32	\$57.62	\$24.84	\$44.42	23.71%	\$10.53	18.56%	\$8.25			
HDPEMixed	\$182.14	\$135.03	\$129.45	\$384.80	\$207.86	1.50%	\$3.12	1.27%	\$2.64			
HDPENatural	\$578.20	\$489.38	\$467.50	\$417.11	\$488.05	0.60%	\$2.90	1.10%	\$5.34			
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$68.25)	3.71%	(\$2.53)	4.27%	(\$2.92)			
METAL	\$116.62	\$89.39	\$96.66	\$100.11	\$100.70	2.00%	\$2.01	4.56%	\$ <mark>4.5</mark> 9			
Mixed Plastic	\$7.44	\$7.72	\$23.14	\$28.22	\$16.63	1.15%	\$0.19	2.70%	\$0.45			
Newspaper	\$3.53	\$4.93	(\$18.16)	(\$15.12)	(\$6.21)	29.37%	(\$1.82)	19.83%	(\$1.23)			
PET	\$2,036.82	\$1,877.15	\$1,893.32	\$2,419.18	\$2,056.62	3.44%	\$70.79	1.89%	\$38.91			
TIN	\$56.15	\$48.07	\$41.63	\$33.79	\$44.91	1.36%	\$0.61	3.54%	\$1.59			
Residue					(\$68.25)	8.84%	(\$6.03)	7.40%	(\$5.05)			
				Single Stream V	alue per Ton		\$121.00		\$88.20			

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS 2018 AVFRAGE OUARTERLY PRICING

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2018 Average	Residential		Commercial				
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average			
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton			
Aluminum	\$4,582.71	\$5,052.60	\$4,297.20	\$4,455.64	\$4,597.04	0.53%	\$24.55	0.23%	\$10.67			
Cardboard	\$165.37	\$129.03	\$65.93	\$56.15	\$104.12	23.78%	\$24.76	34.65%	\$36.08			
GLASSMixed	\$42.27	\$42.18	\$41.26	\$41.26	\$41.74	23.71%	\$9.90	18.56%	\$7.75			
HDPEMixed	\$140.44	\$123.27	\$185.10	\$193.66	\$160.62	1.50%	\$2.41	1.27%	\$2.04			
HDPENatural	\$377.41	\$408.61	\$336.69	\$461.75	\$396.12	0.60%	\$2.36	1.10%	\$4.34			
LDPEMixed	\$0.00	\$0.00	\$0.00	\$0.00	(\$67.25)	3.71%	(\$2.50)	4.27%	(\$2.87)			
METAL	\$117.53	\$101.00	\$109.17	\$105.33	\$108.26	2.00%	\$2.16	4.56%	\$4.94			
Mixed Plastic	\$59.21	\$33.46	\$32.15	\$30.63	\$38.86	1.15%	\$0.45	2.70%	\$1.05			
Newspaper	\$104.15	\$67.58	(\$8.72)	(\$21.17)	\$35.46	29.37%	\$10.41	19.83%	\$7.03			
PET	\$2,264.67	\$1,903.43	\$1,526.44	\$1,949.04	\$1,910.90	3.44%	\$65.77	1.89%	\$36.15			
TIN	\$21.05	\$60.00	\$60.00	\$60.00	\$50.26	1.36%	\$0.69	3.54%	\$1.78			
Residue					(\$67.25)	8.84%	(\$5.95)	7.40%	(\$4.98)			
			n 200 - 200	Single Stream V	alue per Ton		\$135.01	8	\$103.97			

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2017 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$3,660.68	\$4,236.75	\$4,205.97	\$4,249.53	\$4,088.23	0.53%	\$21.83	0.23%	\$9.48
Cardboard	\$79.19	\$138.64	\$169.27	\$187.81	\$143.73	23.78%	\$34.18	34.65%	\$49.80
GLASSMixed	\$56.88	\$60.68	\$10.77	\$35.71	\$41.01	23.71%	\$9.72	18.56%	\$7.61
HDPEMixed	\$169.64	\$217.08	\$324.14	\$156.83	\$216.92	1.50%	\$3.25	1.27%	\$2.75
HDPENatural	\$503.61	\$163.61	\$293.81	\$492.20	\$363.31	0.60%	\$2.16	1.10%	\$3.98
LDPEMixed	\$22.46	\$14.54	\$28.36	\$0.00	\$16.34	3.71%	\$0.61	4.27%	\$0.70
METAL	\$50.38	\$63.12	\$81.02	\$81.36	\$68.97	2.00%	\$1.38	4.56%	\$3. 1 5
Mixed Plastic	\$97.32	\$101.19	\$113.54	\$90.00	\$100.51	1.15%	\$1.16	2.70%	\$2.71
Newspaper	\$109.13	\$112.66	\$109.90	\$93.47	\$106.29	29.37%	\$31.22	19.83%	\$21.08
PET	\$1,797.85	\$1,896.28	\$1,916.88	\$1,862.71	\$1,868.43	3.44%	\$64.31	1.89%	\$35.35
TIN	\$42.71	\$45.26	\$64.79	\$73.37	\$56.53	1.36%	\$0.77	3.54%	\$2.00
Residue	\$0.00	\$0.00	\$0.00	\$0.00	(\$66.25)	8.84%	(\$5.86)	7.40%	(\$4.90)
				Single Stream V	alue per Ton		\$164.73		\$133.71

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2016 Average	Residential		Commercial	
	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$4,220.94	\$3,801.35	\$4,238.99	\$4,341.62	\$4,150.73	0.53%	\$22.16	0.23%	\$9.63
Cardboard	\$123.57	\$115.73	\$104.16	\$111.18	\$113.66	23.78%	\$27.03	34.65%	\$39.38
GLASSMixed	\$51.97	\$58.02	\$63.50	\$53.36	\$56.71	23.71%	\$13.45	18.56%	\$10.53
HDPEMixed	\$411.79	\$350.71	\$223.13	\$205.90	\$297.88	1.50%	\$4.47	1.27%	\$3.78
HDPENatural	\$800.25	\$588.62	\$351.53	\$430.23	\$542.66	0.60%	\$3.23	1.10%	\$5.94
LDPEMixed	\$2.23	\$7.50	\$18.01	\$12.24	\$10.00	3.71%	\$0.37	4.27%	\$0.43
METAL	\$86.14	\$24.96	\$38.08	\$49.15	\$49.58	2.00%	\$0.99	4.56%	\$2.26
Mixed Plastic	\$105.97	\$76.94	\$61.86	\$85.96	\$82.68	1.15%	\$0.95	2.70%	\$2.23
Newspaper	\$84.13	\$69.51	\$73.31	\$88.34	\$78.82	29.37%	\$23.15	19.83%	\$15.63
PET	\$1,808.32	\$1,662.54	\$1,689.54	\$1,860.93	\$1,755.33	3.44%	\$60.42	1.89%	\$33.21
TIN	\$33.62	\$14.13	\$7.85	\$30.41	\$21.50	1.36%	\$0.29	3.54%	\$0.76
Residue					(\$65.25)	8.84%	(\$5.77)	7.40%	(\$4.83)
а С				Single Stream V	alue per Ton		\$150.75		\$118.96

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2015 Average	Residential		Commercial	
1	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton
Aluminum	\$5,497.16	\$3,626.80	\$4,021.98	\$4,428.60	\$4,393.64	0.53%	\$23.46	0.23%	\$10.19
Cardboard	\$134.49	\$128.76	\$100.75	\$115.76	\$119.94	23.78%	\$28.52	34.65%	\$41.56
GLASSMixed	\$62.46	\$71.70	\$32.83	\$51.76	\$54.69	23.71%	\$12.97	18.56%	\$10.15
HDPEMixed	\$595.09	\$624.57	\$432.42	\$565.42	\$554.38	1.50%	\$8.32	1.27%	\$7.04
HDPENatural	\$946.72	\$959.16	\$525.56	\$644.22	\$768.92	0.60%	\$4.58	1.10%	\$8.42
LDPEMixed	\$96.07	\$54.25	\$76.30	\$126.16	\$88.20	3.71%	\$3.28	4.27%	\$3.77
METAL	\$140.24	\$134.79	\$81.96	\$63.95	\$105.24	2.00%	\$2.10	4.56%	\$4.80
Mixed Plastic	\$231.61	\$209.64	\$151.91	\$174.33	\$191.87	1.15%	\$2.21	2.70%	\$5.17
Newspaper	\$97.57	\$88.24	\$68.10	\$81.23	\$83.79	29.37%	\$24.61	19.83%	\$16.62
PET	\$1,600.08	\$1,788.94	\$1,575.21	\$1,710.16	\$1,668.60	3.44%	\$57.43	1.89%	\$31.57
TIN	\$150.20	\$127.25	\$80.05	\$30.17	\$96.92	1.36%	\$1.32	3.54%	\$3.43
Residue				8	(\$64.25)	8.84%	(\$5.68)	7.40%	(\$4.75)
	· · · · · · · · · · · · · · · · · · ·			Single Stream V	alue per Ton		\$163.11		\$137.96

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2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	2014 Average	Residential		Commercial		
•	Average \$	Average \$	Average \$	Average \$	Quarterly	3 Year	Average	3 Year	Average	
Material	Received	Received	Received	Received	Pricing	Composition %	Price/Ton	Composition %	Price/Ton	
Aluminum	\$4,906.23	\$4,150.79	\$4,448.37	\$3,726.54	\$4,307.98	0.53%	\$23.00	0.23%	\$9.99	
Cardboard	\$159.67	\$142.59	\$153.40	\$133.22	\$147.22	23.78%	\$35.01	34.65%	\$51.01	
GLASSMixed	\$73.43	\$67.22	(\$28.87)	\$226.81	\$84.65	23.71%	\$20.07	18.56%	\$15.71	
HDPEMixed	\$438.77	\$418.91	\$511.27	\$567.25	\$484.05	1.50%	\$7.26	1.27%	\$6.14	
HDPENatural	\$715.32	\$681.07	\$804.71	\$733.34	\$733.61	0.60%	\$4.36	1.10%	\$8.03	
LDPEMixed	\$5.47	\$1.47	\$14.26	\$35.11	\$14.08	3.71%	\$0.52	4.27%	\$0.60	
METAL	\$153.74	\$164.98	\$146.66	\$141.95	\$151.83	2.00%	\$3.03	4.56%	\$6.93	
Mixed Plastic	\$40.26	\$160.87	\$134.72	\$201.58	\$134.36	1.15%	\$1.55	2.70%	\$3.62	
Newspaper	\$106.62	\$102.29	\$104.68	\$103.29	\$104.22	29.37%	\$30.61	19.83%	\$20.67	
PET	\$1,545.39	\$1,588.17	\$1,528.83	\$1,544.85	\$1,551.81	3.44%	\$53.41	1.89%	\$29.36	
TIN	\$143.89	\$151.89	\$152.99	\$150.20	\$149.74	1.36%	\$2.04	3.54%	\$5.29	
Residue					(\$63.25)	8.84%	(\$5.59)	7.40%	(\$4.68)	
				Single Stream V	alue per Ton		\$175.29	\$152.69		

CY21 RESIDENTIAL COMPOSITION

City Residential

ATTACHMENT 2

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

12/11/2019 12/15/2020 12/22/2021 3 yr average (2019-21) % Date Composition (% by weight) Newspaper (including mixed paper and 22.93 22.93% 28.11 magazines) 21.56 19.11 Paper Corrugated cardboard (including chipboard 31.12 31.12% 29.67 and kraft bags) 34.43 29.27 Paper cartons (#'s prior to 2016 are for white 0.22 0.33 0.27 0.27% office paper) 0.27 2.24 2.24% 2.00 2.41 Plastic PET #1 bottles 2.31 0.52 0.52% 0.33 0.36 0.88 HDPE #2 bottles natural 1.52 1.52% HDPE #2 bottles colored 1.78 1.15 1.62 5.50 5.50% 6.89 Film plastic 4.63 4.99 0.56 1.23 1.23% 1.77 Mixed rigid plastic 1.37 0.56 0.75 0.75% Aluminum cans 0.76 0.92 Metal 0.44 0.62 0.62% Steel/tin cans 0.43 1.00 4.44 2.62 6.88 4.65 4.65% Scrap metal 15.56 18.03 18.03% Mixed glass 18.75 Glass 19.77 9.44 10.62 10.62% 9.87 12.54 Residue . 100.00 100.00 100.00% 100.00 100.00 Total

CY21 COMMERCIAL COMPOSITION

22.2.2

ATTACHMENT 2

City Com	mercial						
Year		12/11/2019	12/15/2020	12/28/2021	Average	3-year avg (19-21)	%
Composi	tion (% by weight)						
Paper	Newspaper (including mixed paper and magazines) Corrugated cardboard (including chipboard and kraft bags)	22.77 37.90	14.35 41.23	7.90 51.50	10.89 42.80	15.01 43.54	15.01% 43.54%
Plastic	Paper cartons (#'s prior to 2016 are for white office paper) PET #1 bottles HDPE #2 bottles natural HDPE #2 bottles colored	0.48 0.96 0.16 0.80	0.18 1.13 1.67 1.08	0.20 1.30 1.28 1.01	1.49 1.59 1.11 1.34	0.29 1.13 1.04 0.96	0.29% 1.13% 1.04% 0.96%
Metal	Film plastic Mixed rigid plastic Aluminum cans Steel/tin cans Scrap metal	6.37 1.75 0.16 0.96 0.32	4.34 1.93 0.38 1.04 1.81	4.20 2.10 0.36 1.50 3.30	1.94 1.61 0.39 3.07 1.88	4.97 1.93 0.30 1.17 1.81	4.97% 1.93% 0.30% 1.17% 1.81%
Glass	Mixed glass	21.50	21.34	17.85	25.23	20.23	20.23%
Residue		5.89	9.52	7.50	6.67	7.64	7.64%
Total		100.00	100.00	100.00	100.00	100.00	100.00%

CY21 COUNTY RESIDENTIAL COMPOSITION

ATTACHMENT 2

Napa Cour	ty (NCRWS) Residential					
Date		7/22/2020	12/15/2020	12/22/2021	AVG	%
Compositio	on (% by weight)					
Paper	Newspaper (including mixed paper and magazines)	18.90	15.38	20.88	18.39	0.1839
	Corrugated cardboard (including chipboard and kraft bags)	39.00	41.25	31.44	37.23	0.3723
	Paper cartons	0.30	0.26	0.62	0.39	0.0039
Plastic	PET #1 bottles	3.89	3.76	3.58	3.74	0.0374
	HDPE #2 bottles natural	0.20	0.26	0.28	0.25	0.0025
	HDPE #2 bottles colored	0.90	0.95	0.25	0.70	0.0070
	Film plastic	1.65	1.52	4.23	2.47	0.0247
	Mixed rigid plastic	2.00	1.85	0.55	1.47	0.0147
Metal	Aluminum cans	0.92	0.96	1.15	1.01	0.0101
	Steel/tin cans	1.01	1.16	0.44	0.87	0.0087
	Scrap metal	3.23	3.02	1.66	2.64	0.0264
Glass	Mixed glass	18.68	19.87	25.88	21.48	0.2148
Residue		9.32	9.76	9.04	9.37	0.0937
Total		100.00	100.00	100.00	100.00	1.0000

CY21 COUNTY COMMERCIAL COMPOSITION

ATTACHMENT 2

Napa County	(NCRWS) Commercial						
Date		8/11/2020	8/27/2020	12/15/2020	12/28/2021	AVG	%
Composition	ı (% by weight)						
Paper	Newspaper (including mixed paper and magazines)	10.27	6.10	5.45	6.33	7.04	0.0704
	Corrugated cardboard (including chipboard and kraft bags)	41.96	63.20	59.92	47.93	53.25	0.5325
	Paper cartons	0.00	0.44	0.20	0.19	0.21	0.0021
Plastic	PET #1 bottles	2.16	2.10	1.96	1.86	2.02	0.0202
	HDPE #2 bottles natural	1.46	0.58	0.89	1.27	1.05	0.0105
	HDPE #2 bottles colored	1.28	0.44	0.56	0.58	0.72	0.0072
	Film plastic	2.11	3.03	2.65	2.80	2.65	0.0265
	Mixed rigid plastic	2.16	1.10	0.95	1.73	1.49	0.0149
Metal	Aluminum cans	0.41	0.60	0.62	0.19	0.46	0.0046
	Steel/tin cans	2.58	1.50	1.46	1.06	1.65	0.0165
	Scrap metal	2.65	0.81	3.52	1.51	2.12	0.0212
Glass	Mixed glass	26.31	12.05	13.58	28.51	20.11	0.2011
Residue		6.65	8.05	8.24	6.04	7.25	0.0725
Total		100.00	100.00	100.00	100.00	100.00	1.0000
Metal Glass Residue	HDPE #2 bottles natural HDPE #2 bottles colored Film plastic Mixed rigid plastic Aluminum cans Steel/tin cans Scrap metal	$1.46 \\ 1.28 \\ 2.11 \\ 2.16 \\ 0.41 \\ 2.58 \\ 2.65 \\ 26.31 \\ 6.65$	0.58 0.44 3.03 1.10 0.60 1.50 0.81 12.05 8.05	0.89 0.56 2.65 0.95 0.62 1.46 3.52 13.58 8.24	1.27 0.58 2.80 1.73 0.19 1.06 1.51 28.51 6.04	1.05 0.72 2.65 1.49 0.46 1.65 2.12 20.11 7.25	0.0109 0.0072 0.0269 0.0149 0.0046 0.0169 0.0212 0.2012

CY2020 OVER BASELINE

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

CY2020 OVER BASELINE

EXPANSION LEVEL 1

AREA	BASELINE	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	TONS OVER BASELINE	TONS Within Expansion Level 1	UNIT COST	 DTAL PAYMENT DR EXPANSION LEVEL 1
Composting Area	40,670	51,215	87,549	46,879	10,545	28.33	\$ 298,688.66
Clean MRF	19,290	27,720	43,743	24,453	8,430	80.95	\$ 682,371.12
Wood Processing	3,970	5,760	7,684	3,714	1,790	24.30	\$ 43,488.54
Source Separated C&D Processing	16,620	19,493	19,956	3,336	2,873	18.90	54,312.71
TOTALS	80,550	104,188	158,933	78,383	23,638		\$ 1,078,861.03
TONS IN EXPAN	SION LEVEL 1				23,638		

EXPANSION LEVEL 2

AREA	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	EXPANSION LEVEL 1 MAXIMUM	UNIT COST	FC	DTAL PAYMENT DR EXPANSION APACITY LEVEL 2
Composting Area	51,215	87,549	36,334	31.02	\$	1,126,911.26
Clean MRF	27,720	43,743	16,023	83.64	\$	1,340,099.25
Wood Processing	5,760	7,684	1,924	26.97	\$	51,907.65
Source Separated C&D Processing	19,493	19,956	463	21.58	\$	9,994.72
TOTALS	104,188	158,933	54,745		\$	2,528,912.88
TONS IN EXPAN	ISION LEVEL 2		54,281			

TOTAL OB	
PAYMENT DUE	\$ 3,607,773.91

CY2019 OVER BASELINE

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

CY 2019 OVER BASELINE

EXPANSION LEVEL 1

AREA	BASELINE	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	TONS OVER BASELINE	TONS Within Expansion Level 1	UNIT COST	DTAL PAYMENT DR EXPANSION LEVEL 1
Composting Area	40,670	51,215	97,013	56,343	10,545	27.93	\$ 294,564.75
Clean MRF	19,290	27,720	51,291	32,001	8,430	79.83	\$ 672,949.82
Wood Processing	3,970	5,760	8,414	4,444	1,790	23.96	\$ 42,888.11
Source Separated C&D Processing	16,620	19,493	18,131	1,511	1,511	18.64	28,166.82
TOTALS	80,550	104,188	174,848	94,298	22,276		\$ 1,038,569.50
TONS IN EXPAN	SION LEVEL 1				22,276		

EXPANSION LEVEL 2

AREA	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	EXPANSION LEVEL 1 MAXIMUM	UNIT COST	FC	DTAL PAYMENT DR EXPANSION APACITY LEVEL 2
Composting Area	51,215	97,013	45,798	30.59	\$	1,400,811.72
Clean MRF	27,720	51,291	23,571	82.48	\$	1,944,176.97
Wood Processing	5,760	8,414	2,654	26.60	\$	70,595.03
Source Separated C&D Processing	19,493	18,131	#N/A	21.29	N	/A
TOTALS	104,188	174,848	#N/A		\$	3,415,583.72
TONS IN EXPAN	SION LEVEL 2		72,023			

	TOTAL OB		
1	PAYMENT		
	DUE	\$	4,454,153.22

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

CY 2018 OVER BASELINE

EXPANSION LEVEL 1

AREA	BASELINE	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	TONS OVER BASELINE	TONS Within Expansion Level 1	UNIT COST	 DTAL PAYMENT DR EXPANSION LEVEL 1
Composting Area	40,670	51,215	95,376	54,706	10,545	27.76	\$ 292,759.78
Clean MRF	19,290	27,720	44,604	25,314	8,430	79.34	\$ 668,826.25
Wood Processing	3,970	5,760	7,861	3,891	1,790	23.81	\$ 42,625.31
Source Separated C&D Processing	16,620	19,493	17,011	391	391	18.53	7,244.02
TOTALS	80,550	104,188	164,851	84,301	21,156		\$ 1,011,455.36
TONS IN EXPAN	SION LEVEL 1				21,156		

EXPANSION LEVEL 2

AREA	EXPANSION LEVEL 1 MAXIMUM	TONS PROCESSED	EXPANSION LEVEL 1 MAXIMUM	UNIT COST	FOR EXPANSION CAPACITY LEVEL 2
Composting Area	51,215	95,376	44,161	30.40	\$ 1,342,462.14
Clean MRF	27,720	44,604	16,884	81.98	\$ 1,384,057.46
Wood Processing	5,760	7,861	2,101	26.44	\$ 55,552.57
Source Separated C&D Processing	19,493	17,011	#N/A	21.16	N/A
TOTALS	104,188	164,851	#N/A		\$ 2,782,072.18
TONS IN EXPAN	SION LEVEL 2		63,145		

TOTAL OB	
PAYMENT DUE	\$ 3,793,527.54

CY2021 NON-CITY SS TONNAGE

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

3rd Party Single Stream CY 2021

Row Labels	Sum of TONS	Sum of AMT
NORTHERN RECOLOGY SONOMA COUNT	790.16	\$23,704.80
SINGLE STREAM RECYCL	790.16	\$23,704.80
NORTHERN RECYCLING MT DIABLO	1,472.01	\$44,160.30
SINGLE STREAM RECYCL	1,472.01	\$44,160.30
NORTHERN RECYCLING UPPERVALLEY	25.69	\$0.00
GREEN GLASS	25.69	\$0.00
NRWS - BERRYESSA GARBAGE	117.43	\$3,522.90
SINGLE STREAM RECYCL	117.43	\$3,522.90
NRWS - EL CERRITO	3,714.49	\$111,436.80
SINGLE STREAM RECYCL	3,714.49	\$111,436.80
NRWS - PARADISE	1,186.84	\$35,605.20
SINGLE STREAM RECYCL	1,186.84	\$35,605.20
NRWS - RECOLOGY AMERICAN CYN	4.26	\$127.80
SINGLE STREAM RECYCL	4.26	\$127.80
NRWS - RECOLOGY VALLEJO	22.33	\$669.90
SINGLE STREAM RECYCL	22.33	\$669.90
NRWS - SONOMA GARBAGE	2,751.50	\$82,658.00
CARDBOARD	5.35	\$267.50
SINGLE STREAM RECYCL	2,746.15	\$82,390.50
SONOMA COUNTY RESOURCE RECOVER	228.08	\$6,842.40
SINGLE STREAM RECYCL	228.08	\$6,842.40
Grand Total	10,312.79	\$308,728.10

CY2021 COUNTY-NCRWS TONNAGE

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

Napa County (NCRWS) Report CY 2021

Row Labels	Sum of TONS	Sum of AMT
NCRWS COUNTY COMMERCIAL	1,273.62	\$48,397.56
SINGLE COMMERCIAL/RO	1,273.62	\$48,397.56
NCRWS COUNTY RESIDENTIAL	2,955.21	\$44,328.12
SINGLE STREAM RECYCL	2,955.21	\$44,328.12
NCRWS COUNTY ROLL OFF	4,585.51	\$112,673.36
CARDBOARD	1,697.84	\$64,517.92
CLEAR GLASS	16.32	-\$32.64
COLORED LDPE PLASTIC	214.66	\$8,157.08
GREEN GLASS	1,523.08	-\$3,046.18
MIXED RIGID PLASTIC	254.50	\$9,671.00
NATURAL LDPE PLASTIC	92.04	\$3,497.52
NEWSPAPER	3.24	\$123.12
PAPER MIXED	101.77	\$3,867.26
PAPER WHITE	10.71	\$406.98
PET FILM PLASTIC	52.85	\$2,008.30
SINGLE COMMERCIAL/RO	306.60	\$11,650.80
TIN CANS	311.90	\$11,852.20
Grand Total	8,814.34	\$205,399.04

CY2021 CAPITAL & OPERATING

ATTACHMENT 2

2022 MDF RECYCLABLE MATERIALS GATE FEE ANALYSIS

Description of NRWS Non-Labor Processing Costs		Calendar Year (CY) 2020		Monthly CY2018		July 2020 thru Dec 2020 (Non-Labor Processing Costs Only)		Calendar Year (CY) 2021		1516631601		Processing Costs		Total City FY21 payments to NRWS (Non- Labor Processing Costs Only)	
Baseline Processing															
Expenses (GL												507.004		4 004 540	
51004-58902)	Ş	1,048,437	Ş	87,370	Ş	524,219	\$	1,074,648	Ş	89,554	Ş	537,324	\$	1,061,543	
MRF Upgrades -															
Capital Cost Only															
(GL 51004-58902)	\$	73,329	\$	6,111	\$	36,664	\$	70,815	\$	5,901	\$	35,407	\$	72,072	
Totals	Ś	1,121,766	Ś	93,481	Ś	560,883	\$	1,145,463	Ś	95,455	Ś	572,732	\$	1,133,615	

Total FY21 Contractual Non-Labor Processing Costs paid to NRWS (includes Collection, Compost, Wood, C&D an \$ 1,133,615

					Note: Derived from Attachr	nent T-1
Total CY2021 Contr	actual Capital Costs paid to NRWS (Compost, W		of NRWS Compensation Sc	hedule;		
capital costs include		\$ 548,915.02	Processing Capital Cost	Only		
	х.			\$ 1,682,529.66		
Total CY2021 Co	ontractual Non-Labor & Capital Costs paid to NR					
	included)			\$ 841,264.83		
Third Party (Non-Ci	ty & Napa County) Share of Clean MRF Baseline	\$ 230,483.51				
						%
					Tons Clean MRF Recycling tons; projected for	
tal Inbound Tons (B	ased on CY2021; projected for CY202	Actual CY2021:	51666	53000	CY2022 tons of Single Stream &	0.726
		×.			Napa County; projected	
Single Stream Tons	(Based on CY2021; projected for CY2022)	Actual CY2021:	19127	20000	for CY2022	0.274
					Projected CY2020 Capital	
				\$ 11.52	Cost/Ton of Single Stream	