



# REPORT

To: Solid Waste Committee

Report Number: ENV-SWC-038

From: Gerritt Lacey, Solid Waste Manager

Date: March 4, 2021

**Subject: 2020 Recycling Services Financial Recap**

## RECOMMENDATION:

That the Solid Waste Committee receive the report titled "2020 Recycling Services Financial Recap – ENV – SWC - 038", which provides an update on the Peace River Regional District's Recycling programs for information.

## BACKGROUND/RATIONALE:

The purpose of this report is to update the Solid Waste Committee (SWC) on the Peace River Regional District's (PRRD) Recycling programs through 2020.

The PRRD collects and markets recyclable material throughout the region by the use of two contracts:

1. Recycle BC
2. Regional Recycling Contract

### Recycle BC

The service agreement with Multi-Material BC Society (MMBC), now Recycle BC (RBC), was entered into in November of 2013 for a 5-year term. This agreement was extended in 2018 for another 5 year term which ends in December of 2023. Through this agreement, material is collected at a series of manned depots. Once material is collected at the depots, the cost of transportation to market is born by RBC, with the PRRD receiving a market value based on fixed rates for each material type.

The table below shows the 12 sites that collect RBC material and the site type:

#### *RBC Depots*

| Location of Service Area       | Site Type |
|--------------------------------|-----------|
| Buick Creek Transfer Station   | Depot     |
| Cecil Lake Transfer Station    | Depot     |
| Goodlow Transfer Station       | Satellite |
| Kelly Lake Transfer Station    | Satellite |
| Moberly Lake Transfer Station  | Depot     |
| Pink Mountain Transfer Station | Satellite |
| Prespatou Transfer Station     | Depot     |
| Rolla Transfer Station         | Depot     |
| Tumbler Ridge Recycling Depot  | Depot     |
| Tomslake Transfer Station      | Depot     |
| Upper Halfway Transfer Station | Depot     |
| Wonowon Transfer Station       | Depot     |

There are 7 streams of materials that are collected through the RBC program, these are:

- |                        |                            |
|------------------------|----------------------------|
| 1. Coloured Styrofoam  | 5. Other Flexible Plastics |
| 2. White Styrofoam     | 6. Plastic Film            |
| 3. Paper and Cardboard | 7. Glass                   |
| 4. Mixed Containers    |                            |

The costs associated for providing the recycling services for these 7 streams are broken out in three categories:

1. Collection - PRRD Staff time to move material from satellite sites to the depots.
2. Market Costs - Fixed rate per tonne, depending on material stream and collection method (Bailed vs loose).
3. Education Top Up - Fixed rate per household in the servicing area.

A breakdown of the costs for the RBC contract during 2020 is provided below:

*2020 RBC Recycling Recap*

|                          | 2020           |
|--------------------------|----------------|
| <b>Tonnage</b>           | 94.7358        |
| <b>Collection</b>        | -\$6,585       |
| <b>Market Gain</b>       | \$16,514.77    |
| <b>Average Unit Rate</b> | \$104.82/tonne |
| <b>Education Top Up</b>  | \$32,194.92    |

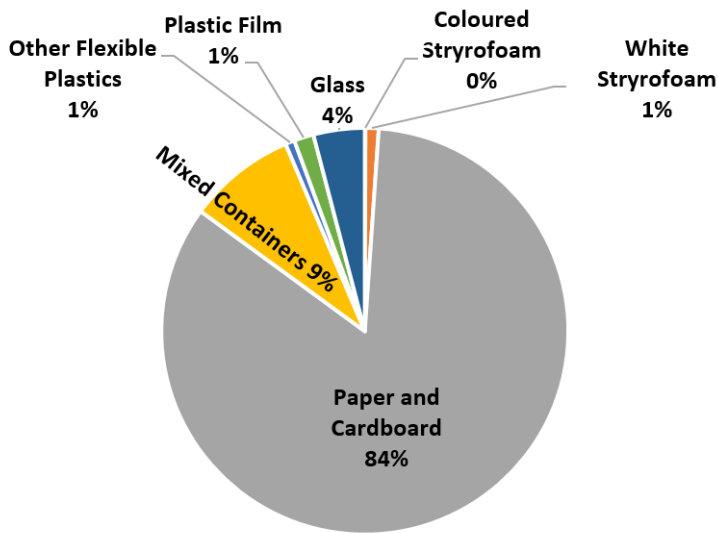
The collection costs the PRRD paid in 2020 are from two operational items:

1. Moving materials from the satellite sites to the closest depots. This was approximately \$1,905 in 2020.
2. Moving mega bags from the wooden coops to rig mats at the depots in preparation for collection. This was approximately \$4,680 in 2020.

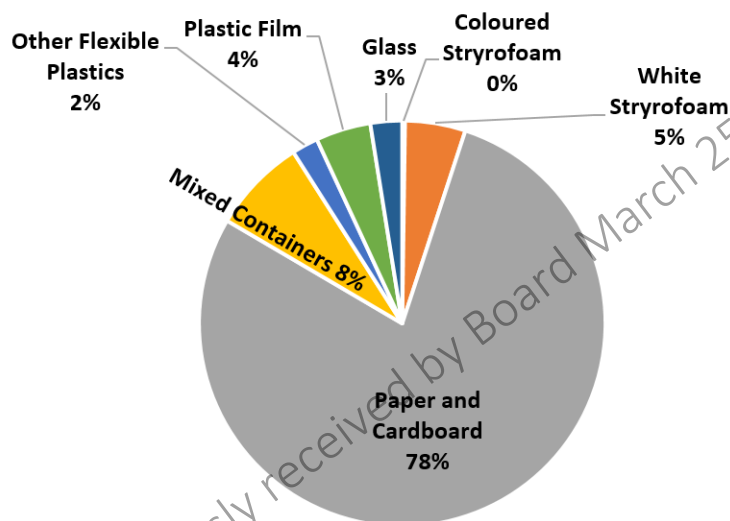
In the fall of 2020, 9 recycling sheds were added at the transfer station depots. These sheds eliminated the need for field services staff to move materials from the coops to the rig mats, saving the cost in future years.

The PRRD splits market gains with the District of Tumbler Ridge (DTR). The DTR operates the Tumbler Ridge depot with District staff. When the PRRD receives the market gain for materials coming from that site, the funds are transferred to the DTR. In 2020, the Tumbler Ridge depot contributed 66% of the total tonnage, and received \$10,276.81 in market gains.

Charts illustrating how each of the 7 streams contributed to tonnage and market gain for 2020 have been included below:



|                         |                   |
|-------------------------|-------------------|
| <b>2020 Tonnage</b>     | <b>94.7358 TN</b> |
| Coloured Styrofoam      | 0.0456 TN         |
| White Styrofoam         | 0.9934 TN         |
| Paper and Cardboard     | 79.531 TN         |
| Mixed Containers        | 8.1321 TN         |
| Other Flexible Plastics | 0.6933 TN         |
| Plastic Film            | 1.4778 TN         |
| Glass                   | 3.8624 TN         |



|                         |                    |
|-------------------------|--------------------|
| <b>Market Gain</b>      | <b>\$16,514.77</b> |
| Coloured Styrofoam      | \$36.70            |
| White Styrofoam         | \$794.70           |
| Paper and Cardboard     | \$12,951.06        |
| Mixed Containers        | \$1,245.50         |
| Other Flexible Plastics | \$346.63           |
| Plastic Film            | \$723.88           |
| Glass                   | \$416.30           |

RBC is a steward for an Extended Producer Responsibility (EPR) Program that manages Packaging and Printed Paper (PPP). The intension of EPR programs is that the cost of materials to their end of life is the responsibility of the manufacturer. These manufacturers put funds into a program which is run by a steward entity (in this case, RBC). When utilized properly, an EPR program should bear 100% of the cost of handling the material which they are responsible for.

### **Regional Recycling Contract**

The contract was awarded to Recycle-It Resource Recovery (R3) on August 4, 2016. This is a five-year contract, which runs from March 1, 2017 until February 28, 2022. This contract handles recyclable materials that are not being collected through stewardship programs, such as Recycle BC. The material is collected at a series of manned and unmanned depots across the PRRD.

The table below outlines the number of depots and their service areas throughout the region:

#### ***R3 Depot Service Areas***

| Location of Service Area | Minimum Number of Depots |
|--------------------------|--------------------------|
| Bessborough Landfill     | 1                        |
| Charlie Lake             | 1                        |
| Chetwynd                 | 2                        |
| Dawson Creek             | 5                        |
| Fort St. John            | 5                        |
| Hudson's Hope            | 1                        |
| Mile 62.5                | 1                        |
| Pouce Coupe              | 1                        |
| Taylor                   | 1                        |

Along with the depots that being serviced, R3 also handles the municipal commingled curbside material collected in Dawson Creek, Fort St. John, Pouce Coupe, and Tumbler Ridge.

There are 8 streams of materials that R3 collects, which are:

- |                                   |                        |
|-----------------------------------|------------------------|
| 1. Commingled Curbside            | 5. Hard Plastics (HPL) |
| 2. Mixed Waste Paper (MWP)        | 6. Metal (MTL)         |
| 3. Shredded Office Paper (SOP)    | 7. Styrofoam (SYF)     |
| 4. Old Corrugated Cardboard (OCC) | 8. Glass (GLS)         |

The costs associated for providing the recycling services for these 8 streams are broken out in two categories:

1. Collection and Processing - Fixed Rate (\$/Tonne) applied to each stream.
2. Market Costs - Variable cost for each stream that can change daily, it includes transportation to markets and market value. These Costs are viewed as either a Market Loss<sup>1</sup> or a Market Gain<sup>2</sup> and are invoiced monthly.

Through the Contract with R3, market costs are handled in 3 ways:

| Material  | Market Loss                              | Market Gain       |
|---|--|-------------------|
| <b>Commingled Curbside</b>                                | 100% payable by PRRD                     | 100% paid to PRRD |
| <b>Mixed Waste Paper</b>                                  | 50% payable by PRRD<br>50% payable by R3 | 100% paid to PRRD |
| <b>Remaining 6 Streams*<br/>(SOP,OCC,HPL,MTL,SYF,GLS)</b> | 100% payable by R3                       | 100% paid to PRRD |

<sup>1</sup> Market Loss: When the sum of all costs to take the material to market nets as a negative value in the invoicing month.

<sup>2</sup> Market Gain: When the sum of all costs to take the material to market nets as a positive value in the invoicing month.

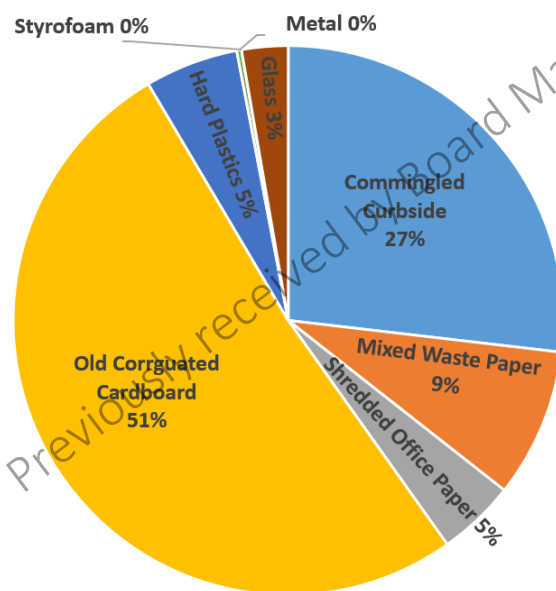
\*The market loss/gain is determined by adding all six streams in the invoicing month, rather than handling as individual streams per month.

In 2020, \$2,103,147 was budgeted for the Recycling Services Contract (RSC). A breakdown of the total tonnages and costs for 2020 vs 2019 has been provided below:

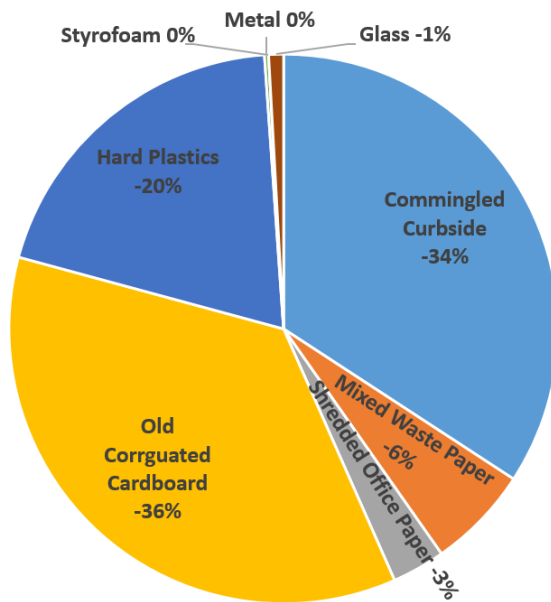
*2020 RSC Recap*

| Total Recycling Costs |                                     | 2019                   | 2020                   | % Change    |
|-----------------------|-------------------------------------|------------------------|------------------------|-------------|
| Unit Rate             | Total Tonnage                       | 4527.54                | 4328.46                | -4%         |
|                       | Collection/Processing Rate          | -\$380.45              | -\$375.87              | -1%         |
|                       | Market Rate                         | -\$55.34               | -\$33.06               | 40%         |
|                       | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$435.78</b>       | <b>-\$408.93</b>       | <b>-6%</b>  |
| Stream Cost           | Collection/Processing Cost          | -\$1,722,485.69        | -\$1,626,956.56        | -6%         |
|                       | PRRD Market Gain                    | \$2,281.98             | \$64,917.82            | 2745%       |
|                       | PRRD Market Loss                    | -\$252,821.65          | -\$208,013.87          | -18%        |
|                       | <b>Total PRRD Cost</b>              | <b>-\$1,973,025.36</b> | <b>-\$1,770,052.61</b> | <b>-10%</b> |

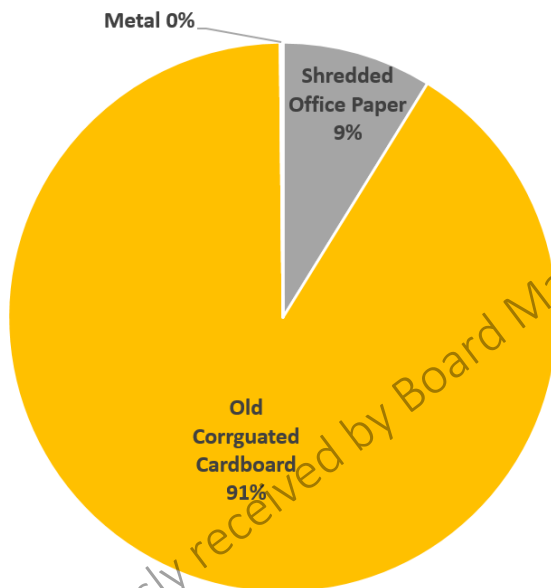
Charts illustrating how each of the 8 streams contributed to tonnage, collection/processing, market gain, market loss, and total costs for the 2020 RSC have been included below:



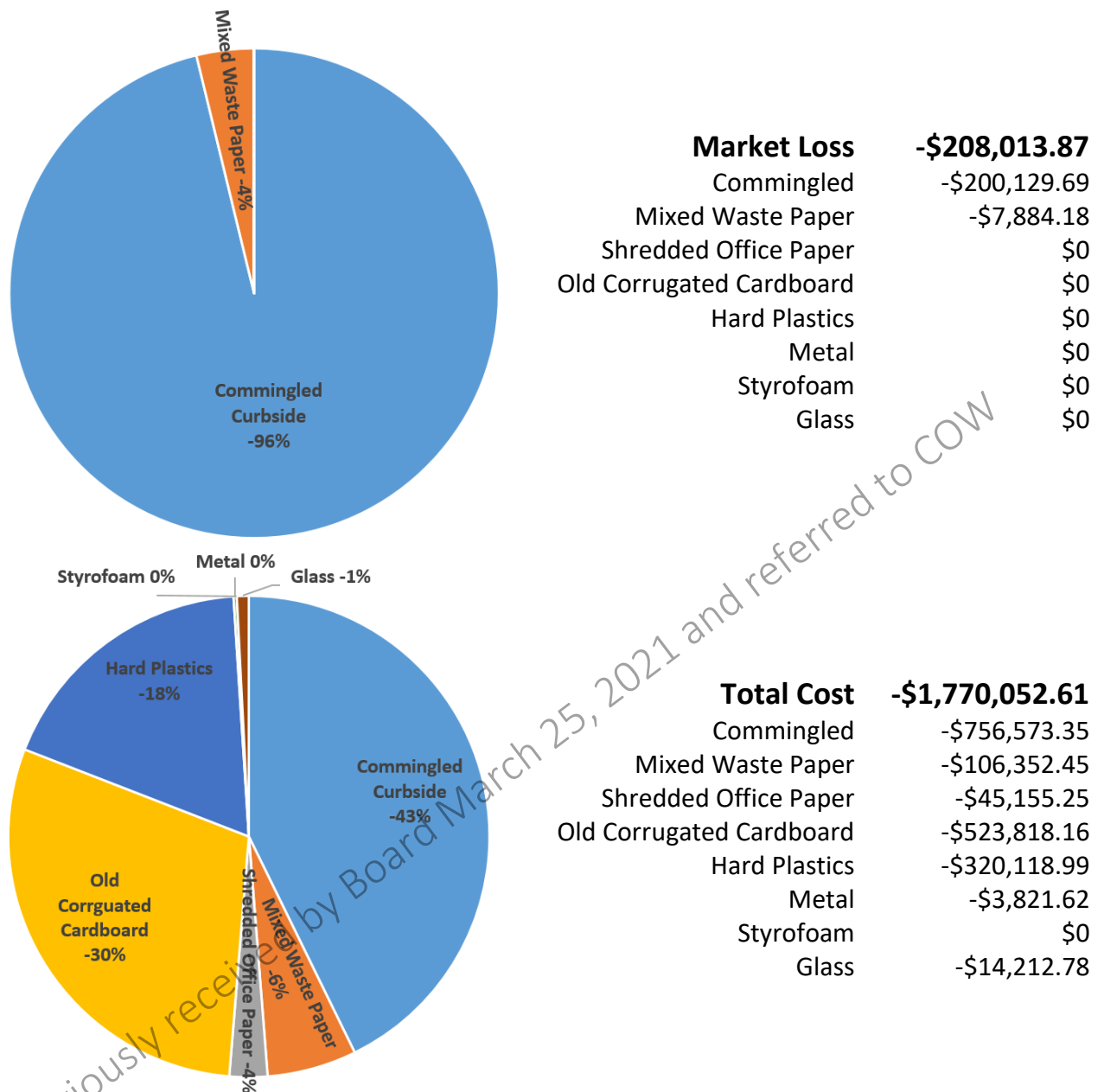
|                          |                   |
|--------------------------|-------------------|
| <b>2020 Tonnage</b>      | <b>4,528.5 TN</b> |
| Commingled               | 1,162.2 TN        |
| Mixed Waste Paper        | 379.1 TN          |
| Shredded Office Paper    | 198.0 TN          |
| Old Corrugated Cardboard | 2,221.4 TN        |
| Hard Plastics            | 237.9 TN          |
| Metal                    | 12.1 TN           |
| Styrofoam                | 0.0 TN            |
| Glass                    | 117.8 TN          |

**Collection/Processing** **-\$1,626,956.56**

|                          |               |
|--------------------------|---------------|
| Commingled               | -\$556,443.66 |
| Mixed Waste Paper        | -\$98,468.27  |
| Shredded Office Paper    | -\$50,871.54  |
| Old Corrugated Cardboard | -\$582,912.94 |
| Hard Plastics            | -\$320,118.99 |
| Metal                    | -\$3,928.38   |
| Styrofoam                | \$0           |
| Glass                    | -\$14,212.78  |

**Market Gain** **\$64,917.82**

|                          |             |
|--------------------------|-------------|
| Commingled               | \$0         |
| Mixed Waste Paper        | \$0         |
| Shredded Office Paper    | \$5,716.29  |
| Old Corrugated Cardboard | \$59,094.78 |
| Hard Plastics            | \$0         |
| Metal                    | \$106.75    |
| Styrofoam                | \$0         |
| Glass                    | \$0         |



Attachment 1 provides a detailed breakdown of the individual streams comparing 2020 and 2019 costs and market values.

**ALTERNATIVE OPTIONS:**

1. That the Solid Waste Committee provide further direction.

**STRATEGIC PLAN RELEVANCE:**

- ☒ Not Applicable to Strategic Plan.

**FINANCIAL CONSIDERATION(S):**

In 2020 the material handled through the RBC program provided the PRRD with a net loss of -\$347.04 or -\$10.50/tonne, when the tonnage and market gain of Tumbler Ridge is removed from the total program. This loss is attributed to extra field service time needed through the transition into recycling sheds.

In 2020 the material handled through the RSC program provided the PRRD with a net loss of -\$1,770,052.61 or -\$408.93/tonne. This can be attributed to the PRRD funding 100% of collection/processing, transportation to market, and uncertain markets.

**COMMUNICATIONS CONSIDERATION(S):**

None at this time.

**OTHER CONSIDERATION(S):**

None at this time.

**Attachments:**

1. RCS 2020 vs 2019 Stream Summaries



# 2020 Recyclable Stream Data

| Total Recycling Costs |                                     | 2019                   | 2020                   | % Change      |
|-----------------------|-------------------------------------|------------------------|------------------------|---------------|
| Unit Rate             | Total Tonnage                       | 4527.54                | 4328.46                | -4.4%         |
|                       | Collection/Processing Rate          | -\$380.45              | -\$375.87              | -1.2%         |
|                       | Market Rate                         | -\$55.34               | -\$33.06               | 40.3%         |
|                       | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$435.78</b>       | <b>-\$408.93</b>       | <b>-6.2%</b>  |
| Stream Cost           | Collection/Processing Cost          | -\$1,722,485.69        | -\$1,626,956.56        | -5.5%         |
|                       | PRRD Market Gain                    | \$2,281.98             | \$64,917.82            | 2744.8%       |
|                       | PRRD Market Loss                    | -\$252,821.65          | -\$208,013.87          | -17.7%        |
|                       | <b>Total PRRD Cost</b>              | <b>-\$1,973,025.36</b> | <b>-\$1,770,052.61</b> | <b>-10.3%</b> |

| Remaining 6 Streams |                                     | 2019                   | 2020                 | % Change      |
|---------------------|-------------------------------------|------------------------|----------------------|---------------|
| Unit Rate           | Total Tonnage                       | 2762.88                | 2787.13              | 0.9%          |
|                     | Collection/Processing Rate          | -\$373.14              | -\$348.76            | -6.5%         |
|                     | Market Rate                         | \$0.83                 | \$23.29              | 2720.0%       |
|                     | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$372.32</b>       | <b>-\$325.47</b>     | <b>-12.6%</b> |
| Stream Cost         | Collection/Processing Cost          | -\$1,030,948.64        | -\$972,044.63        | -5.7%         |
|                     | PRRD Market Gain (100%)             | \$2,281.98             | \$64,917.82          | 2744.8%       |
|                     | PRRD Market Loss (0%)               | \$0.00                 | \$0.00               | -             |
|                     | <b>Total PRRD Cost</b>              | <b>-\$1,028,666.66</b> | <b>-\$907,126.81</b> | <b>-11.8%</b> |
| Market Data         | Total Market Value                  | -\$53,505.54           | \$56,434.73          | 205.5%        |
|                     | Market Gain                         | \$20,377.30            | \$99,974.58          | 390.6%        |
|                     | Market Loss                         | -\$73,882.84           | -\$43,539.85         | -41.1%        |
|                     | Average Market Rate                 | -\$19.37               | \$20.25              | 204.6%        |

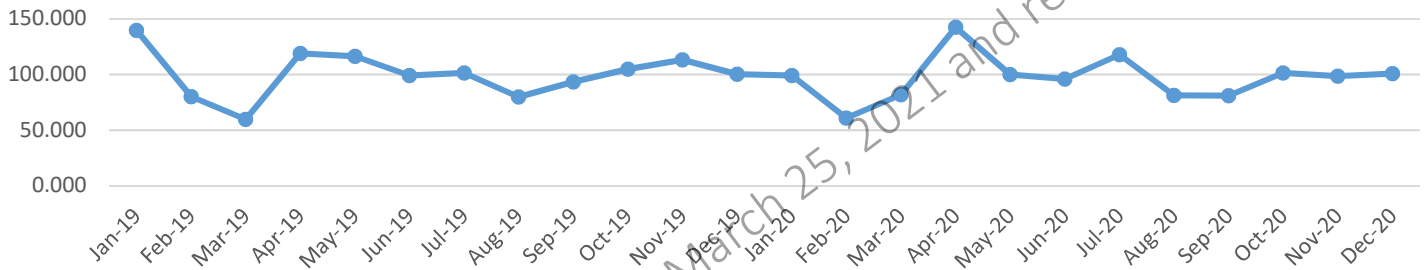
| Commingled Curbside |                                     | 2019                 | 2020                 | % Change     |
|---------------------|-------------------------------------|----------------------|----------------------|--------------|
| Unit Rate           | Total Tonnage                       | 1207.60              | 1162.23              | -3.8%        |
|                     | Collection/Processing Rate          | -\$458.92            | -\$478.77            | 4.3%         |
|                     | Market Rate                         | -\$189.22            | -\$172.19            | 9.0%         |
|                     | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$648.14</b>     | <b>-\$650.97</b>     | <b>0.4%</b>  |
| Stream Cost         | Collection/Processing Cost          | -\$554,193.17        | -\$556,443.66        | 0.4%         |
|                     | PRRD Market Gain (100%)             | \$0.00               | \$0.00               | -            |
|                     | PRRD Market Loss (100%)             | -\$228,498.11        | -\$200,129.69        | -12.4%       |
|                     | <b>Total PRRD Cost</b>              | <b>-\$782,691.28</b> | <b>-\$756,573.35</b> | <b>-3.3%</b> |

| Mixed Waste Paper |                                     | 2019                 | 2020                 | % Change      |
|-------------------|-------------------------------------|----------------------|----------------------|---------------|
| Unit Rate         | Total Tonnage                       | 557.06               | 379.10               | -31.9%        |
|                   | Collection/Processing Rate          | -\$246.55            | -\$259.74            | 5.4%          |
|                   | Market Rate                         | -\$43.66             | -\$20.80             | 52.4%         |
|                   | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$290.21</b>     | <b>-\$280.54</b>     | <b>-3.3%</b>  |
| Stream Cost       | Collection/Processing Cost          | -\$137,343.88        | -\$98,468.27         | -28.3%        |
|                   | PRRD Market Gain (100%)             | \$0.00               | \$0.00               | -             |
|                   | PRRD Market Loss (50%)              | -\$24,323.54         | -\$7,884.18          | -67.6%        |
|                   | <b>Total PRRD Cost</b>              | <b>-\$161,667.42</b> | <b>-\$106,352.45</b> | <b>-34.2%</b> |

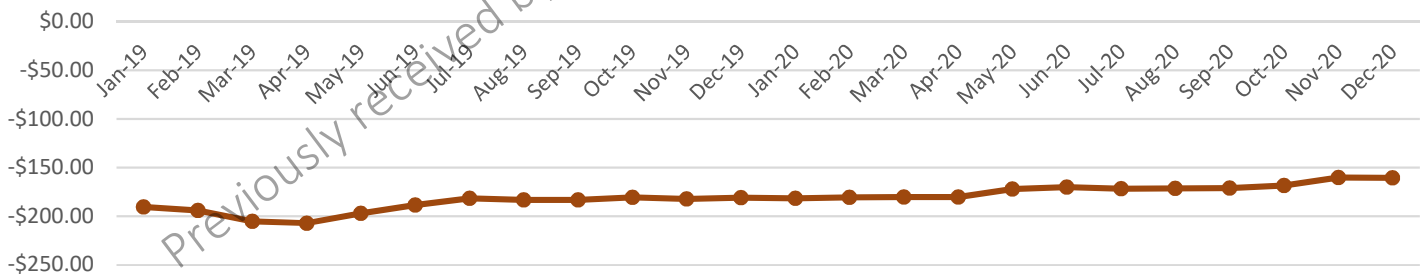
# 2020 Recyclable Stream Data

| Commingled Curbside |                                     | 2019                 | 2020                 | % Change     |
|---------------------|-------------------------------------|----------------------|----------------------|--------------|
| Unit Rate           | Total Tonnage                       | 1207.60              | 1162.23              | -3.8%        |
|                     | Collection/Processing Rate          | -\$458.92            | -\$478.77            | 4.3%         |
|                     | Market Rate                         | -\$189.22            | -\$172.28            | 8.9%         |
|                     | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$648.14</b>     | <b>-\$650.97</b>     | <b>0.4%</b>  |
| Stream Cost         | Collection/Processing Cost          | -\$554,193.17        | -\$556,443.66        | 0.4%         |
|                     | Market Cost (100% Gain   100% Loss) | -\$228,498.11        | -\$200,129.69        | -12.4%       |
|                     | <b>Total PRRD Cost</b>              | <b>-\$782,691.28</b> | <b>-\$756,573.35</b> | <b>-3.3%</b> |
| Market Data         | Total Market Value                  | -\$228,498.11        | -\$200,129.69        | -12.4%       |
|                     | Market Gain                         | \$0.00               | \$0.00               | -            |
|                     | Market Loss                         | -\$228,498.11        | -\$200,129.69        | -12.4%       |
|                     | Average Market Value/month          | -\$19,041.51         | -\$16,677.47         | -12.4%       |
|                     | Highest Market Rate (\$/tonne)      | -\$180.57            | -\$160.08            | -11.3%       |
|                     | Lowest Market Rate (\$/tonne)       | -\$206.99            | -\$181.55            | -12.3%       |

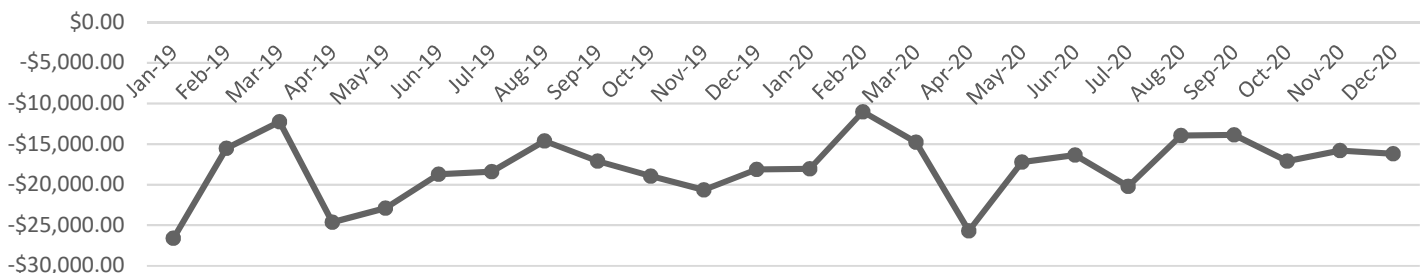
Commingled Curbside Tonnage



Commingled Curbside Net Rate Paid/MT



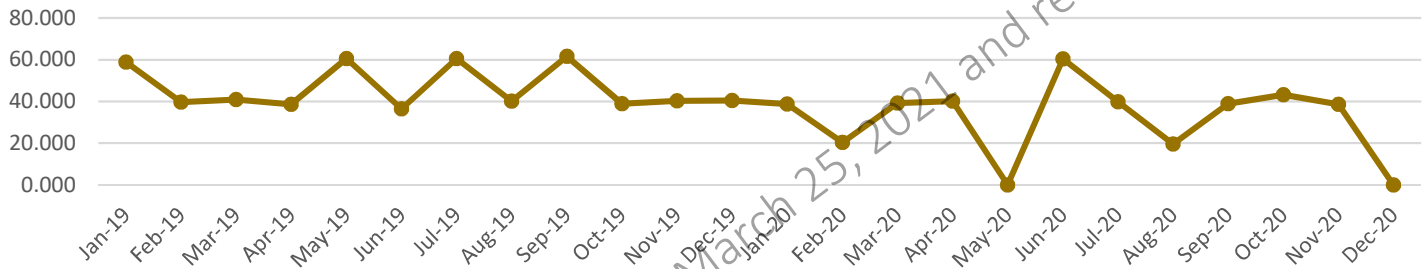
Commingled Curbside Net Cost / Revenue



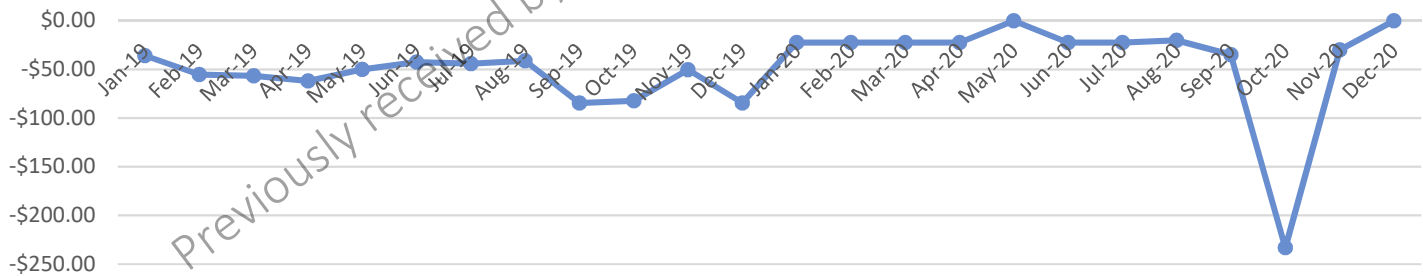
# 2020 Recyclable Stream Data

| Mixed Waste Paper |                                     | 2019                 | 2020                 | % Change      |
|-------------------|-------------------------------------|----------------------|----------------------|---------------|
| Unit Rate         | Total Tonnage                       | 557.06               | 379.10               | -31.9%        |
|                   | Collection/Processing Rate          | -\$246.55            | -\$259.74            | 5.4%          |
|                   | Market Rate                         | -\$43.66             | -\$20.80             | 52.4%         |
|                   | <b>Average Unit Rate (\$/Tonne)</b> | <b>-\$290.21</b>     | <b>-\$280.54</b>     | <b>-3.3%</b>  |
| Stream Cost       | Collection/Processing Cost          | -\$137,343.88        | -\$98,468.27         | -28.3%        |
|                   | Market Cost (100% Gain   50% Loss)  | -\$24,323.54         | -\$7,884.18          | -67.6%        |
|                   | <b>Total PRRD Cost</b>              | <b>-\$161,667.42</b> | <b>-\$106,352.45</b> | <b>-34.2%</b> |
| Market Data       | Total Market Value                  | -\$48,647.17         | -\$15,768.36         | -67.6%        |
|                   | Market Gain                         | \$0.00               | \$0.00               | -             |
|                   | Market Loss                         | -\$48,647.07         | -\$15,768.36         | -67.6%        |
|                   | Average Market Value/month          | -\$4,053.93          | -\$1,576.84          | -61.1%        |
|                   | Highest Market Rate (\$/tonne)      | -\$35.77             | -\$20.00             | -44.1%        |
|                   | Lowest Market Rate (\$/tonne)       | -\$84.67             | -\$233.09            | 175.3%        |

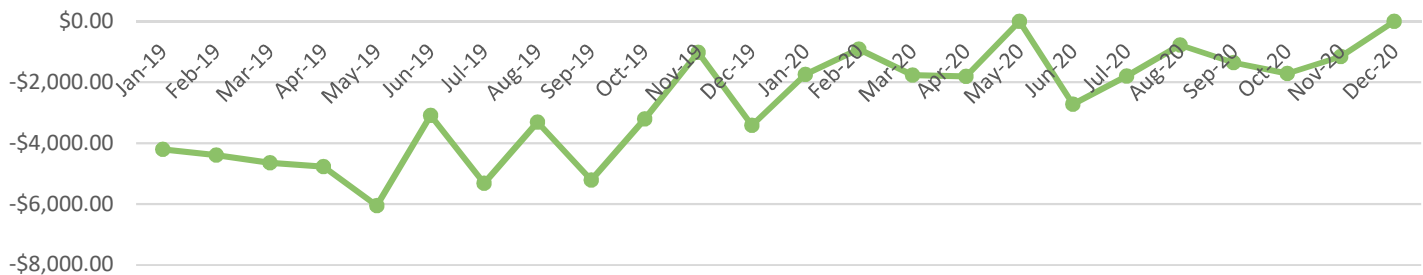
Mixed Waste Paper Tonnage



Mixed Waste Paper Net Rate Paid/MT



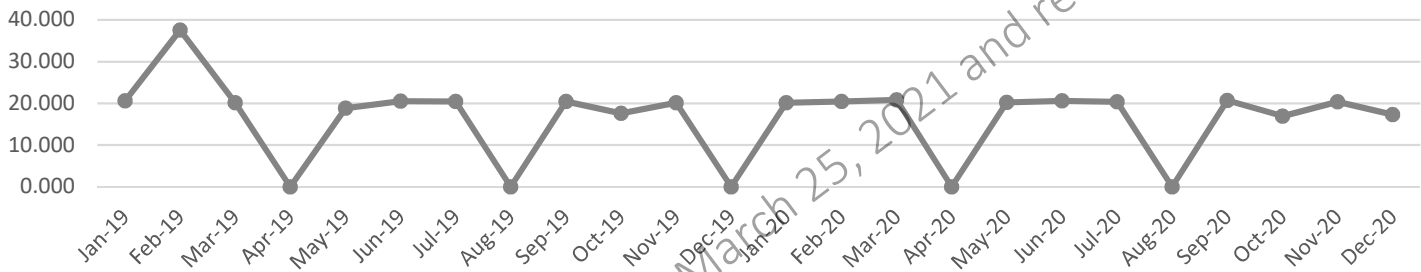
Mixed Waste Paper Net Cost / Revenue



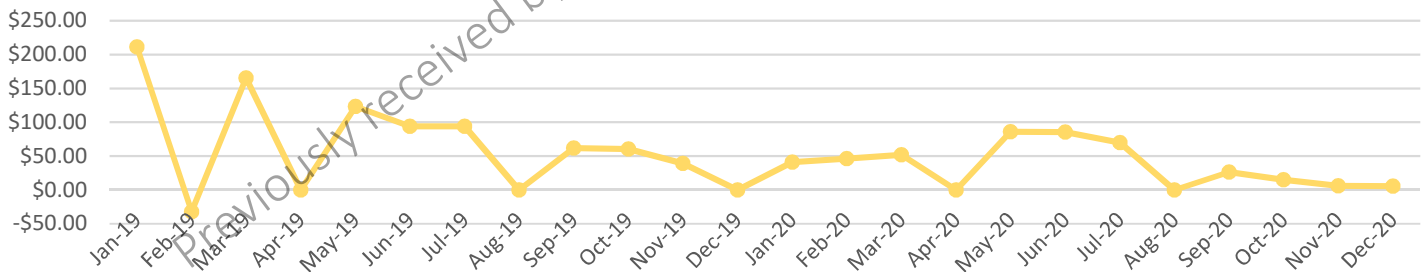
## 2020 Recyclable Stream Data

| Shredded Office Paper |                                     | 2019                | 2020                | % Change     |
|-----------------------|-------------------------------------|---------------------|---------------------|--------------|
| Unit Rate             | Total Tonnage                       | 196.29              | 197.97              | 0.9%         |
|                       | Collection/Processing Rate          | -\$246.55           | -\$256.97           | 4.2%         |
|                       | Market Rate                         | Grouped             | Grouped             | -            |
|                       | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$237.32</b>    | <b>-\$228.09</b>    | <b>-3.9%</b> |
| Stream Cost           | Collection/Processing Cost          | -\$48,395.79        | -\$50,871.54        | 5.1%         |
|                       | PRRD Market Cost                    | \$1,811.89          | \$5,716.29          | 215.5%       |
|                       | <b>Total PRRD Cost</b>              | <b>-\$46,583.91</b> | <b>-\$45,155.25</b> | <b>-3.1%</b> |
| Market Data           | Total Market Value                  | \$15,777.88         | \$8,803.18          | -44.2%       |
|                       | Market Gain                         | \$16,977.88         | \$8,803.18          | -48.1%       |
|                       | Market Loss                         | -\$1,200.00         | \$0.00              | -100.0%      |
|                       | Average Market Value                | \$1,753.10          | \$880.32            | -49.8%       |
|                       | Average Market Rate                 | \$90.89             | \$43.37             | -52.3%       |
|                       | Highest Market Rate (\$/tonne)      | \$211.39            | \$86.06             | -59.3%       |
|                       | Lowest Market Rate (\$/tonne)       | -\$31.94            | \$5.48              | -117.2%      |

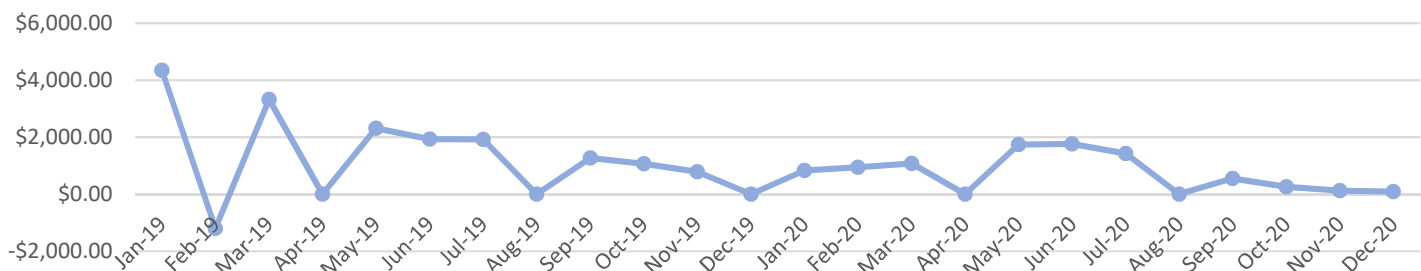
### Shredded Office Paper Tonnage



### Shredded Office Paper Net Rate Paid/MT



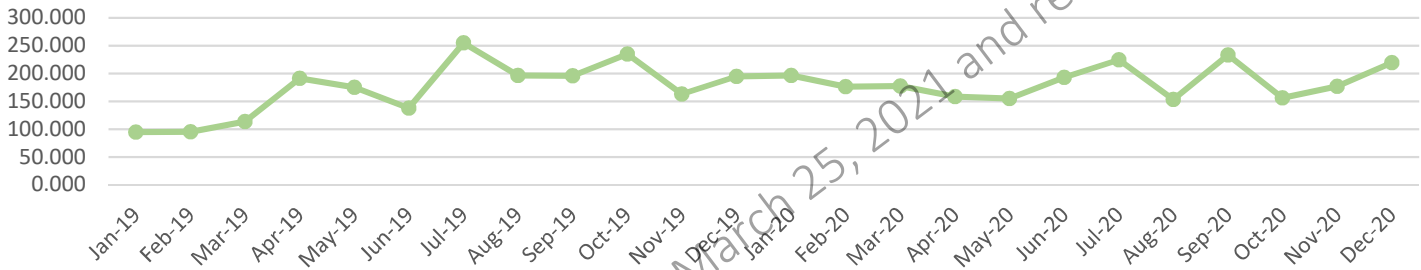
### Shredded Office Paper Net Cost / Revenue



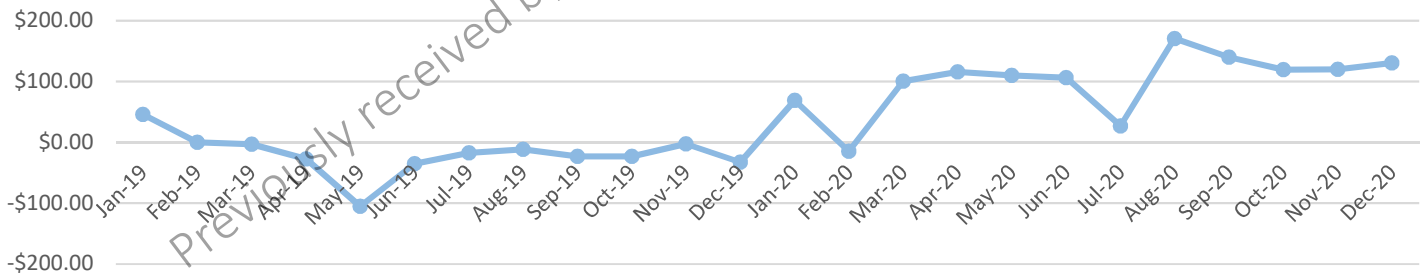
## 2020 Recyclable Stream Data

| Old Corrugated Cardboard |                                     | 2019                 | 2020                 | % Change     |
|--------------------------|-------------------------------------|----------------------|----------------------|--------------|
| Unit Rate                | Total Tonnage                       | 2048.32              | 2221.36              | 8.4%         |
|                          | Collection/Processing Rate          | -\$249.48            | -\$262.41            | 5.2%         |
|                          | Market Rate                         | Grouped              | Grouped              | -            |
|                          | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$249.25</b>     | <b>-\$235.81</b>     | <b>-5.4%</b> |
| Stream Cost              | Collection/Processing Cost          | -\$511,014.05        | -\$582,912.94        | 14.1%        |
|                          | PRRD Market Cost                    | \$470.10             | \$59,094.78          | 12470.8%     |
|                          | <b>Total PRRD Cost</b>              | <b>-\$510,543.95</b> | <b>-\$523,818.16</b> | <b>2.6%</b>  |
| Market Data              | Total Market Value                  | -\$18,362.99         | \$85,084.98          | 563.4%       |
|                          | Market Gain                         | \$3,218.56           | \$91,007.00          | 2727.6%      |
|                          | Market Loss                         | -\$21,581.55         | -\$5,922.02          | -72.6%       |
|                          | Average Market Value                | -\$1,530.25          | \$7,090.42           | 563.4%       |
|                          | Average Market Rate                 | -\$8.96              | \$99.49              | 1209.7%      |
|                          | Highest Market Rate (\$/tonne)      | \$45.86              | \$170.60             | 272.0%       |
|                          | Lowest Market Rate (\$/tonne)       | -\$105.20            | -\$14.84             | 85.9%        |

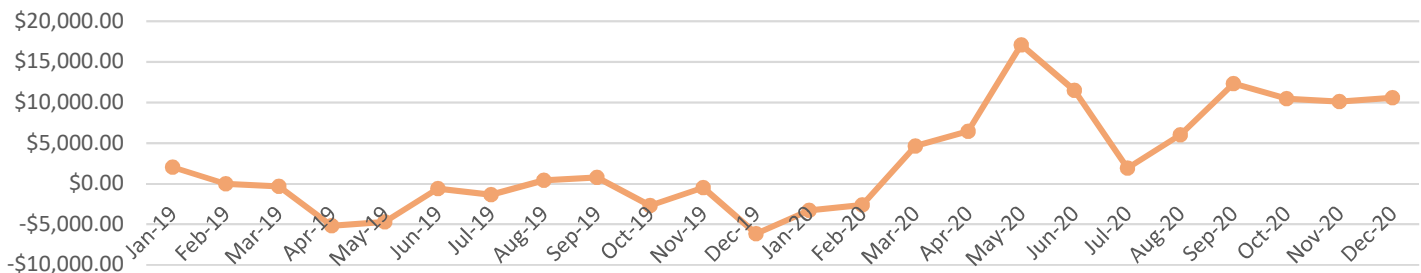
### Old Corrugated Cardboard Tonnage



### Old Corrugated Cardboard Net Rate Paid/MT



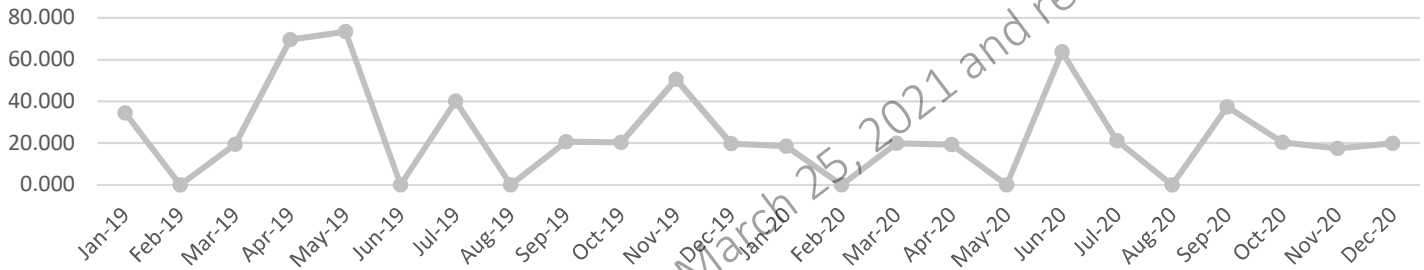
### Old Corrugated Cardboard Net Cost / Revenue



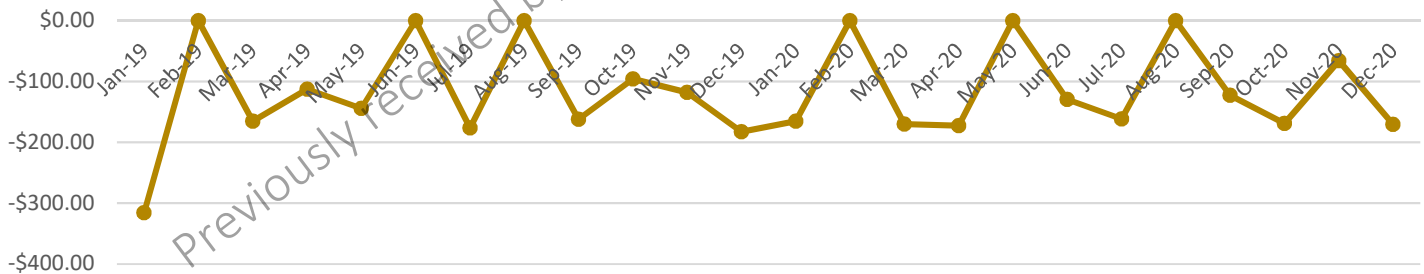
# 2020 Recyclable Stream Data

| Hard Plastics (INJ -7) |                                     | 2019                 | 2020                 | % Change      |
|------------------------|-------------------------------------|----------------------|----------------------|---------------|
| Unit Rate              | Total Tonnage                       | 348.36               | 237.88               | -31.7%        |
|                        | Collection/Processing Rate          | -\$1,294.21          | -\$1,345.70          | 4.0%          |
|                        | Market Rate                         | Grouped              | Grouped              | -             |
|                        | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$1,294.21</b>   | <b>-\$1,345.70</b>   | <b>4.0%</b>   |
| Stream Cost            | Collection/Processing Cost          | -\$450,854.88        | -\$320,118.99        | -29.0%        |
|                        | PRRD Market Cost                    | \$0.00               | \$0.00               | -             |
|                        | <b>Total PRRD Cost</b>              | <b>-\$450,854.88</b> | <b>-\$320,118.99</b> | <b>-29.0%</b> |
| Market Data            | Total Market Value                  | -\$45,794.10         | -\$34,017.83         | 25.7%         |
|                        | Market Gain                         | \$0.00               | \$0.00               | -             |
|                        | Market Loss                         | -\$45,794.10         | -\$34,017.83         | 25.7%         |
|                        | Average Market Value                | -\$5,088.23          | -\$3,401.78          | 33.1%         |
|                        | Average Market Rate                 | -\$131.46            | -\$147.36            | -12.1%        |
|                        | Highest Market Rate (\$/tonne)      | -\$95.78             | -\$65.67             | 31.4%         |
|                        | Lowest Market Rate (\$/tonne)       | -\$315.94            | -\$172.73            | 45.3%         |

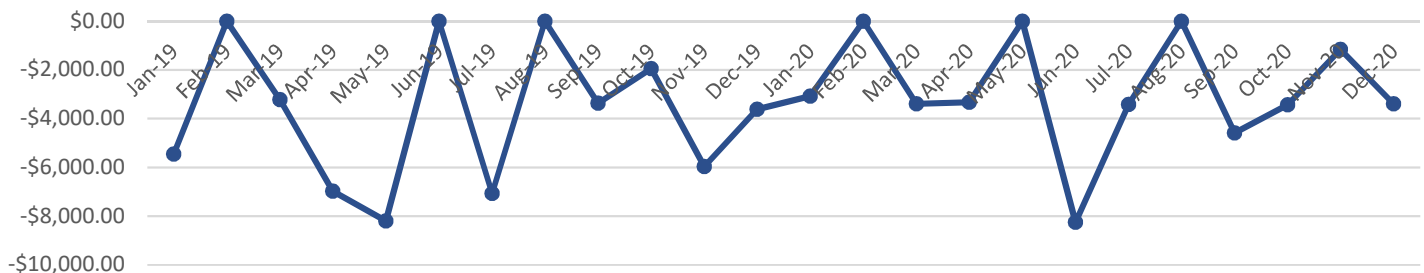
## Hard Plastics (INJ 1-7) Tonnage



## Hard Plastics (INJ 1-7) Net Rate Paid/MT



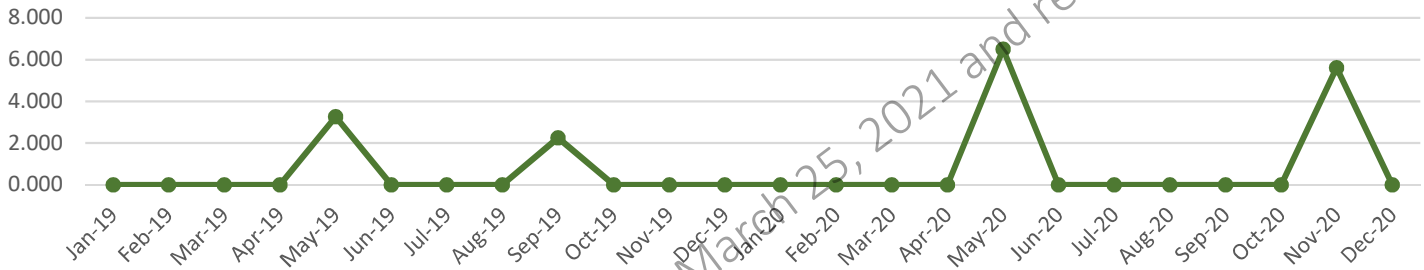
## Hard Plastics (INJ 1-7) Net Cost / Revenue



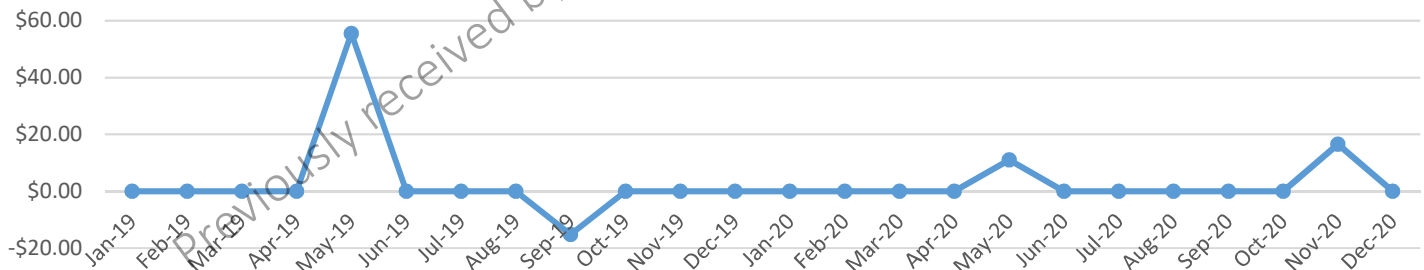
# 2020 Recyclable Stream Data

| Metal (Tin) |                                | 2019        | 2020        | % Change |
|-------------|--------------------------------|-------------|-------------|----------|
| Unit Rate   | Total Tonnage                  | 5.51        | 12.11       | 119.9%   |
|             | Collection/Processing Rate     | -\$310.31   | -\$324.39   | 4.5%     |
|             | Market Rate                    | Grouped     | Grouped     | -        |
|             | Average Unit Rate (\$/tonne)   | -\$310.31   | -\$315.58   | 1.7%     |
| Stream Cost | Collection/Processing Cost     | -\$1,708.88 | -\$3,928.38 | 129.9%   |
|             | PRRD Market Cost               | \$0.00      | \$106.75    | 100.0%   |
|             | Total PRRD Cost                | -\$1,708.88 | -\$3,821.62 | 123.6%   |
| Market Data | Total Market Value             | \$146.77    | \$164.40    | 12.0%    |
|             | Market Gain                    | \$180.86    | \$164.40    | -9.1%    |
|             | Market Loss                    | -\$34.09    | \$0.00      | -100.0%  |
|             | Average Market Value           | \$73.39     | \$82.20     | 12.0%    |
|             | Average Market Rate            | \$26.65     | \$13.78     | -48.3%   |
|             | Highest Market Rate (\$/tonne) | \$55.51     | \$16.54     | -70.2%   |
|             | Lowest Market Rate (\$/tonne)  | -\$15.16    | \$11.02     | 172.7%   |

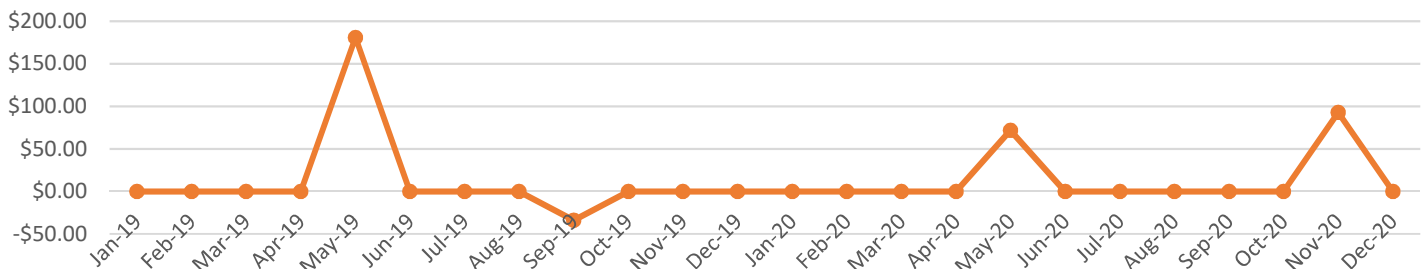
Metal (Tin) Tonnage



Metal (Tin) Net Rate Paid/MT



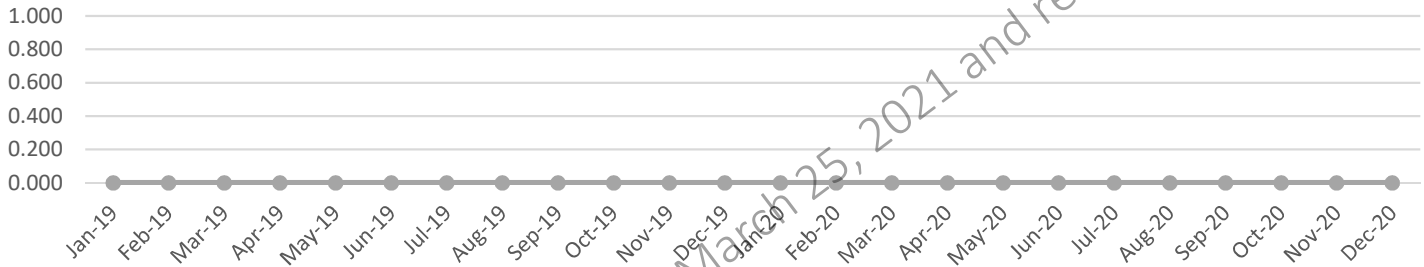
Metal (Tin) Net Cost / Revenue



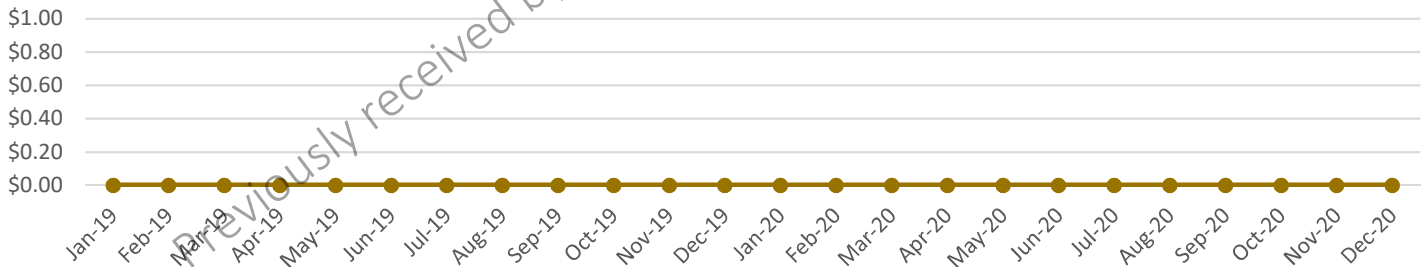
## 2020 Recyclable Stream Data

| Styrofoam   |                                | 2019        | 2020    | % Change |
|-------------|--------------------------------|-------------|---------|----------|
| Unit Rate   | Total Tonnage                  | 0.00        | 0.00    | N/A      |
|             | Collection/Processing Rate     | -\$1,294.21 | 0       | N/A      |
|             | Market Rate                    | Grouped     | Grouped | N/A      |
|             | Average Unit Rate (\$/tonne)   | #DIV/0!     | #DIV/0! | N/A      |
| Stream Cost | Collection/Processing Cost     | \$0.00      | \$0.00  | N/A      |
|             | PRRD Market Cost               | \$0.00      | \$0.00  | N/A      |
|             | Total PRRD Cost                | \$0.00      | \$0.00  | N/A      |
| Market Data | Total Market Value             | \$0.00      | \$0.00  | N/A      |
|             | Market Gain                    | \$0.00      | \$0.00  | N/A      |
|             | Market Loss                    | \$0.00      | \$0.00  | N/A      |
|             | Average Market Value           | \$0.00      | \$0.00  | N/A      |
|             | Average Market Rate            | \$0.00      | \$0.00  | N/A      |
|             | Highest Market Rate (\$/tonne) | \$0.00      | \$0.00  | N/A      |
|             | Lowest Market Rate (\$/tonne)  | \$0.00      | \$0.00  | N/A      |

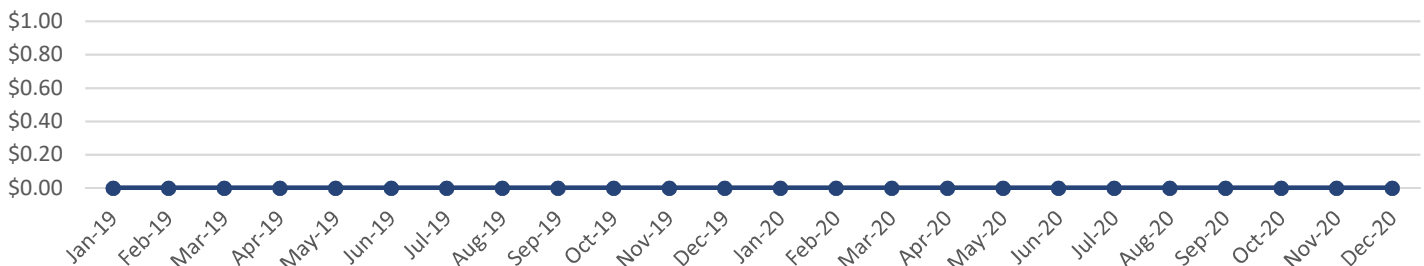
### Styrofoam Tonnage



### Styrofoam Net Rate Paid/MT



### Styrofoam Net Cost / Revenue





## 2020 Recyclable Stream Data

| Glass       |                                     | 2019                | 2020                | % Change      |
|-------------|-------------------------------------|---------------------|---------------------|---------------|
| Unit Rate   | Total Tonnage                       | 164.40              | 117.81              | -28.3%        |
|             | Collection/Processing Rate          | -\$115.42           | -\$120.64           | 4.5%          |
|             | Market Rate                         | Grouped             | Grouped             | -             |
|             | <b>Average Unit Rate (\$/tonne)</b> | <b>-\$115.42</b>    | <b>-\$120.64</b>    | <b>4.5%</b>   |
| Stream Cost | Collection/Processing Cost          | -\$18,975.05        | -\$14,212.78        | -25.1%        |
|             | PRRD Market Cost                    | \$0.00              | \$0.00              | -             |
|             | <b>Total PRRD Cost</b>              | <b>-\$18,975.05</b> | <b>-\$14,212.78</b> | <b>-25.1%</b> |
| Market Data | Total Market Value                  | -\$5,273.10         | -\$3,600.00         | 31.7%         |
|             | Market Gain                         | \$0.00              | \$0.00              | -             |
|             | Market Loss                         | -\$5,273.10         | -\$3,600.00         | 31.7%         |
|             | Average Market Value                | -\$1,054.62         | -\$1,200.00         | -13.8%        |
|             | Average Market Rate                 | -\$32.07            | -\$30.62            | 4.5%          |
|             | Highest Market Rate (\$/tonne)      | -\$30.00            | -\$29.01            | -3.3%         |
|             | Lowest Market Rate (\$/tonne)       | -\$32.88            | -\$32.48            | -1.2%         |

