



RECYCLEBC™

2018 Municipal Organics Study

June 2019



Project Objective

Recycle BC committed to completing a baseline study quantifying the amount of Packaging and Paper Product (PPP) collected in municipal residential source-separated organics (SSO) systems by the end of 2018. Both curbside and multi-family residential organics collection systems were sampled, with average results from a total of five participating municipalities reported on below.

The objective of this study was to quantify the amount (kg/household (hhld)/year) of PPP found in source-separated organics collection programs operating in British Columbia. All types of PPP were quantified, including PPP that is accepted in municipal source-separated programs (eg. soiled old corrugated cardboard (OCC), old boxboard (OBB), and paper cups and plates in some programs) as well as other PPP material not accepted in the SSO programs (other paper, bio-plastics, plastics, glass, aluminum and steel packaging formats).

Background Information

Recycle BC commitments

Recycle BC's revised [October 2018 Stewardship Plan](#) outlines its commitment to better understand what and how much PPP is being collected in municipal residential source-separated organics systems. The majority of packaging and paper product diverted is to recycling end markets through curbside and depot collection of recyclables. However, many municipalities accept specific materials considered to be packaging and paper product as part of their organics stream. It is of interest to Recycle BC to understand the composition of PPP categories which are present in the organics collection, and the quantity present.

Provincial Regulation

The BC provincial government, [Organic Matter Recycling Regulation \(OMRR\)](#) is what governs the operation of compost facilities in the province who receive residential source separated organic material for processing. It also provides guidance to local governments on what is considered organic matter. In Fall 2018, the BC government sought feedback and comments on their [2018 Intentions Paper](#) in preparation for revisions to OMRR. Recycle BC participated in that consultation.

Of particular interest to Recycle BC are the topics of non-recyclable paper material and compostable plastic. Guidance for both of these is currently quite vague. Paper product is under the scope of Recycle BC's mandate to ensure it is recycled if it is from a residential source. However, if contaminated with food waste, it loses its recyclability. It could however, be a potential feedstock for compost facilities.

Compostable plastic is an emerging material in the market, with no previous provisions in OMRR for the composting of it. The proposed revisions to the regulation would include adding compostable plastic as organic matter suitable for composting, based on standardizing what is defined as compostable plastic. The standard would also need to establish what time and temperature is required to process compostable plastic in order for it to be included as a suitable feedstock. The regulation also seeks to clarify the difference between what is a biodegradable vs compostable material.

Regional Compost Bans

The following regional districts have organic waste bans in place: Capital Regional District (CapRD), Metro Vancouver Regional District (MVRD), and Regional District of Nanaimo (RDN). These three regional districts alone serve 64.3% of the BC population¹.

| Regions with Organic Waste Bans in Place | Population (BC Stats – 2016 Census) | Percentage of BC Population Served |
|--|-------------------------------------|------------------------------------|
|--|-------------------------------------|------------------------------------|

¹ <https://www2.gov.bc.ca/gov/content/environment/waste-management/food-and-organic-waste/organic-waste-diversion>

| | | |
|--|-----------|-------|
| Capital Regional District | 383,360 | 8.1% |
| Metro Vancouver | 2,463,431 | 52.9% |
| Nanaimo | 155,698 | 3.3% |
| Total Percentage of BC Population Served | | 64.3% |

Participating Municipalities in Study

For the municipal audits conducted on behalf of Recycle BC, five municipalities agreed to participate in the study in different manners. One municipality conducted its own audit, sharing the results with Recycle BC for both curbside and multi-family SSO streams. Three municipalities provided Recycle BC with access to their residential curbside organics collection system for the purposes of sampling and determining the material composition. One municipality provided the option of sampling SSO collection vehicle loads at the transfer station where material collected from curbside, multi-family buildings and ICI locations is tipped. One municipality provided access to sample buildings participating in their multi-family organics collection network.

All municipalities have a population of over 20,000, and population density of at least 200 inhabitants per square km. Three of those municipalities are within the Metro Vancouver regional district, one is in the Capital Regional District and one is in the Fraser Valley. Results from individual municipalities participating in this study have been combined and averaged with results from curbside and multi-family residential sources reported separately.

Audit Methodology & Timeline

Curbside Channel

For three municipalities participating in the 2018 source-separated organics study, 100 curbside households were sampled in each municipality during the first two weeks of December. Ten households on ten different residential streets (a total of 100 households in each municipality) were selected by Recycle BC in cooperation with the partner municipality, representing various demographic and socioeconomic levels of households in the municipality.

One remaining municipality conducted its own curbside study in October 2018, using the same curbside sampling methodology and sorting categories. The results of all 4 municipal programs are incorporated in the analysis below.

| | Number of Municipalities | Number of Sample Areas | Number of households Per Sample Area | Total Number of Households |
|------------------|--------------------------|------------------------|--------------------------------------|----------------------------|
| Curbside Channel | 4 | 10 | 10 | 400 |

Multi-family Building Channel

For the 2018 source-separated multi-family organics study dataset, three buildings in one municipality were sampled during the second week of December. The buildings selected ranged in the number of units within each building, and reflected the typical makeup of multi-family building types within the participating municipality. Data presented in the results and analysis section below are provided on a kg/unit/week basis.

One other municipality conducted its own multi-family audits from six buildings in October 2018, using the same multi-family sampling methodology and sorting categories. The datasets for both municipalities are combined and presented in the results and analysis section below.

| | Number of Municipalities | Number of Buildings |
|----------------------|--------------------------|---------------------|
| Multi-Family Channel | 2 | 9 |

Transfer Station Channel

At one participating municipality, sampling took place in the same timeframe in December, at the transfer station as the collection trucks tipped their SSO material collected from curbside, multi-family and ICI locations. A total of 8 100-kilogram samples, each from a different truck and route were sampled during the one-week study. The results from this municipality are presented separately in the results and analysis section below. Because the sampling took place at the transfer station, and not at curbside, it was not possible to determine the average generation (kg) per household per week. Therefore, only proportional results are presented for this channel.

| | Number of Municipalities | Number of Samples |
|--------------------------|--------------------------|-------------------|
| Transfer Station Channel | 1 | 8 |

Source-separated Organics - Generation Period

In cases where the generation period of source-separated organics collected from curbside households at curbside and multi-family buildings was either one or two weeks, the generation rate was normalized and presented on a kg/hh/wk basis.

Sorting Categories

The sorting categories for each municipal study were kept consistent. Materials were sorted into pre-defined sort categories for each sample area and tracked using Excel spreadsheets. The full list of sorting categories and sub-categories can be found in Appendix A, below.

Data Analysis

Data from the waste audit collection logs was entered into Microsoft Excel spreadsheets. Sort information for each day was recorded in these spreadsheets and then linked to a master file to conduct the analysis. The composition results from the individual municipalities were weighted using relative proportions of total households from the 2016 Statistics Canada Census data for both the curbside (single-family) and multi-family channels.

Definition of Accepted Materials

For the purposes of this study, the presentation of results for the quantities of “accepted materials” has been subdivided into two categories; Accepted Organics (not including PPP accepted in the SSO bin) and Accepted Organics (including PPP accepted in the SSO bin).

Examples of Accepted PPP materials include newsprint flyers and inserts, corrugated cardboard-pizza boxes, molded pulp-egg cations and certain paper-based takeout containers. While each municipality accepts a slightly different list

of PPP materials in the SSO stream, for the purpose of averaging results, any accepted PPP material included in one municipality’s program has been considered as “accepted” in all participating programs in the study.

Similarly, the list of Accepted Organics (not including PPP accepted in the SSO bin) differs between the participating municipal programs. While all programs accept the various food waste sort categories used in this study, leaf and yard waste is accepted in 4 of the 5 participating municipal programs. For the purposes of presenting the average results of Accepted Organics (not including PPP accepted in the SSO bin), the quantity of leaf and yard waste in all 5 programs was considered to be “Accepted Organics (not including PPP accepted in the SSO bin)”.

Please refer to the full list of sorting categories in Appendix A, where Accepted PPP and Accepted Organics have been identified.

Results & Analysis

Curbside Channel

Table 1 below provides a summary of the average weekly generation rates per household in the curbside channel of the studied municipalities.

Table 1. Average Breakdown of Curbside kg/household/week generation in the SSO Program

| Category | kg/hh/wk | Proportion % |
|---|----------|--------------|
| Grand Total - Total SSO Bin | 6.64 | 100.00% |
| Total PPP | 0.21 | 3.18% |
| PPP Accepted in SSO Bin | 0.17 | 2.56% |
| PPP Not Accepted in SSO Bin | 0.04 | 0.62% |
| Accepted Organics (not including PPP accepted in SSO bin) | 6.32 | 95.18% |
| Accepted Organics (including PPP accepted in SSO bin) | 6.49 | 97.74% |
| All other materials | 0.11 | 1.64% |

As can be seen from Table 1 above, an average of 6.64 kilograms of material was generated per household per week in the curbside channel of the municipalities sampled. A high proportion, or 97.74% of the total material found is correctly sorted material that is targeted in the SSO programs studied.

Designated PPP under Schedule 5 of the BC Recycling Regulation represents only 3.18% of all materials found in the curbside SSO stream, with PPP that is currently accepted in the SSO programs representing only 2.56% of the total. Therefore, approximately 20% of the all PPP found in the SSO stream was material that is not accepted, representing only 0.62% of all SSO materials collected.

Figure 1 below provides a graphical breakdown of materials found in the SSO programs studied. As noted above, a high proportion of materials found in the SSO programs studied are targeted materials that are accepted organic materials. PPP accepted in the SSO bin (2.56%) and Accepted Organics (not including PPP accepted in SSO bin) (95.18%) together constitute the total targeted material in the curbside SSO program, representing 97.74% of all materials.

Figure 1. Breakdown of PPP and accepted organics in the Curbside SSO Program

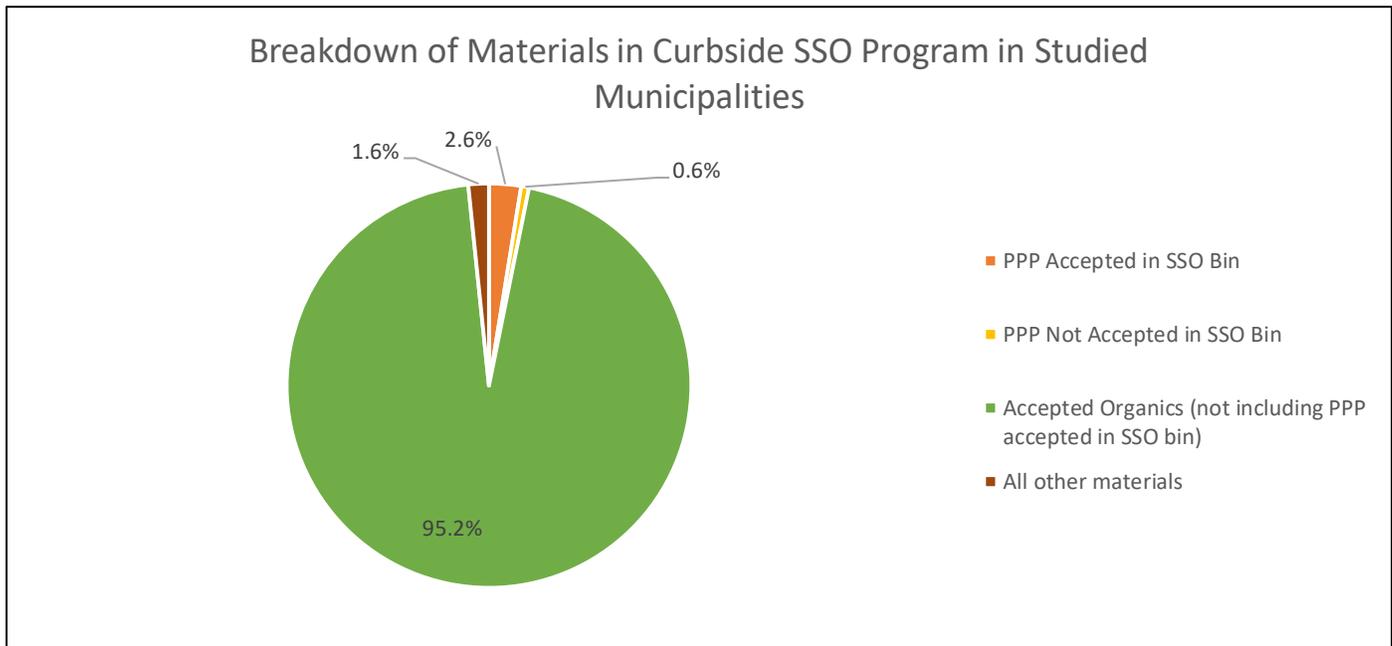


Table 2 below, provides a breakdown of the per household weekly generation rates for the main categories of PPP by material type. For the “paper product” and “paper packaging” categories there is no distinction made between materials that are accepted and materials that are not accepted in the SSO stream. While plastic, bioplastic, metal and glass packaging formats are not accepted in the SSO stream in any of the studied municipalities, they were found in small quantities, with no glass packaging quantities found at all. In total, these 4 categories represented only 0.21% of all materials.

Bioplastic packaging was present in very small quantities and represented only 0.04% of total weight of materials in the SSO stream. PLA bin liners purchased by residents are not designated PPP, and are therefore not included in the Bioplastic Packaging category. PLA bin liners are included in the Accepted Organics (not including PPP accepted in the SSO bin) and on average represent 0.7% of the total SSO stream.

Table 2. Total Curbside kg/household/week of PPP found in the SSO Program by Material Category

| Material Category | kg/hh/wk | Proportion % |
|-----------------------------|----------|--------------|
| Paper Product | 0.11 | 1.66% |
| Paper Packaging | 0.09 | 1.31% |
| Plastic Packaging | 0.01 | 0.16% |
| Bioplastic Packaging | 0.00 | 0.04% |
| Metal Packaging | 0.00 | 0.01% |
| Glass Packaging | 0.00 | 0.00% |
| Total PPP | 0.21 | 3.18% |
| Grand Total - Total SSO Bin | 6.64 | 100.00% |

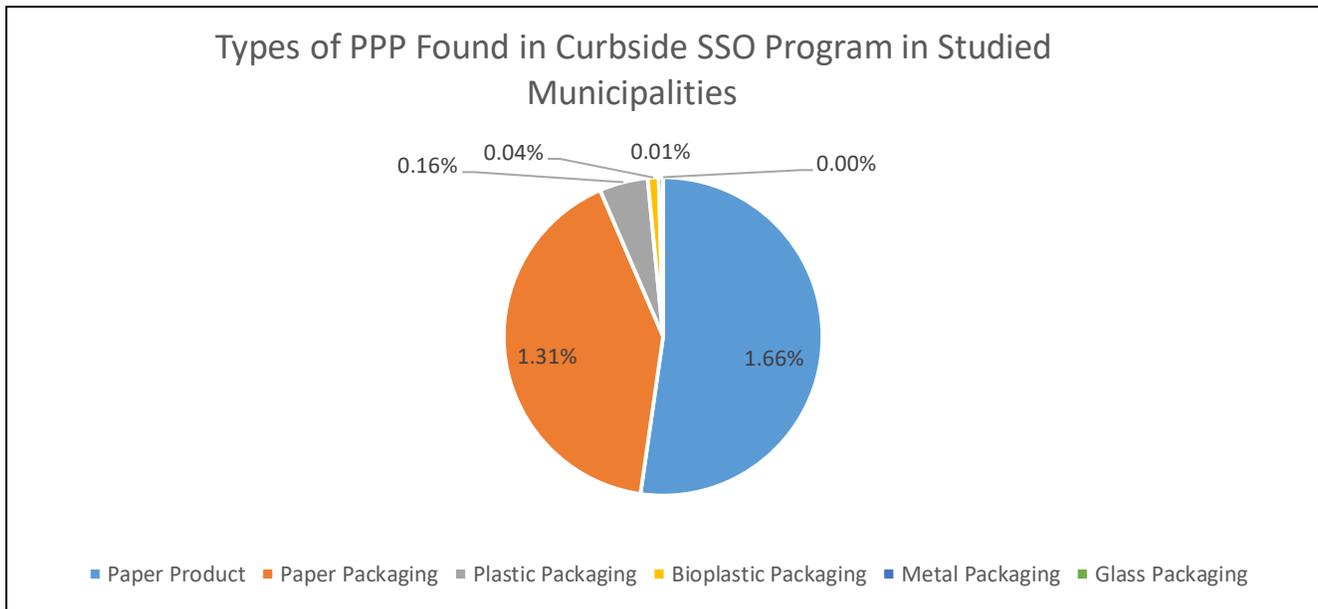
The average quantity of PPP generated in the Curbside channel was 0.21 kg/hh/wk, and represents 3.18% of all SSO materials collected. This includes both PPP that is accepted and PPP that is not accepted in the municipal SSO programs. Approximately 94% of all PPP in the SSO stream is from materials under the paper product and paper packaging sub categories. In all 4 municipalities, “Newspapers-daily and weekly” and “newsprint flyers and inserts”

were the two highest sub-categories of material generation from paper product. This is not surprising given that in all studied SSO programs, municipalities encourage residents to construct kitchen container liners out of newspapers.

Paper packaging made up 1.31% of total SSO materials and this consisted mainly of “corrugated cardboard” (pizza and other), boxboard, cores, and other molded pulp, and paper takeout containers.

Figure 2 below provides a graphical breakdown of these PPP categories. The percentages included in the pie chart below add up to 3.18% of all material collected in the SSO curbside channel.

Figure 2. Breakdown of PPP found in the Curbside SSO Program



Multi-family Channel

Table 3 below provides a summary of the average weekly generation rates per building unit (considered a household) in the multi-family channel of the studied municipalities.

Table 3. Average breakdown of multi-family kg/building unit/week generation in the SSO Program

| Category | kg/unit/wk | Proportion % |
|---|------------|--------------|
| Grand Total - Total SSO Bin | 1.25 | 100.00% |
| Total PPP | 0.10 | 7.79% |
| PPP Accepted in SSO Bin | 0.08 | 6.69% |
| PPP Not Accepted in SSO Bin | 0.01 | 1.09% |
| Accepted Organics (not including PPP accepted in SSO bin) | 1.12 | 89.94% |
| Accepted Organics (including PPP accepted in SSO bin) | 1.21 | 96.63% |
| All other materials | 0.03 | 2.28% |

As can be seen from Table 3 above, an average of 1.25 kilograms of material was generated per building unit per week in the multi-family channel of the municipalities sampled. This is considerably lower than the 6.64 kg/hh/wk

generation found in the SSO curbside channel. A high proportion, or 96.63% of the total material found is correctly sorted organics that are targeted in the SSO programs studied.

Designated PPP under Schedule 5 of the BC Recycling Regulation represents 7.79% of all materials found in the multi-family SSO Stream, with PPP that is currently accepted in SSO programs representing 6.69% of the total. Examples of accepted PPP materials in the SSO stream include corrugated cardboard-pizza boxes, all other corrugated cardboard, and takeout containers. This is much higher compared with the Curbside SSO channel at 3.18% and 2.56% respectively. Despite these differences, approximately 14% of all PPP found in the SSO stream was material that is not accepted, representing only 1.09% of total SSO materials in the multi-family channel. Examples of these materials include LDPE/HDPE Plastic Carryout Bags, Other Flexible Film Plastic – LDPE & HDPE, and other paper laminate packaging.

Figure 3 below provides a graphical breakdown of materials found in the multi-family SSO programs studied. As noted above, a high proportion of all materials found in the multi-family channel are materials that are targeted organics. PPP accepted in the SSO stream (6.69%) and Accepted Organics (not including PPP accepted in the SSO bin) (89.94%) together constitute the total targeted materials in the multi-family SSO program, representing 96.63% of all materials.

Figure 3. Breakdown of PPP and accepted organics in the multi-family SSO program

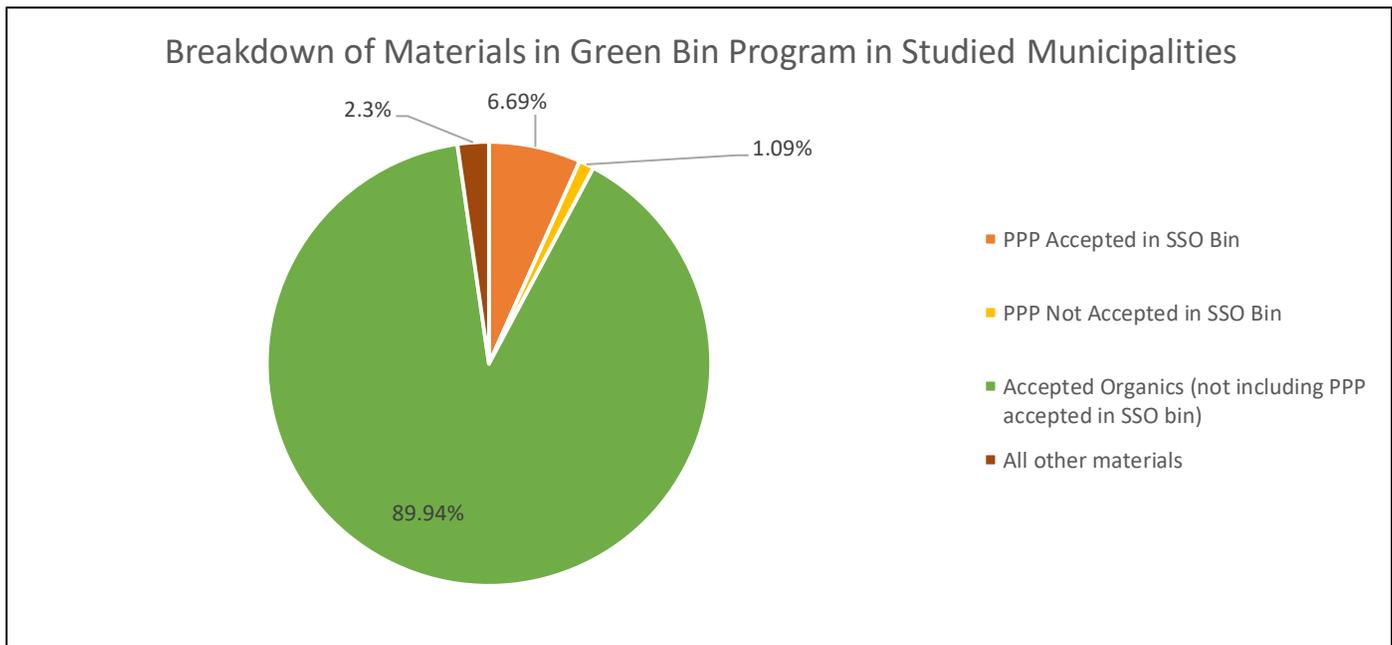


Table 4 below provides a breakdown of the weekly generation rates per building unit for the main categories of PPP by material type. For the “paper product” and “paper packaging” categories there is no distinction made between materials that are accepted and materials that are not accepted in the SSO stream.

While plastic, bioplastic, metal and glass packaging formats are not accepted in the SSO stream in any of the studied municipalities, they were found in small quantities, with no glass packaging quantities found at all. In total, these 4 categories represented only 0.79% of all materials collected.

Bioplastic packaging was present in very small quantities and represented only 0.05% of total weight of materials in the SSO stream. PLA bin liners purchased by residents are not designated PPP, and are therefore not included in the Bioplastic Packaging category. Although PLA bin liners were not included in the Accepted Organics (not including PPP accepted in the SSO bin), on average they represented 0.8% of the total Multi-Family SSO stream.

Table 4. Total multi-family kg/unit/week of PPP found in the SSO program by Material Category

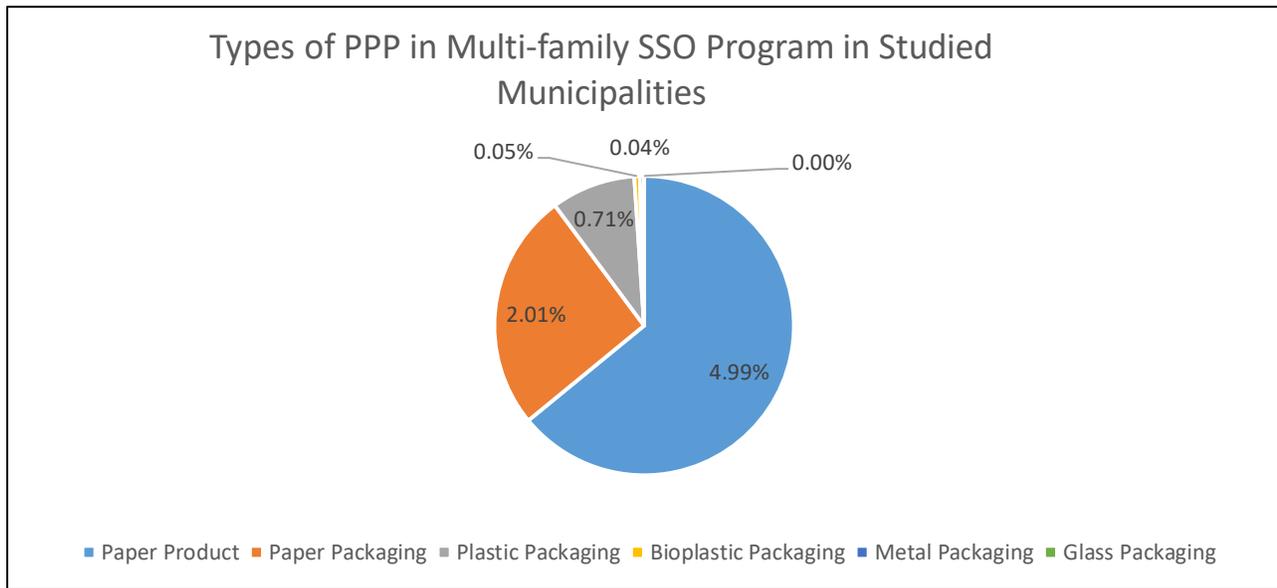
| Material Category | kg/unit/wk | Proportion % |
|-----------------------------|-------------------|---------------------|
| Paper Product | 0.06 | 4.99% |
| Paper Packaging | 0.03 | 2.01% |
| Plastic Packaging | 0.01 | 0.71% |
| Bioplastic Packaging | 0.00 | 0.05% |
| Metal Packaging | 0.00 | 0.04% |
| Glass Packaging | 0.00 | 0.00% |
| Total PPP | 0.10 | 7.79% |
| Grand Total - Total SSO Bin | 1.25 | 100.00% |

The average quantity of PPP generated in the multi-family channel of PPP was 0.10 kg/unit/wk and represents 7.79% of all SSO materials collected. This includes both PPP that is accepted and PPP that is not accepted PPP in the SSO programs. Approximately 90% of all PPP in the multi-family SSO stream is from materials under the paper product and paper packaging categories. In the two municipalities sampled, “newspapers-daily and weekly” and “newsprint flyers and inserts” were the two highest sub-categories of material generation from paper product. This is not surprising given that in all studied SSO programs, municipalities encourage residents to construct kitchen container liners out of newspapers.

Paper packaging made up 2.01% of total SSO materials and this consisted mainly of “Corrugated Cardboard” (Pizza and other), boxboard/cores/& other molded pulp, and paper takeout containers. These were the same materials that made up the majority of paper packing generation in the curbside channel.

Figure 4 below provides a graphical breakdown of these PPP categories. The percentages included in the pie chart below add up to the 7.79% of all material collected in the SSO multi-family channel in the sampled communities.

Figure 4. Breakdown of PPP categories found in the multi-family SSO program



Transfer Station Channel

Because the sampling took place at the transfer station, and not at curbside, it was not possible to determine the average generation (kg) per household per week. Therefore, only proportional results are presented for this channel. Table 5 below provides a summary of the average proportion for all main sorting categories based on the results of the 8 sub-samples taken from the 8 different vehicles tipping their loads at the transfer station.

Table 5. Main Materials in the SSO Stream – Transfer Station

| Category | Proportion % |
|---|--------------|
| Grand Total - Total SSO Bin | 100.0% |
| Total PPP | 6.44% |
| PPP Accepted in SSO Bin | 5.12% |
| PPP Not Accepted in SSO Bin | 1.32% |
| Accepted Organics (not including PPP accepted in SSO bin) | 92.70% |
| Accepted Organics (including PPP accepted in SSO bin) | 97.82% |
| All other materials | 0.85% |

A high proportion, or 97.82% of the total material found is correctly sorted material that is targeted in the SSO program. Designated PPP under Schedule 5 of the BC Recycling Regulation represents almost 6.5% of all materials found in the SSO stream, with PPP that is currently accepted in the program representing 5.12% of the total. Therefore, approximately 21% of all PPP found in the SSO stream was material that is not accepted, however representing only 1.32% of total SSO materials.

Figure 5 below provides a graphical breakdown of materials found in the SSO program sampled at the transfer station channel. As noted above, a high proportion of the total materials found in these samples are targeted organic materials. PPP accepted in the SSO bin (5.12%) and Accepted Organics (not including PPP accepted in the SSO bin) (92.7%) together constitute the total targeted material in the SSO program, representing 97.82% of all materials.

Figure 5. Breakdown of Materials in the SSO Program – Transfer Station

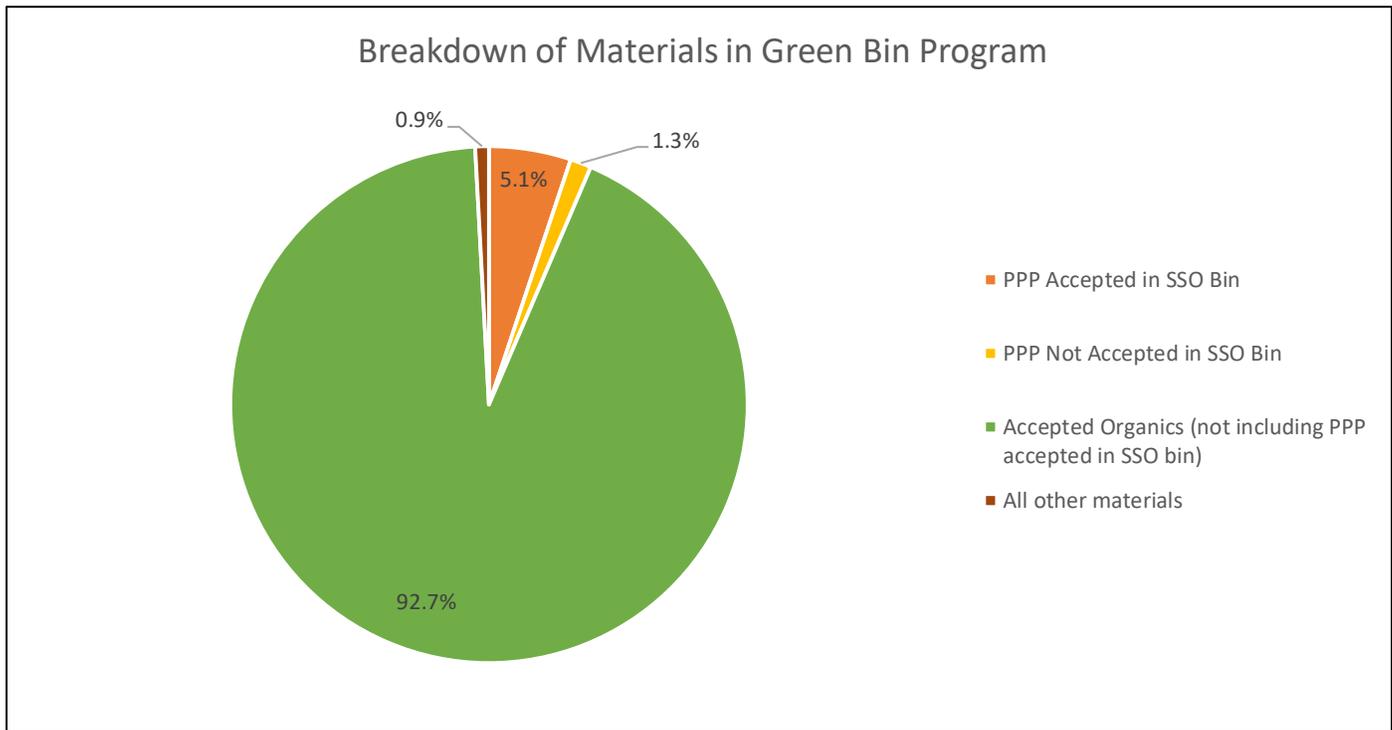


Table 6 below provides a breakdown of the proportions of the main PPP categories found in the SSO stream sampled at the transfer station. For the “paper product” and “paper packaging” categories there is no distinction made between materials that are accepted and materials that are not accepted in the SSO stream. While plastic, bioplastic, metal and glass packaging formats are not accepted in the SSO stream they were found in small quantities. In total, these 4 categories represented only 0.57% of all materials.

Bioplastic packaging was not found in the SSO stream of the transfer station channel. PLA bin liners purchased by residents are not designated PPP, and are therefore not included in the Bioplastic Packaging category. Although PLA bin liners are not included in the Accepted Organics (not including PPP accepted in the SSO bin) on average they represent 0.7% of the total SSO stream in this municipality.

Table 6. Proportion of PPP found in the SSO Program by Material Category

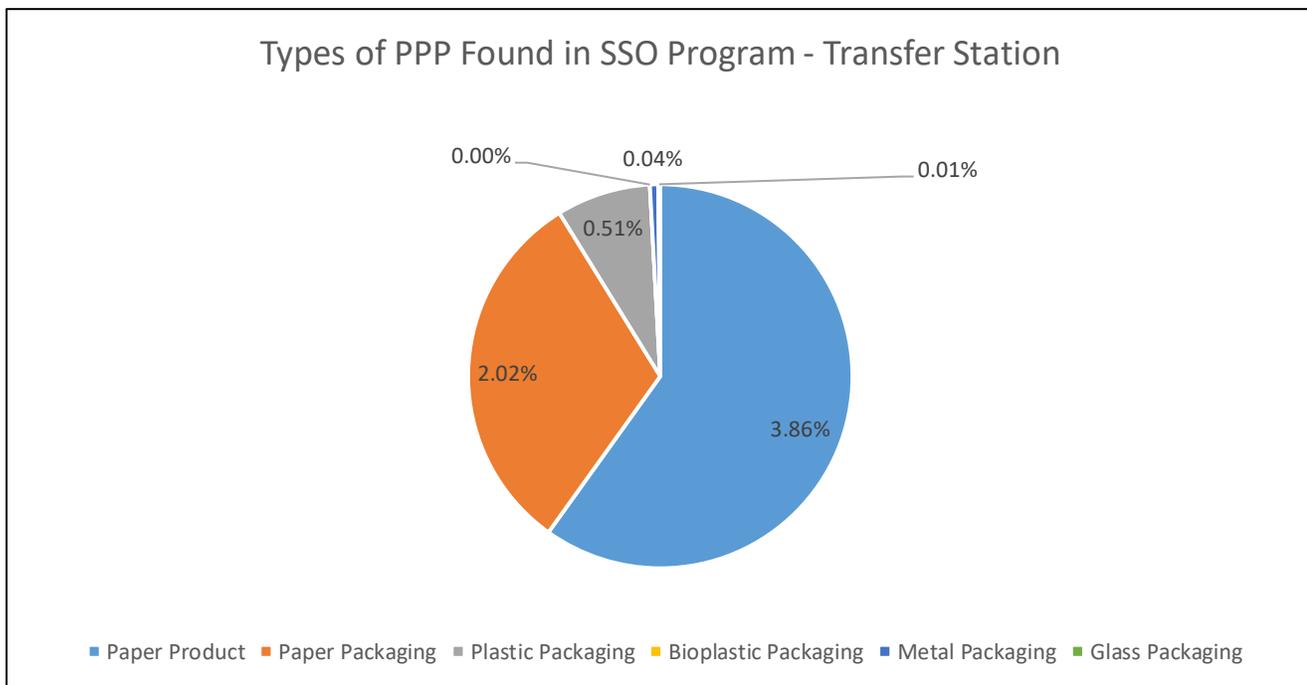
| Material Category | Proportion % |
|-----------------------------|--------------|
| Paper Product | 3.86% |
| Paper Packaging | 2.02% |
| Plastic Packaging | 0.51% |
| Bioplastic Packaging | 0.00% |
| Metal Packaging | 0.04% |
| Glass Packaging | 0.01% |
| Total PPP | 6.44% |
| Grand Total - Total SSO Bin | 100.00% |

The average percentage of PPP generated in the SSO stream sampled at the transfer station was 6.44% of all SSO materials collected. This includes both PPP that is accepted and PPP that is not accepted in the SSO program. Approximately 91% of all PPP in the SSO stream is from materials under the paper product and paper packaging categories. “Newspapers-daily and weekly” and “newsprint flyers and inserts” were the two highest sub-categories of material generation from paper product. This is not surprising given that in this program, residents are encouraged to construct kitchen container liners out of newspapers.

Paper packaging made up 2.02% of SSO materials and this consisted mainly of Corrugated Cardboard (Pizza and other), boxboard/cores/& other molded pulp, and paper takeout containers. These were the same materials that made up the majority of paper packaging generation in the curbside and multi-family channels.

Figure 6 below provides a graphical breakdown of these PPP categories. The percentages included in the pie chart below add up to 6.44% of all material collected in this SSO stream.

Figure 6. Breakdown of PPP found in the SSO Program – transfer station



Comparison of Results across Channels

Table 7 and 8 summarize the curbside, multi-family and transfer station results for generation and proportion of all material categories found in the SSO programs.

Table 7. Breakdown of kg/household/week generation and proportion in the SSO Program

| Category | Curbside | | Multi-Family | | Transfer Station |
|---|----------|---------|--------------|---------|------------------|
| | kg/hh/wk | % | kg/unit/wk | % | % |
| Grand Total - Total SSO Bin | 6.64 | 100.00% | 1.25 | 100.00% | 100.00% |
| Total PPP | 0.21 | 3.18% | 0.10 | 7.79% | 6.44% |
| PPP Accepted in SSO Bin | 0.17 | 2.56% | 0.08 | 6.69% | 5.12% |
| PPP Not Accepted in SSO Bin | 0.04 | 0.62% | 0.01 | 1.09% | 1.32% |
| Accepted Organics (not including PPP accepted in SSO bin) | 6.32 | 95.18% | 1.12 | 89.94% | 92.70% |
| Accepted Organics (including PPP accepted in SSO bin) | 6.49 | 97.74% | 1.21 | 96.63% | 97.82% |
| All other materials | 0.11 | 1.64% | 0.03 | 2.28% | 0.85% |

The total amount of Accepted Organics (including PPP accepted in the SSO bin) were all above 96% across all channels. The majority of the accepted organics consisted of yard waste, fruits and vegetables, and other food and organic materials. The PPP accepted in the SSO bin consisted of materials such as corrugated cardboard-pizza boxes, all other corrugated cardboard, paper plates, and paper takeout containers.

Generation of total materials found in the Curbside Channel was significantly higher than that in the Multi-Family channel. This is not that surprising, given that on average there are more inhabitants per dwelling in single-family households than in multi-family units. Participation rates are also known to be higher in single-family households and in multi-family households although this was not explicitly measured in this study.

Table 8. Breakdown of kg/household/week of PPP and proportion found in the SSO bin program by material category

| Material Category | Curbside | | Multi-Family | | Transfer Station |
|-----------------------------|----------|---------|--------------|---------|------------------|
| | kg/hh/wk | % | kg/hh/wk | % | % |
| Paper Product | 0.11 | 1.66% | 0.06 | 4.99% | 3.86% |
| Paper Packaging | 0.09 | 1.31% | 0.03 | 2.01% | 2.02% |
| Plastic Packaging | 0.01 | 0.16% | 0.01 | 0.71% | 0.51% |
| Bioplastic Packaging | 0.00 | 0.04% | 0.00 | 0.05% | 0.00% |
| Metal Packaging | 0.00 | 0.01% | 0.00 | 0.04% | 0.04% |
| Glass Packaging | 0.00 | 0.00% | 0.00 | 0.00% | 0.01% |
| Total PPP | 0.21 | 3.18% | 0.10 | 7.79% | 6.44% |
| Grand Total - Total SSO Bin | 6.64 | 100.00% | 1.25 | 100.00% | 100.00% |

The total amount of PPP was comprised mostly of paper product and paper packaging across all channels. Newspapers-daily and weekly and newsprint flyers and inserts were the two highest sub-categories of material in the paper product category. Paper packaging consisted mainly of corrugated cardboard (Pizza and other), boxboard/cores/& other molded pulp, and paper takeout containers.

While the proportion of Total PPP found in the SSO program was highest in the multi-family channel, the relative proportion of total PPP that is accepted in the SSO compared to the proportion of total PPP that is not accepted in the SSO program was relatively consistent across all channels. Of the total PPP found in the SSO programs, between 79% and 86% was considered accepted organic material in the SSO program.

Considerations

- While bioplastic packaging was found in limited quantities in all SSO channels studied, difficulties in identifying certified compostable or PLA-based designations on packaging within an audit environment may be a limiting factor in its identification. For example, if no certified compostable marking was present on a single-use packaging item, the item would most commonly be classified to the traditionally common composition of the item
- While the total amount of PPP in the SSO channels studied ranges from approximately 3% to 8% of the total, the relative contribution of paper packaging and paper product categories is likely overstated given the tendency for these PPP categories to soak up moisture from organics.
- Depending on time of year, material composition changes. The one study that took place in October did inflate curbside generation and this was mainly due to the large amounts of yard waste. Seasonality does have an impact of material composition and generation.

Plan for 2019 Activities

The second portion of Recycle BC's commitments in the revised October 2018 Stewardship Plan are to conduct research in order to understand what quantity of PPP collected from residential organic waste collection is being reduced to biological nutrients as the final stage of residential organics processing. The alternative would be if compost facilities receive municipal residential organics for processing and designate these items as contamination, screen them out, and send to landfill.

Recycle BC will also be considering whether the amount of PPP present in the residential organics collection stream is significant enough to warrant this stream's inclusion in Recycle BC's Pollution Prevention Hierarchy as part of its end-of-life disposition report.

Finally, if Recycle BC's research shows that it is both technically feasible and desired for some PPP to be accepted through the organics stream, then it will develop financial incentives for the management of appropriate types of PPP through this means of collection. Recycle BC will be looking to the revision of the provincial Organic Matter Recycling Regulation (OMRR) for guidance on what materials are deemed "appropriate" for reduction to biological nutrients vis-à-vis residential organics collection and processing, namely in the category of soiled paper packaging and compostable plastics.

Recycle BC's stewards may also consider this research when looking at the design of their packaging and paper products going forward.

Appendix A - Sorting Categories

“x” denotes counted as accepted in the SSO program

| Material Categories | Curbside | Multi-Family | PPP/NON-PPP |
|---|----------|--------------|-------------|
| 1. PRINTED PAPER | | | |
| Newspapers - Daily and weekly | x | x | PPP |
| Newsprint Flyers and Inserts | x | x | PPP |
| Magazines and Catalogues | | | PPP |
| Directories / Telephone books | | | PPP |
| Other Printed Paper (Obligated) | | | PPP |
| Other Printed Paper (Non-Obligated) | | | NON-PPP |
| 2. PAPER PACKAGING | | | |
| Gable Top Containers - Non-beverage | | | PPP |
| Gable Top Containers - Beverage | | | PPP |
| Aseptic Containers - Non-beverage | | | PPP |
| Aseptic Containers - Beverage | | | PPP |
| Polycoat Beverage Cups | x | | PPP |
| Certified Compostable Polycoat Beverage Cup | x | | PPP |
| Spiral Wound Containers | | | PPP |
| Ice Cream Containers and Other Bleached Long Polycoat Fibre | | | PPP |
| Takeout Containers | x | x | PPP |
| Certified Compostable Takeout Container | x | x | PPP |
| Paper Plates | x | x | PPP |
| Certified Compostable Paper Plates | x | x | PPP |
| Other Paper Laminate Packaging | | | PPP |
| Corrugated Cardboard - Pizza Boxes | x | x | PPP |
| All Other Corrugated Cardboard | x | x | PPP |
| Molded Pulp – Egg Cartons | x | x | PPP |
| Boxboard/Cores/ & Other Molded Pulp | x | x | PPP |
| Other Paper Packaging (Non-Obligated) | x | x | NON-PPP |
| 3. PLASTICS | | | |
| #1 PET Bottles and Jars - Non-Beverage | | | PPP |
| #1 PET Bottles and Jars - Beverage | | | PPP |
| #1 PET Thermoform | | | PPP |
| #2 HDPE Bottles and Jugs - Non-beverage | | | PPP |
| #2 HDPE Bottles and Jugs - Beverage | | | PPP |
| #2 Other HDPE Containers | | | PPP |
| LDPE/HDPE Plastic Carryout Bags | | | PPP |
| Other Flexible Film Plastic – LDPE & HDPE | | | PPP |
| LDPE/HDPE Film - Products (non-packaging) | | | PPP |
| #5 PP Bottles and other Packaging | | | PPP |
| #6 PS - Expanded Polystyrene | | | PPP |
| # 6 PS – Expanded Polystyrene - Takeout Containers | | | PPP |

| Material Categories | Curbside | Multi-Family | PPP/NON-PPP |
|---|----------|--------------|-------------|
| #6 PS - Non-expanded Polystyrene | | | PPP |
| #6 PS - Non-expanded Polystyrene - Takeout containers | | | PPP |
| Plastic Laminates and Other Film Packaging | | | PPP |
| Other Rigid Plastic Packaging | | | PPP |
| Other Plastics - (non-packaging/durable) | | | NON-PPP |
| 4. PLA or BIOPLASTICS | | | |
| PLA Film Carryout Bags | | | PPP |
| Other PLA Film | | | PPP |
| PLA Purchased Bin Liners | x | | NON-PPP |
| PLA Thermoformed Containers | | | PPP |
| PLA Cups and Plates | | | PPP |
| PLA utensils | | | NON-PPP |
| 5. METALS | | | |
| Aluminum- food and other non-beverage containers | | | PPP |
| Aluminum Beverage containers | | | NON-PPP |
| Aluminum Foil & Foil Trays | | | PPP |
| Aluminum Aerosols | | | PPP |
| Other Aluminum (non-packaging) | | | NON-PPP |
| Steel Food and other Non-beverage containers | | | PPP |
| Steel Beverage Containers | | | NON-PPP |
| Steel Aerosol Container | | | PPP |
| Other steel (non-packaging) | | | NON-PPP |
| 6. GLASS | | | |
| Glass Containers - Non-Beverage | | | PPP |
| Glass Containers - Beverage | | | NON-PPP |
| Other Glass - non-Blue Box | | | NON-PPP |
| 7. ORGANICS | | | |
| Yard Waste | x | x | Non-PPP |
| Tissue/ Paper Towel | x | x | Non-PPP |
| Bakery | x | x | Non-PPP |
| Meat and Fish | x | x | Non-PPP |
| Dried Food | x | x | Non-PPP |
| Fruits and Vegetables | x | x | Non-PPP |
| Dairy | x | x | Non-PPP |
| Other Food and Organics | x | x | Non-PPP |
| 8. OTHER MATERIALS | | | |
| Rocks, soil and sod | | | NON-PPP |
| Pet Waste | | | NON-PPP |
| Personal Hygiene Products | | | NON-PPP |
| All other materials | | | NON-PPP |