
TO: Larry Gardner
Manager, Solid Waste Services

DATE: October 14, 2015

FROM: Jeff Ainge
Zero Waste Coordinator

MEETING: RSWAC, November 5, 2015

FILE: 5370-01

SUBJECT: Curbside Collection Program – Household Glass Collection

RECOMMENDATION

That the report be received for information.

PURPOSE

The Regional Solid Waste Advisory Committee (RSWAC) included curbside collection of household glass containers as an option to be considered as part of the current Solid Waste Management Plan (SWMP) review.

BACKGROUND

The Regional District of Nanaimo (RDN) provides curbside collection of residential garbage, recycling and food waste to over 23,500 single family and equivalent homes located in the seven Electoral Areas, District of Lantzville and City of Parksville. A further 4,000 homes in the Town of Qualicum Beach receive garbage collection service from Town staff, with recycling and food waste collection provided by the RDN. The City of Nanaimo (CoN) provides collection services to 26,000 residences within their boundaries.

Household glass containers (food and beverage jars and bottles) have not been an accepted curbside recyclable item for several years (five years for RDN program customers and many years more for the CoN program). Glass containers have largely been replaced by plastics which are cheaper to produce and transport, and are readily recyclable. British Columbia's last facility for glass recycling (producing new glass containers from old) closed in 2008, which meant locally that the cost to transport glass off the island to a recycler in the US was prohibitive. Instead, glass was being collected at a cost and sent to a facility who charged for receiving it prior to crushing it and mixing it with construction aggregate, or for use in sand blasting or fiberglass applications.

The exclusion of glass from the RDN curbside recycling program in 2010, coincided with sweeping changes to the collection program when food waste collection was introduced and split packer collection vehicles enabled single stream (co-mingled) recycling. Leading up to the 2010 change, an analysis of RDN customers' curbside recycling in 2009 estimated 220 tonnes of glass was collected at the curb; 35% of which was deposit glass which should have been returned for refund. That tonnage represented only 5% of blue box materials. Depot options were provided and funded by the CoN and RDN to provide a household glass collection alternative.

The 2012 Solid Waste Composition Study estimated that glass made up three per cent of curbside materials disposed in the landfill. The glass category included food and beverage jars and bottles as well as ceramics and non-container glass. In terms of the total amount of glass in the overall waste stream, the study estimated it made up 2.6% or 1,386 tonnes. It should be noted that the study pre-dates the May 2014 implementation of the Province's packaging and printed paper stewardship program, operated by the stewardship agency Multi-Material BC (MMBC).

- **Curbside Collection**

Clear or coloured non-deposit glass bottles and jars are now included in the Province's Packaging and Printed Paper Stewardship Program, operated by the stewardship agency MMBC. Excluded from the MMBC acceptable materials list is deposit glass (which should be returned for a deposit refund), drinking glasses, dishes and cookware, window glass, mirrors, and ceramic products. Both the CoN and RDN collection program programs operate as contracted collectors for MMBC, who pays to have recycling collected on their behalf. In this region, because glass was not part of curbside collection at the time of implementing MMBC's program, household glass is accepted for recycling at MMBC depots only.

The few MMBC affiliated collectors in the Province accepting glass as part of curbside service must do so as a segregated stream and in a dedicated container. Glass is not permitted to be comingled with other recycling materials. For the RDN or CoN to consider reinstating glass as a curbside item a formal change request would need to be made to MMBC to alter the current contractual arrangement.

In terms of costs to reinstate curbside glass collection for the RDN program (not including CoN), staff estimates two additional collection vehicles would be necessary to cover the full service area. Rotating through the current collection routes (40 routes in total), those two trucks would provide for three scheduled glass collections per household per year. Based on figures provided by Progressive Waste Solutions (the RDN collection contractor), the annual cost to add two trucks to the existing service would be approximately \$190,000 (or an additional \$7.00 per year per household).

At this time, MMBC has advised that approval to change is unlikely during the term of the current collection contract. If MMBC did approve a change to the contract and allow segregated glass collection as part of curbside service, an additional \$80/tonne would be paid for glass collected and received on top of the current payment rate.

IMPACT ON DIVERSION

Reinstating glass in the curbside recycling may improve convenience for some residents, but it may have minimal impact to the overall glass capture if curbside service is simply displacing material already being collected at depots. Overall, based on the 2012 Waste Composition Study, the 275 tonnes of glass going to landfill via curbside collection is relatively small scale. Pulling it out of the garbage stream and collecting it in recycling will have minimal effect on diversion rates, and the costs to do that could be difficult to justify. This being said, staff from the CoN report being contacted regularly by members of the public who feel curbside collection of glass is a major area missing from the current collection service. Staff have discussed the potential financial indications of curbside glass collection with residents and in the majority of cases residents have indicated that they would be prepared to pay an additional fee for this service. The CoN will be conducting some community engagement around the issue of residuals collection in Fall/Winter 2015. With the advent of automated collection in the CoN (and the potential to increase revenues via higher user rates for those opting for a larger garbage bin) staff could look to fund some now initiatives to continue to push towards zero waste. All decisions would need to be indicated as public preference and approved by Council. Highlighting disposal alternatives, such as depots or re-use options, as part of promotion and education efforts could prove to be as effective at improving diversion.

Progressive Waste Solutions currently provides curbside glass collection for the 1,100 households in the City of Duncan, on a three-weekly pickup schedule. Over the three month period June-August 2015, a total of 1.34 tonnes of glass was collected. When extrapolated for a full twelve month period, less than 5.5 tonnes would be collected (or five kg per household over a year). The collector reports very few homes place glass out for collection, a noticeable percentage is deposit container glass, and that it does pose a safety risk for collection staff and those at the receiving facility.

FINANCIAL IMPLICATIONS

The financial incentive paid by MMBC to have segregated glass collected at the curb is \$80/tonne. The cost to add dedicated collection trucks for glass collection would outstrip any financial benefit for the collection programs. A negative financial impact would also likely be felt by the local MMBC affiliated depots if curbside glass collection displaced glass they currently receive and get paid by MMBC to handle.

REGULATORY AUTHORITY

Changes to current curbside recycling contracts to amend materials collected will require Board and Council approvals along with approval from MMBC. No new authorities are required for this to happen.

SUMMARY/CONCLUSIONS

Household glass containers have not been accepted as part of curbside recycling for several years in this region, and staff is not aware of any glass processors located in the Province who are capable of taking glass and making new glass containers. In 2009, an analysis of the RDN's curbside materials estimated glass containers made up about 5% of the overall recyclables set out for collection. With the advent of the Province's packaging and printed paper stewardship program, operated by the stewardship agency MMBC, household glass containers are considered packaging. Glass containers are accepted at no charge at six depots throughout the region that get paid by MMBC to handle the material.

A change to the curbside recycling collection programs operated by the CoN and RDN would require approval from MMBC, as well as contract changes for the curbside collection contractor. The CoN is contemplating service level options as a new collection system is phased in; this could include glass collection for their customers.

There is limited diversion impact in reinstating glass to the curbside recycling, and any change will come with costs (i.e., two collection trucks estimated at \$190,000/year to serve the RDN curbside routes). Glass collection can be included in contract renewal discussions with the collection contractor and MMBC when the time comes, however no immediate changes as part of the SWMP action items are foreseen.

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