



Reference: 376513

April 30, 2021

Michael Zarbl
Executive Director
Major Appliance Recycling Roundtable
100 – 4259 Canada Way
Burnaby, BC V5G 4Y2

Dear Michael Zarbl:

Thank you for submitting amendments to the proposed B.C. Major Appliance Stewardship Plan (the amended plan) in fulfillment of the requirements of section 6 of the [Recycling Regulation](#) (the regulation) made under the *Environmental Management Act*.

MARR's EPR plan was approved on August 7, 2018 with the requirement to complete and submit amendments to the director no later than 18 months from approval. I acknowledge the efforts of the Major Appliance Recycling Roundtable (MARR) and the ongoing correspondence and dialogue between MARR and the Extended Producer Responsibility (EPR) Section staff in that time.

The 2018 plan approval letter required MARR to complete the following:

- a) Propose amendments to the plan that incorporate financial performance and Ozone Depleting Substances (ODS) removal targets;
- b) Propose further amendments to the plan that set consumer awareness targets improving on the 2016 baseline data, annual consumer awareness survey requirements and corrective actions, along with timelines for implementation of those actions that MARR will take if consumer awareness is below the set targets; and
- c) Conduct stakeholder consultations on the amendments proposed by MARR pursuant to paragraph a. and b. and submit a consultation summary document as per the Recycling Regulation Guide.

Under the regulation, the director has the ability to both amend an approved EPR plan on his own initiative, and to approve amendments to an approved plan that have been proposed by a producer. I have completed my review of, and approve the amended plan

submitted by MARR on May 13, 2020. The amended plan adequately addresses the director's amendments required of MARR and described in the 2018 plan approval letter; however, with the knowledge that MARR's next plan review must be completed by June 29, 2022, I would like to take this opportunity to highlight the following limitations I noted in my review of the amended plan with respect to the need for continuous improvement throughout. I expect these will be properly addressed in MARR's next plan submission.

1. Assessing the performance of the program

Pursuant to section 5(1)(c)(v) of the regulation, a plan must adequately provide for assessing the performance of the producer's EPR program.

MARR has made a significant plan improvement by committing to safely remove and properly manage ODS gas from all units collected that contain refrigerant gasses used for cooling purposes, and reporting the percentage of units collected that had the ODS gas removed prior to collection.

While committing to report on units that had ODS gas removed prior to collection by the MARR program is a good first step in assessing program performance in this area, I expect that MARR will improve on this by demonstrating the degree to which ODS gas collection outside of MARR's system is done correctly (e.g. appliance repair professionals, non-registered local government collection facilities, etc.). Additionally, where it is not done correctly, MARR should report on the root causes and any identified mitigation measures.

In MARR's next plan, I expect MARR will address this shortcoming by:

- Better assessing program performance in relation to units collected that had the ODS gas removed prior to collection by the program.

2. Making consumers aware of the program

Pursuant to subsection 5(1)(c)(v) of the regulation, a plan must adequately provide for assessing the performance of the producer's EPR program. Additionally, pursuant to section 5(1)(c)(iv) of the regulation, a plan must adequately provide for making consumers aware of the EPR program, the location of collection facilities or the availability of collection services, and how to manage products in a safe manner. Furthermore, as set out in subsection 5(2)(j) of the regulation, the director may consider the manner, kind and amount of advertising and consumer education planned by the producer to inform consumers of the location and operation of collection facilities, availability of collection services, and environmental and economic benefits of participating in the EPR program.

MARR conducts a consumer awareness survey annually to analyze consumer habits and perceptions of recycling major appliances in B.C. While I recognize MARR has set a consumer awareness target of 75% of surveyed adults who are aware they can recycle major appliances and has committed to developing a consumer awareness plan should levels fall below the set target, I expect MARR's next plan to elaborate on the types of

corrective actions included in a consumer awareness plan, along with timelines for implementation.

Furthermore, MARR's consumer awareness commitment does not demonstrate continuous improvement in this area. Continuous improvement can be demonstrated in different ways, including setting progressively higher general awareness targets over time or establishing targeted awareness commitments to identify consumer groups, industry sectors, or geographical areas that may not be properly managing MARR program products and require improved awareness of the program to ensure products are managed in a safe manner (e.g. commitments to identify and target uninformed consumers that remove ODS prior to drop-off at a MARR registered collection facility to avoid ODS removal charges that no longer exist).

In MARR's next plan, I expect MARR will address these shortcomings by:

- Better demonstrating the types of corrective actions, along with timelines for implementation of those actions that MARR will take if consumer awareness falls below the set target.
- Better demonstrating continuous improvement in how the plan will provide for making consumers aware of the producers' EPR program, the location of collection facilities or the availability of collection services, and how to manage products in a safe manner.

3. Producers paying the costs

Pursuant to section 5(1)(c)(i) of the regulation, a plan must adequately provide for the producer paying the costs of collecting and managing products within the product category covered by the plan.

MARR's commitment to pay registered collectors is an important step toward meeting this regulatory requirement. However, there is limited information provided in the amended plan explaining how MARR's compensation demonstrates all costs of collecting and managing program products are being borne by the producers. A more detailed commitment in this regard is required in MARR's upcoming plan. EPR plans should provide a summary of the cost methodology applied and a summary of stakeholder comments, including how those were addressed, along with the timeframes for doing so.

I also note that the financial burden of safely removing and properly managing ODS gas should never be a barrier for collection facilities to provide free consumer drop-off. I expect MARR's next plan will better demonstrate producers are paying the costs of safely removing and properly managing ODS gas, such as by compensating all MARR registered collection facilities for ODS gas removal and management.

In MARR's next plan, I expect MARR will address these shortcomings by:

- Better demonstrating producers are paying the costs of collecting and managing program products. This must provide a summary of the cost methodology applied and a summary of stakeholder comments related to the cost methodology that

were received during development of the plan, and how and when those were addressed.

4. Reasonable and free consumer access to collection

Pursuant to section 5(1)(c)(iii) of the regulation, a plan must adequately provide for reasonable and free consumer access to collection facilities or collection services.

I am pleased that MARR has established a program-specific accessibility target of more than 90% of the BC population are within 20 km of a MARR registered collection facility. However, I note that according to MARR's 2019 Annual Report, MARR achieved 91% accessibility, yet seven regional districts did not have a permanent MARR registered collection facility in their region. I recognize these regional districts are predominantly rural and/or remote, but this does illustrate a potential shortcoming of the 90% accessibility target, and the need to support this target with strong supplementary accessibility commitments to ensure reasonable province-wide access to collection facilities or collection services, particularly in rural and remote areas.

In MARR's next plan, I expect MARR will address this shortcoming by:

- Further demonstrating how province-wide access to collection facilities or services can be better provided and reflected in the plan. This should include stronger accessibility commitments to address areas where gaps in accessibility to collection facilities or services exist, along with the timeframes for doing so.

5. Environmental impacts of the program

Pursuant to subsections 5(1)(c)(v), (vii), and (viii) of the regulation, a plan must adequately provide for the management of the product in adherence to the order of preference of the pollution prevention hierarchy and the environmental impacts of the program.

Plastic waste reduction, tracking and recycling is a provincial and public priority. Additionally, an increasing proportion of modern appliances are made up of plastic. I understand the complexities involved in the evolution of managing plastics from major appliances collected by the program, but MARR's downstream management practice of landfilling plastics is an area of concern. I expect MARR's upcoming plan will demonstrate producers and the program are working on solutions to solve this issue. Clarification, improved transparency, plan commitments and corresponding reporting requirements regarding the recycling feasibility and the downstream management of plastics to final disposition will be expected to address the management of plastics in accordance with the pollution prevention hierarchy and the environmental impacts.

I commend MARR for the development of the Major Appliance Processing Standard, but note that greater assurances are expected with respect to MARR collection facilities adhering to best management practices in MARR's upcoming plan.

In MARR's next plan, I expect MARR will address these shortcomings by:

- Providing clarity on the management and reporting of all materials collected through the program to the final disposition with related commitments to improve the management of plastics in accordance with the pollution prevention hierarchy.
- Providing greater assurances that all MARR registered collectors and processors are properly decommissioning all end-of-life major appliances collected through the program along with the safe handling of substances of concern, and the timeframes for doing so.

Third party independent assurance for non-financial information in annual reports

Third party assurance for non-financial information in annual reports is required through section 8(2)(h) of the regulation. The assurance report should be completed in accordance with the document entitled, "Third Party Assurance Requirements for Non-Financial Information in Annual Reports" dated November 2019 and revised from time to time, which is enclosed.

Finally, the ministry expects this approval letter to be forwarded to MARR's board of directors as well as its member producers, since each producer is responsible for ensuring its agent fulfills the plan, and compliance proceedings may be taken against a producer if the agent fails to implement the plan.

Right to appeal

If you disagree with this decision, Division 2 of Part 8 of the *Environmental Management Act* provides for appeal of my decision to the Environmental Appeal Board (EAB). In accordance with the *Act* and with the Environmental Appeal Board Procedures regulation, the EAB must receive notice of the appeal no later than 30 days after the date you receive this decision.

I look forward to working with you to ensure the success of your program. If you have any questions about this letter, please contact me at 778-698-4860 or ExtendedProducerResponsibility@gov.bc.ca. If you have any questions regarding the implementation of your plan, please contact your ministry file lead.

Sincerely,



Bob McDonald
Director, Extended Producer Responsibility Section

Enclosure (1)

cc: Sonya Sundberg, Executive Director, Environmental Standards Branch
Meegan Armstrong, Unit Head, Extended Producer Responsibility Section

BC Major Appliance Stewardship Plan

Product Category:

Major Household Appliances within the Electronic and Electrical Product Category

Submitted to the Ministry of Environment by:
Major Appliance Recycling Roundtable

Approval Date: June 29, 2012

Revision Date: May 13, 2020



www.marrbc.ca

Contact

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Glossary of Terms and Abbreviations

AHAM	Association of Home Appliance Manufacturers
APF	Administrative Program Fee
Capture Rate	The estimated weight of products collected in a given year divided by the estimated weight of products “available to collect” (that is, the amount reaching end-of-life in the same year)
Collection site	Facility that accepts end-of-life major appliances
DfE	Design for the Environment
EPR	Extended Producer Responsibility
GHG	Greenhouse gases
GWP	Global Warming Potential
IC&I	Industrial, commercial and/or institutional
LGAC	Local Government Advisory Council
Local Government	Municipalities, regional districts and First Nation governments
MARR	Major Appliance Recycling Roundtable
ODS	Ozone Depleting Halocarbon refrigerants subject to BC regulation B.C. Reg. 317/2012 <i>OZONE DEPLETING SUBSTANCES AND OTHER HALOCARBONS REGULATION</i> from residential products that utilize a vapor-compression refrigeration system listed in MARR’s Product List and Definitions listed on MARR’s website ¹ .
RCBC	Recycling Council of British Columbia
RCC	Retail Council of Canada
SABC	Stewardship Agencies of BC

¹ <http://www.marrbc.ca/documents/MARR-Product-List-Definitions.pdf>

1. Introduction

In British Columbia (BC), the Recycling Regulation² under the *Environmental Management Act* sets out the requirements of extended producer responsibility (EPR), including for approved product stewardship plans. These requirements for product stewardship plans are outlined in section 4 of the Recycling Regulation, stating:

“A producer must submit a product stewardship plan, at the time specified in the applicable Schedule, if any, and in a manner and format satisfactory to a director, for the products within the product category of the product the producer sells, offers for sale, distributes or uses in a commercial enterprise in British Columbia.”

This five-year product stewardship plan for major household appliances (“stewardship plan”) is being submitted by the Major Appliance Recycling Roundtable (MARR) in accordance with the Recycling Regulation under the *Environmental Management Act*. The stewardship plan covers major household appliances contained within the electronic and electrical product category of the Recycling Regulation, and includes the following major product types³:

- Refrigerators, wine coolers and beverage centers
- Freezers
- Portable, room and window air conditioners
- Portable dehumidifiers
- Clothes washers and dryers
- Ranges, built-in ovens and surface cooking units
- Built-in and over the range microwave ovens
- Range hoods and downdrafts
- Dishwashers
- Food waste disposers and trash compactors
- Electric water dispensers

This stewardship plan replaces the previous stewardship plan for major appliances submitted by the Association of Home Appliance Manufacturers Canada (AHAM Canada) and the Retail Council of Canada (RCC) approved on June 29, 2012.

² British Columbia Ministry of Environment, *BC Recycling Regulation*, BC Reg. 449/2004, as amended B.C. Reg. 88/2014, May 23, 2014. Accessed at http://www.bclaws.ca/civix/document/id/complete/statreg/449_2004.

³ For an up-to-date listing of the products covered by the Stewardship Plan, please refer to the detailed list of included and excluded products available at: <http://www.marrbc.ca/participants/products>

2. Duty of the Producer

As per section 2(1) of the Recycling Regulation under the *Environmental Management Act*:

“Except as otherwise specifically provided in this regulation, a producer must

- (a) have an approved plan under Part 2 [Product Stewardship Plans] and comply with the approved plan, or*
- (b) comply with Part 3 [Product Stewardship Program Requirements If No Product Stewardship Plan]*

with respect to a product in order to sell, offer for sale, distribute or use in a commercial enterprise the product in British Columbia.”

3. Appointment of the Stewardship Agency

MARR is a not-for-profit stewardship agency created to implement and operate a stewardship plan for end-of-life major household appliances in BC. It acts on behalf of producers of major appliances who are obligated under the BC Recycling Regulation.

In registering, each producer must sign an Agency Appointment Agreement⁴ that formalizes the role of MARR as its agent to carry out the duties of the producer as set out in section 2(2) of the Recycling Regulation. This stewardship plan confirms the duties that MARR will perform on behalf of each registered producer. Copies of membership agreements are available upon request to the Director.

The MARR program is open to all obligated producers of major household appliances in BC, including manufacturers, wholesalers and retailers. A current list of registered participants is available on MARR's website at <http://www.marrbc.ca/participants/registered>. As of February 20, 2017, there were 110 individual companies registered with MARR.

As MARR currently administers the only approved stewardship plan for major household appliances in BC, it is expected that member producers represent the vast majority of major appliance sales in the province. With representation from major manufacturers, retailers and wholesalers, the more than 100 registered participants of MARR reported total unit sales of 1,047,708 major appliances for 2016 across all product types. MARR's registered producers represent the prevailing share of producers of major appliances obligated under the B.C. Recycling Regulation.

Information for consumers on how to recycle major appliances, including a list of collection sites, is easily found on the MARR website at the following links:

- How to Recycle: <http://www.marrbc.ca/consumers/recycle>
- Collection Sites: <http://www.marrbc.ca/collection-site-locator>

To increase public awareness of the stewardship program, MARR provides point-of-sale materials to retailers, wholesalers and other organizations to explain the stewardship program to customers and other stakeholders. Point-of-sale materials, as well as a document with Frequently Asked Questions, are available on the MARR website at <http://www.marrbc.ca/participants/pos>.

Agency Governance

MARR is a not-for-profit stewardship agency incorporated under the *Canada Not-for-Profit Corporations Act* on July 17, 2012. The Retail Council of Canada and the Association of Home Appliance Manufacturers are the corporation's two members. MARR is governed by a Board of Directors comprised of representatives from major appliance manufacturers and retailers. The MARR Board currently includes representatives from Whirlpool Canada, Samsung Electronics Canada, Electrolux, Home Depot Canada, the Association of Home Appliance Manufacturers (Canada) and the Retail Council of Canada. A list of current board members is provided in the following table.

⁴ Available on MARR's website at <http://www.marrbc.ca/documents/MARR-Agency-Appointment-Agreement-May-1-2013.pdf>

Table 1: MARR Board Members (as of April, 2020)

Name and Position	Affiliation
Warrington Ellacott, Chair	Whirlpool Canada LP
Meagan Hatch, Member	Association of Home Appliance Manufacturers (AHAM) Canada
Greg Wilson, Member	Retail Council of Canada (RCC)
Jeff Van Damme, Director	Samsung Electronics Canada
Kimberlee Johnson, Director	Danby Appliances
Grant Garrard, Director	Home Depot Canada
Jordane Ferron, Director	Lowe's of Canada
Julie Yan, Director	Hudson's Bay Company

MARR maintains transparency with its members and stakeholders by posting relevant policies, guidelines, reports and materials on its website. Rules and Policies, Annual Reports and Financial Statements are publicly available to members and stakeholders on the following webpages:

- Rules and Policies: <http://www.marrbc.ca/participants/register> and <http://www.marrbc.ca/participants/registered>
- Annual Reports and Financial Statements: <http://www.marrbc.ca/about>

The MARR-Local Government Advisory Council (LGAC) was created in 2013 to provide a forum for local governments involved in the collection of major household appliances to deliver their unique perspective and advice to MARR. The LGAC includes representation from regional districts and municipalities representing urban, rural and remote communities, allowing MARR to better understand municipal and regional needs, capabilities and capacities.⁵

Performance Monitoring and Reporting Commitments

Reporting Commitments

In its annual report to the BC Ministry of Environment, MARR will note any changes to its operational structure or Board of Directors since the previous annual report.

⁵ The current membership of the MARR-LGAC includes the Regional District of Mount Waddington, the Capital Regional District, the Metro Vancouver Regional District, the Regional District of Central Kootenay, the Regional District of Bulkley-Nechako, the Regional District of North Okanagan, and the City of Vancouver.

4. Products Covered Under the Stewardship Plan

This stewardship plan covers a variety of large appliances as listed under **2(1)(c)**, “electronic or electrical appliances” and detailed in **Schedule 3** of the **Electronic and Electrical Product** category of the BC Recycling Regulation under the *Environmental Management Act*.

The plan covers major appliances that have been designated for residential use in BC, provided they are electrical or electrically powered. However, it also includes:

- Products that are dual fuel natural gas or propane products, provided the other power source is electricity;
- Appliances used in or sold for industrial, commercial and/or institutional (IC&I) applications that have essentially the same design characteristics as major household appliances; and
- Products that are used for refrigeration or freezing that contain a compressor and/or refrigerant gases.

MARR’s Stewardship Role

Currently there are no other agencies, aside from MARR, appointed to act in a product stewardship capacity for major appliances in British Columbia. As such, there are no other product stewardship agencies or plans covering the same products.

The stewardship plan covers the following products:

- Refrigerators, wine coolers and beverage centers;
- Freezers;
- Portable, room and window air conditioners;
- Portable dehumidifiers;
- Clothes washers and dryers;
- Ranges, built-in ovens and surface cooking units;
- Built-in and over the range microwave ovens;
- Range hoods and downdrafts;
- Dishwashers;
- Food waste disposers and trash compactors; and
- Electric water dispensers.

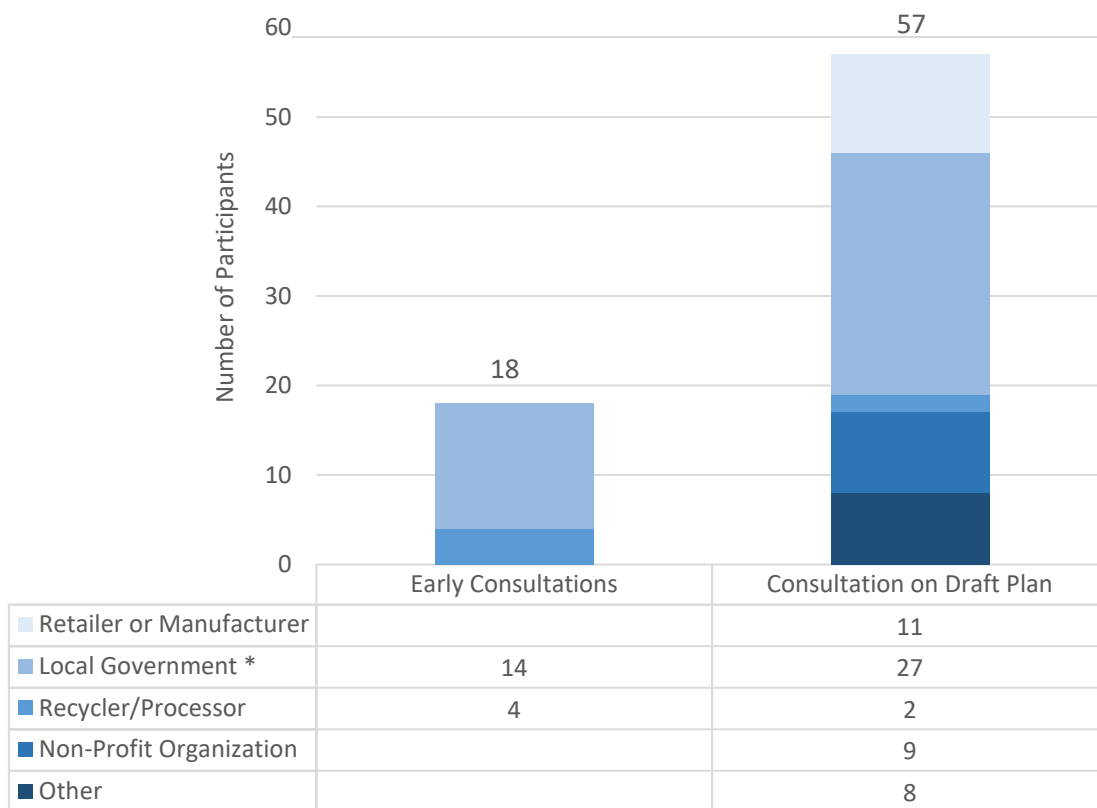
For a detailed list of included products and relevant definitions, please refer to the MARR website:

<http://www.marrbc.ca/documents/MARR-Product-List-Definitions.pdf>

5. Stakeholder Consultation

Consultation Undertaken Prior to Stewardship Plan Submission

To inform the renewal of this plan, stakeholder consultation was approached as an iterative process. The first cycle of consultations, taking place from April 25th to May 30th, included an initial round of structured dialogues with key stakeholder groups to inform the drafting of the plan. The second cycle of consultations, from June 5th to June 23rd, included the public posting of the plan, along with facilitated group consultations on the draft plan using online and in-person formats. The figure below provides a summary of the stakeholder groups that participated in consultation activities during the development of the plan.



* including First Nations

The following table provides a detailed summary of the stakeholder consultation activities carried out prior to stewardship plan submission.

Consultation Activity	Logistics of the Consultation	Participation
Early Consultations (April 25th to May 30th)		
Focus Group with Local Government Advisory Council April 25, 2017 1:30 – 3:00 pm	<ul style="list-style-type: none"> • Coordinated through the MARR Board and the Chair of the LGAC • Sent notice of invitation directly to LGAC members by email • Focus group carried out using a combination of webinar and conference call facilities 	This session included six local government representatives from the LGAC. Participants represented urban, rural and remote areas of the province
Industry Interviews May 22 to 30, 2017	<ul style="list-style-type: none"> • Structured telephone interviews with metal recyclers and technicians involved in the removal of ozone depleting substances (ODS) to inform the stewardship plan development 	Interviews were conducted with two recycling companies and two ODS removal contractors
Focus Group with First Nations Representatives May 23, 2017 3:30 – 5:00 pm	<ul style="list-style-type: none"> • Referred through the LGAC to a First Nations solid waste disposal working group • Sent invitations in the form of an email communique • Focus group carried out using a combination of webinar and conference call facilities 	This session included eight participants from First Nations communities across the province, representing semi-urban, rural, and remote communities
Consultation on Draft Stewardship Plan (June 5th to June 23rd)		
Consultation Session with BC Product Stewardship Council June 14, 2017 10:00 – 11:30 am	<ul style="list-style-type: none"> • Coordinated through the administrator of the BC Product Stewardship Council • The session was carried out using a webinar platform, and provided: <ul style="list-style-type: none"> ○ An opportunity for BC Product Stewardship Council members to comment on the draft stewardship plan for major appliance recycling in BC; ○ An overview of the plan, followed by online polling questions, and two survey questions in conclusion to gather additional feedback 	This session included a total of 17 participants, representing: <ul style="list-style-type: none"> • Non-profit organizations • Local governments • Regional districts • First Nations communities • Ministry of Environment

Consultation Activity	Logistics of the Consultation	Participation
<p>Open Public Consultation Session</p> <p>June 16, 2017 10:00 – 11:30 am</p>	<ul style="list-style-type: none"> • Notice of public consultations was provided on the MARR website and was distributed to association members as well as interested parties through an email listserve • The Recycling Council of BC and Stewardship Agencies of BC were also provided with the consultation notice for circulation to members • The session was carried out using a webinar platform, and guided by a PowerPoint presentation, including open ended discussion questions, polling questions, and two written response survey questions seeking additional feedback 	<p>This session included 25 participants representing:</p> <ul style="list-style-type: none"> • Non-profits • Local governments • Regional districts • Retailers • Recyclers • Ministry of Environment
<p>Consultation Session at Recycling Council of BC Conference</p> <p>June 21, 2017 10:00 am – 12:00 pm</p>	<ul style="list-style-type: none"> • Notice of public consultations was provided on the MARR website and was distributed to association members as well as interested parties through an email listserve • Notice of the in-person consultation was also provided to the Recycling Council of BC and Stewardship Agencies of BC for circulation to members and registered conference delegates • The session was facilitated in-person, guided by a PowerPoint presentation, including open ended discussion questions and polling questions 	<p>A total of 17 individuals participated in polling, while 33 participants attended the session. Participants represented:</p> <ul style="list-style-type: none"> • Manufacturers • Local governments • Non-profit organizations • Other (i.e., Ministry of Environment, industry associations, etc.)
<p>Follow Up Discussion with Local Government Advisory Council</p> <p>June 22, 2017 2:00 – 3:00 pm</p>	<ul style="list-style-type: none"> • While members of the LGAC were provided with an opportunity to participate in the above-mentioned consultations, a follow up teleconference with LGAC members was coordinated through the Chair of the Committee 	<p>This session included two members of the LGAC and two MARR Board members. The LGAC participants represented both urban and rural/remote regions</p>

Consultation Activity	Logistics of the Consultation	Participation
Written Responses to Online Posting of Draft Plan	<ul style="list-style-type: none"> Written comments were submitted to MARR via email at consultations@marrbc.ca during the consultation period 	Additional written feedback was received from MARR member producers, First Nations, and local governments

Appendix A includes a description of the stakeholder groups consulted during the stewardship planning process, a summary of proceedings from the consultation sessions, as well as responses to stakeholder submissions on the draft plan.

[Ongoing Stakeholder Consultation](#)

Effective stakeholder engagement is an ongoing process. MARR’s program plan development was later in the cycle than would be ideal. Nonetheless, there was strong stakeholder participation and many valuable comments were submitted during the consultation process held over late April into June of 2017.

In keeping with the important principle of maintaining engagement, MARR will post the program plan document as submitted to the Ministry of Environment on the MARR website. We welcome further comment which can be sent to: consultations@marrbc.ca.

It will be necessary to work closely with stakeholders who collect, operate facilities and process end-of-life major appliances as MARR’s program evolves over the coming years to deliver upon the commitments in this program plan. MARR is committed to working openly with our partners to assure the best outcomes and to ensure compliance with the Recycling Regulation.

6. Collection System and Consumer Accessibility

With respect to the recycling of major household appliances, there exists a long-standing and effective market-based system for end-of-life product management. In a broad view, this market-based system exists largely because major household appliances currently have a financial value at end-of-life. That is, collectors and processors of end-of-life major appliances have a financial incentive to recycle the product, as it can be a revenue-generating activity.

A recent study on the economics of major appliance recycling commissioned by MARR in 2016 (*Study of Major Appliance Recycling, Pricewaterhouse Coopers (PwC), February 17, 2017*) identified that some stakeholders involved in the existing collection system are not recouping their costs related to the collection and management of products covered under the stewardship plan that exceed the revenues associated with the sale of end-of-life materials. In particular, local governments such as regional districts, municipalities and First Nations that operate collection sites for major appliances reported that they face administrative costs that may exceed revenues generated from this activity. For example, local governments must often pay for the removal of ODS as well as transportation costs in order for the materials to be crushed, processed and transported to a metal recycler. Furthermore, low metal prices have reduced the potential revenue source for local governments and other industry participants, causing strain on the current market-based system. Some caution should be taken when interpreting the results of the study, however, as there were limitations with respect to the availability of requested financial information.

This stewardship plan for major appliances proposes to build on and support the existing market-based system for end-of-life major appliances, rather than supplant and replace it with a traditional stewardship program model wherein all aspects of end-of-life product collection, transportation and processing are controlled and managed by a single stewardship agency. The imposition of a traditional stewardship model on the pre-existing market-based system has the potential to cause significant economic dislocation for businesses operating in that system, confusion for consumers and ultimately reduced environmental performance. In the view of MARR and its member companies, building upon the market-based system and the existing economic players within that system is the most responsible, economically efficient and environmentally prudent approach to maintaining and enhancing the already impressive performance of major appliance recycling in British Columbia.

The activities proposed in this plan are therefore meant to enhance the performance of the current system, to address specific circumstances and challenges affecting key stakeholder groups⁶, and to ensure continuous improvement with respect to the achievement of desired outcomes. Guiding the stewardship plan are the following commitments:

1. A commitment to enhance the performance of the current system by providing incentives for the management and collection of ODS from products within the product category through a network of approved collectors.
2. A commitment to reasonable and free consumer access to collection facilities. This will be accomplished by providing incentives for administrative costs and transportation costs as required by region on a cost recovery basis.

⁶ To inform this plan, stakeholders were engaged to better understand the challenges with respect to the current system, and areas for potential improvement. For more details on stakeholder consultation activities, please refer to Section 5.

MARR will provide these economic incentives to qualified collectors who have executed a collector agreement, and who, upon verification have met the requirements specified in those agreements and will be subject to ongoing audit and compliance verification.

Recognizing that BC's geography is varied, and having heard from local governments that they have differing needs based upon their location, MARR will operationalize these commitments in close consultation with impacted local governments. This is a recognition that one solution may not work for all communities, and that different communities have different operational models and requirements.

Collection System and Product Pathways Not Directly Managed by the Stewardship Program

A market-driven recycling system for major appliances has been in place in British Columbia for decades, historically driven by the positive financial value of these products at end-of-life. This system is comprised of a variety of collectors, including retailers, local governments, utilities and private companies, which accept major appliances and then channel those products to scrap metal consolidators and processors. As part of the larger commodities market, scrap metal companies process the products to recover metal components, which are sold to end-markets such as steel mills for recycling.

In 2013, waste consultant, Ecoinspire Planning Services, conducted a study of the BC market driven system for major appliance recycling on MARR's behalf. *The Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia, May 8, 2014* report ("System Study") examined the operation and performance of the existing collection and recycling system, including identifying collection site locations. In early 2017, MARR, with the support of waste consultant Tetra Tech, undertook an update of the System Study for 2016 ("System Study Update"). Both studies helped inform this stewardship plan.

MARR's intention is to provide an opportunity for those currently involved in the collection of end-of-life appliances to become qualified collectors and to be part of the collection network when the incentive programs take effect.

MARR will establish a set of basic collector qualification standards to be met in order to qualify as a collector under the MARR program, such as free drop off service to residents, proof of all necessary licenses and permits, compliance with health and safety requirements, and specified liability and business insurance coverage. Qualification standards will also include reporting requirements to allow MARR to meet its reporting requirements to the MOE.

Qualified Collectors will be required to report data such as:

- Number of units collected by category
- Tonnes of metal recycled
- Weight of ODS collected
- Weight of ODS sent for destruction

Drop-Off Collection Sites

In addition to the numerous pick-up services for major appliances offered by retailers and some municipalities, there are 137 contracted locations in BC that offer free and ready collection of MARR products to the public as of August 1st 2019. These sites are listed in Appendix B⁷.

MARR continues with the effort to expand the collection network. The most current list of MARR authorized collection sites can be found at <https://www.marrbc.ca/collection-site-locator>.

Pick-up Services

There are a number of options available to consumers to manage the exchange of new and old appliances. When a consumer purchases a new appliance, many retailers offer a delivery/take-back option that facilitates the proper recycling or resale of the used appliance on behalf of the consumer. According to survey results of 116 major appliance retailers conducted as a part of the System Study, 84 percent of respondents offered a take-back service to their customers when a new appliance was delivered.

Accessibility to Collection Sites

MARR will target accessibility to free drop-off locations for more than 90 percent of the population of BC. MARR will calculate the accessibility by the presence of collection sites in each municipality or within 20 km of the municipality and the represented population. Population numbers will be retrieved annually from The Government of British Columbia:

<https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates>

Accessibility to free drop-off locations for BC residents was estimated at 93.6 percent. It is MARR's intention to close this gap by requiring all qualified collectors who receive an incentive to offer free drop-off to residents.

Accessibility to free drop-off in some rural areas of British Columbia is challenging when local population numbers do not warrant permanent collection facilities. Often the collection of large appliances for recycling in small or remote communities is based on annual or semi-annual collection events organized by local government or community groups.

In areas where gaps in accessibility to collection sites exist MARR is committed to supporting local drop off events by providing free transportation of all MARR products to the nearest authorized MARR collection site. MARR will report on the number of products collected at each of the collection events on an annual basis

⁷The list only includes local government and private/non-profit collector drop off sites, and does not include the numerous collection options that may be offered through retailers or other possible pick up options.

Tracking Product Pathways

As major appliance recycling utilizes the existing market-based system, MARR does not contract directly with processors and is therefore not able to obtain information on percentages of materials processed. Volumes and percentages reported are based on estimates derived from survey responses obtained from collectors and processors as part of MARR's System Study⁹ and System Study Update.

Improving the Existing Collection System and Consumer Accessibility

To provide enhanced support to the existing market-based system for major appliance recycling in BC, this stewardship plan identifies the following activities that MARR will undertake to ensure continuous improvement in end-of-life major appliance recycling and achievement of desired outcomes:

1. MARR will establish and provide an incentive program to mitigate market barriers to the removal of ODS from major appliances dropped off at local government collection sites. This will allow the products to be crushed or shredded on site for easier transportation to metal recyclers, and will also allow for improved data and reporting with respect to the number of appliances processed and collected.

In addition to these steps, MARR will compile and maintain a list of trained ODS removal technicians, along with their regional service coverage, and will post this information on the MARR website.

2. MARR will work to remove barriers related to transport associated with the collection and pick-up of appliances and scrap metal (resulting from the compaction or shredding of major appliances) from local government collection sites. Of concern is the issue that products are currently being "stockpiled" in rural and remote areas of the province.

The actions outlined above are intended to support the existing market-based system for major appliance recycling along with the achievement of desired program outcomes. These actions are expected to:

- Address inefficiencies associated with major appliance recycling for key system stakeholders.
- Maintain collection rates for end-of-life major appliances while removing existing barriers.

As noted earlier, MARR will operationalize these commitments in close consultation with impacted local governments.

⁹ Studies include "Generation and Diversion of White Goods from Residential Sources in Canada" (2005) by Canadian Appliance Manufacturers Association, Hansen Research and Communication and Hikene International Policy, "Recycling, Waste Stream Management and Material Composition of Major Home Appliances" (2005) by RW Beck and Weston Solutions and "White Goods Assessment – Ontario" (2009) by SBR International Inc.

Performance Monitoring and Reporting Commitments

Performance Measures

Collection System and Consumer Accessibility Metrics	<ul style="list-style-type: none">• Number of units collected• The total amount of the producer's product sold<ul style="list-style-type: none">○• Collection accessibility:<ul style="list-style-type: none">○ Accessibility to free drop-off locations for more than 90 percent of the BC population.○ Number of facilities providing free and reasonable collection province-wide○ Facilities for each regional district○ Rural/urban regions○ Different types of products
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Performance Targets

MARR will target: Accessibility to free drop-off locations for more than 90 percent of the BC population.

MARR will calculate the accessibility by the presence of collection sites in each municipality or within 20 km of the municipality and the represented population retrieved annually from:

<https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates>

Reporting Commitments

In addition to the performance targets, MARR will also report annually on:

- The total amount of the producer's product sold.
- The total amount of the producer's product collected.
- The total amount of the product recovered in each regional district.
- The total amount of the product recovered per capita for each regional district and for the province.
- The varying collection performance for the sub-categories of products covered under the stewardship plan and the actions that will be taken to increase the collection of these products.
- The location of collection facilities, and any changes in the number and location of collection facilities from the previous report.
- Identified under-served areas or regions with lower than average collection and the actions that will be taken to address collection in underserved areas (e.g., funded collection and awareness events, etc.). Information from local government waste composition analysis identifying the kilos per capita for program materials (if or as available).

7. Consumer Awareness

Since the approval of the initial product stewardship plan for major appliances in 2012, MARR has developed consumer education materials and resources for producers and retailers, and online resources directly for consumers. It has also partnered with other organizations to increase its presence and accessibility to consumers.

MARR is committed to working with partner stakeholders, including First Nations, local government and non-profit associations – along with other stewardship agencies – to improve consumer awareness on an ongoing basis.

MARR's existing advertising and consumer education materials include:

1) MARR Website:

MARR has a comprehensive website that includes resource sections for consumers, participants and sellers, and collectors and recyclers. Resources provided to website visitors are outlined below.

Targeted at Consumers	Targeted at Producers and Retailers
<ul style="list-style-type: none">• Information on MARR's role• How to Recycle• Products and Fees• Collection Site Locator Tool	<ul style="list-style-type: none">• Information on:<ul style="list-style-type: none">○ Rules and Policies○ Products and Fees○ Registration• Studies and Reports• Producer Webinar• Frequently Asked Questions• Program Updates

2) Print Materials:

MARR has developed print materials, which are available to participants and retailers to inform consumers about MARR's role and major appliance recycling at the point of sale. Available print materials include:

- **Rack Cards** – Informational cards for display in retail locations, outlining MARR's role, and recycling options for consumers.
- **Frequently Asked Questions (FAQ)** – A PDF document that outlines MARR's role, lists the products covered under MARR's environmental stewardship plan and provides useful information on how to recycle appliances in BC.

3) Recycling Council of BC Website and Hotline:

As a member of the Stewardship Agencies of BC (SABC), MARR participates in the Recycling Hotline Database administered by the RCBC. The Recycling Hotline Database provides information to consumers on how and where to recycle items, including large appliances, across the province.

Participation includes:

- Listing of MARR website on bcrecycles.ca.
- Participation in RCBC's Recycling Hotline providing free, province-wide live information service for recycling, pollution prevention, waste avoidance, safe disposal options and regulations.

- Access to Hotline information officers who field more than 80,000 inquiries each year, referring consumers to the appropriate organization and/or program.
- Use of the Recyclepedia Smart Phone app that provides information to consumers on where to recycle specific products.

In addition to continuing with the strategies above, MARR will also move forward with the following activities to advance consumer awareness around the major appliance recycling system in BC:

- Engagement with other stewardship agencies to leverage consumer awareness events and activities.
- Remote appliance stockpile recovery efforts, with a focus on community engagement and ongoing benefit.

Performance Monitoring and Reporting Commitments

Performance Measures

Consumer Awareness Metrics	<ul style="list-style-type: none"> • Percentage of surveyed adults in British Columbia that are aware that they can recycle large appliances.
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Performance Targets

MARR will target a consumer awareness level of 75% determined by an annual survey with a margin of error of less than +/-5%, 19 times out of 20. The results of the survey will be statistically weighted according to the most current demographics that ensure a sample representative of the entire adult population of BC.

If consumer awareness levels fall below the set target MARR will review the consumer awareness results and develop a consumer awareness plan to reach the target awareness level.

Reporting Commitments

MARR will report annually on the program’s consumer awareness level and in addition report on the educational materials and strategies, as well as:

- The number of unique visitors to MARR’s website.
- The number of RCBC inquiries for MARR program materials.

8. Management of Program Costs

MARR is funded by Administrative Program Fees (APFs) applied to the sale and supply of new major household appliances in BC, effective August 1, 2013. The APFs for different products are established by MARR having regard to the cost to recycle the materials contained in the product and the cost of administering the program generally. Current APFs for products covered under the plan are listed on MARR's website at <http://www.marrbc.ca/participants/products>.

APFs are reported and remitted to MARR on a calendar quarter basis by registered participants (i.e., manufacturers, distributors, retailers) who have joined MARR to fulfill their regulatory obligations. Currently, it is the decision of each participant on how to manage this business cost. APFs may be shown as a separate line item on the product invoice/receipt, incorporated directly into the price of the product or absorbed, at the discretion of the relevant participant(s). If an amount is charged by a MARR participant to its customer to recover the APF, the amount must not exceed the actual APF paid by the participant to MARR. Transparency of program costs and fees is an important principle to stakeholders, particularly consumers.

MARR is committed to providing reasonable and free collection to the public in accordance with the Ministry of Environment and Climate Change Strategy Guidance document "Producers Paying the Cost of Managing Obligated Materials and Dispute Resolution". MARR achieves this by following the procedures below:

1. Collectors are contractually obligated to accept all products covered by the plan at no cost to the consumer.
2. Collectors are paid a unit based Administrative Fee on a per contract basis. The fee is based on reasonable market rates with consideration to the market value of the commodity.
3. Through a competitive bid process each collector must hire qualified ODS removal technicians and MARR reimburses the cost of ODS removal to the collector.
4. The collector will sell the scrap metal as a commodity to cover the cost of transportation of MARR products to their end markets.
5. Should commodity values be insufficient to pay for the cost of transporting the Program Products to market, MARR will compensate the Collector for the difference between transportation invoices for the major appliance portion (by weight) of any load and the price received for the metal. The weight of the major appliance portion will be determined by using the average weight of the appliances reported by the Collector to be contained in that load as determined by MARR.

MARR does not collect deposits nor pay associated refunds for products covered under the plan.

Financial Risk Management Principles

In 2015, the Board of Directors passed a resolution to establish a Reserve Fund. The purposes of the Reserve Fund are as follows:

- To assist in stabilizing eco fees by being available to manage year to year revenue and costs due to volume fluctuations.
- To cover the costs of winding up the program by the decision of the members or because of regulatory change, in an orderly manner, not to exceed one year.
- To cover any claims against the program, Board of Directors or staff in excess of the program's insurance coverage.
- To cover the costs of any unanticipated or extraordinary items.
- To fund other special projects that enhances the recycling of major appliances.
- To fund the purchase of capital equipment.
- To cover the cost of managing products with long life spans, for which collection may occur well in the future.

Transfers to the fund are made upon resolutions passed by the Board of Directors. Total contributions to the Reserve Fund are targeted to be approximately one year’s operating expenses.

Rates for APFs are set by MARR and are subject to change as needed to address changing program costs and commitments, as well as annual surpluses or deficits. The Reserve Fund, however, serves as a transitional measure and/or source of funds to manage APFs during periods of program change as well as annual surpluses or deficits. APFs are reviewed by MARR on a regular basis to ensure there are sufficient funds to operate the stewardship plan and maintain the appropriate level of reserves, consistent with the MARR not-for-profit mandate..

MARR’s audited financial statements are also posted on the MARR website as part of its annual report. The Annual Report includes key financial information like revenues and expenditures along with additional performance measures such as number of large appliances sold and collected for recycling. This non-financial information will also be audited before being reported.

Performance Monitoring and Reporting Commitments

Performance Measures

Program Cost Management Metrics	<ul style="list-style-type: none">• Maintenance of a reasonable reserve fund as described in this plan.• Publishing independently audited financial statements annually
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Performance Targets

MARR should maintain a reasonable reserve fund that is expected to be around the annual budgeted operating cost of the program.

Reporting Commitments

MARR commits to producing and publishing independently audited financial statements annually, detailing revenues and expenditures for any fees associated with the approved stewardship plan that are charged separately and identified on the consumer receipt of sale.

The above information will be included in the agency’s annual financial statements. The financial statements will be appended to the agency’s annual report, which is published on the program website and accessible to the public at www.marrbc.ca.

9. Management of Environmental Impacts

MARR strives to promote the principles of the pollution prevention hierarchy where technically feasible and economically viable, to divert as much material as possible from the waste stream. Options and strategies employed by MARR and its member organizations for managing end-of-life major appliances based on the pollution prevention hierarchy are described below, along with factors influencing the decision-making process, and areas for further research and development or materials processing. In addition, improvements in GHG performance can be achieved from the proper recovery and reuse of ODS materials.

Pollution Prevention

Major appliance manufacturers continue to focus significant attention on incorporating Design for the Environment (DfE) principles into the manufacturing of home appliances, specifically:

- Reducing the amount of materials used in the manufacture of the products,
- Incorporating new low-to-no Global Warming Potential (GWP) refrigerant technology such as hydrofluoroolefins (HFOs) or hydrocarbon refrigerants like isobutane (r600a) and foam blowing agents,
- Increasing energy and water efficiency, and
- AHAM, in conjunction with the Canadian Standards Association (CSA) and Underwriters Laboratories (UL), has published and continues to work on developing home appliance product sustainability standards.

Manufacturers have eliminated the use of mercury switches and PCB containing capacitors, and continue to explore ways to reduce the amount and weight of material used in the manufacturing of appliances, as well as its packaging. Light-weighting of products results in lower transportation costs (both in the outbound supply chain and in the end-of-life supply chain), as well as improvements in GHG emissions. Efforts to improve the amount and weight of material used in the manufacturing of appliances must always be balanced against ensuring consumer safety and the overall protection and lifespan of the product.

Significant changes have and will continue to be made in the types of refrigerants and foam blowing agents used in refrigerators and freezers as manufacturers incorporate refrigerants and insulation with lower greenhouse gas impacts as mandated by new regulations in accordance with the Montreal Protocol along with U.S. and Canadian law. Manufacturers of home appliance refrigeration products have announced a goal to voluntarily phase out the use of hydrofluorocarbon (HFC) refrigerants in household refrigerators and freezers after 2024. Currently, many refrigeration products have already transitioned to low GWP refrigerants. This effort builds on a history of environmental stewardship that includes significant gains in energy efficiency and the phasing out of ozone depleting substances without losing efficiency gains.¹²

Likewise, industry is moving towards the use of low GWP foam blowing agents for the insulation of refrigeration products due to the lower greenhouse gas emission potential. In 2015, home appliance manufacturers, working closely with the U.S. Environmental Protection Agency (EPA), set a path to phase out the use of HFC foam blowing agents in refrigeration products by 2020. Environment and Climate Change Canada has proposed to phase out the use of foam blowing agents and refrigerants in

¹² Home Appliance Industry Sets Goal to Eliminate use of HFC Refrigerants (February 9, 2016), available at www.aham.org.

home refrigeration products with a GWP greater than 150 by January 2021 and January 2025 respectively.

Manufacturers have been able to reduce water consumption through design changes to dishwashers and innovations such as front-load and high efficiency top-load washers. Water consumption in dishwashers has been reduced by 37 percent (litres/cycle) between 1990 and 2009. Water usage in washers has also been reduced by 43 percent between 2005 and 2010. These reductions in water consumption also significantly reduce energy demand as there is less water to heat to perform the same cleaning task.

Significant gains in energy efficiency have also been made over the past 20 years. The average energy consumption of the typical set of major household appliances has declined by 50 percent since 1990. In December of 2016, Natural Resources Canada published an amendment to the Energy Efficiency Regulations which will establish more stringent energy efficiency standards for all major appliances and will finally align Canada's energy efficiency regulations with the U.S. Department of Energy's more stringent standards. Natural Resources Canada's Office of Energy Efficiency has released its Forward Regulatory Plan 2017-19 which includes updates or new minimum energy performance standards (MEPS) for dehumidifiers, microwave ovens, electric ranges, wine chillers, clothes dryers and portable air conditioners.

Because of these Canadian regulatory changes, annual energy consumption is estimated to be reduced by 4.1 petajoules (PJ) per year by 2020 and further reduced by 10.2 PJ per year by 2030. It is also estimated these amendments will reduce greenhouse gas emissions by 0.8 Mt by 2030. The ENERGY STAR program continues to be an important influence on appliance efficiency with new product specifications for clothes dryers and washers in 2015, and dishwashers in 2016.

In addition to the above DfE activities, the AHAM is currently engaged in the development of Sustainability Standards for household appliances. In conjunction with CSA and UL, sustainability standards for household refrigeration, cooking, clothes washers, clothes dryers, and room air conditioners have already been published, with other appliance standards currently under development.

In January of 2015, the AHAM 7001-2014/CSA SPE-7001-14/UL 7001, *Sustainability Standard for Household Refrigeration Appliances*, and in February 2016, the AHAM 7003/CSA R7003-16/UL 7003, *Sustainability Standard for Household Clothes Washers* received national accreditation under the American National Standard Institute (ANSI) and Standards Council of Canada (SCC) as approved National Standards for the U.S. and Canada. The Standard is based on a lifecycle approach for identifying the environmental impacts of refrigeration products in five key areas: energy, materials, end-of-life, performance and manufacturing. These and other standards use a broad multi-attribute approach that draws on life cycle assessment and hot button analysis as well as other key factors that influence product environmental performance. These sustainability standards are published jointly by the CSA, UL and AHAM.

Reuse and Recycle

According to research conducted for the System Study completed by MARR in 2014 (reflecting the 2013 fiscal year), 99.9 percent of major appliances have a lifespan of between 10 and 20 years.¹³ This long life often results in a product having many different owners over its lifetime, usually facilitated by a used appliance retailer or refurbisher. Refurbishers are organizations involved in appliance reuse or the reuse of parts. They generally receive used major appliances from commercial generators or through retailers. The main goal of the refurbisher is to resell the unit into the second-hand market, or at least use some of the parts for appliance repair.

Once an appliance is retired, or reaches end-of-life, it enters the collection system described above in Section 6. Major appliances are primarily metal (both ferrous and non-ferrous) with smaller amounts of other materials like glass, rubber, foam, paper, electronics, refrigerants, oils and other substances where applicable. Currently there are two mechanical processing facilities in BC that utilize shredders to break up scrap metal, including major appliances. The shredded material is then sorted and ferrous and non-ferrous metals are separated from other materials such as plastic and foam.

The material composition of major appliances is reported to be approximately 75 percent metal. Of this metal, processors report that 98 percent of the ferrous and non-ferrous metal that enters the shredder is recovered and recycled back into the commodities market.¹⁴

Pollution Control and Disposal

Prior to shredding, products undergo decommissioning to remove refrigerant and to look for any other substances of concern. In general, the System Study identified that refrigerant was extracted responsibly, but some gaps remained. Most retailers surveyed transferred major appliances with refrigerant to secondary collectors, and most processors had onsite staff to perform refrigerant removal. At local government sites that accept appliances with refrigerants, most contracted out the removal of refrigerants as part of the scrap metal removal contract. Refrigerant removal generally occurred at the first location to receive the appliance. The refrigerant was removed by a Technician and subsequently sent for recycling or destruction. In 2016, MARR continued conversations with local governments and other industry stakeholders to explore ways to increase the availability and accessibility to qualified technicians for the safe removal of refrigerants, with a focus on rural and remote communities.

Very few appliances reaching end of life contain mercury switches or PCBs though some contain heavy metals (e.g., circuit boards), mercury (i.e., fluorescent lights), compressor oil and polyurethane foam (i.e., insulation).

Material End Fates and Product and/or Material Processing Pathways

Table 3 illustrates the downstream management process for each material stream (based on results from the System Study).

¹³ Based on findings from a 2005 report produced by R.W. Beck and Weston for the Association of Home Appliance Manufacturers titled “Recycling, Waste Stream Management and Material Composition of Major Home Appliances” referenced in MARR’s “Study on the Operations and Effectiveness of the Major Appliance Collection and Recycling System in British Columbia”. The study also included weighted average composition for new and old appliances.

¹⁴ Based on survey responses from the two processors in BC currently operating shredders.

Table 3: Downstream Management Process of Materials Streams

Material Commodity	Recycled	Landfilled	Safely Destroyed
Ferrous Metal	X		
Non-Ferrous Metal	X		
Plastic		X	
Refrigerant	X		X
Other		X	

It is estimated that 74 percent of materials are recycled (mostly ferrous and non-ferrous metal). The remaining 26 percent, including plastic, glass, rubber and foam, does not undergo further processing, and is currently sent to landfill.¹⁵ MARR continues to examine the management of shredder residue and identify opportunities for achieving higher end uses of residual materials. For example, in some cases, plastic residuals may be sent to waste-to-energy facilities. In 2017, MARR met with other stewardship organizations and metal recyclers to discuss this issue and will continue to consider options for achieving higher end uses of residual materials. Metal recyclers are continually upgrading equipment and processes to minimize shredder residuals.

Program Environmental and Safety Risk Management and Due Diligence

In 2016, MARR completed the development of a Major Appliance Processing Standard to ensure the proper decommissioning of end-of-life appliances and the safe handling of substances of concern, including mercury switches and refrigerants. MARR met with private scrap metal facilities across the province to promote and encourage adoption of the standard.

Initially, the intention was to have the collectors of major appliances (retailers, municipalities etc.) to agree to decommission the appliances they collect in accordance with the standard, or require their processors to whom they sell or provide their appliances to be certified against the standard. Part of this framework includes a certification and audit program to ensure that applicable processors are processing appliances in accordance with the standard. MARR initially approached collectors to obtain agreement with such a standard in 2015, but received little response. As a result, MARR introduced the Voluntary Processing Standard in 2016.

The following list of metal collection facilities are signatories to the MARR Voluntary Processing Standard.

¹⁵ Ibid.

Table 4: List of Metal Collection Facilities that are Signatories to the MARR Voluntary Processing Standard

Name	City
<u>B-Line Appliance Recycling</u>	Vancouver
<u>Fraser Valley Metal Exchange</u>	Maple Ridge
<u>Regional Recycling</u> – (Old Victoria Road)	Nanaimo
<u>Regional Recycling</u> – (Hayes Road)	Nanaimo
<u>Happy Stan's Recycling Services Ltd.</u>	Port Coquitlam
<u>Everclear Recycling</u>	Mission
Smokey Creek Salvage Ltd.	Nelson
<u>Alberni Clayoquot Regional District (West Coast Landfill)</u>	Ucluelet
<u>Alberni Valley Landfill</u>	Port Alberni
<u>Allied Salvage And Metals Ltd.</u>	Richmond
ASM Squamish Scrap Metal Ltd.	Squamish
Thorsen Creek Waste & Recycling Depot	Bella Coola
<u>Capt'n Crunch Auto Wrecking Ltd.</u>	Abbotsford
<u>ABC Metals Recycling</u>	Campbell River
<u>ABC Metals Recycling</u>	Burnaby
<u>ABC Metals Recycling</u>	Prince George
<u>ABC Metals Recycling</u>	Surrey
<u>ABC Metals Recycling</u>	Kelowna
<u>ABC Metals Recycling</u>	Terrace
<u>ABC Metals Recycling</u>	Fort St. John
<u>ABC Metals Recycling</u>	Nanaimo
<u>Schnitzer Steel</u>	Cassidy
<u>Schnitzer Steel</u>	Campbell River
<u>Schnitzer Steel</u>	Victoria
<u>Schnitzer Steel</u>	Surrey
<u>Schnitzer Steel</u>	Duncan
<u>Williams Scrap Metal Recycling</u>	Victoria

Performance Monitoring and Reporting Commitments

Performance Measures

Environmental Management Metrics	<ul style="list-style-type: none">• Safe removal of ODS gas from all units collected that contain refrigerant gasses used for cooling purposes.• Report the percentage of units collected that had the ODS gas removed prior to collection.
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Performance Targets

The safe removal of ODS gas from all units collected that contain refrigerant gasses used for cooling purposes. Safe handling is defined as removal of ODS gas by technician that possesses a valid certificate number for refrigerant handling under current BC regulation and the reporting of weight, tank numbers and certificate of destruction/recycling to MARR on a timely basis.

Reporting Commitments

MARR commits to reporting annually on the following:

- Report the percentage of units collected that had the ODS gas removed prior to collection.
- The procedures for safe handling and disposal of ODS gasses.
- Efforts taken by or on behalf of producers to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the lifecycle.
- A description of how the recovered product was managed in accordance with the pollution prevention hierarchy, including:
 - Conformance with acceptable product and/or material end disposition.
 - Program environmental and safety risk management practices and due diligence processes for the collection and processing of product(s) and/or material(s).
- A status update with respect to industry adoption of the major appliance processing standard.

10. Dispute Resolution

Should any disputes arise involving MARR with respect to the implementation of the product stewardship plan, MARR will first discuss the issue directly with the involved party, and may pursue standard commercial legal procedures should the need arise, including mediation, arbitration and civil proceedings, where necessary. Prior to any commercial legal procedures a dispute should be made in writing to: Major Appliance Recycling Roundtable, 100 - 4259 Canada Way Burnaby, BC V5G 4Y2

This dispute resolution procedure was made with regard to the Ministry of Environment and Climate Change Strategy Guidance document “Producers Paying the Cost of Managing Obligated Materials and Dispute Resolution” and MARR commits to a timely and staged approach to all dispute resolutions.

11. Performance Monitoring and Reporting Commitments

The following table summarizes the performance monitoring and reporting commitments outlined in this stewardship plan.

Performance Measure	Target and/or Reporting Commitments	NFA
<i>Governance</i>		
Changes to Operating Structure and Board of Directors	Report annually	N
<i>Collection System and Consumer Accessibility</i>		
<i>Number of units collected</i> <i>Number of units sold</i>	Report annually	
<ul style="list-style-type: none"> • Collection accessibility: <ul style="list-style-type: none"> ○ Accessibility to free drop-off locations for more than 90 percent of the BC population ○ Number of facilities providing free and reasonable collection province-wide ○ Facilities for each regional district ○ Rural/urban regions ○ Facilities for each regional district ○ Rural/urban regions ○ Different types of products 	Report annually Achieve accessibility to free drop-off locations for more than 90 percent of the BC population	Y

<ul style="list-style-type: none"> • The total amount of the producer’s product sold • The total amount of the producer’s product collected • The total amount of the product recovered in each regional district • The total amount of the product recovered per capita for each regional district and for the province • The varying collection performance for the sub-categories of products covered under the stewardship plan and the actions that will be taken to increase the collection of these products • The location of collection facilities, and any changes in the number and location of collection facilities from the previous report • Identified under-served areas or regions with lower than average collection and the actions that will be taken to address collection in 	Report annually.	Y
<p>Underserved areas (e.g., funded collection and awareness events, etc.)</p> <ul style="list-style-type: none"> • Information from local government waste composition analysis identifying the kilos per capita for program materials (if or as available) 		
<i>Consumer Awareness</i>		
<ul style="list-style-type: none"> • Percentage of surveyed adults in British Columbia that are aware they can recycle large appliances. 	Reported annually, MARR will target a consumer awareness level of 75% determined by an annual survey with a margin of error of less than +/-5%	
<p>MARR will report on the program’s consumer awareness level and in addition report on the educational materials and strategies, as well as:</p> <ul style="list-style-type: none"> • The number of unique visitors to MARR’s website • The number of RCBC inquiries for MARR program materials 	Report annually.	
<i>Financial Management</i>		
<ul style="list-style-type: none"> • Maintenance of a reasonable reserve fund 	<p>MARR should maintain a reasonable reserve fund that is expected to be around the annual budgeted operating cost of the program.</p> <p>Publish independently audited financial statements annually.</p>	

<p>MARR commits to producing and publishing independently audited financial statements annually, detailing:</p> <ul style="list-style-type: none"> • Revenues and expenditures for any fees associated with the approved stewardship plan that are charged separately and identified on the consumer receipt of sale. 	Report annually.	
<i>Environmental Management</i>		
<ul style="list-style-type: none"> • Safe Removal of ODS gas from all units collected that contain refrigerant gasses used for cooling purposes. • Report the percentage of units collected that had the ODS gas removed prior to collection. • 	Removal of ODS gas from all units collected that contain refrigerant gasses used for cooling purposes.	Y
<ul style="list-style-type: none"> • Efforts taken by or on behalf of the producer to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the life cycle • A description of how the recovered product was managed in accordance with the pollution prevention hierarchy. 	<p>Report annually.</p> <p>Collectors will be required to adopt the MARR Processing Standard for Recyclers of Major Appliances in order to become Qualified Collectors and be eligible to receive incentives.</p>	

APPENDIX A: Consultation Summary

The following stakeholder groups were consulted during the stewardship planning process:

1. **Retailers and Manufacturers**, representing MARR member producers.
2. **Local Governments**, representing regional districts, municipalities and First Nation governments.
3. **Metal Recyclers/Processors**, including companies involved in scrap metal collection, processing, consolidation and resale, as well as service providers trained in the removal of harmful substances from end-of-life major appliances.
4. **Non-Profit Organizations**, including those involved in the recycling system in BC.
5. **Other stakeholders**, including representatives from the provincial government and other interested parties.

A summary of consultation activities and proceedings, as well as responses to feedback received on the draft stewardship plan, are included in the following sections.

Initial Cycle of Consultations

Prior to drafting the updated stewardship plan, over the period of April 25th to May 30th, 2017, MARR undertook early consultation efforts that informed the development and direction of the plan. This included the following:

- A webinar focus group with the Local Government Advisory Council (LGAC);
- Interviews with metal recyclers/processors and ODS removal contractors; and
- A webinar focus group with representatives from First Nations communities.

A summary of the comments that emerged from these early consultations is included in the tables below.

Local Government Advisory Council Webinar Focus Group
<p>Participants noted the following with respect to the management of end-of-life major appliances:</p> <ul style="list-style-type: none">• The transportation of recyclables, including the availability and frequency of metal pickup, is influenced by cost, storage and geographic factors.• Fluctuations in metal market prices can lead to rural and remote communities viewing scrap metal from major appliances as a liability rather than an asset.• The storage of recyclable appliances in urban areas is impacted by the availability of space, and in rural and remote communities there can be stockpiling due to challenges around ODS removal as well as transportation.• The disposal of hazardous substances, particularly in rural and remote communities, depends in part on the access to ODS removal contractors.• Illegal dumping in urban areas can be a transportation related issue, while others perceive this as a public awareness along with education challenge.

Interviews with Metal Recyclers/Processors and ODS Removal Contractors

These interviews suggested that:

- There is little financial benefit to handle ODS containing appliances, as reflected in these same appliances not being accepted by all metal recyclers and processors. This may also be a factor preventing new entrants in seeking the necessary qualifications.
- Compliance within the industry could be improved with respect to the removal of hazardous substances prior to processing.

First Nations Webinar Focus Group

Participants noted that:

- There are challenges with the removal of hazardous substances from end-of-life major appliances, as well as more broadly around the handling and storage of recyclables in remote communities.
- Transportation of recyclable major appliances is impacted by communities incurring costs in collection, processing and transportation.
- Low metal market prices combined with the long distance between communities and recyclers and salvagers, makes it difficult to recuperate costs.

In response to the above feedback, MARR outlined two key commitments in the draft stewardship plan to enhance the existing collection system for major appliances in BC. As outlined in Section 6, these commitments include the following:

1. *MARR will establish and provide an incentive program to mitigate market barriers to the removal of ODS from major appliances dropped off at local government collection sites. This will allow the products to be crushed or shredded on site for easier transportation to metal recyclers, and will also allow for improved data and reporting with respect to the number of appliances processed and collected.*

In addition to these steps, MARR will compile and maintain a list of trained ODS removal technicians, along with their regional service coverage, and will post this information on the MARR website.

2. *MARR will work to remove barriers related to transport associated with the collection and pick-up of appliances and scrap metal (resulting from the compaction or shredding of major appliances) from local government collection sites. Of concern is the issue that products are currently being “stockpiled” in rural and remote areas of the province.*

Recognizing that BC’s geography is varied, and having heard from local governments that they have differing needs based upon their location, MARR will operationalize these commitments in close consultation with impacted local governments. This is a recognition that one solution may not work for all communities, and that different communities have different operational models and requirements.

Second Cycle of Consultation on the Draft Plan

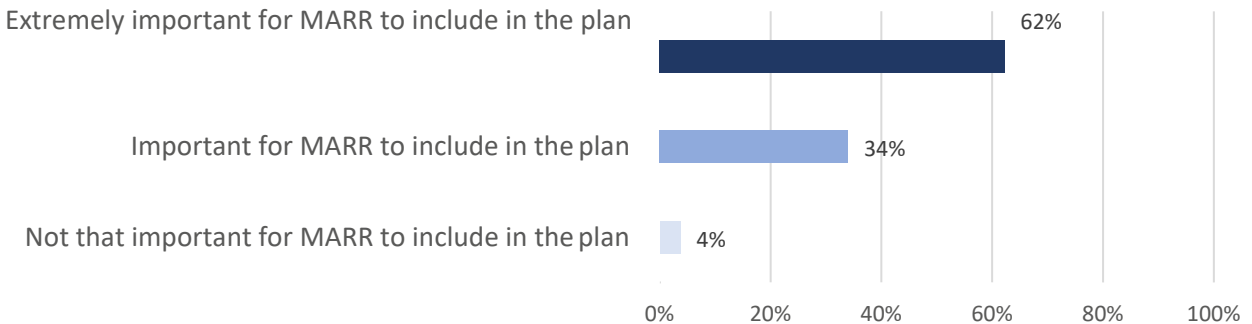
Following the initial consultation, the plan was drafted and posted online for public comment between June 5th and June 23rd, 2017. MARR consulted with a range of stakeholder groups during this period to discuss the draft plan and collect feedback for consideration, taking the form of:

- An online webinar consultation session with members of the BC Product Stewardship Council;
- An online webinar and in-person consultation session with members of the interested public, including representatives from retailers and manufacturers, metal recyclers/processors, local government, provincial government, non-profit organizations and others;
- A follow-up teleconference with the Local Government Advisory Council (LGAC); and
- Written submissions received by email.

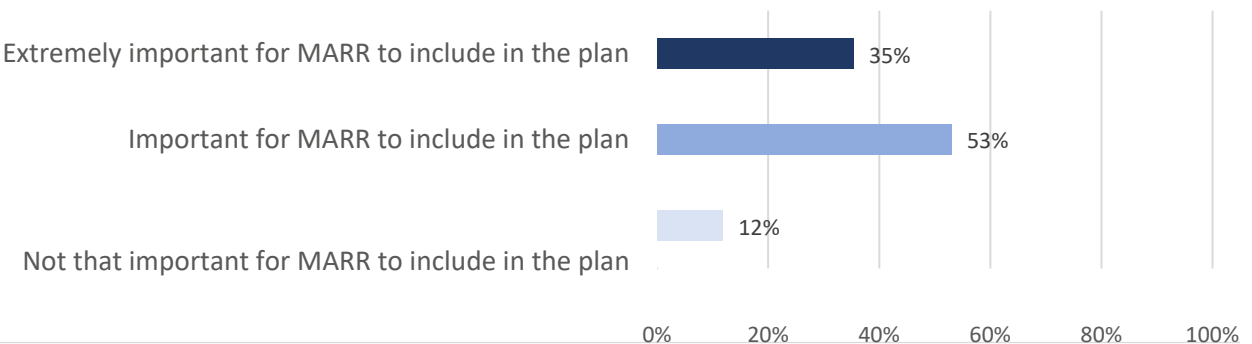
The webinar and in-person consultation sessions included a series of polling questions with respect to the commitments outlined in the draft plan. In total, 57 participants provided responses to the polling questions.

As part of the polling, participants were asked to indicate the extent to which each of the following commitments was important to include in the plan. Those commitments with the greatest support from stakeholders included the provision of an incentive for ODS removal (62 percent indicating this as “extremely important” to include in the plan), and addressing barriers to transportation (56 percent indicating this as “extremely important” to include in the plan).

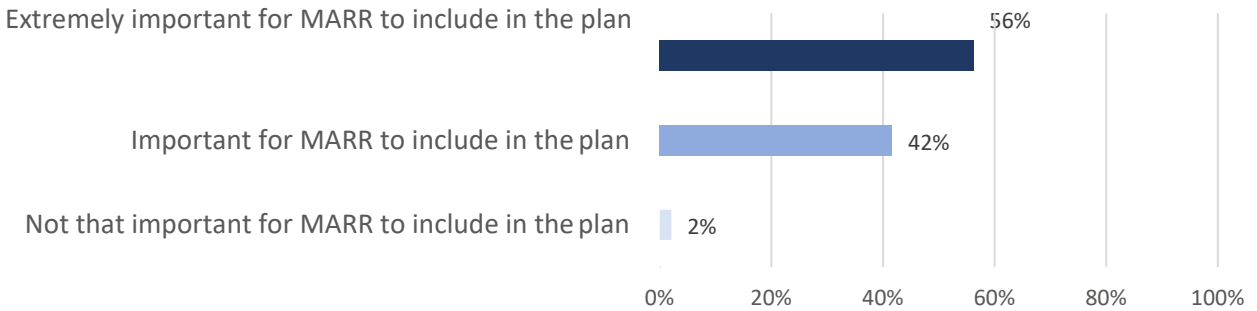
1. Commitment to establish an incentive program to mitigate barriers to the removal of ozone depleting substances (ODS)



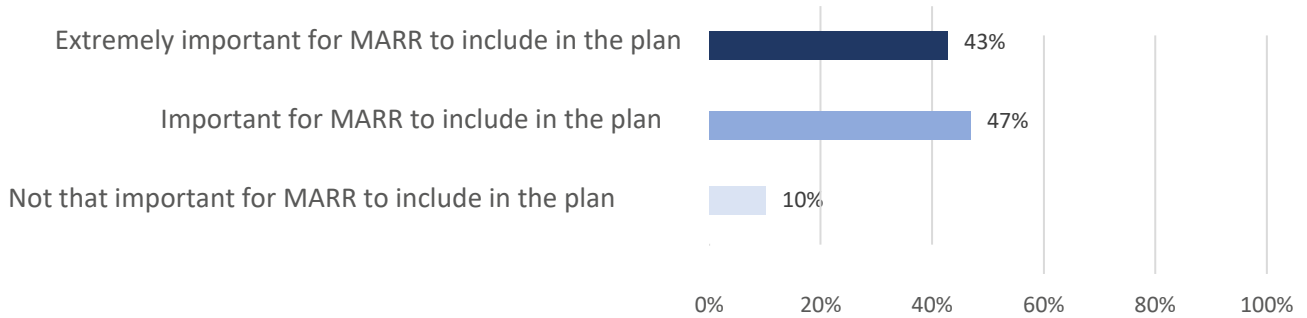
2. Commitment to maintain a list of trained ODS removal technicians



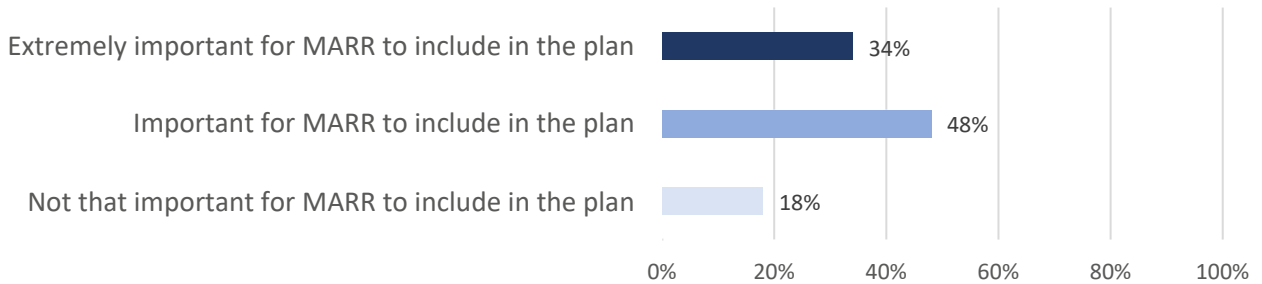
3. Commitment to address barriers to transport major appliances from local government waste disposal sites



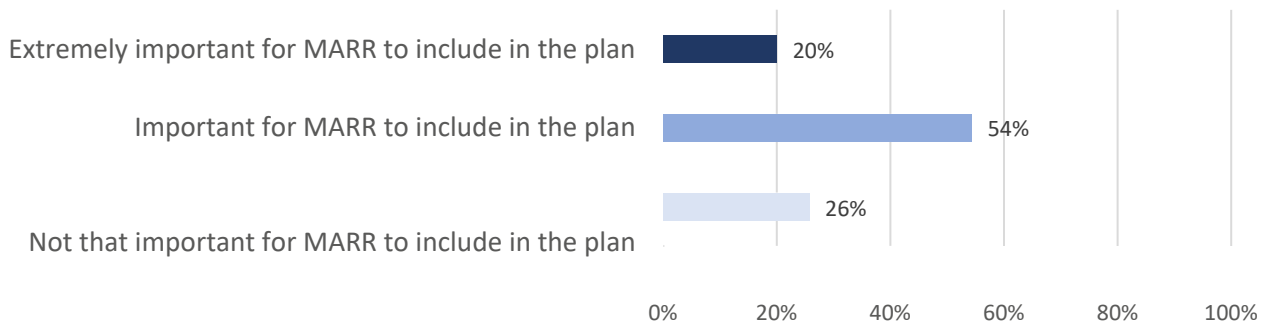
4. Commitment to advance consumer awareness of major appliance recycling



5. Commitment to report on how industry manages environmental impacts



6. Commitment to encourage and report on the adoption of the voluntary processing standard



Additional feedback received from stakeholders during consultation on the draft stewardship plan is summarized in the following tables, along with MARR’s consideration of and response to the feedback in finalizing the plan.

BC Product Stewardship Council Consultation Session (Webinar)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> Participants indicated that a commitment to establish a program to mitigate barriers to the removal of ODS, while important to include in the plan, should be clarified including specific reference to financial incentives. 	<p>In deliberating the options, it was considered that BC has a diverse geography and local governments across the province have different needs, such that an effective incentive program wouldn’t necessarily be ‘one size fits all’. MARR will work with the affected stakeholders in the implementation of this commitment, and has included language to support this in the finalization of the plan.</p>
<ul style="list-style-type: none"> Some participants noted that they are required to go to tender to seek contractor services for ODS removal, so a list of these contractors would be minimally helpful, while others noted they could reference an approved list. 	<p>MARR recognizes that local governments will have different needs. The implementation of plan commitments is intended to support local governments that currently contract this service, as well as those with difficulty accessing qualified technicians.</p>
<ul style="list-style-type: none"> Participants noted they were looking for additional details in relation to MARR’s commitment around addressing transportation challenges for local governments, suggesting MARR look to a model in which local governments collect end-of-life appliances for a fee, and MARR assumes responsibility for transporting them to processors while also taking on the risks associated with metal market fluctuations. 	<p>MARR recognizes the challenges incurred by local governments in transporting end-of-life major appliances and in managing metal market fluctuations, and recognizes that these challenges may differ across regions of the province. MARR intends to work with impacted parties to identify potential implementation options to remove transportation barriers, recognizing that one solution may not work for all.</p>
<ul style="list-style-type: none"> As an Extended Producer Responsibility program, it was raised that MARR should not be advertising facilities unless they are at no cost (i.e. currently MARR’s website directs consumers to local depots that may charge tipping fees and ODS removal fees and are not free for consumers to access). Furthermore, it was noted that illegal dumping (while a legal matter) would be reduced if governments or private businesses were able to provide a sustainable and free drop off service for materials covered by the program. Lastly, it was suggested that for customers wishing to learn about the disposal/recycling fees for MARR program materials, the disclaimer that is inserted below the map on the Collection Site 	<p>MARR reviews the listing of collection facilities on an ongoing basis to ensure the information reported is accurate and up-to-date, and will incorporate the suggestion to add the disclaimer referenced on the “Consumers-How to Recycle” webpage for additional clarity. As noted in Section 6, MARR is also committed to improving the existing collection system and in ensuring reasonable and free consumer access to collection facilities. Actions outlined in this plan were developed with the intention of supporting the achievement of this desired outcome.</p>

BC Product Stewardship Council Consultation Session (Webinar)	
Feedback Received on Draft Stewardship Plan	Response from MARR
Locator be clearly communicated and inserted in the “Consumers–How to Recycle” page of the MARR website.	
<ul style="list-style-type: none"> Participants suggested that commitments on reporting industry initiatives to manage environmental impacts are not as important as addressing cost-related issues for local governments including regional districts. 	MARR recognizes the importance of cost-related issues for local governments, and have made commitments in the plan to work towards alleviating some of these challenges.
<ul style="list-style-type: none"> Participants viewed the voluntary processing standard as secondary or lower in importance relative to addressing the cost-related issues for local governments including regional districts. 	MARR recognizes the importance of cost-related issues for local governments, and intends to work in consultation with local governments on the implementation of commitments included in the plan.
<ul style="list-style-type: none"> Participants expressed concern with respect to the reporting accuracy of MARR’s stewardship plan as it relates to collection estimates with a related comment being that it would also be useful to see unit recovery rates posted rather than percentages. 	MARR’s collection estimates are based on the System Study Update conducted annually, with data collected from a sample of collection facilities. Estimated total volumes of collected material by weight are reported as part of the System Study Update.
<ul style="list-style-type: none"> A participant suggested that the MARR plan include additional studies for tracking the product pathways that are not directly managed by the stewardship program, such as behavioural surveys and waste composition studies. 	MARR conducts a System Study Update annually that reports on the estimated weight of products collected through unmanaged pathways. MARR also has access to waste composition studies commissioned by the Stewardship Agencies of BC, and will monitor these reports for products covered under the stewardship plan.
<ul style="list-style-type: none"> A local government participant highlighted how annual recycling data is provided to their Board and communities by the end of March each year, thus it would be helpful to obtain the stewardship earlier rather than in June or July. 	The timelines for reporting on the MARR program follows the requirements set by the Ministry of Environment, and is not determined independently by MARR.

Public Consultation Session (Webinar)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> Participants suggested that the commitment to establish an incentive program to mitigate ODS removal costs: <ul style="list-style-type: none"> Needs to consider the circumstances of local governments including regional districts (e.g., a local government participant indicated they want to continue collecting major 	MARR will work with the affected stakeholders in the implementation of the ODS incentive program, as it is recognized that the needs of local governments may vary due to regional and other differences. Further, the commitment to provide an incentive for ODS removal is intended to enhance the performance of the

Public Consultation Session (Webinar)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<p>household appliances at local depots, but the costs make it a challenge).</p> <ul style="list-style-type: none"> ○ Is an area in which MARR can do more as many local governments are incurring the costs or passing costs onto consumers (e.g., tipping fees, ODS removal fees). 	<p>existing system, including accessibility to free drop off facilities.</p>
<ul style="list-style-type: none"> • Participants noted the commitment to maintain a list of trained ODS removal technicians will be helpful to some local governments; and, that while a number of local governments would like to see MARR contracting directly with ODS removal technicians and paying the costs for removal, others already have qualified staff who received the necessary training. 	<p>MARR recognizes that BC has a diverse geography and local governments across the province will have different needs. MARR will consult with affected stakeholder on the implementation of plan commitments, and will consider options to support local governments that currently contract this service, as well as those with qualified technicians.</p>
<ul style="list-style-type: none"> • While participants were in support of a commitment to address barriers to transport major appliances from local government collection sites, they suggested it was not specific enough (e.g., an action plan could be described for this item). 	<p>MARR recognizes the challenges incurred by local governments in transporting end-of-life major appliances, and notes that these challenges are expected to differ across local governments. MARR intends to work with impacted parties to identify potential implementation options to remove transportation barriers, recognizing that one solution may not work for all.</p>
<ul style="list-style-type: none"> • Participants noted a lack of specificity around the plan’s consumer awareness commitment, suggesting it would be helpful to know if the commitment refers to advancing awareness on (1) where to recycle, or (2) awareness of MARR as a stewardship organization. It was also suggested that the plan should include more detail around how MARR plans to undertake the commitment. 	<p>The draft plan has been revised to include a detailed consumer awareness performance measure and related targets, based on survey data available through the Stewardship Agencies of BC. Specific actions towards achieving the targets will be determined upon implementation of the plan.</p>
<ul style="list-style-type: none"> • Participants suggested that the commitment to report on how industry manages environmental impacts is critical; and that MARR should draw alignment between the administrative program fees it collects and how this relates to environmental impacts. 	<p>MARR will continue to report on how industry manages environmental impacts. Future reporting will also include information on volumes of ODS removal facilitated through the program.</p>
<ul style="list-style-type: none"> • Session participants noted there is not enough awareness of the voluntary processing standard. It was suggested that the voluntary 	<p>Initially, the intention was to have collectors of major appliances (retailers, municipalities, etc.) agree to decommission the appliances they</p>

Public Consultation Session (Webinar)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<p>standard should be made mandatory, reaffirming the commitment to the environment. Metal recyclers/processors expressed some concern with respect to industry compliance with the standard, but also noted how materials are being handled safely and in compliance with all legislated processing requirements.</p>	<p>collect in accordance with the standard, or require their processors to whom they sell or provide their appliances to be certified against the standard. MARR will continue to educate processors on the Voluntary Processing Standard, and on the proper handling of substances of concern.</p>
<ul style="list-style-type: none"> • A concern was raised with regard to the reporting out on the volume of recyclables collected in the absence of all collectors submitting their numbers to MARR. Local government participants also expressed concern about system accessibility as many facilities charge tipping fees. 	<p>The collection estimates reported are based on data from a sample of collection facilities. Moving forward, and as the plan commitments are operationalized, MARR intends to provide enhanced reporting on materials collected through the program (e.g. volumes of ODS removal). Further to this, and as noted in Section 6, MARR is committed to improving the existing collection system including ensuring reasonable and free consumer access to collection facilities.</p>
<ul style="list-style-type: none"> • Participants reiterated how the value of scrap metal can make it difficult to recoup costs incurred through collection; and, that MARR should take on more ownership over the collection and transportation of end-of-life major appliances (e.g., providing depots with a collectors fee). 	<p>MARR recognizes the challenges incurred by local governments in managing transportation costs and metal market fluctuations. MARR intends to work with impacted parties to identify potential implementation options in alleviating transportation barriers, recognizing that one solution may not work for all.</p>

Recycling Council of BC Conference Consultation Session (In-Person)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> • Participants suggested that providing an incentive program for ODS removal was an important step for MARR, but wanted more details about the incentive, along with the assurance that the incentive program would cover the full costs of administering the program and be tailored for different regions of the province. 	<p>Recognizing that BC has a diverse geography and local governments across the province have different needs, MARR understands that an effective incentive program wouldn't necessarily be 'one size fits all'. MARR will work with the affected stakeholders to operationalize the incentive program for ODS removal, and has included language to support this in the finalization of the plan.</p>
<ul style="list-style-type: none"> • Participants indicated that maintaining a list of trained ODS removal contractors was an important activity for MARR to undertake, but cautioned that training of ODS removal technicians may not solve the issue, given that there may not be enough work to sustain the 	<p>MARR understands the complexities with respect to the accessibility of trained service providers, and will work with local governments to develop an incentive program that alleviates some of challenges with respect to ODS removal. MARR will also review the</p>

Recycling Council of BC Conference Consultation Session (In-Person)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<p>business. Other participants suggested that ODS removal should be entirely MARR's responsibility.</p>	<p>implementation of this commitment with respect to the achievement of desired results, and may adjust the program over time to better suit the needs of system stakeholders.</p>
<ul style="list-style-type: none"> MARR's commitment to remove barriers to transportation was seen by all participants as important to include in the plan. Some participants suggested that transportation is not a "barrier" for local governments, but rather is a cost that is being borne by local governments from handling scrap metal, which is influenced in turn by market price fluctuations. For others, it was a matter of MARR taking responsibility for materials, with the participation of local governments as optional. 	<p>MARR recognizes that local governments may incur costs associated with the transportation of appliances from their collection sites, and that such costs associated with transportation will differ across the province. MARR intends to work with impacted parties to identify potential implementation options for removing transportation barriers, recognizing that one solution may not work for all. In addition, MARR will review the implementation on an ongoing basis to ensure it is addressing stakeholder needs while improving the performance of the current system.</p>
<ul style="list-style-type: none"> It was questioned how the MARR program will address non-government, non-profit depots that accept major appliances. 	<p>Non-government, non-profit depots represent a relatively small percentage of the current collection system. The immediate priority for MARR in the current plan is in addressing the challenges that relate to collection facilities operated by local governments, in order to maintain the strong performance of the current system with respect to accessibility, collection and capture rates.</p>
<ul style="list-style-type: none"> Consumer awareness was a priority for most participants based on polling, although some perceived the current level of public awareness to be sufficient. Participants suggested that MARR should increase consumer awareness through promotion of less-known products covered by the stewardship program. 	<p>MARR intends to further consumer awareness through the commitments outlined in this plan, and will report annually on the program's educational materials and related strategies.</p>
<ul style="list-style-type: none"> Reporting on how industry manages environmental impacts was seen as somewhat important for MARR to focus on, with related suggestions to set an advanced disposal fee that covers all aspects of handling of end-of-life materials. Concern was also expressed that energy star appliances are increasingly composed of non-metal material (plastic and foam), and that repair costs may prevent products from second use. 	<p>MARR will continue to report on how products are managed according to the pollution prevention hierarchy, including Design for the Environment principles, as well as secondary use and material end fates. MARR also recognizes that producers play a role in reducing the costs and environmental impacts associated with end-of-life recycling (e.g., the transition towards the use of new no-to-low Global Warming Potential refrigerant technologies).</p>

Recycling Council of BC Conference Consultation Session (In-Person)	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> The commitment to report on the voluntary processing standard was seen as important, however most stakeholders, including manufacturers, would like to see a mandatory processing standard in place coupled with the knowledge that processors are following regulations. 	Initially, the intention was to have collectors of major appliances (retailers, municipalities, etc.) agree to decommission the appliances they collect in accordance with the standard, or require their processors to whom they sell or provide their appliances to be certified against the standard. MARR will continue to educate processors on the Voluntary Processing Standard, and on the proper handling of substances of concern.
<ul style="list-style-type: none"> Concern was expressed over the reporting of diversion rates given available data, particularly in situations where appliances are piled, crushed and bailed. 	MARR's collection estimates are based on the System Study Update conducted annually, with data collected from a sample of collection facilities. The weight of materials is used as it is difficult to track unit appliances collected for these reasons.
<ul style="list-style-type: none"> For urban areas, it was questioned how the incentives may be applied when recyclers collect, pick up, maintain and resell appliances to residents. 	The commitments in the plan relate to the end-of-life processing of major appliances, and therefore are not intended to address secondary use and repair. MARR recognizes that there is an effective existing market-based system in place for secondary use, especially in urban areas of the province.

Written Submissions to Public Posting of Draft Plan	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> Several respondents noted support for MARR to undertake a communications campaign to increase awareness of the program at point of sale, and to target the illegal dumping of appliances. 	MARR plans to increase consumer awareness through the commitments outlined in this plan. MARR will report annually on the program's educational materials, strategies and program priorities. Dumping is a criminal activity, and outside the direct responsibility of MARR as a stewardship agency.
<ul style="list-style-type: none"> A number of respondents noted administrative program fees as an area to revisit, notably the alignment between the fees being collected and MARR's stewardship activities, while retailers also stressed the need to keep the eco-fee affordable. 	Rates for administrative program fees are set by MARR and are subject to change as needed to address changing program costs and commitments. MARR acknowledges that transparency with respect to program costs is important to stakeholders, including consumers, and will ensure any changes to administrative program fees are communicated appropriately.
<ul style="list-style-type: none"> A few local government respondents noted concern around the illegal dumping of appliances, with some suggesting this is an 	Illegal dumping is by its very nature a criminal activity, and outside the direct responsibility of MARR as a stewardship agency. Though, as

Written Submissions to Public Posting of Draft Plan	
Feedback Received on Draft Stewardship Plan	Response from MARR
<p>increasing problem. A specific area of note were the costs associated with illegal dumping and whether local governments would be compensated for collection.</p>	<p>noted in Section 6, MARR is committed to improving the existing collection system and in ensuring reasonable and free consumer access to collection facilities which in turn may help alleviate the challenge of illegal dumping.</p>
<ul style="list-style-type: none"> Several respondents noted a need to better track recovery rates, moving from estimates to more accurate statistics on the collection and recycling of end-of-life major appliances (i.e., collectors and depots have not been asked to keep records or report to MARR on volumes and reporting incentives are not offered). A few municipalities were willing to work in partnership with MARR to achieve better tracking through a formalized collection process. 	<p>The collection estimates reported are based on data collected from a sample of collection facilities. Moving forward, and as the plan commitments are operationalized, MARR intends to provide enhanced reporting on materials collected through the program (e.g. volumes of ODS removal).</p>
<ul style="list-style-type: none"> A number of local government respondents suggested cost recovery was a challenge, particularly for more remote regions. These respondents noted they often take on the cost of scrap metal removal, relying on the charging of tipping fees, ODS removal fees, and sometimes metal market prices to recoup the expense of collection, storage, decommissioning and transport of end-of-life major appliances. Added to this was the concern that scrap metal prices may not fully mitigate the costs incurred in collecting MARR program materials. 	<p>MARR recognizes the importance of cost-related challenges for local governments including regional districts, and plans to work with local governments in the implementation of the plan towards alleviating some of these challenges.</p>
<ul style="list-style-type: none"> A few written submissions noted geographic challenges unique to more remote areas of BC, with recyclers unwilling to pick up scrap metal, difficulties accessing ODS removal services, and the high cost of ODS removal and transportation of end-of-life major appliances. 	<p>Recognizing that BC has a diverse geography and local governments across the province have different needs, MARR plans to consult with affected stakeholders on the implementation of plan commitments, and will consider options to support local governments with respect to ODS removal and transportation barriers.</p>
<ul style="list-style-type: none"> A few responses addressed the voluntary processing standard, suggesting that MARR move toward a mandatory standard that is monitored and enforced. There were also suggestions that MARR develop a best practices policy for the safe disposal of appliances covered under the stewardship plan. 	<p>MARR will continue to consult with stakeholders on this topic, and, in the implementation of the plan, may consider options that include defined processing standards for ODS removal that is facilitated by the program.</p>

Written Submissions to Public Posting of Draft Plan	
Feedback Received on Draft Stewardship Plan	Response from MARR
<ul style="list-style-type: none"> There was expressed interest from respondents in the commitment to develop an incentive for ODS removal, with local governments suggesting the need for a financial incentive, cost recovery, and/or education and training in ODS removal offered. 	<p>The commitment to provide an incentive for ODS removal is intended to enhance the performance of the existing system, and MARR intends to work with stakeholders to implement the ODS incentive program to ensure it meets the needs of affected stakeholders.</p>

APPENDIX B: Drop off Sites

Table B-1: Collection Sites that Accept All MARR Program Products (August 1, 2019)

Site Name	City	Regional District	Type
Alberni Valley Landfill	Port Alberni	Alberni - Clayoquot	Municipal
Hartland Landfill & Recycling Centre	Victoria	Capital	Regional District
Port Renfrew Transfer Station and Recycling Depot	Port Renfrew	Capital	Regional District
Trail Appliances - Victoria	Langford	Capital	Retailer
Williams Scrap Iron + Metals Ltd - Munn road	Victoria	Capital	Private
Williams Scrap Iron + Metals Ltd - Terson Lane	Victoria	Capital	Private
150 Mile House Transfer Station	Williams Lake	Cariboo	Regional District
Forest Grove Transfer Station	Forest Grove	Cariboo	Regional District
Frost Creek Transfer Station	Williams Lake	Cariboo	Regional District
Interlakes Landfill	Sheridan Lake	Cariboo	Regional District
Lac La Hache Transfer Station	Lac La Hache	Cariboo	Regional District
South Cariboo Landfill	100 Mile House	Cariboo	Regional District
Watch Lake Landfill	Watch Lake	Cariboo	Regional District
Wildwood Transfer Station	Wildwood	Cariboo	Regional District
Balfour Transfer Station	Balfour	Central Kootenay	Municipal
Boswell Transfer Station	Boswell	Central Kootenay	Municipal
Burton Transfer Station	Burton	Central Kootenay	Municipal
Salmo Central Landfill	Salmo	Central Kootenay	Municipal
Crawford Bay Transfer Station	Crawford Bay	Central Kootenay	Municipal
Creston Landfill	Creston	Central Kootenay	Municipal
Edgewood Transfer Station	Edgewood	Central Kootenay	Municipal
Nelson Transfer Station	Nelson	Central Kootenay	Municipal
Kaslo Transfer Station	Kaslo	Central Kootenay	Municipal
Marblehead Transfer Station	Marblehead	Central Kootenay	Municipal
Nakusp Landfill	Nakusp	Central Kootenay	Municipal
Castlegar Landfill	Castlegar	Central Kootenay	Municipal
Rosebery Transfer Station	Rosebery	Central Kootenay	Municipal
Slocan Transfer Station	Slocan	Central Kootenay	Municipal
Planet Earth Recycling	West Kelowna	Central Okanagan	Private
Trail Appliances - Kelowna	Kelowna	Central Okanagan	Retailer
Falkland Transfer Station	Falkland	Columbia - Shuswap	Regional District
Glenemma Transfer Station	Salmon Arm	Columbia - Shuswap	Regional District
Golden Landfill	Golden	Columbia - Shuswap	Regional District

Malakwa Transfer Station	Malakwa	Columbia - Shuswap	Regional District
Parson Transfer Station	Skookumchuck	Columbia - Shuswap	Regional District
Revelstoke Landfill	Revelstoke	Columbia - Shuswap	Regional District
Salmon Arm Landfill	Salmon Arm	Columbia - Shuswap	Regional District
Scotch Creek Transfer Station	Scotch Creek	Columbia - Shuswap	Regional District
Seymour Arm Transfer Station	Seymour Arm	Columbia - Shuswap	Regional District
Sicamous Landfill	Sicamous	Columbia - Shuswap	Regional District
Skimikin Transfer Station	Chase	Columbia - Shuswap	Regional District
Trout Lake Transfer Station	Trout lake	Columbia - Shuswap	Regional District
Scrappy's Metal Recycling	Salmon Arm	Columbia - Shuswap	Private
Columbia Valley Landfill	Windermere	East Kootenay	Regional District
Cranbrook Transfer Station	Cranbrook	East Kootenay	Regional District
Elkford Transfer Station	Elkford	East Kootenay	Regional District
Fernie Transfer Station	Fernie	East Kootenay	Regional District
Kimberley Transfer Station	Kimberley	East Kootenay	Regional District
Central Subregion Landfill	Fort Steele	East Kootenay	Regional District
Brisco Transfer Station	Brisco	East Kootenay	Regional District
Edgewater Transfer Station	Edgewater	East Kootenay	Regional District
Canal Flats Transfer Station	Canal Flats	East Kootenay	Regional District
Fairmont Transfer Station	Fairmont	East Kootenay	Regional District
Sheep Creek Transfer Station	Sheep Creek	East Kootenay	Regional District
Wasa Transfer Station	Wasa	East Kootenay	Regional District
Tie Lake Transfer Station	Tie Lake	East Kootenay	Regional District
Sparwood Transfer Station	Sparwood	East Kootenay	Regional District
Bear Lake Transfer Station	Bear Lake	Fraser-Fort George	Municipal
Cummings Rd Transfer Station	Prince George	Fraser-Fort George	Municipal
Foothills Landfill	Prince George	Fraser-Fort George	Municipal
Hixon Transfer Station	Hixon	Fraser-Fort George	Municipal
Mackenzie Landfill	Mackenzie	Fraser-Fort George	Municipal
McBride Transfer Station	McBride	Fraser-Fort George	Municipal
Quinn St Transfer Station	Prince George	Fraser-Fort George	Municipal
Shelley Transfer Station	Prince George	Fraser-Fort George	Municipal
Valemount Transfer Station	Valemount	Fraser-Fort George	Municipal
Vanway Transfer Station	Prince George	Fraser-Fort George	Municipal
Regional Recycling Abbotsford	Abbotsford	Fraser Valley	Private
Mattress recycling Inc.	Hope	Fraser Valley	Private

Everclear Metal Recycling	Mission	Fraser Valley	Private
Kitwanga Transfer Station	Kitawanga	Kitimat - Stikine	Regional District
Hazelton Waste Management Facility	New Hazelton	Kitimat - Stikine	Regional District
Stewart Transfer Station	Stewart	Kitimat - Stikine	Regional District
Beaverdell Solid Waste Transfer Station	Beaverdell	Kootenay-Boundary	Regional District
Christina Lake Waste Transfer Station	Christina Lake	Kootenay-Boundary	Regional District
Grand Forks Landfill	Grand Forks	Kootenay-Boundary	Regional District
McKelvey Creek Landfill	Trail	Kootenay-Boundary	Regional District
Rock Creek Transfer Station	Rock Creek	Kootenay-Boundary	Regional District
Tervita Trail	Trail	Kootenay-Boundary	Private
West Boundary Landfill	Greenwood	Kootenay-Boundary	Regional District
ABC Recycling - Burnaby	Burnaby	Metro Vancouver	Private
Burnaby Eco-Centre	Burnaby	Metro Vancouver	Municipal
Coquitlam Transfer Station	Coquitlam	Metro Vancouver	Municipal
Langley Transfer Station	Aldergrove	Metro Vancouver	Municipal
Regional Recycling Vancouver	Vancouver	Metro Vancouver	Private
Regional Recycling Richmond	Richmond	Metro Vancouver	Private
West Coast Metal Recycling LLP	Langley	Metro Vancouver	Private
Richmond Recycling Depot	Richmond	Metro Vancouver	Municipal
Vancouver Landfill	Delta	Metro Vancouver	Municipal
Vancouver Zero Waste Center	Vancouver	Metro Vancouver	Municipal
Ridge Meadows Recycling Society	Maple Ridge	Metro Vancouver	Private
Trail Appliances - Annacis	Delta	Metro Vancouver	Retailer
Schnitzer Steel Canada Ltd	Surrey	Metro Vancouver	Private
Allied Salvage & Metals Ltd.	Richmond	Metro Vancouver	Private
North Shore Transfer Station	North Vancouver	Metro Vancouver	Municipal
Malcolm Island Recycling Depot	Sointula	Mount Waddington	Regional District
Woss Recycling Depot	Woss	Mount Waddington	Regional District
Community of Quatsino Recycling Depot	Quatsino	Mount Waddington	Regional District
Armstrong/Spallumcheen Diversion & Disposal Facility	Armstrong	North Okanagan	Regional District
Cherryville Transfer Station	Cherryville	North Okanagan	Regional District
Greater Vernon Diversion & Disposal Facility	Vernon	North Okanagan	Regional District
Kingfisher Transfer Station	Kingfisher-Enderby	North Okanagan	Regional District
Lumby Diversion & Disposal Facility	Lumby	North Okanagan	Regional District
Keremeos Transfer Station	Keremeos	Okanagan - Similkameen	Regional District
Okanagan Falls Landfill	Okanagan Falls	Okanagan - Similkameen	Regional District

Oliver Landfill	Oliver	Okanagan - Similkameen	Regional District
Campbell Mountain Landfill	Penticton	Okanagan - Similkameen	Regional District
Summerland Sanitary Landfill	Summerland	Okanagan - Similkameen	Municipal
70 Mile House Transfer Station	70 Mile House	Thompson - Nicola	Municipal
Barnhartvale Landfill	Kamloops	Thompson - Nicola	Municipal
Blue River Transfer Station	Blue River	Thompson - Nicola	Municipal
Cache Creek	Cache Creek	Thompson - Nicola	Municipal
Clearwater Eco-Depot	Clearwater	Thompson - Nicola	Municipal
Clinton Eco-Depot	Clinton	Thompson - Nicola	Municipal
Heffley Creek Eco-Depot	Heffley Creek	Thompson - Nicola	Municipal
Knutsford Transfer Station	Knutsford	Thompson - Nicola	Municipal
Logan Lake Eco-Depot	Logan Lake	Thompson - Nicola	Municipal
Loon Lake Transfer Station	Clinton	Thompson - Nicola	Municipal
Louis Creek Eco Depot	Barriere	Thompson - Nicola	Municipal
Lower Nicola Landfill	Merrit	Thompson - Nicola	Municipal
Lytton Eco-Depot	Lytton	Thompson - Nicola	Municipal
Mission Flats Landfill	Kamloops	Thompson - Nicola	Municipal
Paul Lake Transfer Station	Kamloops	Thompson - Nicola	Municipal
South Thompson Eco-Depot	Chase	Thompson - Nicola	Municipal
Savona Transfer Station	Savona	Thompson - Nicola	Municipal
Spences Bridge Transfer Station	Spences Bridge	Thompson - Nicola	Municipal
Westwold Transfer Station	Westwold	Thompson - Nicola	Municipal
Surrey Central Return-It Centre	Surrey	Metro Vancouver	Private
Rosswood Landfill	Rosswood	Kitimat - Stikine	Regional District
Meziadin Landfill	Meziadin	Kitimat - Stikine	Regional District
ABC Recycling - Kelowna	Kelowna	Metro Vancouver	Private
ABC Recycling - Surrey	Surrey	Metro Vancouver	Private
ABC Recycling - Prince George	Prince George	Metro Vancouver	Private
ABC Recycling - Fort St. John	Fort St. John	Metro Vancouver	Private
ABC Recycling - Campbell River	Campbell River	Metro Vancouver	Private
ABC Recycling - Nanaimo	Nanaimo	Metro Vancouver	Private
ABC Recycling - Terrace	Terrace	Metro Vancouver	Private

Table B-2: Number of Sites that Accept All MARR Program Products by Regional District (2017)

Regional District	Number of Sites
Alberni-Clayoquot	5

Bulkley-Nechako	8
Capital	8
Cariboo	25
Central Coast	1
Central Kootenay	17
Central Okanagan	5
Columbia-Shuswap	14
Comox Valley	2
Cowichan Valley	4
East Kootenay	11
Fraser Valley	12
Fraser-Fort George	4
Kitimat-Stikine	5
Kootenay Boundary	7
Metro Vancouver	23
Mount Waddington	6
Nanaimo	8
North Okanagan	6
Northern Rockies	1
Okanagan-Similkameen	9
Peace River	13
Powell River	3
Skeena-Queen Charlotte	5
Squamish-Lillooet	7
Strathcona	7
Sunshine Coast	3
Thompson-Nicola	19
TOTAL	238

APPENDIX C: 2019 Plan Amendment Consultation Summary

BACKGROUND AND SCOPE

In British Columbia (BC), the Recycling Regulation¹ under the Environmental Management Act sets out the requirements of extended producer responsibility (EPR), including for approved product stewardship plans. These requirements for product stewardship plans are outlined in section 4 of the Recycling Regulation, stating:

“A producer must submit a product stewardship plan, at the time specified in the applicable Schedule, if any, and in a manner and format satisfactory to a director, for the products within the product category of the product the producer sells, offers for sale, distributes or uses in a commercial enterprise in British Columbia.”

The Major Appliance Recycling Roundtable (MARR) submitted its latest BC Major Appliance Stewardship Plan (the plan) to the BC Ministry of Environment and Climate Change Strategy (MOECCS or Ministry) on January 12th, 2018, in accordance with the approval letter received from the Ministry on August 7th, 2018. The plan covers major household appliances contained within the electronic and electrical product category of the Recycling Regulation, and includes the following major product types:²

- Refrigerators, wine coolers and beverage centers
- Freezers
- Portable, room and window air conditioners
- Portable dehumidifiers
- Clothes washers and dryers
- Ranges, built-in ovens and surface cooking units
- Built-in and over the range microwave ovens
- Range hoods and downdrafts
- Dishwashers
- Food waste disposers and trash compactors
- Electric water dispensers

In accordance with the Ministry’s approval letter, MARR has:

- a) Proposed amendments to the plan that incorporate financial performance and Ozone Depleting Substances (“ODS”) removal targets.
- b) Proposed further amendments to the plan that set consumer awareness targets improving on the 2016 baseline data, annual consumer awareness survey requirements and corrective actions, along with timelines for implementation of those actions that MARR will take if consumer awareness is below the set targets.

Stakeholder consultations were conducted on the amendments proposed by MARR pursuant to paragraph a) and b). MARR commissioned MNP_{LLP} (“MNP”), a major Canadian accounting and consulting firm, to assist in the consultation process and to compile along with organize the related commentary in a consultation summary document as per the Recycling Regulation Guide.

¹ British Columbia Ministry of Environment, BC *Recycling Regulation*, BC Reg. 449/2004, as amended B.C. Reg. 88/2014, May 23, 2014. Accessed at http://www.bclaws.ca/civix/document/id/complete/statreg/449_2004.

² For an up-to-date listing of the products covered by the Stewardship Plan, please refer to the detailed list of included and excluded products available at: <http://www.marrbc.ca/participants/products>

This report will inform MARR’s final submission to the Ministry and is the resulting product of the following consultations:

- A web-based consultation with the Local Government Advisory Committee on October 1, 2019.
- An in-person consultation at the Coast Waste Management Association Annual (“CWMA”) Conference on October 23, 2019 at the Westin Bear Mountain Resort, Victoria BC.
- A web-based consultation with individuals that were unable to attend the CWMA Conference on October 29th, 2019.
- Email submissions collected between October and early-November 2019, through a direct email address: **consultations@marrbc.ca**.

CONSULTATION PROCESS

The consultation process relied on information gathered through the methods detailed below. In terms of the logistics and format for the consultation process, invitations were first sent by MARR to the following stakeholder groups for input:

- Members of the Local Government Advisory Committee.
- Representatives of local government, including municipalities, regional districts and First Nation governments.
- Obligated producers of major household appliances in BC, including manufacturers, wholesalers and retailers.
- MARR collectors and ODS companies.

After this, the consultation proceeded using in-person and web-based formats, with the sequence being:

- A web-based consultation with the Local Government Advisory Committee on October 1, 2019.
- An in-person consultation at the Coast Waste Management Association Annual (“CWMA”) Conference on October 23, 2019 at the Westin Bear Mountain Resort, Victoria BC.
- A web-based consultation with individuals that were unable to attend the CWMA Conference on October 29th, 2019.
- Email submissions, between October and early-November 2019, through a direct email address: **consultations@marrbc.ca**.

In preparing this report, MNP carried out the following activities:

- Assisted with the organization and implementation of two in-person and two web-based consultation sessions (as outlined earlier), including the tracking of associated commentary.
- Collected, compiled and sorted the comments along with correspondence resulting from the consultation sessions.
- Prepared a report that includes the consolidated observations regarding the proposed amendments, allowing for MARR’s input and feedback.

CONSULTATION SUMMARY

The tables on the following pages present the questions and comments obtained through the consultation process that were within the scope of the consultation, as well as MARR’s responses. These tables have been organized according to the following three in-scope topic areas of the plan:

1. **Financial Performance Targets**
2. **ODS Removal Targets**
3. **Consumer Awareness Targets**

The questions and comments listed in these tables have been copied verbatim to accurately represent the breadth and variety of input and feedback from stakeholders. Some spelling and minor grammatical errors along with typos have been corrected for clarity.

Please note that *all* questions and comments, including those that were not within the scope of the consultation, are included in **Reference Documents E, F, and G**. These Reference Documents also include details regarding the webinars, in-person consultations, and e-mail submissions.

1. Financial Performance Targets				
No.	Organization	Question / Comment	MARR Response	Communication Channel
1	Retail Council of Canada	The proposed performance target, “MARR will maintain a reasonable reserve fund that does not exceed the planned costs of the program for the following year,” does not seem to be a wise statement. The description that I thought was wiser was about the annual cost. I do not think that anybody can hit the target and be exactly on every year; there are too many unplanned things.	Good point; we can look at rewording that statement. Metal prices can fluctuate and then our reserve would be larger that year and we would take necessary actions to lower the fees if the reserve got too big.	Webinar Consultation with the Local Government Advisory Committee (October 1, 2019)
2	MARR Collector – Scrappy’s Metal	Can you tell me if the targets you are using are based on what is being sold into the marketplace, or are they based on what you collected during your pilot year?	For our financial target, for example, we want to run a reserve of not more than the planned costs of the program for the following year. For our 2020 budget, for example, we are going to base it on the numbers we collected in 2019. We will also	Public Webinar Consultation (October 29, 2019)

1. Financial Performance Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
		How are you coming up with those numbers?	have to factor in some growth, because our program has grown tremendously. We had 50 collection sites in our pilot at the end of last year, and I believe we are over 150 collection sites as of today. And we continue to grow our network. So, we will forecast a number of units collected next year for our budget, based on our current performance plus our growth targets, and that will be how we will set our financial target for next year in our budget.	
3	Nanaimo Recycling Exchange	The proposed reporting commitment doesn't match the proposed Amendment. Will Marr report on the reserve fund? Also, neither the target, nor the reporting commitment is new.	The existing reporting commitment includes audited financial statements which include reporting on the reserve fund. The current plan does not outline a financial target.	E-mail Submission
4	Nanaimo Recycling Exchange	The Director has directed Marr to include an updated financial target that demonstrates greater levels of disclosure about financial performance. The target of maintaining a reserve fund is not new: it has been in the Marr plan since 2015 when \$300K was put in reserve. In 2016, interest was added to the fund, and no funds have been added since. Could Marr disclose the reserve amount targeted for each year?	The existing reporting commitment includes audited financial statements which include reporting on the reserve fund. The targeted reserve fund is the subject of this consultation.	E-mail Submission

1. Financial Performance Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
5	Nanaimo Recycling Exchange	Could Marr include the definition of “does not exceed the planned costs of the program for the following year.” It’s not clear whether “planned costs” include Administration and Collection costs or only Collection costs of existing sites, or some or all costs of existing sites plus additional contracted sites.	We will evaluate including a definition of “planned costs” as part of the post consultation process.	E-mail Submission
6	Nanaimo Recycling Exchange	Regardless of the definition of planned costs, with continued uptake of contracted sites, annual Collection costs could rise significantly each year. Is an amount equal to all planned costs targeted for reserve each year? Is there sufficient revenue?	We believe there is sufficient revenue to ensure the program remains viable.	E-mail Submission
7	Nanaimo Recycling Exchange	<p>With no new financial targets, will Marr be compliant with the Director’s letter requesting more financial transparency and greater levels of disclosure in financial statements. To this end, the amendments could include:</p> <ul style="list-style-type: none"> • Itemization of the significant Administrative costs, maintaining privacy where appropriate. • For increased financial disclosure and transparency, could there be disclosure of fees collected and a more itemized report of collection expenditures? 	The financial target is new as per this consultation. All financial statements will be third party audited and comply with established standards.	E-mail Submission

1. Financial Performance Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
		<ul style="list-style-type: none"> Is there a phased plan for contracting new sites, taking financial implications of full uptake of contracting collection sites into account? Would such a plan be a helpful financial target? Why would it be stated in the Consultation presentation, “we’re never going to have 293 [sites signed up]? Isn’t the target to contract all sites into compliance? Fees are collected from 100% of units purchased: the Marr program should be financially prepared to fund 100% of collection. 		
8	Nanaimo Recycling Exchange	The question was asked, “Is there a financial target to increase APF’s for ODS containing appliances? If ODS removal costs \$8 to \$11, and the Collection Incentive fee of \$3 are both paid to a collector, the total comes close to the APF of \$11.5 for an ODS containing appliance. What revenue will be used for transportation top-up funding for the life of this plan?”	Transportation funding is budgeted annually as part of the operational cost of the program.	E-mail Submission

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
1	MARR Collector – Schnitzer Steel	On slide 9, you also mention that a performance target will be determined once a baseline is established, so I want to know what that would be.	<p>We started with a pilot project last year, and we are going to be reporting on the number of units collected, ODS units, and the amount of ODS (the weight of ODS that we collected). The idea is that we are going to report every year on the quantities that we collect. It is really hard to set a target on something like that because you really do not know the number of units you are going to get; It is really based on how many units break down every year and how many are available for collection, and that is a really hard number to estimate. So, we are just going to report on how many we collected and how much ODS we have removed. Then we are probably going to be able to make some other determinations from that. For instance, we will be able to say: “we have reduced carbon emissions by this much by collecting this much ODS.”</p>	Public Webinar Consultation (October 29, 2019)
2	MARR Collector – Scrappy’s Metal	And then as far as the ODS targets, are you doing the same, and have you compared that to the information that is available on what is being sold into the marketplace?	<p>Every year in our annual reports, we list the total number of units sold, and the fees that we collect on those. As far as setting a specific example for ODS targets, we were in discussions with the Ministry of Environment and realized that it is really hard to say, “I’m going to collect X number of ODS next year or X number of units,” because we really do not know. It is really hard to estimate what is going to come back.</p> <p>In the example of ODS, it is even further complicated by the fact that, as of 2021 I believe it is, there will not be any more ODS used in the</p>	Public Webinar Consultation (October 29, 2019)

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
			<p>manufacture of new appliances. Therefore, the number will be on a continually diminishing basis. We might still be collecting it for the next 50 years, but the number will be gradually going down as they transition to non-ODS for their refrigeration units.</p>	
3	MARR Collector – Scrappy’s Metal	<p>I would imagine that after you have had this plan to do a 5-year review, you will have a lot more information to base your projections on and factor in those changes coming forward.</p>	<p>A hundred percent. We only ran a pilot last year, and we have been experiencing tremendous growth this year. So, it is really hard to determine an exact target. But when we renew our plan for 2022, we will have much better data and be able to see trends. My goal is to be transparent when it comes to what we collect, how much we collect, and show those trend analyses. Whether the Ministry of Environment requires us to put in a specific numeric target is to be seen. But in our consultation with them, they were okay with us saying that we are going to remove it from all the appliances that we collect and report on the ones that do not have ODS in them. So, we can actually see how much is not being collected properly.</p>	<p>Public Webinar Consultation (October 29, 2019)</p>
4	Costco	<p>I just had one quick question regarding what producers are actually going to have to report to you. And I just wanted to confirm that we will be reporting the number of units sold versus the weight of the units sold.</p>	<p>Correct.</p>	<p>Public Webinar Consultation (October 29, 2019)</p>

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
5	Costco	There were some changes, some tracked changes, around that.	Certainly. For us, we only expect producers to report the number of units sold by category, and then we charge the fees based on that.	Public Webinar Consultation (October 29, 2019)
6	Costco	Perfect, because weight-based is a nightmare for us, so, that is wonderful. Thank you.	No problem. We went away from weight-based reporting last year, in our 2018 plan, because we figured it was more accurate to report on units collected and sold. It gives you a better comparison.	Public Webinar Consultation (October 29, 2019)
7	Nanaimo Recycling Exchange	Do those come with paperwork? The ones that already have ODS removed? If they are coming from a guy who has drained it, does he then give you the paperwork with all the liters and amounts?	Not the ones that we get. When our collectors get them empty, they are just reporting on their tracking sheet. They have to report they were empty when they got them. We saw that they were running at about 3 to 4 percent for those that are emptied prior to arriving. However, we saw that one collector had jumped off the scale. When we called them, we found out that they were getting them from an appliance repair place, and they were also getting them from a scrap metal place that also does car scrapping. Those sources are already draining the appliances and cars on their own, on-site and they are following the proper ODS removal procedures. If it was just coming from the public, we probably would not take them. A lot of the time at the collector, when the ODS removal technician goes to do it, he does not know unless it has severe damage or the copper lines are cut out (that is the other reason it gets removed: when people steal the copper lines). Unless it is obvious, you do not	In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
			<p>really know unless you hook up the equipment to it and you see that there is nothing in it. Most of the time, they are empty because the unit stopped working and so the people scrapped it because it probably leaked out. Overall, it is really low, in the 2 to 4 percent range.</p>	
8	Nanaimo Recycling Exchange	<p>Why are you tackling that, because I cannot figure out, you do not know where it is coming from, the ones that already empty. What is it telling you?</p>	<p>You do not know who brought them in, and I am hoping the number goes down with time, which is one of the reasons we are tracking it. Before people used to have to pay to drop off an appliance. To be a MARR collector, you now have to accept everything for free. Most collectors prior to MARR paying incentives were charging fifteen, twenty, or twenty-five dollars for an appliance. People were cutting the lines and draining them. However, local governments started not taking them. People were trying to say they were already drained and then the local governments would ask for a certificate to prove that it was done by a licenced technician, or they would not take them because the local governments were trying to prevent people from cutting the lines to save the twenty dollars. Now that we have removed the barrier of the twenty dollars, people should not be draining them anymore. There is no reason for someone to drain them unless it is out of pure ignorance and people do not know that they are not supposed to do that; so, that is a thing we have to keep working on in terms of consumer awareness:</p>	<p>In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)</p>

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
			educating people that they can bring it to a MARR collection facility for free.	
9	Nanaimo Recycling Exchange	Theoretically as you sign up more and more to one hundred percent, that should drop to zero.	<p>I hope so, other than the few that are broken. There are always going to be the ones where the gas just leaked out because something broke; for example, maybe people dropped the fridge when they were moving it. It is also good to track it because then we can see how much of the ODS is being collected versus how much is not being collected. It is a stat that I want to track because it gives us a good indication of how good we are doing, as well. In addition to this, I think people want to know how much of it is not getting collected. So, we agreed to have this as one of the things that we are putting in. We will continue to do what we are doing now in terms of reporting on the efforts made by the manufacturers to increase the recyclability of the products and what they are doing. The manufacturers now are committing to get rid of the ODS gasses in the refrigerated appliances entirely. In the next few years, you will not even have it in an appliance. They are now using a flammable gas and you see them in the market already. There are fridges now with cyclopentane in them, which is a flammable gas. You can tell the difference because there is a little WHIMIS-like label on the back of the fridge so that the technicians know. I am making a huge effort right now to let the technicians know that those are not ODS so that they do not mix the flammable gas with the non-flammable gas and</p>	In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
			cause all types of other problems. In addition to this, the Association of Home Appliance Manufacturers has already written a directive on how to properly drain those gas appliances and that is being shared with all of the ODS technicians in addition to us speaking with them.	
10	Nanaimo Recycling Exchange	Am I right in thinking that this target to remove all the ODS from a unit is directly linked to increasing contracting sign-up? Because those are the ones we know for sure. You count the unit, yes, we took the stuff out of that one. You count a unit, yes, we took the ODS out of that unit. And you have 58 of those.	Right. And they report the ones that do not. We actually have one hundred and fifty plus sites now. In our annual report, we had fifty something. Since December 31st, we have added about another one hundred sites.	In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)
11	Nanaimo Recycling Exchange	The only way to know if “gas from all units collected” is to have contracts with all 293 collection sites because these are the sites reporting on units collected and units emptied of ODS. Some 90 or so sites have been added to the 58 contracted sites. That leaves another 140 or so sites to be contracted.	We will be reporting on units collected as part of the MARR collection network.	E-mail Submission
12	Nanaimo Recycling Exchange	Is there a planned approach with implementation dates for contracting all sites in order to achieve <ol style="list-style-type: none"> 1. Reporting status from all sites 2. Producer responsibility for all units sold 	All sites in the MARR network are required to report. ODS removal is reported by qualified removal technicians and reported to MARR. There is an established procedure for producer reporting as well as the reporting of non-compliance to the MOECC.	E-mail Submission

2. ODS Removal Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
		3. Accurate reporting of units collected and emptied of ODS?		
13	Nanaimo Recycling Exchange	<p>Can Marr accurately report on this target before all collection sites are contracted? Can Marr report the percentage of units being managed by Marr, with targets for inclusion of all collection sites contracted to count all units collected and all units emptied.</p> <p>Marr's amended commitment to reporting percentage of ODS removal prior to collection seems premature. Knowing the % of prior removal would be a fine point indicator of adjustments needed once the program is fully functional, but the program has barely reached 50% of contracted sites required to report. Marr already knows that some 150 sites collecting ODS containing appliances have no contracts and therefore no reporting commitments to Marr. That is the amount of unaccounted for ODS removal not being managed by the program.</p> <p>If the percentage of prior removal is going to be reported then, at the very least, units emptied by Certified personnel vs. removal by unknown personnel would be helpful.</p>	MARR will report on units collected by contracted sites.	E-mail Submission

3. Consumer Awareness Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
1	Regional District Kootenay Boundary	I very much appreciate having regional numbers for consumer awareness.	For the regional awareness numbers, just reach out to us. We have them broken down by region. We currently do not have plans to publish regional numbers, but we could consider that as part of the reporting commitment. I would suggest making that information available upon request versus publishing it.	Webinar Consultation with the Local Government Advisory Committee (October 1, 2019)
2	Canadian Tire	Just wondering if this is going to have any effect on retailers in general. Because all I am seeing right now is there might be an effect on — like, we might get better stuff to give to our consumers as to what is going on. But, do you see any effect on retailers, or people who are just part of the program?	Well, I think the biggest advantage for a retailer to be part of our program is to be able to demonstrate to their customers that MARR is meeting their requirements under the regulation, that you are addressing the collection of the ODS. MARR has practices in place to make sure it is being done by a trained technician, and that, more importantly, the ODS that we collect are being destroyed in an environmentally proper manner. So, that is really the big plus, and I think the data that you will be able to get from our annual reports will also help you to be able to provide answers to your customers, should you get inquiries from customers on what you are doing. And although we never know what is going to happen in the future, as far as circularity and what requirements will be brought on us, MARR is always ready to address any new regulatory changes that may come up in the future.	Public Webinar Consultation (October 29, 2019)

3. Consumer Awareness Targets

No.	Organization	Question / Comment	MARR Response	Communication Channel
			<p>I would like to add that one of the other big benefits to retailers is that one of the main focuses of our consumer awareness push is clarity on what actually happens to materials when they are recycled. And I think that aspect of clarity goes a long way for the consumer so that they fully understand what the eco fee on that product is going to do.</p>	
3	Regional District Prince George	<p>Okay. The third point, the setting consumer awareness targets improving on the 2016 baseline data, it says that there are timelines for implementations of those actions that you guys will take if the consumer awareness is below set targets. Do you have timelines for the plan for that?</p>	<p>Certainly. We could probably include something in the plan amendment for that, if you want clarity on the timeline. We typically conduct the consumer awareness studies in the fall. We recently got our consumer awareness results for 2019, and I am working with my promotion/education department to create the plan for next year. So, we would always get the results in the early fall, and then we would work on our plan in October/November, and implement the plan the following year. So, we will be working on the plan right now, in the next month or two, for 2020 and be implementing that plan. And we will also report in our annual report on all the promotional and educational activities that we have undergone. We have done quite a bit this year already with respect to radio and print ads, and infomercials. We have stepped it up considerably from anything that MARR has ever done in the past and we will do what it takes to increase consumer awareness and keep it at the</p>	<p>Public Webinar Consultation (October 29, 2019)</p>

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No.	Organization	Question / Comment	MARR Response	Communication Channel
			75% level. We will definitely include our plan in every annual report.	
4	Nanaimo Recycling Exchange	Can you tell me what you mean by consumer awareness? Do you have a definition?	So, we have a question on the survey. We do consumer awareness studies, so there [are] surveys where they ask people: "are you aware that there is a recycling program for major appliances in the province of BC?" It is a question similar to that. So, it asks if people are aware that they can recycle a major appliance in the province.	In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)
5	Nanaimo Recycling Exchange	So that is the definition: "Are you aware you can recycle a major appliance?"	Yes, we do not ask them if they know MARR. We are not out to get brand recognition. We also ask many other questions for our own information. This information is actually in our annual report. If you go to our annual report, you will see last year's survey results where we asked: "the last time you got rid of a fridge, what did you do with it?" as well as "do you have an appliance to get rid of right now?" There are some really good statistics we get out of it. If you are going to do a survey, you may as well ask a bunch of other questions that help inform you about your program and the products you are collecting.	In-Person Consultation at the Coast Waste Management Association Annual Conference (October 23, 2019)
6	Nanaimo Recycling Exchange	Who gets the survey? Where do you hand out the survey?	We hire a professional company to do this. There are many surveying companies out there like Ipsos, Nanos. Our current surveyor is Insights West. It is done in the public. They have a certain amount of	In-Person Consultation at the Coast Waste Management Association Annual

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			<p>people they reach per area to ensure it is evenly divided.</p> <p>The other thing we are going to do: if the consumer levels do not hit the 75%, then we are going to come up with an action plan, to action on how we are going to get it back up to that 75% level. We commit to reporting on that every year in our annual report as well.</p>	Conference (October 23, 2019)
7	Regional District of Fraser-Fort George	The RDFFG would like to see a more detailed timeline/plan for the implementation if the consumer awareness falls below the set targets added to the Stewardship Plan.	The consumer awareness plan is created annually to achieve the set targets.	E-mail Submission
8	Nanaimo Recycling Exchange	There are no proposed corrective actions or timelines for low consumer awareness.	The consumer awareness plan is created annually to achieve the set targets.	E-mail Submission
9	Nanaimo Recycling Exchange	At the October 23, 2019 Consultation, Marr interpreted consumer awareness in the Recycling Regulation Guide as survey results indicating only that consumers know major appliances can be recycled. This interpretation seems to be the rationale to use results from, and re-issue, the survey using the question that demonstrates 75% awareness.	Consumer awareness will comply with the Recycling Regulation reporting requirements.	E-mail Submission

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10	Nanaimo Recycling Exchange	<p>Of note in the Recycling Regulation Guide is</p> <p>“An effective consumer awareness program will make consumers or the target audience aware of the program and its benefits, the location of collection facilities and how to manage products in a safe manner.” The concern is that a strict interpretation of awareness that major appliances can be recycled falls short of the Guide and the Recycling Regulations.</p> <p>In order to “manage products in a safe manner” the consumer needs to know they have paid a fee that covers the costs to recycle the item and by taking the item to a free, local Marr approved site, the product is being managed in a safe manner. If the consumer doesn’t know this program information, there is risk that</p> <ol style="list-style-type: none"> 1. The consumer pays for drop off, thereby paying twice 2. The consumer illegally dumps the product because there is a charge at their local site 3. The consumer remove ODS to save the cost of drop off at a collection site 4. The consumer unknowingly damages the ODS system by error in transit 5. The consumer takes product to a non-approved site that may be landfilling appliances 	We will consider all items as part of the post-consultation process.	E-mail Submission

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		<p>6. The consumer takes product to a non-compliant site where unit count and ODS removal cannot be recorded as managed by Marr.</p> <p>The guide also suggests that program specific collaborative communication tools such as province-wide hotlines, call in services, and municipal calendars be developed. Development of these tools isn't included as an amended target and, in fact, were specifically defined as stakeholder engagement rather than consumer awareness at the October 23, 2019 Consultation.</p> <p>Remediation Strategies in 2018 Annual Report include "A comprehensive consumer education plan for 2019." Perhaps the education plan will include use of such tools.</p>		

CONSULTATION REFERENCE DOCUMENTS

REFERENCE DOCUMENT A: CONSULTATION DOCUMENT

The following background document was available during the consultation period at <https://www.marrbc.ca/consultation2019>:

- **Consultation Document.** This document provides details on the proposed amendments to the BC Major Appliance Stewardship Plan.
- **Proposed Plan Amendments.** Full amended plan with changes marked
- **Approved Plan.** The current approved stewardship plan.