



Reference: 412501

October 7, 2024

Rosemary Sutton
Executive Director
Tire Stewardship BC Association
300 – 536 Broughton Street
Victoria, BC V8W 1C6

Dear Rosemary Sutton:

Thank you for submitting the Tire Stewardship BC *Extended Producer Responsibility Plan – Tires* (the “plan”) initially on August 26, 2021, in fulfillment of the requirements of Part 2, Section 6 of the [Recycling Regulation](#) (the “regulation”) made under the [Environmental Management Act](#). TSBC re-submitted an updated plan for approval on April 29, 2022. The most recent revision of the plan submitted by TSBC on August 23, 2024 is attached to this letter.

I acknowledge the efforts of TSBC and the ongoing dialogue between TSBC and the Extended Producer Responsibility (EPR) section staff to develop revisions and improvements to the plan to better meet the requirements of the regulation.

Under the regulation, the director, otherwise known as the Statutory Decision Maker (SDM), has the ability to approve an extended producer responsibility plan submitted under section 4. I have completed my review of the submitted plan, and TSBC’s revisions of the plan in response to the proposed amendments as outlined in my preliminary decision letter of June 24, 2024.

Prior to the issuance of this decision letter, TSBC was provided with feedback on the proposed plan amendments and has had the opportunity to propose further amendments or provide additional information for consideration. While TSBC has addressed deficiencies, certain components remain outstanding.

Please be advised that, pursuant to section 5(5) of the regulation, I hereby approve the amendments proposed August 23, 2024. In addition to the amendments proposed by TSBC, and approved by me via this letter, I am further amending the plan, pursuant to section 5(5) of the regulation to address the following deficiencies.

1. Consumer Awareness

Pursuant to section 5(1)(c)(iv) of the regulation, the 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 section 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 a) the location and operation of collection facilities; b) the availability of collection services; and c) the environmental and economic benefits of participating in the EPR program. In the SDM approval letter for TSBC's 2018 plan review, consumer awareness was listed as an area of concern where the ministry expected continuous improvement across all future plans and amendments.

Consumer awareness for the plan is relatively low for a mature EPR program in B.C. Therefore, TSBC must maintain and raise consumer awareness performance targets to demonstrate continuous improvement compared to the 2018 EPR plan. This is also to reflect the maturity of the program and assist with challenges such as tire stockpiling at certain municipalities.

As such, I am requiring the following amendments to Appendix A, p. 16 of the plan to read:

i.

Metric	Reporting Commitment/Target	Subject to 3 rd party audit
Education and Awareness a) Awareness of where to take scrap tires for safe disposal	Reported: in Annual Report a) 2022 & 2023: 56% 2024 & 2025: 63% 2026: 66%	Yes
b) Awareness of where to go to find information on safe disposal locations	b) 2022 & 2023: 68% 2024 & 2025: 75% 2026: 78%	

2. Producers paying the costs

While additional amendments to the “Management of Program Costs” section of the plan were made in response to the Preliminary Decision Letter, aspects remain where there is insufficient detail regarding how the costs of collecting and managing program products are borne by the producers as required by the regulation. There is little methodology provided to demonstrate how program costs are determined. An explanation of how producers are managing the full program costs is required, as detailed in the Producer Paying the Cost of Managing Obligated Materials and Dispute Resolution guidance document.

Pursuant to section 5(1)(c)(i) of the regulation, the plan must adequately provide for the producer paying the costs of collecting and managing products within the product category covered by the plan. TSBC publishes its incentive rates for transporting and processing scrap tires on its website, however, no information is provided as to whether these incentive rates fully cover those costs.

To address these concerns, I am amending the plan as follows:

- i. TSBC must submit to the Director an additional appendix to its plan by January 7, 2025, that describes factors considered when reviewing processing and manufacturing incentive rates to demonstrate that producers are currently paying the full costs of collecting and managing all regulated tires across the province to address section 5(1)(c)(i) of the regulation. The amendment(s) should provide a summary of the methodology used to review the scope of services and associated costs involved in managing all regulated tires throughout the province.

3. Performance Measures, Targets and Reporting Commitments

Pursuant to section 5(1)(c)(v) of the regulation, the plan must adequately provide for assessing the performance of the producer’s EPR program. Additionally, in the SDM approval letter for TSBC’s 2018 plan renewal, plan commitments with specific and measurable language were listed, among others, as an area where the ministry expected continuous improvement across all future plans and amendments.

The recovery rate target proposed in TSBC’s EPR plan remains unchanged from the previous plan’s target of 90%, despite TSBC consistently achieving high recovery rates over the past five years (89-99%), and a very high recovery rate of 97% in 2023. TSBC has shown it can perform better than the proposed recovery rate and must commit to maintaining this strong performance through an improved recovery rate target.

To address this, I am amending the plan as follows:

TSBC will amend its plan to set the recovery rate target to 91% to improve upon the current recovery rate target. As such, Appendix A, p.14 will be amended as follows:

i.

Metric	Reporting Commitment/Target	Subject to 3 rd party audit
Recovery Rate (Total # tires collected in Reporting Year / Total # tires sold 5 years prior to Reporting Year)	Reported: in Annual Report Target: 91%	Yes

Ministry Expectations

The ministry expects continuous improvement across all future plans and amendments submitted by TSBC. These include the following areas of concern for TSBC's consideration:

A. Tire Road Wear Particles

A compound, known as 6PPD-quinone, released from automotive tires is intended to prevent damage to tire rubber from ozone. This compound is easily leached into watercourses and was recently linked to coho salmon deaths in the Pacific Northwest. Salmon in B.C. not only have an important role in the food chain but are also of great significance to the culture of Indigenous peoples. While it is understood that redesigning tires is the responsibility of the tire manufacturer, TSBC is expected to report on efforts that have been undertaken both nationally and within B.C. to reduce the impact of tire road wear particles (TRWPs) containing this compound on fish-bearing waters in the future. Such efforts could include supporting initiatives to prevent TRWPs from impacting salmon populations (e.g., coordinating with local governments to educate/implement stormwater management practices and/or capturing tire debris before they are transported into watercourses).

B. Consultation

Moving forward, TSBC is expected to include extensive efforts towards informing Indigenous communities and governments of the TSBC program and impacts, including informing the Indigenous Zero Waste Technical Advisory Group as a method to reach a broad Indigenous audience.

C. Paying the Cost and other ministry guidance

Please note that the ministry has some recently-updated guidance documents, including [Paying the Costs under Recycling Regulation Section 5\(1\)\(c\)\(i\) and Dispute Resolution Guidance 2024](#). For future plan reviews, it is expected that TSBC follows the updated guidance. Prior to your next plan review, please ensure awareness with any other updated guidance, which is available at: [Extended Producer Responsibility - Province of British Columbia \(gov.bc.ca\)](#).

Reporting Expectations

The ministry expects this approval letter to be forwarded to TSBC'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.

Third Party 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 for non-financial information in annual reports" dated November 2022 and revised from time to time, which is enclosed.

Additionally, please be advised, under Part 2, Section 8(2)(h) of the regulation, the director can specify any other information required in the annual report. To ensure the continuity of all performance measures, performance requirements, and targets in the plan, reporting on each of these metrics will be maintained until they are superseded by an approved plan renewal.

Next Plan Review Due Date

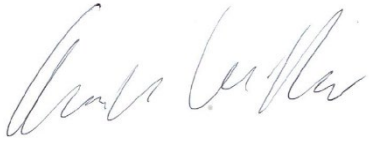
Section 6 of the regulation requires a plan review every five years. As per this requirement, TSBC must review its approved plan, consult on the plan, and submit proposed amendments to the director, or notify the director in writing that no amendments to the plan are necessary, by **September 19, 2026**. Guidance on this process can be found on the Extended Producer Responsibility webpage at: [Extended Producer Responsibility - Province of British Columbia \(gov.bc.ca\)](#).

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. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Thank you for your efforts on this plan, and I appreciate TSBC's continued commitment to achieving compliance in this regard. If you have any questions regarding the implementation of the plan, please contact me at andreas.wins-purdy@gov.bc.ca or through the Extended Producer Responsibility inbox at ExtendedProducerResponsibility@gov.bc.ca.

Sincerely,



Andreas Wins-Purdy, P.Ag.
Director, Extended Producer Responsibility, Program Delivery
Authorizations and Remediation Branch
Environmental Protection Division

cc: Douglas Hill, Executive Director, Authorizations and Remediation Branch,
Doug.Hill@gov.bc.ca
Tess Rouse, Director, Environmental Policy and Initiatives Branch,
Tess.Rouse@gov.bc.ca
Rob Au, Senior Policy Analyst, Robert.Au@gov.bc.ca
Extended Producer Responsibility: ExtendedProducerResponsibility@gov.bc.ca

Enclosure:

TSBC EPR Plan, submitted August 23, 2024
Third party assurance for non-financial information in annual reports, November 2022



Extended Producer Responsibility Plan – Tires

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Submitted to:
**BC Ministry of Environment and Climate
Change Strategy**
Extended Producer Responsibility Section

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Supplementary Documents

- Appendix A: [Performance Measures, Targets and Reporting Commitments](#)
- Appendix B: [Consultation Process, Feedback and Responses](#)

A. Regulatory Basis for this Plan

This Extended Producer Responsibility Plan (Plan) is filed by Tire Stewardship BC Association (TSBC) with the Ministry of Environment and Climate Change Strategy (Ministry) and its successors pursuant to the requirements of the Recycling Regulation, B.C. Reg. 449/2004 (Regulation) for the tire product category identified in Schedule 4 of the Regulation as currently in effect.

For purposes of this Plan, the tires covered in Schedule 4 are simply referred to as “tires” or “program tires” and are described in detail on the TSBC [website](#). The program tire types (unrimmed in all cases) at the time of submitting the Plan are commonly referred to as Passenger and Light Truck (PLT) tires, Medium Truck (MT) tires, Agricultural (AG) tires and Logger Skidder (LS) tires.

This Plan describes the current program for tires in the context of the approval criteria set forth in the Regulation. The Plan is expected to remain applicable for the foreseeable future.

Some tire types are explicitly excluded under Schedule 4, Section 2 (d) of the Regulation. Details of these tires, referred to as non-program tires for the purpose of this Plan, are also described in more detail on the TSBC [website](#) (see Section II e).

B. Appointment of an Agency

Operating under the British Columbia Societies Act, TSBC is a provincial not-for-profit society responsible for delivering BC’s scrap tire recycling program in accordance with its Ministry-approved Extended Producer Responsibility Plan and the Regulation.

Since January 1, 2007, TSBC has been accountable to the retailers, other stakeholders and the public for the collection, processing and environmentally sound disposal of all program tires. TSBC will continue to be the stewardship agency on behalf of each registered retailer (producer) in the province and will comply with Part 2 of the Regulation with respect to the duties referred to in paragraph (a). In addition, a copy of any notification the agency received from the producer is available upon the request of a director as per Section 2(4)(b) of the Regulation.

For the purpose of the tire program, the BC Recycling Regulation defines a producer as a person who

- i. sells, offers for sale or distributes a new tire product in British Columbia,
- ii. is the owner or licensee of a trademark under which a tire product is sold or distributed in British Columbia, whether or not the trademark is registered, or

iii. imports the tire product into British Columbia for sale or distribution.

The list of retailers (producers) represented by TSBC is maintained on the TSBC [website](#).

The society is governed by a [Board of Directors](#) representing four member organizations:

- Retail Council of Canada;
- Western Canada Tire Dealers Association;
- The Tire and Rubber Association of Canada; and
- New Car Dealers Association of BC.

TSBC also consults with its Advisory Committee comprising representatives from a variety of stakeholder groups such as scrap tire generators, haulers, processors, manufacturers, local government and environmental organizations. The committee meets at least annually or as needed to provide advice on program policy and operations. This forum is considered essential to the ongoing success of the program and will be maintained. The [membership list](#) and [terms of reference](#) are published on the TSBC website.

TSBC's structure and governance will be verified annually in the Annual Report to the Director, highlighting any changes from the previous report. The structure and governance information on the TSBC website will also be maintained accordingly.

C. Plan Components

1. Program Structure [Section 5 (1)(c)(i)]

The plan adequately provides for the producer collecting and paying the costs of collecting and managing products within the product category covered by the plan, whether the products are currently or previously used in a commercial enterprise, sold, offered for sale or distributed in British Columbia.

TSBC program participants are as follows:

- Retailers (producers): sell program tires, and/or equipment with program tires, and generate scrap tires.
- Return to Retailers (R2R): subset of retailers that have voluntarily agreed to accept up to four car tires, clean and off rim, from the public during business hours.
- Collection Facilities: subset of retailers that in the normal course of business take back program scrap tires when a new program tire is purchased.
- Generators: generate scrap tires (auto wreckers, landfills, etc.).
- Haulers: collect and transport scrap tires from retailers and generators.

- Processors: process scrap tires into products or use as energy recovery.
- Manufacturers: manufacture products from BC recycled rubber.

TSBC collects an Advance Disposal Fee (ADF), commonly referred to as an eco-fee, from registered retailers on the sale of every new tire including replacement tires and tires on new vehicles / equipment. Set by TSBC on behalf of producers (retailers) and published on the TSBC [website](#), ADFs vary by tire type to compensate for the higher costs of collecting and processing larger tires.

These fees are used in the operation of the tire recycling program in BC with no portion of the eco-fees collected directed to government. While the majority of funds (typically over 90%) represent incentives paid to transport and recycle BC's scrap tires in environmentally responsible ways, TSBC also directs funds to other activities that enhance BC's tire recycling program and help TSBC meet its goals. Examples include:

- A Manufacturing Incentive program to stimulate the use of BC recycled rubber by BC manufacturing companies and foster innovation and investment. This program has created a strong and stable market for BC recycled products.
- A [Community Grant program](#) to support communities in their use of BC recycled rubber in projects such as playgrounds and other recreational facilities.
- A voluntary province-wide [program to recycle bicycle tires and tubes](#). The program piggybacks on the existing automobile scrap tire and collection infrastructure. There is neither an eco-fee to the consumer nor a disposal fee charged to bicycle shops.
- A compliance process to ensure all retailers “pay their fair share” by correctly reporting and remitting eco-fees on all new program tires sold in BC.

2. Consumer Access to Collection Facilities [Section 5 (1)(c)(iii)]

The plan adequately provides for reasonable and free consumer access to collection facilities or collection services.

Unlike other product recycling programs where consumers must choose between putting their end-of-life product into the waste stream or taking it to a collection depot for recycling, most motorists exchange their scrap tires for new ones at the time of purchase. For the purpose of this Plan, and to maintain consistency with the terminology used in the Recycling Regulation, these retailers are referred to below as Collection Facilities. For consumers who choose not to leave their scrap tires with the retailer at the time of purchase, purchased their tires from an online retailer, or for other reasons have scrap tires to dispose of, TSBC ensures access to other options. TSBC refers to these tires as “orphan” tires.

TSBC's three recognized options for disposal of scrap tires, including orphan tires, are discussed below and are followed by TSBC's approach to monitoring its recovery rates.

ACCESS TO COLLECTION

Collection Facilities – available when consumer purchases new tires

The majority of tire retailers take back one scrap tire for every new tire sold and arrange for haulers to collect and transport the tires to TSBC processors. An example of an exception would be an online retailer where the ability to return a scrap tire to that retailer does not exist.

Return to Retailer Program – available year-round for consumers with “orphan” tires

The ongoing [Return to Retailer \(R2R\) program](#) is TSBC's primary option for consumers with orphan tires.

- R2R provides consumers a free option to return orphan tires to participating retailers. R2R locations are a subset of TSBC retailers that have voluntarily agreed to offer this service.
- This is a year-round program for consumers to drop off up to four passenger or light truck tires, clean and off rim, during the retailer's business hours.

Tire Collection Events – scheduled events for “orphan” tires

Tire collection events are another convenient option to facilitate TSBC's capture of orphan tires. Event locations are selected based on where demand exists and/or upon request by a retailer or local government. No tires are refused at these events as TSBC recognizes that consumers could abandon them at a later time and place.

TSBC also seeks synergies to hold events in conjunction with other BC stewards and continues to participate in clean up events held by Regional Districts and municipalities. In its Annual Report to the Director, TSBC will provide details of the various activities undertaken, including the location of collection events and the partners involved.

TSBC recognizes that despite these options for orphan tires, some motorists will dispose of their scrap tires at a local government facility or depot, where they are collected by TSBC haulers. A consumer's choice to do so may be due to convenience, preference or habit, or because they are unaware there is a TSBC solution. While these alternative options continue to exist, TSBC will persist in its attempts to influence consumer behavior through its communication and education program. This program includes TSBC's continued financial support and promotion of Recyclepedia, the search engine tool for all stewarded products in BC operated by the Recycling Council of BC.

TSBC will continue to work with non-TSBC collection facilities, such as local governments, to provide free collection services for program tires. This includes meeting TSBC’s commitment to provide two cleanouts per year, internally monitoring these collections, ensuring complaints are recorded and responded to within two business days, and continuing to conduct the annual survey with each Regional District and sharing the full report with the Ministry.

RECOVERY RATE

Recovery rate in the regulation “means the amount of product collected divided by the amount of product produced, expressed as a percentage”. Due to a number of factors specific to tires, TSBC defines its Recovery Rate as the “*actual number of scrap tires collected in the reporting year divided by the actual number of new tires sold 5 years prior to the reporting year, expressed as a percentage*”.

TSBC’s recovery calculation for tires aligns with the average life of a tire and therefore establishes a meaningful measure of program performance. Although there is no precise way to determine the life of a tire due to tire design, driver habits, climate, road conditions, etc., most research indicates that its average life is between 4 to 6 years.

TSBC fully expects continuing fluctuations in its annual recovery rate given the factors affecting sales and the increased and ongoing use of winter tires that extend the life of a tire. In addition, some haulers will cull tires collected at the retailer locations for the export reuse market. These volumes are not included in TSBC’s tire collection data, thus impacting the recovery rate percentage. This activity fluctuates but can account for as much as 5% in any given year.

3. Consumer Awareness [Section 5 (1)(c)(iv)]

The plan adequately provides for making consumers aware of the extended producer responsibility program; the location of collection facilities or the availability of collection services; and how to manage products in a safe manner.

TSBC uses a variety of methods to raise consumer awareness of the program, with success measured mainly through consumer surveys conducted annually. In delivering its communications plan, TSBC adjusts its focus areas from year to year to implement campaigns (messages, delivery methods) based on changing needs, including those reported by program stakeholders.

As its core communication method, TSBC will continue to maintain an up-to-date [website](#) to promote program awareness. This includes providing the locations of all Collection Facilities, Return to Retailer locations and other collection services, and the eco-fee amounts that may be charged to consumers by retailers (producers) on the purchase of a new tire.

Beyond its website, TSBC will continue to deliver targeted campaigns in accordance with its communications plan. In the past, these have included encouraging the use of retailer collection options over local government facilities and promoting the purchase of products made using BC recycled rubber. Successful delivery methods for TSBC's information campaigns for consumers and/or local governments have included:

- [Social media](#) and digital media;
- [Videos](#) (e.g., showcasing the recycling process, and how the eco-fee is used to create new value from old tires);
- The RCBC Recycling Hotline;
- TSBC-decaled trailers that travel throughout BC collecting tires;
- Media attention (from special events such as TSBC's [Community Grant program](#)); and
- Bus and radio ads.

TSBC also works with other stewardship agencies in joint initiatives to improve overall public awareness and interest in recycling. Historically, these initiatives have included:

- [Stewardship Agencies of BC \(SABC\)](#) – a common website for information about BC's stewardship programs.
- [Recycling Handout](#) – a common brochure that describes all of BC's stewardship programs.
- [Recyclepedia](#) – an enhanced web tool and app for consumers wanting to know where to recycle certain materials.
- [First Nations Recycling Initiative](#) – jointly funded by many BC stewards to assist in our collective engagement with First Nations to develop or improve the collection of stewarded products.

Despite the program's maturity, TSBC did not become actively engaged in a focused communication strategy until 2021. As a result, while there has been growth in awareness, this remains an evolving area of the program which will continue to be adjusted based on stakeholder feedback and survey responses. As survey data includes details such as demographics and regions, it provides the ability to assess things such as urban versus rural communication outcomes. These details are valuable input to TSBC's communication strategy in terms of the regions to target, the best mediums for the messaging and to help deliver TSBC's commitment to continuous improvement in awareness.

Outcomes of TSBC's key campaigns will be confirmed in the Annual Report to the Director.

4. Management of Program Costs [Section 5 (1)(c)(v)]

The plan adequately provides for assessing the performance of the producer's extended producer responsibility program and the management of costs incurred by the program.

PROGRAM ECO-FEES

The program is funded by the retailer (producer) that may charge the consumer an eco-fee for each new tire sold. The BC Recycling Regulation states that “the plan must adequately provide for the producer paying the costs of collecting and managing the products within the product category covered by the plan”, and TSBC commits to meeting this requirement.

On average, the majority of the revenues (~ 90%) are paid out in program incentives to transport and process scrap tires, and to manufacture new products. TSBC does not pay incentives to any party to collect tires on its behalf. The balance is used primarily to fund the administration of the program; TSBC's comprehensive communication programs; to provide [Community Grants](#); and to cover any tire collection costs arising from unique arrangements to address logistical or geographic challenges, which TSBC will report on in its Annual Report to the Director (issues/related activities).

TSBC's fiscal responsibility includes regular reviews of the appropriateness of its incentives:

- The transportation incentive is adjusted a minimum of quarterly for fuel related costs and a minimum of annually for non-fuel related costs, such as insurance and labour. It is reviewed in consultation with the affected parties, and the data source for the adjustments is agreed between the processor (who manages collection of the tires) and TSBC.
- Processing incentives are reviewed in consultation with the affected parties a minimum of annually and where necessary may include a TSBC directed in-depth study, such as a sustainability review, to ensure any increase or decrease is justifiable.
- The manufacturing incentive is a budget driven program reviewed on an annual basis.

Should any issues arise with incentive recipients, their contracts with TSBC include a [Dispute Resolution process](#).

REPORTING

TSBC's financial statements are audited annually by an independent third party. The statements are included in [TSBC's Annual Report to the Director](#) and published on the website. TSBC's non-

financial information is also subject to an annual audit as required by the Ministry, and these results are also included as part of TSBC’s Annual Report.

TSBC publishes its [program policies](#) which include the incentive rates for transporting and processing BC scrap tires.

RISK MANAGEMENT

TSBC has agreements with its processors and manufacturers which include but are not limited to the obligations of both parties with respect to insurance requirements, audit and reporting, performance measures and financial penalties, financial securities, and contingency plans in the event of fire, flood or market disruption.

TSBC maintains a reserve fund that assists in stabilizing eco-fees by addressing year to year cost variances resulting from program enhancements and fluctuations in sales and collection volumes. The fund also exists to provide support for research and development activities that align with TSBC’s goal to *foster and support innovation and research relative to higher valued solutions within the industry.*

5. Management of Environmental Impacts [Section 5(1)(c) (v, vii & viii)]

The plan adequately provides for assessing the management of environmental impacts of the program. The plan adequately provides for eliminating or reducing the environmental impacts of a product through the product’s life cycle and for the management of the product in adherence to the order of preference in the pollution prevention hierarchy.

There are many environmental benefits of diverting tires from landfills and the environment in general: reduced fire hazard and the potential for air, water and land pollution; fewer breeding habitats for West Nile Virus-carrying mosquitoes; and the recovery of rubber and steel that are very energy intensive materials to obtain raw and consequently major contributors of greenhouse gases (GHG).

The Ministry’s pollution prevention hierarchy consists of 7 levels, (a) to (g), as identified below. As TSBC represents the tire retailer and not the manufacturer, it has little or no influence on the first three levels of the hierarchy, (a), (b) and (c). TSBC will, however, maintain a watching brief for industry advancements in these areas and identify them in the Annual Report, along with any emerging issues of concern regarding tire composition.

REDUCE – level (a)

While managing tires at their end-of-life is important, lengthening their lives so that fewer are used is essential. Tire manufacturers are making progress: since 1981 the average tire life has gone up 56% (from 46,000 km to over 72,000 km). Also, average tire rolling resistance has decreased by more than 25% simply by making the tires lighter and stronger. Manufacturers also recognize the need to balance environmental concerns with tire safety and customer satisfaction.

TSBC works in partnership with The Tire & Rubber Association of Canada in their annual [Be Tire Smart](#) campaign which focuses on educating the motoring public on the role of proper tire inflation and maintenance in extending tire life. This includes ongoing social media posts, blog / news postings by TSBC on its website, and educating the consumer at community events attended by TSBC throughout the province.

REDESIGN – level (b) / REDUCE UNUSED PORTIONS – level (c)

TSBC's ability to influence product design to increase recyclability is extremely limited. While this is an accepted and theoretically possible outcome in some industries, automotive tires are not simple consumer commodities. Instead, they are a critical element in the safe operation of motor vehicles. For this reason, the design and operating parameters of tires are mandated by federal regulation and international agreement. The things that make a tire "safe" also tend to be those that make it difficult to recycle.

REUSE – level (d)

Known in the industry as culling, tires collected by the hauler can be diverted from recycling and sold as used tires. The tires diverted for this second use are not recorded in TSBC's collection numbers and those that are exported will never re-enter BC's system. In addition, most Medium Truck tires are retreaded at least once, extending the life of these tires.

While TSBC recognizes that some tires are directed away from the program for reuse, it does not actively participate or financially support these activities and as such, receives no related reporting.

RECYCLE – level (e)

A tire has three key components: rubber, steel and fibre, and all are directed to an end use with any waste directed to landfill.

Rubber:

- Crumb rubber – granules of rubber with the steel and fibre removed.

- The crumb is used to create a variety of products including athletic tracks and synthetic turf fields; playgrounds; colourful, resilient flooring in recreational facilities; and flooring and mats for agricultural and industrial use.
- Mulch – tire shreds with the steel removed.
 - The mulch is used to replace bark mulch and can be purchased by the public directly from many big box stores.

Steel: extracted from tires during the crumb and mulch processing and is recycled.

Fibre: extracted from tires during the crumb processing and is directed to a cement kiln for energy recovery (level f, below).

To ensure environmental outcomes, the processor is required to submit to TSBC the results of its annual environmental audit and, in accordance with program policy, post a financial security. The processor is also subject to third party audits by customers that sell the recycled product, such as Costco and Walmart.

Beyond primary processing, TSBC promotes the use of BC's recycled rubber in products manufactured in BC through its Manufacturing Incentive program.

ENERGY RECOVERY – level (f)

The BC tires not directed to recycling are used as tire derived fuel (TDF) to recover the energy.

The policy of allowing some tires to be used as a fuel supplement is sound both economically and environmentally: TDF serves as a replacement for less environmentally friendly fossil fuels such as coke and coal. It is a practice followed by many other Canadian provincial programs for a variety of reasons, and TDF is a significant end use in both the US and Europe. Studies of TDF that focus on a life cycle approach are available on the TSBC website (e.g., by [Aliapur](#) and the [Pembina Institute](#)).

TDF usage at the cement plant in BC requires environmental permits, which are issued by Metro Vancouver as the delegated authority for the Ministry.

RESIDUAL MANAGEMENT – level (g)

The volume of material directed to landfill, comprising waste from the recycling process and tires that cannot be processed, is extremely low. This is due to investments made by the processor to ensure 100% of the tire is processed and sold to end markets, as well as the absence of a processing incentive for this type of disposal.

The TSBC Annual Report to the Director separately reports the Residual volume and each of the Recycle and Energy Recovery volumes.

6. Dispute Resolution [Section 5 (1)(c)(vi)]

The plan adequately provides for a dispute resolution procedure for disputes that arise between a producer and person providing services related to the collection and management of the product during implementation of the plan or operation of the extended producer responsibility program.

TSBC's strategy has been to avoid disputes and its success has been achieved by taking a partnership approach with program service providers and related stakeholders. This entails:

- Having written contracts with all companies that receive financial incentives from TSBC (participants). These contracts include a section specific to dispute resolution that outlines the range of steps that will be taken, should a dispute arise.
- Managing key contracts with regular and frequent partnership relationship meetings to keep communication and trust levels high.
- Tracking and monitoring tire collection complaints from retailers and generators.
 - Should an issue arise with tire collection, the retailer / generator is asked to handle the issue directly with the processor. If the issue remains unresolved, the retailer / generator is asked to contact the TSBC office directly. Complaints are documented and tracked by TSBC and reviewed with senior management on a bi-weekly basis. The contract with the processor includes commitments to the handling and resolution of complaints and subsequent financial penalties for underperformance.
- Hauler and local government representation on TSBC's Advisory Committee.

There have been no disputes since TSBC implemented the program but in the event that one occurs, as noted above, TSBC has set out a dispute resolution procedure in its contracts with participants. This involves a multi-step settlement process that starts with negotiation before moving to mediation where the costs are shared equally among the parties involved.

Beyond the stakeholders with which it has a formal contract, TSBC maintains a log to record and track all incoming concerns regardless of the stakeholder's size, location or interest in the program. Each concern is dealt with by the appropriate TSBC staff directly with the concerned party.

7. Performance Measures and Targets [Section 5 (1)(a)(i),(ii),(iii)]

The plan will achieve, or is capable of achieving within a reasonable time:

- *a 75% recovery rate or another recovery rate established by the director;*
- *any performance measure, performance requirements or targets established by the director; and*
- *any performance measures, performance requirements or targets in the plan.*

The performance measures, targets and reporting commitments can be found in [Appendix A](#).

8. Stakeholder Consultation on Plan Implementation and Operation [Section 5 (1)(b)]

The producer has undertaken satisfactory consultation with stakeholders prior to submitting the plan for approval and will provide opportunity for stakeholder input in the implementation and operation of the extended producer responsibility program.

STAKEHOLDER CONSULTATION – PRE-PLAN SUBMISSION

The Consultation Process and Attendance and the Summary of Consultation Feedback and Associated Responses) for the term of the Plan can be found in [Appendix B](#).

STAKEHOLDER CONSULTATION – PROGRAM OPERATIONS

TSBC connects with many of its stakeholders on an ongoing basis including:

- The TSBC Advisory Committee, which convenes once a year and upon request by any of the members. The committee is made up of a broad reach of stakeholder groups such as scrap tire generators, haulers, processors, manufacturers, local government and environmental organizations. The committee has an opportunity to address any specific issues, to learn of any TSBC program updates and to provide advice on any operational or policy issues presented for discussion.
- The BC Product Stewardship Council for TSBC’s annual survey and connecting in person at conferences either informally or at a scheduled session arranged by the conference host.
- Attendance at community events throughout the province, which enables one on one dialogue with the public.

- Partnership meetings with key service providers, which occur monthly or quarterly and assist in keeping current on any issues or developing threats to the operation of the program.
- Monthly communication to retailers, which provides them with key updates / messaging.
- Quarterly dialogue between TSBC member organizations and the director who represents the member organization on the board. This allows for any member organization concerns to be conveyed to the board and staff and allows for a transparent process.
- Staff attendance at key conferences, which enables face to face dialogue with other stakeholders to specifically address any issues.

INDIGENOUS CONSULTATION

TSBC is committed to continuing and increasing its efforts to inform Indigenous communities about the TSBC program. TSBC will continue to provide an overview in its Annual Report on events and activities it has supported and / or participated in related to Indigenous communities.

APPENDIX A: Performance Measures, Targets and Reporting Commitments

Term: 2022 – 2026

TSBC commits to achieving the following annual targets and reporting commitments. The results of both the performance targets and reporting commitments will be included in TSBC’s Annual Report to the Director submitted on or before July 1 every year.

Metric		Reporting Commitment / Target	Subject to 3 rd party audit
Products Sold and Collected			
1	Total number of tires sold in the Reporting Year	Reported: in Annual Report Target: N/A	Yes
2	Total number of tires collected in the Reporting Year	Reported: in Annual Report Target: N/A	Yes
3	Recovery Rate <u>(Total # tires collected in Reporting Year / Total # tires sold 5 years prior to Reporting Year)</u>	Reported: in Annual Report Target: 90%	Yes
4	Total metric tonnes of tires collected in each Regional District in the Reporting Year and on a per capita basis	Reported: in Annual Report Target: N/A	No
5	Results of TSBC’s ongoing participation in the Stewardship Agencies of BC waste audits (and results of any local government waste audits if data is shared with / made available directly to TSBC)	Reported: in Annual Report Target: N/A	No

Metric		Reporting Commitment / Target			Subject to 3 rd party audit	
Management of Environmental Impacts						
6	End fate management of materials - expressed as a % of the total volumes processed and shipped in the Reporting Year Note: on average, rubber accounts for 70% of the total weight of the tire material with 15% steel and 15% fibre	Reported: in Annual Report Target:			Yes	
			Recycling	Energy Recovery		Landfill
		Rubber	2022 - 23: 88% 2024 - 26: 90%	2022 - 23: 11% 2024 - 26: 9%		1%
		Steel	100%			
Fibre		98%	2%			
7	Efforts taken to reduce environmental impacts, to increase reusability and recyclability	Reported: in Annual Report Target: N/A			No	
Collections & Accessibility						
8	Number and location of collection facilities – these are “registered retailers” that will take back a scrap tire from the consumer at the time a new tire is sold	Reported: in Annual Report Target: 1,850			Yes	
9	a) Total number of registered retailers in BC that take back “orphan” tires (Return to Retailers - R2Rs) b) Total number of R2Rs in each Regional District For details, see EPR Plan section 2, Access to Collection–R2R program	a) A minimum of 25% of “registered retailers” b) At least 25% of “registered retailers” in each Regional District are R2R locations			Yes	
10	Number of TSBC tire collection events, including date, location, and number of tires collected	Reported: in Annual Report Target: N/A			No	

Metric		Reporting Commitment / Target	Subject to 3 rd party audit
11	Number of legitimate collection complaints	Reported: in Annual Report Target: N/A	No
Consumer Education & Awareness			
12	Education and Awareness a) Awareness of where to take scrap tires for safe disposal b) Awareness of where to go to find information on safe disposal locations	Reported: in Annual Report Target: a) 2022 & 2023: 56% 2024 & 2025: 61% 2026: 66% b) 2022 & 2023: 68% 2024 & 2025: 73% 2026: 78%	Yes
13	Description of educational materials and educational strategies used	Reported: in Annual Report Target: N/A	No

APPENDIX B: Consultation Process, Feedback and Responses

Term: 2022 – 2026

Consultation Process and Attendance

In preparation for the open consultation process, TSBC held internal consultations on the draft 2022–2026 Extended Producer Responsibility Plan (Plan) with its Advisory Committee during May and June 2021.

On June 29, 2021, the open consultation process was initiated with the publication of the draft Plan on the TSBC website. In accordance with the BC Recycling Regulation, the draft Plan was posted for comment for 45 days. Interested parties were invited to submit remarks in writing to TSBC by August 13, 2021 and were encouraged to review the recently published 2020 Annual Report for additional insight.

TSBC also held the following three webinars to provide highlights of the draft Plan and answer questions from registrants. Comments and questions from each session were recorded and are included in the feedback summary in Appendix III, together with the written feedback.

July 5, 2021 (10 to 11:30 am) – webinar for the British Columbia Product Stewardship Council (BCPSC)

- Attended by 7 Regional District representatives.

July 15, 2021 (10 to 11 am) – webinar #1 open to the public

- Attended by representatives of 11 local governments, environmental groups, or program participants.

July 28, 2021 (10 to 11 am) – webinar #2 open to the public

- Attended by representatives of 22 local governments, environmental groups, or program participants.

Summary of Consultation Feedback and Associated Responses

The table below presents the consultation feedback applicable to the draft 2022–2026 Extended Producer Responsibility Plan (Plan) together with TSBC’s responses. Note that some lengthy comments have been truncated without the intent of distorting the essence of the original messaging. The Ministry of Environment and Climate Change Strategy (Ministry) has been provided with copies of all comments recorded at the webinars or received in writing, as they were originally documented by the source.

TSBC acknowledges receipt of several comments and questions during the consultation process which were out of scope for purposes of the Plan and as such are not included in the table. These include:

- Location-specific operational matters – which are being resolved directly with the relevant parties.
- The Recyclepedia tool (owned and managed by RCBC) – including comments on its functionality and effectiveness.
- Eco-fee changes – including moving responsibility to the wholesaler level; and increasing the existing fees to fund program changes.

TSBC was also commended in several areas including the improved format of the draft Plan; overall program success; high recovery results; working with local governments for tire pick-up services; being an early partner in the First Nations Recycling Initiative; engaging an Advisory Committee; operating a stable, long-standing collection network; providing community grants and manufacturing incentives to encourage crumb rubber markets; implementing the voluntary bicycle tire recycling program; and fostering the “Be Tire Smart” campaign on proper tire care to promote tire longevity.

Participant Comments / Questions	TSBC Responses / Actions
1. Regulated Tires Comment Sources: 1 Retailer, 1 Environmental Group	
<ul style="list-style-type: none"> • Add other Off the Road (OTR) tires to help with the current high costs to have them recycled. • TSBC is to be commended for having a voluntary bike tire program. Now that it has been running for some time, the program should ask the province to include these tires in the Regulation. 	<p>The ability to add these OTR tires to the Recycling Regulation, so that they become part of the TSBC program, has been challenging. The Ministry has products they want or have been tasked to regulate which take priority over these tire types. TSBC had hoped they would make the most recent list, but unfortunately they did not. The Ministry has also experienced significant resourcing issues to take this forward. TSBC remains optimistic that these tires will be added as we also see it as a win for everyone involved in the chain.</p> <p>With respect to adding bike tires, the same constraints apply. In addition, a TSBC staff review of including these tires in the Recycling Regulation indicated the burden on everyone in the chain would result in cost and process inefficiencies. In the meantime, however, the program is working well on a voluntary basis.</p>
2. Support for Landfills, Transfer Stations & Depots Comment Sources: 1 Retailer, 2 Environmental Groups, 1 Depot, 2 Local Governments	
<ul style="list-style-type: none"> • Cooperate with Regional Districts to accommodate tire collection at transfer station facilities which will help reduce the stresses on retailers. • A Ministry approved commitment to fund collectors such as recycling depots would incentivize collection and increase access for consumers who pay the eco-fee precisely for this purpose. • When will we get some kind of payment for setting aside space for tires, piling them, and cleaning them out? • The private transfer station charges for taking tires but at our local government-run depot, we don't – so there's no compensation for labour, etc. • Since local governments are not official tire program collectors, yet still receive tires in mixed loads with garbage or loaded separately, TSBC 	<p>Unlike other programs, TSBC's collection uses a retailer model, not a depot model. It is not feasible to implement a modified approach in order to manage only 5% (on average) of all the tires collected annually, i.e. those which are not left with the retailer when new tires are purchased and are collected from local governments/depots.</p> <p>Retailers are not compensated for collection, nor are local governments or depots. However, TSBC's report from the 2020 survey (sent to all of the local governments and depots that responded) did encourage any sites facing unique tire management challenges to contact TSBC to work together on the issues. Several conversations in this area are underway or have been completed. These situations include sites located in remote or other hard to access areas.</p>

Participant Comments / Questions	TSBC Responses / Actions
<p>may wish to consider options for offsetting costs for local government facilities which continue to receive tires.</p> <ul style="list-style-type: none"> The program should show the percentage of tires collected from local government facilities (as well as other forms of collectors) and compensate these facilities appropriately to ensure there is no fee charged to the end user. 	<p>With respect to ensuring free service to consumers, it is important to recognize that they already have a free option through the R2R program, as well as TSBC collection events in areas where requested by eligible third parties. TSBC is also working to enhance its education initiatives to increase awareness of R2R locations.</p> <p>As for landfills/transfer stations, TSBC is proactive in discouraging consumers from bringing their tires there since they do have the free R2R option. If consumers still want to use local government facilities (or private depots), the best thing for these sites to do is charge them a “convenience fee” to cover any associated costs.</p>
<p>3. Dispute Resolution Details Comment Source: 1 Local Government</p>	
<ul style="list-style-type: none"> TSBC should include the description of the procedures for dispute resolution in the plan, as the Guide requires it. With the current wording, there is no accountability for the program to follow correct dispute resolution if contracts change in the future with inadequate dispute resolution. 	<p>TSBC has no contractual arrangements with program stakeholders other than its registered processors and manufacturers. The dispute resolution process is outlined in the contracts and is agreed to by these participants, and is not required to be shared with the public.</p>
<p>4. Recovery Rate Target / Method Comment Sources: 1 Environment Group, 2 Local Governments</p>	
<ul style="list-style-type: none"> The recovery rate is set for 90% with no indication of improvement over the course of the plan. Is there a reason the target has not increased from the last three years and is not increasing as time goes on? The 93% rate is very good but even so, the program should aim to go higher as the sheer volumes of sales means that in 2020, over a quarter of a million tires were landfilled or dumped. The recovery rate should be 98-100% and differentiated by tire type. The use of the recovery calculation using sales from five years past does mean that it may be subject to variation as a result of changes in sales. A better approach may be to use a rolling average of the sales 4 to 6 years back to account for this. 	<p>Starting in 2018, to reflect the longer life of a tire (as compared to most other recycled products), TSBC has reported product recovery based on a comparison of the tires collected in the reporting year to the tires sold 5 years prior. As the 5 years assumes the estimated life span of a tire at 4 to 6 years, as noted in the comment, the results are likely to fluctuate from year to year. However, the recovery gap does not represent “landfilled or dumped” tires as commented, but rather, it comprises numerous factors that are beyond TSBC’s control including that a portion of all tires sold will be exported and thus never enter the BC scrap tire market. These factors also mean that a consistent/notable increase in overall recovery is unlikely. With no known stockpiles of significance and few retailer/generator complaints, TSBC is</p>

Participant Comments / Questions	TSBC Responses / Actions
<ul style="list-style-type: none"> • TSBC is encouraged to research tires culled for reuse and develop estimates for the number of units reused. Recognizing that these estimates are outside of the program’s control, and thus cannot be externally verified /audited, a reuse estimate may help to fill in gaps between the number of tires sold (5 years prior) and the number of tires collected annually. • While it is a good incentive not to add a fee to the sale of retreaded tires, data on the sale of retreaded tires should be gathered. • Ideally the program would report on historic sales, especially in the years during which it can be expected sales were made for tires being returned now. This should be done by tire type. 	<p>confident that a 90% recovery target (which compares to the regulatory requirement of 75%) ensures that all BC scrap tires available to the program are actually being collected for recycling.</p> <p>TSBC did assess a number of options for the recovery calculation including, as suggested, a rolling average. The current approach was supported by the Tire & Rubber Association of Canada (TRAC) and has been in use for only 3 years. TSBC will use and monitor this method for the time being, but is open to re-visiting the approach in the future.</p> <p>Tires sales by type are included in each year’s TSBC Annual Report.</p>
<p>5. Collection Facilities Target Comment Sources: 1 Environmental Group, 1 Local Government</p>	
<ul style="list-style-type: none"> • The 1,850 target seems too conservative as this was the last plan’s target and the past three years have been well above it. The target should be increased to ensure TSBC is striving to provide the best service for its customers to return old tires. • The plan notes, “The majority of tire retailers take back one old tire for every new tire sold”. Majority is an unquantified number indicating the producer is unsure of access for consumers. 	<p>The term collection facility used in the Recycling Regulation is an example of a “one size does not fit all” term. For some stewards a collection facility is exactly what you would expect it to be – a steward designated facility that accepts the steward’s product from the consumer at end of life. For tires, the collection of this product typically occurs at the time of the sale of a new tire. Therefore, TSBC defines a collection facility (as noted in its 3rd party assurance for non-financial information report) as a retailer that will take back a scrap tire when a new tire is sold.</p> <p>TSBC cannot control the number of retailers (i.e. the collection facilities) that open or close their doors from year to year. No tire collection facilities are established by TSBC. As TSBC is only able to estimate the number of retailers in business at any given time, the results will continue to fluctuate.</p> <p>With respect to the term “majority” of retailers, there are retailers that are unable to take back one tire for every tire sold. That’s because this transaction is either impossible (out of province retailers, online tire retailers) or an old tire is not presented/available for disposal, e.g., at equipment manufacturers, trailer manufacturers,</p>

Participant Comments / Questions	TSBC Responses / Actions
	and some mass merchandisers such as Home Depot.
6. R2Rs Target (Provincial) Comment Sources: 2 Environment Groups, 1 Local Government	
<ul style="list-style-type: none"> From the last plan the target for retailers that take back orphan tires was set at 800 province wide. As the target is 1,850 registered retailers for collection, 25% would be 463 sites, which is already being met. If this target were to increase, the overall recovery rate should as well. Orphan tires continue to be problematic in rural and northern areas, where many customers have multiple vehicles that require two different sets of tires, therefore extending the life of the tires. A voluntary collection site model does not acknowledge costs incurred for collection services, and is therefore a disincentive to give consumers access to free drop-off of tires. Recycling Regulations do not predicate collection on purchase trade-off, but rather require the producer to cover the costs of collection. Why is there no target to increase R2R collection sites above 25% to increase customer drop-off convenience? 	<p>TSBC would like to reiterate the point made earlier that the collection from local government sites and depots accounts for only 5% (on average) of the scrap tires generated in BC annually. The R2R locations are in place as the preferred solution for the 5%.</p> <p>For the target number of R2R locations, this is 25% of all registered retailers located in BC – 2,235, not 25% of the smaller number of the targeted Collection Facilities – 1,850). Also, this is a province-wide target so in terms of geographic accessibility to services, the <u>key and by far the most meaningful measure</u> is the number of R2R locations within each Regional District (see #7 below).</p>
7. R2Rs Target (Regional Districts) Comment Sources: 2 Environmental Groups, 1 Local Government	
<ul style="list-style-type: none"> This target (25%) has not changed from the previous plan. Since the goal of TSBC's collection network is a return to retailer model, the target in each Regional District should be greater than the past plans target of 25%. The voluntary requirement for R2Rs limits access for consumers. The target for 25% of retailers per Regional District to participate as R2Rs is both <ul style="list-style-type: none"> 1. low, and 2. a vague representation of adequate access dispersed between urban and rural areas in a Regional District. The ideal scenario for a program is a barrier free (accepts rims, no fee, does not require new purchase, no limit on number of returns) collection location in every community in BC (not 	<p>As 95% of the tires collected are generated at the time new tires are purchased, the R2R locations are presented solely as an option for the remaining 5%, of which a portion is collected from depots and Regional District landfills/ transfer stations that have chosen to accept them. With respect to the number of R2R locations within specific Regional Districts, TSBC will work with local governments to address any unique issues related to collection, such as accessing tires in remote sites.</p> <p>In terms of barrier-free services, note that despite the 4-tire limit identified in TSBC policy, many retailers will accept larger numbers. The other barrier-free items noted in the comment are addressed under separate subjects in this table.</p>

Participant Comments / Questions	TSBC Responses / Actions
<p>just 25% of registered retailers in a Regional District which could still result in some very long travel times to properly dispose of tires)</p>	
<p>8. Education & Awareness Target Comment Sources: 2 Environmental Groups, 1 Local Government</p>	
<ul style="list-style-type: none"> • The targets for education and awareness are lower than the past plan excluding year 2026 for both. As mentioned in the 2020 Annual Report, the education and awareness targets were not met due to conducting a separate survey from SABC. Also noted in the 2020 Annual Report, TSBC would continue to participate in the SABC survey. Why then, have the performance targets been lowered, and not increased? TSBC should show continuous effort particularly in rural and northern communities. • Reported public awareness is low, and could improve. The plan lacks improvement strategies to support target achievement. The plan records 2021 to 2025 consumer awareness targets to be lower than 2020 targets. How is this year over year improvement? • For a program operating as long as TSBC has, it is surprising that the level of consumer awareness is not higher. The fact that the recovery rate is high despite this shows the importance of a good collection network. The program could also pursue disposal bans with local governments as a way to ensure consumers do the right thing but also that they are aware that throwing the tires away is not appropriate. 	<p>Strategies to improve awareness are reported in the Annual Report. In the current plan, where first required to have targets in this area, TSBC was already participating in the SABC survey and used those numbers as a “baseline”. However, as noted in the Annual Report, for reporting purposes TSBC now conducts its own survey which has revealed that a combined stewardship survey yields higher results (a finding by other stewards as well). Unable to change targets during the term of the current plan, the Ministry advised TSBC to amend them in the new Plan, which has been done.</p> <p>The important aspect of this target is that TSBC must show continuous improvement. As the draft Plan notes, TSBC’s communications plan is reviewed annually and adjusted as needed to address current needs/circumstances.</p> <p>Regarding the implementation of tire bans by local governments, TSBC has stated its support of such by-laws, should they be pursued. In TSBC’s 2020 local government survey, most responders indicated that they would either not impose a ban or had never considered doing so.</p>
<p>9. Support of Reuse Comment Sources: 2 Environmental Groups, 1 Local Government</p>	
<ul style="list-style-type: none"> • Excluding retreaded tires is a particularly costly exclusion to the detriment of TSBC’s ability to report reuse applications. The program is responsible for managing products according to the waste hierarchy and so there should be funds allocated to incentivize properly managed retreading programs. It could be concluded that the hands-off approach to retread for export is an industry download of waste to other countries. 	<p>Tire retreading is a process (described below) conducted by the industry itself for the customer, one that has existed without support since the 1950s. For clarity, these tires are not retreaded for export to other countries.</p> <ul style="list-style-type: none"> > Customers bring their Medium Truck tires to a retreader (generally a retailer) to be retreaded for continued use. For customers who do not want to run on retreads, the

Participant Comments / Questions	TSBC Responses / Actions
<ul style="list-style-type: none"> • EPR is regulated to manage products according to the waste hierarchy and reuse is higher order destiny than recycle. Fund the retread program to extend life of more tires. • Isn't it better that tires are reused rather than recycled? • TSBC should be actively promoting reuse as part of the program and gathering all associated data, including that which will inform the recovery rate. A formal process should be enacted to assess all incoming tires for the potential for reuse or retreading. Targets for reuse should be added. 	<p>retreader will buy the tires and retread/re-sell them.</p> <p>There is no need to further incentivize reuse as the activity is ongoing and has been for many years. Given the practice already exists successfully outside of TSBC, providing grants would result in misspent funds and introduce needless complexities such as establishing eligibility rules to reuse a tire for its original purpose (safety standards, acceptable markets, etc.).</p> <p>Regarding support of other types of reuse, when a tire is reused for something other than its intended purpose and has been modified (e.g., foam-filled tires or tires cut for use as bumper docks), it can present issues when it comes to managing that tire at the end of its life.</p>
<p>10. Incentivizing Producers (Reduce) Comment Sources: 2 Environmental Groups</p>	
<ul style="list-style-type: none"> • The plan has a weak strategy to engage producers. Surely after 15 years producers should know their responsibilities. What is the expected deliverable from producers once they know responsibilities? What is the measurable target? • It is possible to influence product design using a bonus malus fee schedule. Simply put, if tires are designed to last 5 years or longer, those producers should pay lower fees than tires designed to last less than 5 years. Increase in fees from poor design can subsidize increased costs to recycle more durable tires. • Research should also be done to see how the problem chemicals can be removed or replaced with safer alternatives (redesign). Another redesign question is if the passenger and light truck tires could be designed for retreading as a way to extend the lifespan. A key aspect of an EPR program should be providing feedback to the producers, especially the design departments, so that product end-of-life considerations can inform design. 	<p>For this regulated product, retailers are the designated “producers” despite not being the product manufacturers. However, the tire manufacturers are focusing on lengthening tire life so that fewer are used, and kept out of the waste stream for as long as possible. They have made advances with the introduction of tires with lower rolling resistance, which improves fuel efficiency. Further, TSBC continues to engage with the Tire & Rubber Association of Canada (TRAC), the organization representing the manufacturers, in its annual “Be Tire Smart” campaign to educate the public on proper tire inflation and maintenance, which also increase tire life.</p> <p>While tire design is mandated by federal regulation, manufacturers are also addressing the environmental challenges of tire construction, e.g., replacing high aromatic petroleum-based oils with bio-based oils, beginning to incorporate recycled rubber into selected tire types, and investing in new sources of natural rubber supply such as guayule and Russian Dandelion.</p>

Participant Comments / Questions	TSBC Responses / Actions
	TSBC monitors and reports on tire design progress in the Annual Report.
11. Environmental Impacts (Recycling) Comment Sources: 2 Environmental Groups	
<ul style="list-style-type: none"> • Lead and phthalates and other metals have been found in rubber crumb and mulch. It is important to document consistent monitoring of latest research on bioavailability and safety of each application of recycled tires. Crumb and mulch may have a more negative environmental impact than products made from larger pieces of rubber from tires. TSBC should demonstrate fluency with current research to ensure best management of tires. • While the use for playground mats and mulch is a form of recycling, with the increasing data about the potential harm that runoff from roads including the material from tires, more research should be done to see what impact these uses may have (recent salmon deaths research). • Ideally, research should be done to see what the barriers are to using the rubber in new tires or other products that represent higher and better use. Perhaps more of a focus on the manufacturing incentive to drive the use of rubber in products already requiring rubber may be beneficial, with care taken to ensure this does not result in more dispersal of small bits of rubber [e.g., mulch].) • The use of tires instead of bark mulch is very concerning as now there are many small pieces of potentially harmful rubber distributed in the environment. It will be hard to ensure collection of this material and if it is shown to be leaching chemicals into streams, a potential liability for the program. Also, as this effectively transfers a material from within a program to outside of the Recycling Regulation, often with the support of Community Grants, there should be provisions made to steward the mats at the end of their useful lives. 	<p>TSBC continuously monitors for industry relevant research and defers to experts in the field. To maintain an evergreen Plan, significant findings are instead included in the Annual Reports.</p> <p>Examples of research considered by TSBC include comparisons of the impacts of tire-derived products versus tire-derived fuel, and of crumb rubber used in artificial turf. TSBC is also participating in a multi-year Life Cycle Assessment project with the other provinces to assess the comparative impacts of multiple end uses of tires.</p> <p>With respect to stewarding of the recycled product at the end of its life, the Ministry’s focus has been to monitor the original product up to its end fate and as such, TSBC does not follow the recycled product to the end of its life (i.e. subsequent to the commercial transaction). It is important to recognize that this matter extends well beyond products made with recycled tires.</p>

Participant Comments / Questions	TSBC Responses / Actions
12. Environmental Impacts (Energy Recovery) Comment Sources: 2 Environmental Groups	
<ul style="list-style-type: none"> It is getting really old to maintain the benefits of product recovery as coke/coal replacement. Cement kilns are well known to have minimal or no scrubbing technology and to claim environmental benefit at such a low threshold is contrary to any environmental benefit. It is incumbent on the agency to do better, and on the Ministry to require better. The use of tires for energy is problematic as GHG emissions need to be radically reduced. The US EPA WARM model2 shows that combustion of tires releases more GHGs than landfilling. Another concern is that cement kilns have lower standards for air emissions than even an incinerator. If the ash is used in concrete, then analysis should be done for what chemicals from tires can be found in the cement, the leaching potential, and impacts. Of note is that cement facilities burning coke or coal have one kind of fuel that they were designed to use and the pollution mitigation equipment is more likely to be designed for the pollutants associated with those fuels and may not be appropriate nor adequate for the burning of tires. Energy recovery should be phased out. 	<p>See response in #13 above. Again, TSBC respects the advice of industry experts and authorities. This includes the Ministry which, as noted in the draft Plan, is the permitting-body for the participating cement kiln.</p> <p>Regarding stewarding of the cement product, as noted in the response to #13, the scope of this issue exceeds products made with recycled tires.</p>
13. Fibre Targets Comment Source: 1 Environmental Group	
<ul style="list-style-type: none"> There is no identified target for fibre reuse/recycling. Also, why would there be no target to move fibre management up the hierarchy? 	<p>Until 2020, BC was the only province in Canada that had a use for its fibre (derived only from the crumbing process) beyond landfilling – one other province recently began using the fibre, with details to be confirmed.</p> <p>Research is ongoing into the use of fibre in product, including in concrete to replace virgin fibre. TSBC provided significant funding for the early stages of the concrete research and continues to offer support where feasible.</p> <p>Before considering any targets for fibre, additional research into viable product options is prudent.</p>

Participant Comments / Questions	TSBC Responses / Actions
<p>14. Tires On / Off Rims Comment Sources: 1 Environmental Group, 5 Local Governments, 1 Depot</p> <ul style="list-style-type: none"> • Despite having 28 or 29 R2Rs, we still have thousands of tires coming to local landfills and transfer stations, including tires on rims. While I understand that rims are not part of the program, it seems there is nowhere to take them. Also, some residents are willing to make a 20 minute drive out to a rural transfer station with their off rim tires rather than take them into town (a long-term habit of residents). How do we transition people away from our sites? • We have seen a decrease in the number of tires at our sites because we charge for both on and off rim tires, so we cover our costs for de-rimming. We definitely encourage charging residents to take their tires, and things are going well. Could tires on rims be an issue raised through the collection events, especially in the north? • Are local governments allowed to charge for <u>off</u> rim tires and still have them picked up? • I fully recognize rims are an unregulated product and am happy TSBC is looking at consumer education initiatives. Local governments see rims mixed in with household garbage so will always get that material since they won't make multiple stops for their items. But is TSBC looking at highlighting that consumers could take rimmed tires cost-free to a collection event? Or maybe retailer locations could take them during a specified time of year in an "amnesty week" and sell the steel – or are there other options to help local government's cost burden to manage those tires on rims? • I agree with the previous comment as it applies not only to local governments, but to R2Rs like me as well. • We have been working with our local scrap metal recycler and they have agreed to take rimmed tires that end up in the un-rimmed pile (especially at the uncontrolled sites), and put 	<p>While TSBC cannot be expected to fund this unregulated material, there may be an opportunity for TSBC to target the areas most in need of consumer education about rims. This could include educating on the options available to consumers as they bring their rimmed tires to TSBC-involved collection events. (Note that the exclusion of rims is confirmed in the Recyclepedia search on the TSBC website.)</p> <p>It is challenging when local governments have not implemented fees for tires and/or rims at their sites. It is their decision on whether or not to charge fees to deter residents from bringing the tires, or to cover their de-rimming or other management costs. Steel has value, and these sites could de-rim the tires and sell the steel. Note also that there is a local government site with a scrap metal recycler nearby, so they direct the rimmed tires there because they want the steel – this may also be an option for other sites.</p> <p>This consultation process revealed that some local governments were not aware they could charge for both on and off rim tires and upon learning that this is their choice, will consider by-laws.</p>

Participant Comments / Questions	TSBC Responses / Actions
<p>them in with the metals to deal with them later. They service our sites every year or two anyway.</p> <ul style="list-style-type: none"> From a consumer’s perspective a tire has limited value without a rim. Recognizing that rims are not an obligated product under the Recycling Regulation, they are often sold in combination with tires by retailers, dealers, and service stations which are members or participants in the TSBC program. As a result, TSBC may wish to pursue a multi-pronged approach to managing tires on rims through a combination of consumer education, round-up events, and other collection activities funded by TSBC. The number of collection facilities is impressive but removing barriers for consumers should be a focus. Tires on rims should also be accepted as for many consumers this is a barrier. 	
<p>15. 5R / Other Materials Tracking Comment Sources: 1 Environmental Group, 1 Local Government</p>	
<ul style="list-style-type: none"> Do you track the portion of landfilled material that originates from the cement kiln, e.g., the ash? The plan states that the landfilled waste is low but it would be good to know how much by showing not just the percentage allocation of the tires to recycling, energy recovery and landfill, but also the tonnage. This would make it clear the scale of rubber, fibre and steel going to each end fate. 	<p>TSBC tracks the tonnes of tires sent to the kiln, and there is no waste from their use in energy recovery – it’s only from the recycling process. Regarding “ash”: All solid fuels produce ash when they are combusted. In all combustion processes, <i>except cement manufacturing</i>, this ash is residue which needs to be managed. In the cement manufacturing process however, heat from combustion is used to transform raw mineral inputs (such as limestone and shale) into cement (actually clinker). The ash from combustion becomes part of the blend of minerals that is fed into the kiln and the ash, and like those other minerals, is transformed into product. Cement manufacturing is a “zero-residue” process.</p> <p>TSBC will consider adding end fate tonnages to the Annual Report.</p>
<p>16. Collection Events Comment Source: 1 Environmental Group</p>	
<ul style="list-style-type: none"> The goal of TSBC should be to not require collection events as the collection network should be very robust and well known. They should be used only as a temporary measure (up 	<p>TSBC does not require that any collection events be held. These events are arranged only in response to requests from local governments or communities.</p>

Participant Comments / Questions	TSBC Responses / Actions
to 1 year) until a no-barrier collection site can be arranged.	
17. Clean-ups Comment Source: 1 Environmental Group	
<ul style="list-style-type: none"> While the annual report includes working with groups to partner on cleanups, this plan should note it as well. Given that tires are a common item for illegal dumping, the program should take proactive steps to minimize the occurrence as well as assist in the cleanup. Data gathered on illegal dumping could be used to understand why this occurs (as well as where and when) and then develop an action plan to minimize it. 	<p>Under “Tire Collection Events” (page 4 of the draft Plan), it is noted that TSBC partners on clean-ups and provides details of the various locations and partners in its Annual Reports. Specific events and partners are not identified in the Plan to ensure evergreen content.</p>
18. Collection Reporting by Regional District Comment Source: 1 Environmental Group	
<ul style="list-style-type: none"> The tonnage by Regional District (and ideally community) should be provided as well as collection per capita per tire type to see where the program works very well and where it can improve. Showing this by tire type will be important as for some kinds of tires, they may not be evenly distributed across the province. 	<p>Collection by Regional District by tire type is provided with each TSBC Annual Report. The per capita collection was determined to be an unmeaningful measure, although interested parties could complete the calculation on their own using the information provided in the Annual Reports.</p>
19. Waste Audits Comment Source: 1 Environmental Group	
<ul style="list-style-type: none"> Waste composition studies should be more frequent and cover a wider range of Regional Districts. There could be a target for this set with BC Product Stewardship Council. This data should be made public and as transparently and with as much detail as possible. 	<p>TSBC’s understanding is that any Regional Districts with concerns about the level of stewarded products included in their waste audits would reach out to share that information with the applicable stewards. Given the negligible level of tires identified through these audits, TSBC will continue to rely on Regional Districts to share their waste audit results as they determine appropriate. Note that TSBC is not required to report out on any local government waste audits.</p>
20. Third-Party Audits Comment Source: 1 Environmental Group	
<ul style="list-style-type: none"> The program could go beyond what is the minimum required and provide third party audits for certain ones of the other components. 	<p>TSBC will continue to meet the audit requirements as determined appropriate by the Ministry.</p>

Participant Comments / Questions	TSBC Responses / Actions
<p>21. Education & Awareness Topics Comment Sources: 1 Local Government, 2 Environmental Groups</p>	
<ul style="list-style-type: none"> • Suggestions for educational/ awareness topics (summary): <ul style="list-style-type: none"> • increasing awareness of free disposal options; • enhancing consumer education on rims; and • further promoting “reduce” opportunities. 	<p>As noted in the TSBC responses to #2, #10 and #14 above, TSBC is already planning increased awareness initiatives on R2R locations (free disposal options) and tire rims, and will continue to promote reduction through participation in TRAC’s “Be Tire Smart” campaign.</p>