# Annual Report to the Director 2024



## Submitted to:

Director Extended Producer Responsibility Environmental Protection Division, Program Delivery Ministry of Environment and Parks PO Box 9334, STN PROV GOVT Victoria, BC V8W 9N3

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## Tire Stewardship BC Annual Report to the Director 2024

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## 1. Executive Summary

Products within plan	Tires
Program website	www.tsbc.ca

#### Plan Performance – 2024

TSBC's Extended Producer Responsibility (EPR) Plan for the period 2021 to 2026 was not approved until October 7, 2024. However, TSBC has chosen to report on the 2021 to 2026 Plan Performance Measures and Targets.

	Performance Measures (as agreed with the Ministry)		Annual Targets		Performance				
1.	Recovery Rate ( <u>Total # Units Collected in</u> <u>reporting year / Total #</u> <u>Units Sold 5 years prior to</u> <u>reporting year</u> )		91	%			10	0%	
2.	The percentage allocation of total tonnes of scrap		Recycling	Energy Recovery	Landfill		Recycling	Energy Recovery	Landfill
	tires (i.e. all rubber, steel and fibre) processed and	Rubber Steel	90%	9%	1%	Rubber Steel	86%*	12%	2%
	shipped	Fibre	100%	98%	2%	Fibre	100%	100%	0%
	Note: on average, rubber accounts for 70% of the total tire weight, with 15% steel and 15% fibre								
3.	Number of collection sites (i.e. registered retailers that will take back a scrap tire from the consumer at the time a new tire is sold)	1,850				2,0	056		
4.	<ul> <li>a) Total number of retailers and generators in BC that take back orphan tires (R2R)</li> <li>b) Number of R2Rs in</li> </ul>	<ul> <li>a) at least 25% of registered retailers in BC</li> <li>b) At least 25% of registered</li> </ul>				ieved, 31% ieved	, 762 R2Rs		
	each Regional District	reta		h Regional					



Performance Measures (as agreed with the Ministry)	Annual Targets	Performance		
<ul> <li>5. Education and Awareness <ul> <li>a) Awareness of where</li> <li>to take scrap tires for</li> <li>safe disposal</li> </ul> </li> <li>b) Awareness of where</li> <li>to go to find</li> <li>information on safe</li> <li>disposal locations</li> </ul>	a) 63% b) 75%	a) 54%** b) 68%**		

\* See Section 6 / Management of Environmental Impacts for further discussion on these results.

\*\* See Section 4 / Consumer Awareness for further discussion on these results.



## 2. Program Structure

TIRE STEWARDSHIP BC ASSOCIATION (TSBC) is a not-for-profit society responsible for operating BC's scrap tire recycling program in accordance with its Ministry of Environment & Lands approved <u>Extended</u> <u>Producer Responsibility Plan</u> and the <u>BC Recycling Regulation</u>.

The society is governed by a Board of <u>seven directors</u> representing the following member organizations:

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

TSBC is accountable to its stakeholders and the public for the collection, processing and environmentally sound disposal of all scrap tires designated under the BC Recycling Regulation.

TSBC collects an eco-fee on the sale of every new tire from TSBC registered retailers (producers) including online sales as well as tires on vehicles imported from the United States. The eco-fee rates are set by TSBC and vary based on tire size and category. 100% of the fees collected are applied to the operation of the program including transportation and processing of the tires, program administration, communication and education, community grants, and a reserve fund. In 2024, of the \$32M collected in eco-fees, \$27M was paid out in Transportation, Processing and Manufacturing Incentives, representing 86% of all expenses, and over \$220,000 was awarded in grants for 8 projects in communities throughout BC.

TSBC operates a retail-based collection system. Most consumers leave their scrap tires at the retailer location when purchasing new tires. These tires are collected on a regular basis by haulers that transport the tires to three processing sites in BC, two in Delta and one on Vancouver Island. Some motorists choose to take their scrap tires home for disposal at a later date. TSBC refers to these tires as "orphan" tires and offers the consumer two free disposal options: drop off at collection events throughout the year and/or at Return to Retailer (R2R) locations throughout BC that accept up to 4 car tires, clean and off-rim, from the public. On its website, TSBC publishes the <u>collection events</u> and provides an easy to use location finder for <u>R2R locations</u>. The R2R location information is also available through the Recycling Council of BC's <u>Recyclepedia</u> (web and mobile app)

After tires are collected, the majority are recycled into products by Liberty Tire Recycling located in Delta with the remainder used for energy recovery. The products created are coloured landscaping mulch and crumb rubber. The crumb rubber is processed into new products such as playground surfaces, tiles, arena flooring and agricultural mats. With the Manufacturing Incentive Program and landscaping mulch product, TSBC is pleased to report that the volume of finished products made from BC rubber in BC continues to



grow, expanding six-fold since 2009 with further growth anticipated as the recycled rubber manufacturer, <u>North West Rubber</u>, expands its operation in Abbotsford.

All scrap tires collected are recycled right here in BC due in part to the success and growth of the Delta recycler, Liberty Tire Recycling, and the Abbotsford manufacturer, North West Rubber. Both companies have made significant investments in recent years to grow their capability, capacity and product lines and they continue to do so, strengthening their position in a very competitive marketplace. Of the volume of recycled rubber produced, 62% is made into product in BC with the rest shipped to markets in North America. TSBC seeks to work with the recycler and the manufacturing sector to increase that percentage by encouraging the growth of the BC recycled rubber product sector by way of the Manufacturing Incentive Program.

## 3. Consumer Access to Collection Facilities

As the tire program is a retailer-based collection system, TSBC defines a collection facility as "a TSBC registered retailer (producer) that, in the normal course of business, will accept one scrap tire for every new tire sold." This definition reflects that not all tire retailers are in a position to take back a scrap tire for every new tire sold. Examples include Home Depot, which may sell a trailer with new tires even though their primary business is not selling tires or equipment with new tires; an online retailer; or a business located out of province.

In 2024 there were 2,056 collection facilities compared to 2,077 in 2023. Although the change is not significant and simply reflects the retailers in business, events throughout the year that affect this number include new retailer locations, closed locations, and changes in retailer businesses that result in the retailers no longer, or now meeting, the definition of a collection facility.

Unlike other product stewardship programs where consumers must choose between putting their endof-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. These tires are collected from the retailers by haulers, some of which sort and cull the good used tires for reuse, with the remainder transported to TSBC registered processors. The majority of scrap tires generated annually are picked up at tire retailer locations where they are held for collection at no cost to the program. TSBC also collects scrap tires from other registered sites that generate scrap tires as part of their normal business operations, such as auto wreckers and small auto body shops and garages.

In any given year the number of individual collections is approximately 18,000. TSBC records all calls or emails to the office regarding collection issues. TSBC is very pleased to report only 9 legitimate collection complaints were received in 2024.



Some motorists choose to take their scrap tires home rather than leave them with the retailer for disposal. Ultimately, most of these orphan tires end up at a landfill – 2.7% in 2024, where they are held for collection by haulers. TSBC does not have a contractual arrangement with any landfill or transfer station to accept tires on its behalf. The disposal option model for these orphan tires is the Return to Retailer (R2R) Program and Tire Collection events. TSBC's communications strategy focuses primarily on educating the consumer on where to take their orphan tires. TSBC's goal is that the consumer will only think of a tire retailer or an R2R location as a tire disposal option and only use other options by choice and not necessity. However, changing behaviours and having these other disposal alternatives as an option, means this goal will take significant time and money to achieve.

The decrease in the volume of tires going to landfill (6% in 2012) shows that TSBC's measures to provide alternate disposal methods are working. R2Rs are registered retailers that have voluntarily agreed to accept up to 4 clean and off-rim car tires from the public. In addition to the location finder on the TSBC website, the list of R2R locations is available on the RCBC website and the Recyclepedia app. In 2024, there were 762 R2Rs, which is 31% of registered retailers and the number of R2Rs is in any given Regional District was >25% of the total retailers in the region. Despite this extensive coverage, TSBC will continue to recruit retailers to voluntarily participate in the R2R program while supplementing areas in need with collection events.

In 2020, TSBC conducted a survey to understand the challenges for local government and private depots in handling tires. The result was several actions by TSBC, including a commitment to conduct two annual clean outs at local government sites, work directly with respondents that had more unique challenges and conduct an annual survey seeking feedback on tire collection. The survey for 2024 received a higher response rate than in prior years. TSBC finds the responses very useful and is pleased the response rate continues to climb. Although challenges for some remain, the over all response was more positive than in prior years, which has been the result of a concerted effort by all concerned. TSBC remains unwavering in its commitment to do 2 cleans out per year and uses a tracking process that is reviewed bi-weekly by TSBC staff and the haulers to ensure these collections occur. For those sites with unique challenges, including unmanned or remote sites, TSBC provided funding in the form of either an annual stipend or a contribution to help cover the costs. TSBC will continue to monitor the results of these actions through surveys with affected stakeholders and share the results with the Ministry.

The waste audit process conducted annually is important to note in the context of tires disposed of at landfills. In conjunction with all SABC members, TSBC participates in and funds waste audits in a minimum of one Regional District per year. In 2024, SABC participated in 5 waste audits, the locations and results are shown below.

Location	Tires as a % of total disposed
Squamish-Lillooet RD	0.2%
District of Squamish	0%



Location	Tires as a % of total disposed
Cowichan Valley RD	1.3%
Thompson-Nicola RD	0%
City of Surrey	0%

Despite being non-program materials, bike tires and tubes were included in the count as TSBC offers to collect and recycle them free of charge. This initiative has been in place since 2011.

TSBC also hosts province-wide tire collection events where the public can drop off any tire size, on or off rim, at no charge. No tire is turned away at the event, including non-program, to eliminate the risk of the tire being abandoned or dumped near the event location. The 2024 events, shown in Table 1 below, include events hosted by TSBC and those TSBC participated in hosted by other parties. While these types of events are successful in terms of diverting tires that might otherwise be abandoned in the rural or urban environments, they remain costly to host, especially when TSBC receives tires on rims, which in 2024 represented 23.1% of the total tires collected. At some events, TSBC encouraged event hosts and an external contractor to de-rim collected tires during the event, allowing the opportunity to recycle the steel and generate additional income. This approach avoids the transport of these rims down to Delta, an environmental and economic savings. TSBC will be expanding this pilot project in 2025. Recognizing the invaluable opportunity to connect face to face with the public dropping off tires, representatives from Liberty Tire attended many of the events with a focus on educating the public on tire disposal options and what happens to the tires after being dropped off. In total, 14,221 tires were collected thanks to the efforts of all involved, which included the retailers and Regional Districts willing to host these events and Liberty Tire Recycling which provided the trailers and manpower to accept and load the tires.

Date	Facility / Event	City
April 20	Nestors Waste Depot	Whistler*
April 20	Kal Tire	Норе
April 27 & Sept 28	Junk in the Trunk	Prince George
May 4	Integra Tire	Grand Forks
May 6 – 12	Devine Transfer Station	D'arcy*
May 11	Kal Tire	Kamloops
May 25	Top Grade Recycling	Vernon
June 1	Kal Tire	Vernon
July 20/21 & Oct 19/20	Sayward Cleanup Days	Sayward*
July 27	Kal Tire	Terrace
August 10	Kal Tire	100 Mile House

## Table 1Collection Events - 2024



Date	Facility / Event	City			
August 17	OK Tire	Nelson			
August 24	Mister Tire	Invermere			
August 24	Kal Tire	Squamish			
September 7	West Nile Virus Program	Kelowna*			
September 14	Chamoux Landfill	Boston Bar*			
September 21	Annual EPR collection	McBride*			
October 5	GIRSS	Galiano Island*			
requested / hosted by Regional District or Community Group					

The measure of effectiveness of stewardship programs recommended by the BC Recycling Regulation is the "Recovery Rate" defined as the actual number of scrap tires collected/divided by the actual number of new tires sold in the reporting year. In TSBC's current EPR Plan the Recovery Rate for tires is defined as the "actual number of scrap tires collected in the reporting year/divided by the actual number of new tires sold 5 years prior" – a more meaningful measure for a product with a lifespan of more than 1 year.

#### Table 2Recovery Rate 2024

Units Collected 2024	Units Sold 2019	Recovery Rate
4,120,328	4,128,078	100%

#### Table 3 Product Sold and Collected in 2024

Tire category	Units Sold	Units collected and delivered to a processor
Passenger & Light Truck	4,030,711	3,735,680
Medium Truck	367,575	381,052
Large Agricultural	15,492	2,741
Logger / Skidder	3,254	855
Total	4,417,032	4,120,328



## 4. Consumer Awareness

TSBC continues to focus its stakeholder outreach on a broad education and communications campaign raising consumer awareness on where to dispose of orphan tires, "what happens to the money" and "what happens to the tires."

The TSBC website is the main hub for information shared with both the public and tire retailers with the site successfully acting as a landing point for comprehensive information and materials on tire recycling in BC.

To continue educating and raising consumer awareness, TSBC built on its 2023 program approach. The objective of the program was to increase awareness of tire recycling across BC residents, especially vehicle owners, and to improve their understanding of the connection between scrap tires and their second life. The call to action was to encourage consumers to visit TSBC.ca as the place to find a tire recycling location in their area, and to find more information on tire recycling in BC. The messaging was delivered through TV commercials and digital media advertising, supported by social media posts, community engagement through tire collection events, TSBC ambassadors at community events and through school programming, and PR outreach to the media.

In addition to the disposal messaging, TSBC's communications program focuses on educating the consumer on "Reduce" and "Reuse", two key Rs in the hierarchy that are often overlooked but critical to the environment now and in the future. Another area of focus was the retailers (producers) with the objective of helping them understand their role and responsibilities in the program and developing relationships to allow for partnerships when it comes to collection event hosting, additional R2R participants, and potential grant program partners.

The following tools were used to deliver this strategy:

#### Educational Tools – Paid Media & Earned Media

Through both paid media (TV commercials and digital media advertising), and earned media (social media, website, PR outreach), TSBC continues to grow an engaged audience while educating consumers about how to recycle their tires and the benefits of tire recycling in BC.

Results are tracked through the results of two consumer awareness surveys, one is a multi-steward SABC survey which is conducted every two years, and the other conducted independently each year in partnership with Interchange Recycling.

**Paid Media** - In 2024, TSBC produced and ran TV commercials and digital advertising, which were delivered in markets determined by either population (Metro Vancouver / Vancouver Island) or feedback from local governments that specifically asked TSBC to conduct more education in their regions. Digital advertising included paid search, YouTube ads, and paid social media posts. The TV



commercials reached over 8.3 million viewers, including airing during the Paris Olympics broadcast. Digital advertising reached a total of over 14.7 million impressions in 2024.

*Earned Media* – TSBC continued to work with a PR agency to conduct and manage media outreach efforts. In 2024, their efforts generated 64 online/print mentions with a reach of over 18.4 million. TSBC also garnered 74 broadcast (radio and TV) media mentions with a reach of just over 7.2 million.

TSBC continues to grow its online presence with increased activity on Facebook, Twitter, Instagram, and LinkedIn, as well as through articles shared on the TSBC.ca website. The most engaging content generally involves playground projects completed through the TSBC Community Grant Program, tire collection events held across BC, and community events and initiatives. Followers are also interested in hearing about industry news and TSBC partnerships.

## Educational Tools – <u>TSBC website</u>

The website design focuses on providing information to two main stakeholder groups: registered participants and the public. For the public, the website informs visitors of the following:

- <u>Recycling drop off locations (R2R location finder)</u>
- <u>Community Events and Programs</u>
- <u>Community Grant Program</u>
- <u>Tire Collection Events</u>
- News and Updates
- <u>Tire Recycling in BC</u>
- Extended Producer Responsibility (stewardship) Plans and Annual Reports

## Educational Tools – RCBC Hotline and Recyclepedia & BC Recycles

As in prior years, TSBC contributed funding to the Recycling Council of BC (RCBC) to operate the Recycling Hotline and its Recyclepedia Smart Phone App. In 2024, TSBC launched its own <u>location finder</u> on the TSBC web site. Funding will still be provided to RCBC but limited to only those inquiries handled directly by RCBC's suite of tools. These tools are excellent resources for the consumer, particularly for information on tire drop off locations, and by supporting RCBC this helps provide the one-stop-shop for citizens of BC looking for information on where to recycle their waste. TSBC also contributes to and supports the BC Recycles website, a Stewardship Agencies of BC (SABC) initiative. In 2024 SABC began actively promoting EPR using a locally based PR firm. This type of outreach is continuing in 2025 through additional educational materials including a proposed video.

## Educational Tools – Retailer Hub

In 2024, TSBC continued to enhance the 'Retailer Hub' webpage, an educational platform aimed at engaging and informing tire retailers' owners, accountants, and staff. This comprehensive tool features answers to frequently asked questions, information pertinent to tire retailers (the obligated party under the Regulation), resources and guides outlining the scrap tire recycling program and their involvement, as



well as a dedicated section for communication and feedback. TSBC also launched *TireTalk*, a monthly newsletter serving as an additional channel for key messaging to this stakeholder group.

TSBC also engages with the public in the ways detailed below.

#### Educational Program – Event Ambassador Tour

In 2024, TSBC partnered with a PR agency to conduct an ambassador tour across the province, aimed at raising awareness for the TSBC scrap tire recycling program. From June 1 to August 31, two TSBC ambassadors traveled throughout the province, representing TSBC at targeted events and Return-to-Retailer (R2R) locations. Their objective was to inform the public about the R2R program, showcase available online educational resources, and provide insights into the tire recycling process and its impact.

The PR agency designed an eye-catching booth for the tour to attract event attendees visually. Throughout the tour, representatives attended 16 community events, visited 7 R2R locations, and conducted surveys with 254 BC residents. Two youth organizations, Sea Smart and University of Northern British Columbia (UNBC) Active Minds, were engaged in partnerships to deliver educational sessions to 80 students aged 9–11. These efforts succeeded in capturing the attention of over 150,000 individuals.

#### Community Grant Program

The Community Grant Program is now in its 16<sup>th</sup> year and has provided over \$6.5M in grants to over 350 projects in 96 communities throughout BC. The program provides matching funds up to a maximum of \$30,000 per project to not-for-profit organizations, schools, municipalities, etc., that use BC recycled rubber. This program not only benefits the communities but is an excellent way to get the word out on "what happens to the tires" and "what happens to the money." The ability to showcase how BC residents' benefit when scrap tires are diverted from landfills and recycled into marketable products is invaluable.

In 2024, grants totaling over \$220,000 were awarded to 8 successful applicants from communities throughout BC. The grants awarded resulted in the use of approximately 194,888 lbs of BC rubber (the equivalent of approximately 11,480 car tires) for playground and spray park surfaces, recreational flooring, pathways and outdoor fitness area projects. The Community Grant Program was featured in community papers and on TSBC and grant recipient social media channels. Grant awardees are required to have onsite signage to officially recognize TSBC as a contributor to these important projects and to advise the local MLA and Mayor and Council of the project and the grant.

#### Partnerships – ARTist Response Team

In 2024, TSBC invested in various community events to demonstrate alignment with and support for education, Indigenous programming, and ocean cleanup. This included sponsoring the ARTist Response Team (ART), an entertainment company that educates on ecology through in-school programming. One of their initiatives, the Voices of Nature model, empowers students to take a leadership role in positive change through singing and advocating for the environment. This year, ART's Voices of Nature and Good



Medicine Songs programs were held in 1 school. During this project, messages about the tire recycling program were incorporated into rehearsals, concerts, souvenir programs, discussions, and workshops, making connections between science, social studies, Indigenous worldviews, and the songs performed. Students aged 5-11 were engaged through a project with an elementary school. A new project involved 57 students from three Chilliwack high schools in the creation, recording, video production, and publishing of an original song titled *Step in the Right Direction*, which featured First Nations language and was developed in collaboration with professional musicians. Recognition for TSBC's support included logo placement on signage and posters, a full-page message in souvenir programs, inclusion on the ART website, social media posts, and verbal recognition during concerts. TSBC's tire recycling efforts were highlighted through student performances. TSBC is pleased to share this partnership with Interchange Recycling.

## Partnerships – First Nations Recycling Initiative (FNRI)

Led by Recycle BC and in collaboration with 8 other stewards, TSBC finances a crucial initiative aimed at assisting First Nations communities interested in establishing recycling programs and proe. This program is overseen by a dedicated First Nations field service specialist who travels across BC to meet with communities, offering guidance and support for their recycling endeavors by providing necessary tools and resources. Through this partnership, a variety of materials are collected, including car tires, medium truck tires, agricultural tires, logger skidder tires, and bicycle tires and tubes. These materials are then processed by Tire Stewardship BC.

In 2024, over 4,000 tires were collected and either removed or scheduled for removal from 12 different locations. This initiative has facilitated partnerships with numerous communities. 15 First Nation communities were engaged with the FNRI for the first time, while 14 communities participated again. The initiative attended 7 community engagement events, made 30 community visits, supported 31 community clean-ups, and visited 11 Regional Districts, engaging with 6 of them. A copy of the 2024 Annual Report for FNRI when available, can be found <u>here</u>.

TSBC remains an active member of the Indigenous Zero Waste Technical Advisory Group and looks forward to continuing to collaborate with and support this group in its ongoing efforts.

## Partnerships – Ocean Legacy Foundation (OLF)

In 2024, TSBC continued its annual grant of \$30,000 to Ocean Legacy Foundation (OLF) as part of a fiveyear agreement supporting efforts to recover abandoned and lost tires. This funding contributes to OLF's tire clean-up expeditions across British Columbia, including the removal of foam-filled tires from shoreline cleanups and dock deconstructions. The \$30,000 grant provided in 2024 supported the processing of 1,257 tires collected from shorelines and waterways throughout the province. The tires were first brought to OLF facilities, where they were cut using the guillotine purchased in 2023, before being transported to Liberty Tire Recycling for final processing. Most of the tires recovered had been used in dock construction



and contained expanded polystyrene (EPS) foam for buoyancy, along with embedded wood or metal stakes. Separating these components is essential to ensure the maximum recyclability of materials.

Through this partnership, TSBC supports the recovery and recycling of scrap tires within British Columbia, helping to reduce landfill waste and strengthen the province's circular economy.

Performance Measure & 2024 Target	2019	2020	2021	2022	2023	2024
Awareness of where to take scrap tires for safe disposal (2024 target - 63%)	47%	48%	56%	47%	50%	54%
Awareness of where to go to find information on safe disposal locations (2024 target - 75%)	59%	62%	68%	61%	64%	68%

## Table 4 Consumer Education and Awareness – 2024

Prior to 2019, TSBC's consumer awareness surveys were completed only through the multi-steward SABC survey conducted every two years.

Since 2019, TSBC has conducted its own survey in partnership with Interchange Recycling (formerly BC Used Oil Management Association). This reduced scope, and the higher customized survey has typically yielded lower performance results in comparison to the SABC survey, primarily due to survey fatigue given the significantly larger nature of this multi-steward survey. TSBC will continue to participate in the SABC survey but will use the results of the TSBC survey for the purposes of reporting against the targets.

According to the results of the TSBC survey run through Leger in 2024, awareness of tire recycling has increased by 3%, knowledge of recycling locations and where to find information on recycling locations has increased by 4%, retailers/mechanics were indicated as the top choice for tire disposal, and overall, advertising awareness increased slightly compared to 2023.

The results of the survey pertaining to the two targets, reflect missed targets but an improvement over 2023. TSBC is pleased to see the numbers trending higher given the significant amount of effort and financial commitments to this area of the business and the incredible reach received through the TV and digital ads.

Looking forward to 2025, TSBC does not expect to achieve the ministry-imposed targets but seeks only to see an improvement over the prior years. In its attempt to improve the results, TSBC will be



increasing its TV ads, with a strategic plan to reach a greater audience, and reworking the digital advertising to match the creative used for TV ads for brand cohesiveness. TSBC will also be revisiting bus advertising which performed well in 2023, an approach not used in 2024 due to significant budget restraints. TSBC will be increasing the in-person interactions with the general public by hosting more tire collection events and ambassador attendance at community events throughout the year, and also working on strengthening communications with retailers through hosting lunch-and-learn sessions for staff in store, continuing to create informative e-newsletters, and finding new ways to encourage retailers to share our message of tire recycling with their customers.

## 5. Management of Program Costs

The TSBC program is funded by an Advance Disposal Fee (ADF), commonly referred to as an eco-fee. It is a condition of registration with TSBC that retailers remit ADFs monthly for every new tire sold to cover the costs of the program, which are primarily the collection and processing of the scrap tires.

The ADFs are set by TSBC and vary by tire type to adequately compensate for the higher costs of collecting and disposing of larger tires. The fees in 2024 are shown in Table 5 below. With significant financial losses in both 2022 and 2023 due to reduced tire sales and increased costs across all sectors of the business, TSBC made the decision to increase the PLT category, which had not been adjusted since 2008, from \$5 to \$6.50. This increase took effect January 01, 2024.

Tire category	ADF per tire
Passenger & Light Truck (PLT)	\$6.50
Medium Truck (MT)	\$14
Agricultural Drive	\$15
Logger / Skidder	\$35

## **Table 5**Advance Disposal Fees – 2024

Other OTR tires are excluded from the Recycling Regulation but with processing capacity and capability present, TSBC is hopeful the Ministry will agree to the request from industry to add the remaining OTR categories (up to 39" rim diameter) to the Regulation and provide a level playing field for the industry.

100% of fees collected are used for the operation of the scrap tire recycling program. Program revenues and expenses are provided in TSBC's 2024 Independently Audited Financial Statements, included as <u>Appendix A.</u>



## 6. Management of Environmental Impacts

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). However, TSBC continues to maintain a watching brief for industry advancements in these areas.

#### **REDUCE** – level (a)

While managing tires at their end-of-life is important, lengthening their lives so that fewer are used is essential – this is an area where both the motorist and industry can play a part. The life of a tire is significantly increased with proper tire maintenance, i.e., keeping tire pressure at the correct level. Tire manufacturers are making progress with the introduction of innovative tire lines specifically designed and constructed for low rolling resistance, which improves fuel efficiency, while recognizing the need to balance environmental concerns with tire safety and customer satisfaction. Tire manufacturers are also addressing the challenges presented by electric vehicles which, due to their weight, cause tires to wear at significantly higher rates.

TSBC continues to work in partnership with the Tire and Rubber Association of Canada (TRAC) in their 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.

The need to continue these efforts to educate the consumer is supported by the results of a recent survey commissioned by TRAC to gauge attitudes and knowledge around the impacts of proper tire inflation on both internal combustion engine (ICE) vehicles and EVs. TRAC reports that the majority (89 per cent) of Canadian drivers agree that proper tire inflation and maintenance are more beneficial than ever, particularly given current financial pressures, as it improves fuel economy and increases tire longevity. However, this essential practice often goes overlooked and many drivers lack the knowhow about proper tire maintenance, including determining the correct tire pressure for their vehicle, and the right time and the right interval for checking tire pressure.

#### 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. That said, advancements in end-of-life tire management are continuing. Tire manufacturers are pursuing their own environmental strategies, which involves innovation in manufacturing and the design of greener tires by doing such things as replacing high aromatic petroleum-based oils with bio-based oils from corn, canola, oranges, etc. Manufacturers are also beginning to incorporate recycled rubber into selected tire types and are actively investing in new sources of natural rubber supply such as guayule and Russian dandelion, which can be produced in North America.

An illustration of this commitment is the creation of the Tire Industry Project, under the support of the World Business Council for Sustainable Development, by ten leading tire manufacturers. In this project, launched in 2005, Bridgestone, Continental, Goodyear, Hankook, Kumho, Michelin, Pirelli, Sumitomo, Toyo and Yokohama are working together to find sustainable solutions for the industry throughout the tire life cycle. Fields of research include topics such as end-of-life tire management, particles emanating from tire wear, and the development of sustainable natural rubber.

Note: The tire industry has been working closely with stakeholders and regulators on the issue of Tire Road Wear Particles (TRWP) and 6PPD / 6PPD-q and has also created a consortium of tire manufacturers to evaluate alternatives to 6PPD. TSBC has also created its own internal document related to this issue to assist with providing information to the media or the public. A copy of this document can be found <u>here</u> and it contains link to the organizations that are the most relevant for the ongoing work being done across North America and globally – The Tire Industry Project and the US Tire Manufacturers Association. TSBC will continue to keep a watching brief on this worldwide issue.

## REUSE – level (d)

Known in the industry as culling, tires collected by the hauler can be diverted from recycling and sold as used 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.

Retreading of medium truck tires and off-the-road (OTR) tires is an ongoing, commercially viable activity and accounts for significant volumes of tires diverted from end-of-life management. Replacing the worn tread allows the reuse of the casing (60-70% of the tire) up to 2 to 4 times, thereby extending the life of the tire. TSBC's program incents this activity by not assessing an eco-fee on retreaded tires (equivalent to \$14 per medium truck tire). As retreaded tires are not program tires, their sales are not included in the diversion statistics. However, both medium truck and OTR tire retreading will continue to increase under the program because of the commercial strength of the market for this product.

Retreading of passenger and light truck tires is not currently recommended as these types of tires are not designed by the manufacturer to be retreaded. In addition, the culling by scrap tire haulers of worn tires



not yet at their end-of-life has occurred since the program's inception in 1991. Most culled tires are exported and as such, never enter the recycling system in BC.

#### 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 infill for 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).

#### **ENERGY RECOVERY – level (f)**

The BC tires not directed to recycling are used as tire derived fuel (TDF) to recover the energy. this category comprises not only the rubber but also the fibre extracted in the recycling process that is sold to a kiln. As iron is required in the kiln feed and the ash produced contains elements required in the chemistry of clinker, the tires are not only a fuel source but a beneficial raw material for the production of clinker at the cement plant. In addition, as natural rubber is a renewable resource that comprises 25% of an average of tire, energy recovered from tires can be categorized as a biofuel. TDF usage at the cement plant in BC requires environmental permits, which are issued by Metro Vancouver as the delegated authority for the Ministry.

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.

#### **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.



TSBC manages the collected products in accordance with the "pollution prevention hierarchy", i.e., recycle (3R) before energy recovery (4R) before residual disposal (5R). TSBC incents the processing of scrap tires into higher value-added products by providing higher financial incentives to recycle a tire than to use a tire for energy recovery. Beyond primary processing, TSBC promotes the use of BC's recycled rubber in products manufactured in BC through a Manufacturing Incentive.

Table 6, which follows these descriptions, provides the 2024 product hierarchy results based on the various categories broken down by component type – rubber, steel and fibre.

Component	Recycling (3R)	Energy Recovery (4R)	Landfill (5R)
Rubber	86% (90%)	12% (9%)	2% (1%)
Steel	100% (100%)		
Fibre		100% (98%)	0% (2%)

 Table 6
 Product Hierarchy Results (Target)- 2024

TSBC supports a mix of recycling and energy recovery end uses to ensure there is a market for all BC scrap tires and recycled tire products. This policy of allowing some tires to be used as a fuel supplement, in place since 1991, is economically and environmentally sound. It is a lower cost alternative which helps TSBC contain eco-fee levels, and all usage has appropriate environmental permits.

Tires used for energy recovery are market driven and vary from year to year. For example, the usage was at an all-time low in 2012 due to economic conditions in the cement industry combined with a record high demand for recycled products. However, increased use of tires for energy recovery can occur when recycling product markets decline, such as the economic downturn in 2008 to 2010. In recent years, the volume of BC tires consumed by Heidelberg Materials in Delta has been consistent primarily due to the limit TSBC imposes to ensure it meets its target.

In 2024, TSBC missed its target of 90% by 4%, a result of equipment upgrades at the recycling facility during the months of November and December. To ensure tires continue to flow and are not backed up at retailer or generator sites while the plant was at reduced capacity, TSBC approved shipment of excess inventory for use as energy recovery. Subsequently, this impacted the Energy Recovery Target (4R). TSBC anticipates more rubber material may flow to energy recovery use in 2025 as a result of the tariff situation and the projected recessionary environment in the US, where a significant amount of product made in BC is sold.

TSBC continues to work with industry through its Research and Development Program and current participants to find recycling end uses for the fibre. Research to date includes the use of recycled tire fibre in concrete applications or in recycled rubber products to create a value-added product that in most



provinces is considered waste and landfilled, and more recently, in recycled rubber products produced in BC.

## 7. Performance Measures, Targets and Reporting Commitments

During 2024 TSBC was operating under its <u>2018 Extended Producer Responsibility Plan</u> as its EPR Plan for 2021 to 2026 was not approved by the Ministry until October 7, 2024. TSBC has chosen to report on the 2021 to 2026 Performance Measures, Targets and Reporting Commitments. The table below presents TSBC's commitments in its <u>2021 to 2026 approved Plan</u> and where the reader can find the information within the Annual Report.

## Table 7

	Metric	Reporting Commitment / Target	Result / Page # reference	Subject to 3 <sup>rd</sup> party audit
Prod	lucts Sold and Collected			
1	Total number of tires sold in the Reporting Year	Reported: in Annual Report Target: N/A	Page 7 - Section 3, Table 3	Yes
2	Total number of tires collected in the Reporting Year	Reported: in Annual Report Target: N/A	Page 7 - Section 3, Table 3	Yes
3	Recovery Rate ( <u>Reporting Year / 5</u> <u>years prior</u> )	Reported: in Annual Report Target: 91%	Page 7 - Section 3, Table 2	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	Appendix C	No
5	Results of TSBC's ongoing Stewardship Agencies of BC waste audits	Reported: in Annual Report Target: N/A	Page 5 - Section 3	No



Metric		Reporting Commitment / Target			ment	Result / Page # reference	Subject to 3 <sup>rd</sup> party audit
Man	agement of Environmental	Impact	S				
6	End fate management of materials - expressed as a % of the total	Reported: in Annual Report Target:			port	Page 1 - Plan Performance & Page 17 -	Yes
			3R	4R	5R	Section 6	
	volumes processed and shipped in the Reporting Year.	Rubber	90%	9%	1%		
	Note: on average	Steel	100%				
	rubber accounts for 70% of the total weight of the tire material with 15% steel & 15% fibre.	Fibre		98%	2%		
7	Efforts taken to reduce environmental impacts, to increase reusability and recyclability	Reported: in Annual Report Target: N/A			oort	Page 14 - Section 6	No
Colle	ections & Accessibility	1				I	1
8	Number and location of collection facilities – "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			port	Page 1 - Plan Performance & Page 4 – Section 3 & Appendix D	Yes
9	<ul> <li>c) Total number of registered retailers in BC that take back "orphan" tires (Return to Retailers - R2Rs)</li> <li>d) Total number of R2Rs in each Regional District</li> </ul>	<ul> <li>Reported: in Annual Report</li> <li>c) A minimum of 25% of "registered retailers"</li> <li>d) At least 25% of "registered retailers" in each Regional District are R2R locations</li> </ul>			of " istered gional	Page 1 - Plan Performance & Page 5 – Section 3	Yes



	Metric	Reporting Commitment / Target	Result / Page # reference	Subject to 3 <sup>rd</sup> party audit			
10	Number of TSBC tire collection events, including date, location, and number of tires collected	Reported: in Annual Report Target: N/A	Page 6 - Section 3, Table 1	No			
11	Number of legitimate collection complaints	Reported: in Annual Report Target: N/A	Page 4 - Section 3	No			
Cons	Consumer Education & Awareness						
12	<ul> <li>Education and Awareness</li> <li>Awareness of where to take scrap tires for safe disposal</li> <li>Awareness of where to go to find information on safe disposal locations</li> </ul>	Reported: in Annual Report Target: c) 63% d) 75%	Page 1 - Plan Performance & Page 12 - Section 4, Table 4	Yes			
13	Description of educational materials and educational strategies used	Reported: in Annual Report Target: N/A	Page 8 - Section 4	No			