

Annual Report to the Director 2018



Submitted to:

Director
Extended Producer Responsibility
Environmental Protection Division
Ministry of Environment & Climate Change Strategy
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Tire Stewardship BC

Annual Report to the Director

2018

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1. Executive Summary

Products within plan	Tires
Program website	www.tsbc.ca

Recycling Regulation Reference	Topic	TSBC – 2018 Summary Report
Part 2, section 8(2)(a)	Public Education Materials and Strategies	<ul style="list-style-type: none"> • TSBC continued and enhanced its educational campaign through sponsorships, social media and directly to the public at Tire Round-Up and community events held across the province. Key achievements included: <ul style="list-style-type: none"> • Partnering with the BC Used Oil program in the province-wide BC Ambassador Tour that included retailer site visits and community events; • A team of ambassadors at Tire Round-Up events; • A stronger presence via social media – Facebook & Twitter; and • Continuing the Community Grant Program to incent the use of BC rubber in qualified projects across the province (23 in 2018).
Part 2, section 8(2)(b)	Collection System and Facilities	<ul style="list-style-type: none"> • As in previous years, TSBC offered options to the public beyond the acceptance of their replaced tires through BC retailers when they purchase new ones. Tires not left with the retailer, known as “orphan” tires, were also captured through: <ul style="list-style-type: none"> • Return to Retailer (R2R) program, through which over 800 retailers currently accept up to 4 tires from each member of the public; and • Tire Round-Up events held around the province (16 in 2018). • Scrap tires from other registered sites such as auto wreckers, small auto body shops and garages were also collected by haulers for the program.
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	<ul style="list-style-type: none"> • Reduction initiatives focused on educating the public on extending the life of tires to keep them out of the waste stream as long as possible. • Reusability of tires continued to be realized through retreading and “culling” of good used tires for re-use. • Recyclability enhancements remain challenging, given the durable structure of a tire, designed to ensure safety and a long road life.
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	<ul style="list-style-type: none"> • TSBC has always incented the 3R (recycling) options over 4R (energy recovery) options through the financial incentive rates offered for each.

Recycling Regulation Reference	Topic	TSBC – 2018 Summary Report
		<ul style="list-style-type: none"> In 2018, 88.5% of the total tonnes of rubber processed was recycled.
Part 2, section 8(2)(e) Part 2, section 8(2)(e.1)	Product Sold and Collected and Recovery Rate	<ul style="list-style-type: none"> The 2018 “Recovery Rate,” applying the new calculation as approved in TSBC’s current Stewardship Plan, was 99% across all regulated tire types. See Appendix B for a copy of the Audit Report. See Appendix C for breakdown of collection by Regional District.
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	<ul style="list-style-type: none"> See Section 8 for the reference to TSBC’s independently audited financial statements, which are included as Appendix A to this report. Note that the Advance Disposal Fee rates have <u>not increased</u> since 2008.

Plan Performance – 2018

Performance Measures <small>(as agreed with the Ministry)</small>		Annual Targets				Performance																																			
1.	Recovery Rate <u>(Total # Units Collected in reporting year / Total # Units Sold 5 years prior to reporting year)</u>	90%				99%																																			
2.	The percentage allocation of total tonnes of scrap tires (i.e. all rubber, steel and fibre) <u>processed and shipped</u> Note: on average rubber accounts for 70% of the total weight with 15% steel and 15% fibre.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">Recycling</th> <th style="width: 15%;">Energy Recovery</th> <th style="width: 15%;">Landfill</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td style="text-align: center;">84%</td> <td style="text-align: center;">15%</td> <td style="text-align: center;">1%</td> </tr> <tr> <td>Steel</td> <td style="text-align: center;">100%</td> <td></td> <td></td> </tr> <tr> <td>Fibre</td> <td></td> <td style="text-align: center;">98%</td> <td style="text-align: center;">2%</td> </tr> </tbody> </table>					Recycling	Energy Recovery	Landfill	Rubber	84%	15%	1%	Steel	100%			Fibre		98%	2%	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">Recycling</th> <th style="width: 15%;">Energy Recovery</th> <th style="width: 15%;">Landfill</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td style="text-align: center;">88.5%</td> <td style="text-align: center;">11.4%</td> <td style="text-align: center;">0.1%</td> </tr> <tr> <td>Steel</td> <td style="text-align: center;">100%</td> <td></td> <td></td> </tr> <tr> <td>Fibre</td> <td></td> <td style="text-align: center;">100%</td> <td></td> </tr> </tbody> </table>					Recycling	Energy Recovery	Landfill	Rubber	88.5%	11.4%	0.1%	Steel	100%			Fibre		100%	
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Performance Measures (as agreed with the Ministry)		Annual Targets	Performance
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	2,038
4.	a) Total number of retailers and generators in BC that take back orphan tires (R2R) b) Number of R2Rs in each Regional District	a) 800 province-wide b) At least 25% of registered retailers in each Regional District are R2R locations	a) 811 b) Achieved
5.	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	a) 2018: 57% b) 2018: 73%	a) 2018: 59% b) 2018: 74%

2. Program Outline

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 & Climate Change Strategy approved [Tire Stewardship Plan](#) and the [BC Recycling Regulation](#).

The society is governed by a Board comprised of [seven directors](#) 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 on-line sale and in addition to 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, as well as a reserve fund. In 2018, of the \$23M collected in eco-fees, \$21M was paid out in Transportation, Processing and Manufacturing Incentives, representing 91% of all expenses and \$500,000 awarded in grants for 23 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 over 800 Return to Retailer (R2R) locations throughout BC that accept up to 4 car tires, clean and off-rim, from the public. TSBC publishes the [collection events and R2R locations](#) on its website. The R2R location information is also available through the Recycling Council of BC's [Recyclepedia](#) app and the [BCRecycles](#) online tool.

After tires are collected, the majority are recycled into products by Western Rubber Products 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* since 2010 has more than **tripled**.

All of the scrap tires collected are recycled right here in BC due in part to the success and growth of the recycler, Western Rubber Products located in Delta, and the manufacturer North West Rubber located in Abbotsford. Both companies have made significant investments in recent years to grow their capability, capacity and product lines.

3. Public Education Materials and Strategies

TSBC focuses its stakeholder outreach on a broad education and communication campaign, raising consumer awareness on “where the money goes” and “where the tires go.” In 2018, communication methods included the initiatives below.

Tire collection events

TSBC participated in and provided funding for 16 collection events in 2018. To reduce the significant costs associated with these events, TSBC once again partnered with the [Artist Response Team](#) (ART) to hold Round-Ups in conjunction with concerts held at the schools through the ART education program. In 2018, TSBC partnered with ART for 3 Round-Ups, with the schools responsible for all the event promotion through social media, school newsletters and posters, and TSBC providing the collection and a donation to the schools to fund environmental related initiatives. In total, over 8,200 tires (program and non-program) were collected at the 16 Round-Ups held around the province.

TSBC uses Round-Ups as an opportunity to engage with the consumer. In 2018, TSBC added an educational component to the majority of its collection events. Program ambassadors were on site to connect with the public and hand out tire gauges to promote proper tire maintenance which extends the life of a tire and saves fuel which reduces GHG. Those dropping off tires were also engaged in a fun educational component aimed at providing fun facts about the program, encouraging orphan scrap tire drop off at retailer locations rather than landfill and completing a survey to assist TSBC in understanding the knowledge gaps to help direct strategy and content for future education materials. In addition, Western Rubber Products attended some of the events to showcase the products created from BC recycled tires. Some feedback from the various events included *“This is great! Our family is big into recycling and we’ll download the Recyclepedia App”* and *“I’m pleased that BC has this Tire Stewardship program. Keep up the great work!”*.

The program ambassadors will be engaged again in 2019 and in addition to attending some collection events, will also attend community events as a way of engaging with a significantly larger portion of the public.

Community Grant Program

The [Community Grant Program](#) now in its 10th year has provided over \$4.5M in grants to over 270 projects in 85 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 British Columbians benefit when scrap tires are diverted from landfill and recycled into marketable products is invaluable. The recipients echo this too: *“we are grateful that Tire Stewardship BC offers a program to support arena flooring. So, in a twist of fate, it is appropriate that the tires once used to transport young hockey players, will be used in the dressing rooms to support the sport they love”* and *“ it is with a sense of pride that we can say my playground is a ‘Tire Stewardship Playground’ . TSBC requires that all project who receive grant money use rubber from tires that have been recycled here in BC. They are committed to making a difference to our environment by keeping thousands of tons of rubber out of our landfills. It was a privilege to work with such an understanding, environmental and community minded, professional group....one we hope to work with again in the future”*.

In 2018, grants were awarded to 23 applicants from communities throughout BC, which used approximately 460,000 lbs of BC rubber, the equivalent of approximately 30,000 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 social media. Applicants 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.

In 2018, TSBC was honored to receive an Eco Star award in the Waste to Resource category for its contribution to the residents of BC through its Community Grant Program. Specific attention was drawn to TSBC’s contribution to a playground in Victoria on a site once known as Tent City, an area that for many months housed a protest on the lack of affordable housing in Victoria. The level of funding ensured the use of a rubber surface instead of wood chips and the area is now home to a great park for residents and local school children and a memorial for fallen Afghan soldiers.

Ambassador Tour

In 2018, TSBC was pleased to once again partner with the BC Used Oil Program in its annual Ambassador Tour. As in 2017, the focus was on the B2B component which is the visits to program participants; in TSBC’s case, these are the tire retailers. The goals are to build valuable relationships; collect data by way of a survey; and to create awareness of the tour. In 2018, student ambassadors were present in 93 communities, travelling 17,000 kms and visiting 79 TSBC retailers.

The program is an excellent way for TSBC to connect with retailers face to face and gives retailers the opportunity to provide feedback firsthand, specifically on their level of satisfaction with scrap tire

collection services. TSBC is pleased to report that the average satisfaction score was once again 8/10, a significant achievement given the high number of collection points across the province.

This year, the Tour included attendance at 6 community events where the ambassadors engaged with the public on issues such as raising the importance on extending tire life, the products produced and where to recycle orphan scrap tires. The response was positive, and many were aware of the use of BC recycled tires for playground surfacing.

Partnerships

With two other BC stewardship agencies, TSBC co-sponsored the production and delivery of the Voices of Nature & Rock the Salish Sea Tour concerts in 2018. This is an innovative program that combines music and ecological education and is designed to reach children in elementary school, their teachers and their families. The program focuses on environmental stewardship, sending a strong message that the key to protecting nature in our daily lives is by reducing and managing waste. The program continues to receive accolades from the teachers, students and parents. As one school teacher commented, *“Rock the Salish Sea week was the most enjoyable, enthusiastic and invigorating experience...so far... of my 20 year teaching career”*. The program is developed and delivered by the [Artist Response Team](#) from Vancouver. Six concerts in total were held in 2018, three of which had an associated TSBC Round-Up. In 2019, TSBC is piloting a digital story telling component with two of the schools as it is felt this approach makes more of a personal connection with the children around the recycling message as opposed to a Round-Up.

TSBC participates with the Stewardship Agencies of BC on two notable projects:

1. Waste Audits – conducted annually SABC members participate and fund waste audits in a minimum of one Regional District per year. In 2018 two audits were conducted: Columbia Shuswap and Squamish Lillooet Regional Districts. The report indicates tires represented 0.16% and 0.07% respectively. Included in the tires counted were bike tires and tubes. Despite being non program tires, TSBC does offer free collection and recycling of bike tires and tubes. This initiative has been in place since 2011 and in 2018 TSBC is pleased to report it has collected and recycled approximately 91,000 tires and tubes.
2. First Nations Outreach – led by Recycle BC, TSBC in conjunction with 8 other stewards funds this very important initiative that supports First Nations who are interested in starting recycling programs in their communities. The program is administered by a dedicated First Nations field service specialist who meets with communities around BC and guides and supports their recycling needs, providing tools and resources. A focus for 2019 will be working with the communities to hold collection events to clean up existing materials on site.

Educational Tools

The website is designed to provide information to two main stakeholder groups: registered participants and the public. For the public, the website includes information on:

- Drop off locations (R2R locations and tire collection events);
- Community Grant Program;
- TSBC videos;
- Tire recycled products;
- Stewardship Plan and Annual reports.

TSBC became much more active in the social media space with increased activity on Facebook and Twitter. Although a good forum for promoting round ups, the biggest engagement occurred when items around unique tire recycling ideas from around the globe and general recycling stories were posted. This led to increased traffic, increased followers and subsequently increased engagement and awareness from the public on recycled products and drop off locations for orphan tires.

RCBC Hotline and Recyclepedia & BC Recycles

As in prior years, TSBC contributed funding to the [Recycling Council of BC](#) to operate the [Recycling Hotline](#) and its Recyclepedia [Smart Phone App](#). TSBC also contributes to and supports the BC Recycles website, a Stewardship Agencies of BC initiative. These tools are excellent resources for the consumer, particularly for information on tire drop off locations, and align with the Ministry's desire to have a one-stop-shop for citizens of BC looking for information on where to recycle their waste.

4. Collection System and 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. An example is Home Depot, which may sell a trailer with new tires even though their primary business is not selling tires or equipment with new tires.

In 2018, there were 2,038 collection facilities compared to 2,046 in 2017. The change relates to a combination of various events, such as new retailer locations, closed locations, and changes in retailer businesses that resulted in the retailers no longer meeting the definition of a collection facility.

Unlike other product stewardship 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 old tires for new ones at the time of purchase. These tires are collected from the retailers by haulers, some of whom sort and cull the good used tires for reuse, with the remainder transported to

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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.

An estimated 3% of the total annual generation collected results from motorists who choose to take their old tires home rather than leave them with the retailer for disposal. Ultimately, most of these orphan tires end up at a landfill where they are held for collection by haulers. Recognizing this as a cost and logistical problem for some landfills, TSBC continues to work on providing alternative disposal options such as the Return to Retailer (R2R) program and tire Round-Up events. The decrease in volume of tires going to landfill (6% in 2012) indicates that the measures TSBC has put in place as alternate disposal methods are working. As a result of a recruitment drive for R2Rs during the Ambassador Tours and during TSBC's Compliance Review visits, TSBC has seen an increase in the number of R2R locations from 449 in 2012 to over 800 at the end of 2017. 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 TSBC website, the list of R2R locations is available on the BC Recycles website and the Recyclepedia app.

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 2018 events are shown in Table 1 below. 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. In 2018, through its partnership with ART engaged schools, TSBC worked with ART to initiate local collection events as part of its fundraising activities, with TSBC providing a financial contribution linked directly to the success of their Round-Ups. In 2018, 3 of the 16 Round-Ups were ART related events, one event being specific to working with the Okanagan Regional District's annual West Nile Virus round up program and another to the Township of Langley's annual 2-day Household Hazardous Waste and Recycling Event. Recognizing the invaluable opportunity to connect face to face with the public dropping off tires, TSBC ambassadors 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, over 8,200 tires were collected thanks to the efforts of all involved, which included the retailers willing to host these events and Western Rubber Products for providing the trailers and manpower to accept and load the tires.

Table 1 Collection Events – 2018

Date	Facility	City
April 14	OK Tire	Lake Cowichan
April 21	Fountain Tire	Salmon Arm
April 28	Midas	Burnaby
June 18	Recycling Depot	Pender Island
July 14	Kal Tire	Langford
July 21	Kal Tire	Surrey
Aug 9	Bella Tire	Trail
Aug 11	Kal Tire	Coquitlam
Aug 18	Kal Tire	Langley
Aug 25	Kal Tire	Chilliwack
September 11	Kal Tire	Richmond
September 22	Kal Tire	Vernon
September 29	Junk in the Trunk Event (RD)	Prince George
September 15	West Nile Virus Program (RD)	Kelowna
October 15	Kal Tire	Tsawwassen
October 28	Township	Langley

*RD – Regional District

5. Product Environmental Impact Reduction, Reusability and Recyclability

TSBC and producers continue to seek opportunities to reduce the environmental impacts associated with the life cycle of a tire, and to increase its reusability at the end of that cycle.

Reduction

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. Motorists can also play their part by ensuring tires are properly inflated and maintained. TSBC continues to work in partnership with the Tire and Rubber Association of Canada in their annual [Be Tire Smart](#) campaign which focuses on educating the motoring public on the benefits of proper tire inflation and maintenance. This includes the distribution of tire pressure gauges and tire tread depth gauges at community and collection events.

Reusability

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. TSBC's program incents this activity by **not** assessing an eco-fee on retreaded tires (equivalent to \$9 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 as a result of the commercial strength of the market for this product.

The 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.

Recyclability

TSBC's ability to influence product design to increase recyclability is extremely limited. While 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, the international tire manufacturers are responding to the environmental challenges of tire manufacturing by doing such things as replacing high aromatic petroleum-based oils with bio-based oils from corn, canola, oranges, etc. In addition, manufacturers are 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.

6. Pollution Prevention Hierarchy and Product / Component Management

TSBC manages 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 2](#), which follows these descriptions, provides the 2018 results based on the various categories broken down by component type – rubber, steel and fibre.

3R Recycling

Referred to in the industry as Tire Derived Product (TDP), this category includes the rubber component that has been recycled and sold to market; it does not include rubber that is in inventory at the processor’s site as a product for sale at a later date. The reporting category also includes steel, extracted in the recycling process, sold as a product to an end use market. Should a recycling market fibre be found, the fibre directed to this end use would also be reflected on this category.

4R Energy Recovery

Referred to in the industry as Tire Derived Fuel (TDF), 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, with an average of 25% of a tire comprised of natural rubber, a renewable resource, energy recovered from tires can be categorized as a biofuel. [The following article and reference to a study conducted by the French Company Aliapur speaks to, and confirms, this thinking.](#)

5R Residuals

Residuals include waste material – rubber, steel and fibre - from the recycling process that is ultimately disposed of at landfill. Typically, this would only include the rubber component (sweepings or non processable material) unless there is a drop in demand for steel and fibre, triggered by market forces beyond the control of the processor.

Table 2 Product Hierarchy Results – 2018

Component	Recycling (3R)	Energy Recovery (4R)	Landfill (5R)
Rubber	88.5%	11.4%	.1%
Steel	100%		
Fibre		100%	

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 is market driven and varies 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 volumes of BC tires consumed by Lehigh in Delta has been consistent.

The volume of whole tires and shred directed for energy recovery remains low and within TSBC’s target of 15%. 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 creating a value-added product that in most provinces is considered waste and landfilled.

7. Recovery Rate and Product Sold and Collected

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. A study commissioned by the Ministry of Environment and Climate Change Strategy in 2017 supported the option of redefining Recovery Rate for products that have a greater than 1 year lifespan. In 2017 TSBC engaged its audit firm to research the factors that influence the Recovery Rate. The report was finalized in 2018 and concluded that with a robust collection system in place, the factors impacting the difference between sales and collection are the long-term life of a tire, tires sales trends (winter tires, new car sales / vehicle registrations) and to a lesser degree the export of used tires for reuse. This confirmed that the Recovery Rate as currently defined for a product with a life span beyond 1 year is not appropriate for tires. As a result, in TSBC’s recent Stewardship Plan submission, approved by the Ministry on December 7, 2018, TSBC proposed a change to the definition in order to establish a more meaningful measure, an objective of the Ministry for all stewardship programs. The Recovery Rate for tires is now 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.

Table 3 Recovery Rate

Units Sold 2013	Units Collected 2018	Recovery Rate
3,406,523	3,357,594	99%

Table 4 Product Sold and Collected in 2018

Tire category	Units Sold	Units collected and delivered to a processor
Passenger & Light Truck	3,810,953	3,028,295
Medium Truck	384,738	316,243
Large Agricultural	16,757	11,100
Logger / Skidder	4,202	1,956
Total	4,216,650	3,357,594

8. Summary of Deposits, Refunds, Revenues and Expenditures

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 2018 for the different tire types, shown in Table 4 below, have not increased since 2008, aligning with a goal of the program to “sustain or reduce the average Advance Disposal Fee”.

Table 5 Advance Disposal Fees – 2018

Tire category	ADF per tire
Passenger & Light Truck (PLT)	\$5
Medium Truck (MT)	\$9
Agricultural Drive	\$15
Logger / Skidder	\$35

Other OTR tires are excluded from the Recycling Regulation because until recently there were very limited recycling solutions for these larger tires. 100% of fees collected are used for the operation of the scrap tire recycling program.

Program revenues and expenses are provided in TSBC’s 2018 independently audited financial statements, included as [Appendix A](#).

9. Plan Performance

TSBC is currently operating under its [2018-2022 Stewardship Plan](#), approved by the Ministry on December 7, 2018. In this plan, TSBC set new performance measures and targets, as reported in **Table 6** below and reporting commitments, as reported in **Table 7** below.

Table 6 Performance Measures, Targets and Results 2018

Performance Measures (as agreed with the Ministry)		Annual Targets				Performance																																			
1.	Recovery Rate <u>(Total # Units Collected in reporting year / Total # Units Sold 5 years prior to reporting year)</u>	90%				99%																																			
2.	The percentage allocation of total tonnes of scrap tires (i.e. all rubber, steel and fibre) <u>processed and shipped</u> Note: on average rubber accounts for 70% of the total weight with 15% steel and 15% fibre.	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th></th> <th>Recycling</th> <th>Energy Recovery</th> <th>Landfill</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td>84%</td> <td>15%</td> <td>1%</td> </tr> <tr> <td>Steel</td> <td>100%</td> <td></td> <td></td> </tr> <tr> <td>Fibre</td> <td></td> <td>98%</td> <td>2%</td> </tr> </tbody> </table>					Recycling	Energy Recovery	Landfill	Rubber	84%	15%	1%	Steel	100%			Fibre		98%	2%	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th></th> <th>Recycling</th> <th>Energy Recovery</th> <th>Landfill</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td>88.5%</td> <td>11.4%</td> <td>0.1%</td> </tr> <tr> <td>Steel</td> <td>100%</td> <td></td> <td></td> </tr> <tr> <td>Fibre</td> <td></td> <td>100%</td> <td></td> </tr> </tbody> </table>					Recycling	Energy Recovery	Landfill	Rubber	88.5%	11.4%	0.1%	Steel	100%			Fibre		100%	
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Rubber	88.5%	11.4%	0.1%																																						
Steel	100%																																								
Fibre		100%																																							
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				2,038																																			
4.	c) Total number of retailers and generators in BC that take back orphan tires (R2R) d) Number of R2Rs in each Regional District	c) 800 province-wide d) At least 25% of registered retailers in each Regional District are R2R locations				c) 811 d) Achieved																																			

Performance Measures (as agreed with the Ministry)		Annual Targets	Performance
5.	Education and Awareness		
	c) Awareness of where to take scrap tires for safe disposal	c) 2018: 57%	c) 2018: 59%
	d) Awareness of where to go to find information on safe disposal locations	d) 2018: 73%	d) 2018: 74%

Table 7 Reporting Commitments

Reporting Commitments	
1.	Total tonnes collected by Regional District in a calendar year / total KG per capita for all of BC – Appendix C
2.	Dates, locations and results of tire collection events – Table 1
3.	Number of legitimate collection complaints received by TSBC - one
4.	Number of consumer complaints received by TSBC – zero
5.	Results of SABC waste audits and any local government waste audits if data is shared directly with / made available directly to TSBC – Section 3 (Partnerships)
6.	Comparison of results to targets for all Performance Measures – Table 6
7.	Independently audited financial statements – Appendix A
8.	Non-financial audit report – Appendix B
9.	Total product collected and sold in the reporting year – Table 4
10.	Description of how the product was managed in accordance with the pollution prevention hierarchy – Section 6 & Table 2
11.	Location of collection facilities – Appendix D
12.	Description of educational materials and educational strategies used – Section 3
13.	Efforts taken to reduce environmental impacts, to increase reusability and recyclability – Section 5

Appendix A: 2018 Audited Financial Statements



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INDEPENDENT AUDITORS' REPORT

To the Members of Tire Stewardship B.C. Association

Report on the Financial Statements

Opinion

We have audited the financial statements of Tire Stewardship B.C. Association (the "Association"), which comprise the statement of financial position as at December 31, 2018 and the statements of operations, changes in net assets, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly in all material respects, the financial position of the Association as at December 31, 2018, and results of its operations and its cash flows for the year then ended in accordance with Canadian Accounting Standards for Not-For-Profit Organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Association in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian Accounting Standards for Not-For-Profit Organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Baker Tilly Victoria Ltd. is a member of Baker Tilly Canada Cooperative, which is a member of Baker Tilly International Limited. All members are separate and independent legal entities.



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INDEPENDENT AUDITORS' REPORT (continued)

In preparing the financial statements, management is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Association or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Association's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statement

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control.

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INDEPENDENT AUDITORS' REPORT (continued)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Association to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

As required by the British Columbia Society Act, we report that, in our opinion, these principles have been applied on a basis consistent with that of the preceding year.

Baker Tilly Victoria Ltd.

CHARTERED PROFESSIONAL ACCOUNTANTS

Victoria, B.C.

April 25, 2019

Baker Tilly Victoria Ltd. is a member of Baker Tilly Canada Cooperative, which is a member of Baker Tilly International Limited. All members are separate and independent legal entities.

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Tire Stewardship B.C. Association
Statement of Financial Position

As at December 31	2018	2017
	\$	\$
ASSETS		
Current Assets		
Cash	3,654,181	3,091,875
Accounts receivable	2,185,787	2,604,685
	<hr/>	<hr/>
	5,839,968	5,696,560
Investments (note 2)	11,424,639	11,620,822
Intangible Asset (note 3)	108,090	55,583
	<hr/>	<hr/>
	17,372,697	17,372,965
<hr/>		
LIABILITIES		
Current Liabilities		
Accounts payable and accrued liabilities (note 4)	3,388,752	2,818,967
	<hr/>	<hr/>
NET ASSETS (NOTE 5)		
Unrestricted	-	-
Restricted		
Program Reserve	13,983,945	14,553,998
	<hr/>	<hr/>
	17,372,697	17,372,965
<hr/>		

COMMITMENTS (NOTE 6)

Signed by Directors on behalf of the Board:



 Director



 Director

Tire Stewardship B.C. Association
Statement of Operations

For the Year Ended December 31	2018	2017
	\$	\$
REVENUE		
Advance Disposal Fees	22,989,466	24,004,704
Investment Income (note 2) -		
From Cash and Cash Equivalents	20,856	7,726
From Fixed Income Securities and Equities	(134,681)	486,503
Less Investment Management Fees	(59,613)	(58,587)
Total Revenue	22,816,028	24,440,346
EXPENSES		
Program Incentives	20,909,136	21,103,007
Administration		
Program Management	1,263,295	1,202,215
Communications and Education	255,316	225,810
Community Grant Program	585,244	236,224
Professional Fees	219,172	264,083
Board Expenses and Travel	153,918	162,384
Total Expenses	23,386,081	23,193,723
EXCESS OF REVENUE OVER EXPENSES	(570,053)	1,246,623

**Tire Stewardship B.C. Association
Statement of Changes in Net Assets**

For the Year Ended December 31

	Unrestricted	Restricted	2018	2017
	\$	Program Reserve \$		Total \$
Net Assets - Beginning of year	-	14,553,998	14,553,998	13,307,375
Excess of Revenue over Expenses	(570,053)	-	(570,053)	1,246,623
Transfers (note 5)	570,053	(570,053)		-
NET ASSETS - END OF YEAR (NOTE 5)	-	13,983,945	13,983,945	14,553,998

Tire Stewardship B.C. Association
Statement of Cash Flows

For the Year Ended December 31	2018	2017
	\$	\$
CASH PROVIDED FROM (USED FOR):		
OPERATING ACTIVITIES	(570,053)	1,246,623
Excess of revenue over expenses		
Items not affecting cash -		
Amortization of intangible asset	60,583	66,700
Realized gain on sale of investments	(63,000)	(47,507)
Unrealized loss/ gain on investments	546,775	(69,936)
Changes in non-cash working capital balances related to operations -		
Accounts receivable	418,898	98,800
Accounts payable and accrued liabilities	569,785	962,291
	962,987	2,256,971
INVESTING ACTIVITY		
Proceeds from sale of investments	1,927,426	1,627,604
Purchase of investments	(2,215,017)	(1,935,673)
Purchase of intangible asset	(113,090)	-
	(400,681)	(308,069)
INCREASE (DECREASE) IN NET CASH	562,307	1,948,902
Net Cash - Beginning of year	3,091,875	1,142,973
NET CASH - END OF YEAR (NOTE 1)	3,654,181	3,091,875

Tire Stewardship B.C. Association

NOTES TO FINANCIAL STATEMENTS

For the Year Ended December 31, 2018

Tire Stewardship B.C. Association (“TSBC”) is a Stewardship Agency registered in British Columbia and incorporated under the British Columbia Society Act as a not-for-profit organization on August 25, 2003. On October 13, 2017 TSBC transitioned to the new British Columbia Societies Act. TSBC is exempt from income taxes pursuant to Section 149(1)(l) of the Income Tax Act, Canada. On January 1, 2007, TSBC assumed responsibility for the Ministry of Environment (“Ministry”) FIRST Program and entered into an agreement to manage the industry stewardship program for scrap tires in British Columbia in accordance with a Ministry-approved Stewardship Plan. The 2018-2021 Stewardship Plan was approved by the Ministry on December 7, 2018.

The B.C. Recycling Regulation (449/2004) includes the requirement that all producers, as defined in the regulation and referred to in these notes as “tire retailers”, prepare or be part of an approved stewardship plan. Presently, TSBC has the only approved tire stewardship program in the province and accordingly all tire retailers in B.C. must be registered.

1. SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations, applied within the framework of the significant accounting policies summarized below:

Use of Estimates

The preparation of financial statements in accordance with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. As discussed in note 6, the incentive payments to the processors are payable only after the processing is complete and the product is sold. An inventory of processed materials not yet sold, and unprocessed scrap tires exists at the processors’ plants. This inventory is estimated based on reports from the processors and actual inventories may vary significantly from this estimate. These estimates are reviewed periodically by management.

Revenue Recognition

TSBC follows the deferral method of accounting. Under this method, restricted revenue is recognized in the year in which the related expenses are incurred. Unrestricted revenue is recognized when received or receivable if the amount received can be reasonably estimated and collection is reasonably assured. Investment income is recognized when earned.

TSBC charges an advance disposal fee to tire retailers on the sale of new tires. This fee is variable based on the type of tires sold. Advance disposal fee revenues are collected by the tire retailers at the point of sale and reported to TSBC in the following month. TSBC accrues the advance disposal fee revenues and recognizes them as unrestricted revenues in the month in which they were generated as reported by the tire retailers.

Cash and Cash Equivalents

The cash presented on the statement of financial position consists of cash on hand and cash on deposit. The cash and cash equivalents component of investments consists of cash on deposit and investments in money market instruments.

1. SIGNIFICANT ACCOUNTING POLICIES (continued)

Intangible Asset

Intangible asset consists of software and is accounted for at cost. Amortization is based on its useful life using the straight-line method. The amortization method and the estimate of the useful life of the intangibles are reviewed annually. Intangibles are tested for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable. Impairment of an intangible asset is recognized in an amount equal to the difference between the carrying value and the fair value of the related intangible asset. TSBC utilizes a direct valuation approach in determining the fair value of intangible assets.

Research and development

Research costs are expensed in the period incurred. Development costs are expensed in the period incurred unless, in the opinion of management, the deferral criteria set forth by the CPA Canada Handbook – Accounting are satisfied in all material respects, in which case development expenditures are capitalized and amortized over the estimated life of the related products.

Intangible Asset impairment

The carrying value of the intangible asset may be written down to recognize a reduction in its recoverable amount to its fair value. The impairment is measured by comparing the carrying value of the intangible asset to the fair value, based on the present value of undiscounted future cash flows expected to be generated from the intangible asset. An impairment charge is recorded in net income. Impairment charges are not reversed if there is a subsequent increase in its fair value.

Incentives Payable

Incentives payable to processors are due only after the processing is complete and the product is sold for an eligible end use (or in the case of whole tires used for tire derived fuel, when consumed by the facility). Incentives payable to manufacturers are due on receipt of crumb rubber from the processor or on sale of the final manufactured product depending on the manufacturers' processes. Incentives payable as of the end of the fiscal year are included in accounts payable and accrued liabilities.

Financial Instruments

Measurement of financial instruments

TSBC initially measures its financial assets and financial liabilities at fair value, except for certain related party transactions that are measured at the carrying amount or exchange amount, as appropriate.

TSBC subsequently measures all its financial assets and financial liabilities at cost or amortized cost, except for investments that are quoted in an active market, which are measured at fair value. Changes in fair value of these financial instruments are recognized in excess (deficiency) of revenue over expenses.

Financial assets measured at amortized cost on a straight-line basis include cash and cash equivalents and accounts receivable.

Financial liabilities measured at amortized cost on a straight-line basis include accounts payable and accrued liabilities.

Financial assets measured at fair value include quoted fixed income securities and equities.

1. SIGNIFICANT ACCOUNTING POLICIES (continued)

Impairment

Financial assets measured at cost are tested for impairment when there are indicators of impairment. The amount of the write-down is recognized in excess (deficiency) of revenues over expenses. The previously recognized impairment loss may be reversed to the extent of the improvement, directly or by adjusting the allowance account, provided it is no greater than the amount that would have been reported at the date of the reversal had the impairment not been recognized previously. The amount of the reversal is recognized in excess (deficiency) of revenues over expenses.

Transaction costs

TSBC's transaction costs related to financial instruments that will be subsequently measured at fair value are recognized in excess (deficiency) of revenues over expenses in the period incurred. The carrying amount of the financial instruments that will not be subsequently measured at fair value is adjusted for transaction costs directly attributable to the origination, issuance or assumption of these instruments.

2. INVESTMENTS

	2018	2017
	\$	\$
Cash and cash equivalents, at amortized cost	326,289	360,722
Fixed income securities, measured at fair value	8,498,462	8,311,107
Equities, measured at fair value	2,599,889	2,948,993
Investments	11,424,639	11,620,822

Investment income is comprised of interest income of \$69,012 (2017 – \$58,544), dividends of \$54,449 (2017 – \$64,930), foreign non business income \$80,612, (2017 – \$78,796), other income \$165,877 (2017 - \$174,516), realized gain of \$63,000 (2017 – gain of \$47,507), unrealized loss of \$546,775 (2017– gain of \$69,936), less investment management fees of \$59,613 (2017 – \$58,587).

3. INTANGIBLE ASSET

	2018	2017
	\$	\$
Software (net of amortization)	108,090	55,583

The software is being amortized on a straight-line basis over three years. The amount of amortization included in the statement of operations for this intangible asset was \$60,583 (2017 – \$66,700).

4. GOVERNMENT REMITTANCES

Accounts payable and accrued liabilities include Goods and Services Tax payable of \$127,384 (2017 – \$157,031).

5. NET ASSETS

TSBC's board of directors approved a transfer from the Program Reserve to the Unrestricted Reserve in the amount of \$570,053.

Unrestricted Net Assets:

- Funds the operational expenses of TSBC, are not externally restricted and are available for general use.

Program Reserve:

- Ensures that funds are available to meet the potential incentives owing to processors for the whole tires and unsold product from previously delivered tires. TSBC has entered into agreements with processors to provide incentives to process and sell their products. The incentive is paid when the product is sold.
- Assists, in the event of a cessation of the Tire Stewardship Program, or the wind up of the Society, or other contingencies with the potential financial consequences that may arise if such events were to occur.
- Ensures funds are available to fund research and development activities and other initiatives needed to sustain a tire-recycling program in the province of British Columbia.

6. COMMITMENTS

As at December 31, 2018, whole tires and unsold product at registered processor facilities were estimated at 553,311 (2017 – 606,469) passenger tire equivalents ("PTE"). The incentive payments to processors could amount to a future liability of up to \$1,492,254 (2017 – \$1,819,831). TSBC has entered into an agreement for the provision of management and administrative services to December 31, 2019. TSBC has contractual obligations related to an e-commerce project.

7. FINANCIAL INSTRUMENTS

TSBC's financial instruments consist of cash and cash equivalents, accounts receivable, investments (note 2), and accounts payable and accrued liabilities.

Risks and Concentrations

TSBC is exposed to various risks through its financial instruments, without being exposed to concentrations of risk. The following analysis provides a measure of the TSBC's risk exposure as at December 31, 2018.

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Credit risk arises from the potential that registered tire retailers who are required to remit advance disposal fees on their tire sales will fail to perform their respective obligation to remit these funds to TSBC. TSBC is exposed to credit risk from these registrants. However, TSBC has a large number of registered tire retailers, which minimizes the concentration of credit risk.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. Unless otherwise noted, it is management's opinion that, under normal circumstances, TSBC is not exposed to significant liquidity risk arising from these financial instruments.

7. FINANCIAL INSTRUMENTS (continued)

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk.

Currency risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Unless otherwise noted it is management's opinion that, under normal circumstances, TSBC is not exposed to significant currency risk arising from these financial instruments.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. TSBC is exposed to interest rate risk on its fixed and floating interest rate financial instruments. Fixed-interest instruments subject TSBC to a fair value risk, since fair value fluctuates inversely to changes in market interest rates. Floating rate instruments subject TSBC to related cash flow risk. Unless otherwise noted it is management's opinion that, under normal circumstances, TSBC is not exposed to significant interest rate risk arising from these financial instruments.

Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market. TSBC is exposed to other price risk through its investments in fixed income securities and equities for which the values fluctuate with the quoted market price and interest rates.

8. COMPARATIVE FINANCIAL STATEMENTS

Certain comparative figures have been reclassified to be consistent with the presentation adopted in the current year.

Appendix B: 2018 Non-Financial Information Audit Report



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INDEPENDENT REASONABLE ASSURANCE REPORT FOR SELECTED NON-FINANCIAL INFORMATION

To the Members of Tire Stewardship B.C. Association

We have been engaged by the management of Tire Stewardship B.C. Association (the “Stewardship Agency”) to perform a reasonable assurance engagement in respect of the following information, detailed within the Stewardship Agency’s Annual Report to the Ministry of Environment and Climate Change Strategy and in Attachment 1, for the year ending December 31, 2018 (together the “Subject Matter”):

- The location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of B.C. Regulation 449/2004 (the “Recycling Regulation”);
- The description of how the recovered product was managed in accordance with the pollution prevention hierarchy in accordance with Section 8(2)(d) of the Recycling Regulation;
- The total amount of the producer’s product sold and collected and the producer’s recovery rate in accordance with Section 8(2)(e) of the Recycling Regulation; and,
- Performance for the year in relation to approved targets under Section 8(2)(b), (d) and (e) in accordance with Section 8(2)(g) of the Recycling Regulation.

The objective of this Report is to disclose how the Stewardship Agency’s management has discharged its responsibility to report on the Subject Matter in accordance with Sections 8(2)(b), (d), (e) and (g) of the Recycling Regulation.

RESPONSIBILITIES

Management is responsible for the preparation and fair presentation of the Subject Matter in accordance with the evaluation criteria as listed in Attachment 1 and for such internal control as management determines is necessary to enable the preparation of the Subject Matter such that it is free from material misstatement, whether due to fraud or error.

Our responsibility in relation to the Subject Matter is to perform a reasonable assurance engagement and to express an opinion based on the work performed and evidence obtained. Our opinion does not constitute a legal determination on the Stewardship Agency’s compliance with the Recycling Regulation.

EVALUATION CRITERIA

Management is responsible for the preparation of suitable evaluation criteria in accordance with the *Guide to Third Party Assurance for Non-Financial Information in Annual Reports – 2018 Reporting Year*, dated October 2018 as specified by the Director under Section 8(2)(h) of the Recycling Regulation. The evaluation criteria presented in Attachment 1 are an integral part of the Subject Matter and address the relevance, completeness, reliability, neutrality and understandability of the Subject Matter.



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INDEPENDENT REASONABLE ASSURANCE REPORT FOR SELECTED NON-FINANCIAL INFORMATION
 (continued)

SCOPE OF THE ASSURANCE ENGAGEMENT

We carried out our reasonable assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (“ISAE 3000”), Assurance Engagements other than Audits or Reviews of Historical Financial Information, published by the International Federation of Accountants.

This standard requires that we comply with the independence and other ethical requirements of the International Ethics Standards Board for Accountants Code and that we apply International Standard on Quality Control 1. ISAE 3000 also requires that we plan and perform the engagement to obtain reasonable assurance about whether the Subject Matter is free from material misstatement. A reasonable assurance engagement includes examining, on a test basis, evidence supporting the amounts and disclosures within the Subject Matter. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement in the Subject Matter, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity’s preparation and fair presentation of the Subject Matter in order to design assurance procedures that are appropriate in the circumstances, but not for purpose of expressing a conclusion on the effectiveness of the entity’s internal control.

The main elements of our work were:

- Inquiring and discussing with the Stewardship Agency’s management to obtain an understanding of the management and information systems, processes and relevant controls used to generate, aggregate and report the data in the Annual Report;
- Testing relevant controls, transactions and source records on a sample basis;
- Agreeing the number and changes in the number of collection facilities to supporting documentation;
- Inspecting source documentation for proper classification of collection facilities and other registered retailers on a test basis;
- Confirming the existence and location of collection facilities and other registered retailers on a test basis;
- Confirming the total amount of producer’s product sold and collected during the year on a test basis;
- Agreeing the total amounts of the producer’s product sold and collected and processor’s product end-fate during the year to source records on a test basis;
- Confirming the total weight of each category of product end-fate during the year with processors on a test basis;
- Agreeing data used in calculations to source records on a test basis;
- Re-performing calculations on a test basis including the recovery rate and product end-fate percentage calculations;
- Inspecting a sample of the Stewardship Agency’s compliance and education program review results to obtain assurance over self-reported data;
- Agreeing the applicable Annual Report target data to the approved stewardship plan to ensure completeness and consistency; and
- Reviewing the consistency of the Subject Matter with the related disclosures in the Annual Report.



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INDEPENDENT REASONABLE ASSURANCE REPORT FOR SELECTED NON-FINANCIAL INFORMATION
(continued)

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INHERENT LIMITATIONS

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the Subject Matter and the methods used for determining and calculating such information. Qualitative interpretations of relevance, materiality, and the accuracy of data are subject to individual assumptions and judgements. Furthermore, the nature and methods used to determine such information, as well as the evaluation criteria and the precision thereof, may change over time. Accordingly, it is important to read our report in the context of the evaluation criteria.

OPINION

In our opinion, the Subject Matter within the Stewardship Agency’s Annual Report for the year ended December 31, 2018, presents fairly in accordance with the evaluation criteria, in all material respects.

- The location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation;
- The description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation;
- The total amounts of the producer’s product sold and collected and the producer’s recovery rate in accordance with Section 8(2)(e); and
- The performance for the year in relation to approved targets under Sections 8(2)(b), (d) and (e) in accordance with Section 8(2)(g) of the Recycling Regulation.

OTHER MATTERS

Our report has been prepared solely for the purposes of management’s stewardship under the Recycling Regulation and is not intended to be and should not be used for any other purpose. Our duties in relation to this report are owed solely to the Stewardship Agency, and accordingly, we do not accept any responsibility for loss occasioned to any other party acting or refraining from acting based on this report.

Baker Tilly Victoria Ltd.

CHARTERED PROFESSIONAL ACCOUNTANTS

Victoria, BC
June 26, 2019

Attachment 1

**Tire Stewardship B.C. Association (“TSBC”) Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2018**

Collection Facilities

Assessment of the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation

Specific Disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference (Page # / Table #)
Number and Location of Collection Facilities	Page 8, Section 4 and Page 15, Table 6
Change in Number and Location of Collection Facilities	Page 8, Section 4

Evaluation Criteria

The following evaluation criteria were applied to the assessment of the location of collection facilities, and any changes in the number and location of collection facilities from the previous report in accordance with Section 8(2)(b) of the Recycling Regulation.

1. The number of collection facilities is measured by the number of registered retailers, as at year end, that will take back a scrap tire from the consumer at the time a new tire is sold (TSBC’s fiscal year ends December 31st).
2. The location of collection facilities is included in the list of registered retailers that is provided on the TSBC website as at December 31, 2018.
3. The change in the number and location of collection facilities is based on direct comparison of the number of collection facilities on a provincial and regional district basis compared to the equivalent data for the preceding year.

Product Management (End of Fate)

Assessment of the description of how the recovered product was managed in accordance with the pollution prevention hierarchy under Section 8(2)(d) of the Recycling Regulation

Specific Disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference (Page # / Table #)
3R - Recycling	Page 12, Table 2 and Page 15, Table 6
4R – Energy Recovery	Page 12, Table 2 and Page 15, Table 6
SR - Residuals	Page 12, Table 2 and Page 15, Table 6

Evaluation Criteria

The following evaluation criteria were applied to the assessment of the description of how the recovered product was managed in accordance with the Pollution Prevention Hierarchy under Section 8(2)(d) of the Recycling Regulation.

**Attachment 1 (continued)
Tire Stewardship B.C. Association (“TSBC”) Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2018**

TSBC manages products in accordance with the “Pollution Prevention Hierarchy”, i.e., recycle (“3R”), before energy recovery (“4R”), before residual disposal (“5R”), and reports on volumes in each of the 3R, 4R and 5R categories.

1. 3R – Recycling

This category includes the rubber, steel and fibre components that have been recycled and sold to market. It does not include rubber, steel or fibre that is in inventory at the processor’s site for sale or disposal at a later date.

The number of tonnes is recorded on Processing Incentive claims substantiated by Processor’s sales invoices to customers.

2. 4R – Energy Recovery

This category comprises the rubber, steel and fibre components of whole tires and shred used for energy recovery, in addition to fibre extracted in the recycling process.

Shred & Fibre: The number of tonnes is recorded on Processing Incentive claims substantiated by Processor’s sales invoices to customers.

Whole Tire: The number of tonnes is recorded on Processing Incentive claims substantiated by the user’s Tire Burn Report adjusted for volumes of import tires received during the same period.

3. 5R - Residuals

This category includes waste material from the recycling process (sweepings) and any fibre or steel that cannot be sold to a market and is ultimately disposed of at a landfill.

The number of tonnes is recorded on Processing Incentive claims substantiated by shipping documents to the landfill and copies of weigh scale tickets.

Recovery Rate

Assessment of the description of total amounts of the producer’s product sold and collected and the producer’s recovery rate in accordance with Section 8(2)(e) of the Recycling Regulation

Specific Disclosures in the annual stewardship report for which evaluation criteria were developed	
Disclosure per annual report	Reference (Page # / Table #)
Units Sold 2013 = 3,406,523	Page 13, Table 3
Units Collected 2018 = 3,357,594	Page 13, Table 3
Recovery Rate (Units Collected 2018/ Units Sold 2013) = 99%	Page 13, Table 3 and Page 15, Table 6

Attachment 1 (continued)

**Tire Stewardship B.C. Association ("TSBC") Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2018**

Evaluation Criteria

The following evaluation criteria were applied to the assessment of the description of how the total amounts of the producer's product sold and collected and the producer's recovery rate has been calculated in accordance with Section 8(2)(e) of the Recycling Regulation.

1. The recovery rate is expressed as a percentage of the number of units (units are defined as whole tires) collected in the reporting year divided by the number of units sold 5 years prior to the reporting year.
 - a. The number of units collected is recorded at the time of pick up on a TSBC waste manifest form and delivered to a TSBC registered processor.
 - b. The number of units sold is recorded at the time the Advance Disposal Fee (ADF) is reported by the retailer on TSBC's ADF Return form.
 - c. The number of units collected and sold are self-reported data that are subject to reviews of their completeness and accuracy on a sample basis under TSBC's Compliance and Education program. In 2018, 98 (2017 - 68) retailers were subjected to such reviews.

Performance for the Year

Assessment of the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2) (b), (d), (e) and in accordance with Section 8(2)(g) of the Recycling Regulation

Specific Disclosures in the annual stewardship report for which evaluation criteria were developed				
Disclosure per annual report	Targets in approved stewardship plan			Reference (Page # / Table #)
Collection Facilities: 8(2)(b)				
Number and Location of Collection Facilities	1,850			Page 8, Section 4 and Page 15, Table 6
Change in Number and Location of Collection Facilities	No Target			Page 8, Section 4
End of Fate: 8(2)(d)				
	3R	4R	5R	
Rubber	84%	15%	1%	Page 15, Table 6
Steel	100%			Page 15, Table 6
Fibre		98%	2%	Page 15, Table 6
Recovery Rate: 8(2)(e)				
Units Sold	No Target			Page 13, Table 3
Units Collected	No Target			Page 13, Table 3
Recovery Rate (Total # Units Collected in reporting year / Total # Units Sold 5 years prior to reporting year)	90%			Page 13, Table 3 and Page 15, Table 6
Education and Awareness: 8(2)(g)				
Awareness of where to take scrap tires for safe disposal	57%			Page 16, Table 6
Awareness of where to go to find information on safe disposal locations	73%			Page 16, Table 6

Attachment 1 (continued)

**Tire Stewardship B.C. Association ("TSBC") Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2018**

Evaluation Criteria

The following evaluation criteria were applied to the assessment of the description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d), (e) and in accordance with Section 8(2)(g) of the Recycling Regulation.

- All stewardship plan targets relating to Section 8(2)(b), (d), (e) and in accordance with Section 8(2)(g) of the Recycling Regulation have been identified and disclosed in the annual report;
- The expected outcomes and target dates as included in the annual report are consistent with the targets in the approved stewardship plan; and
- The facts disclosed in the annual update on progress are supportable by evidence, neutral and understandable.

The education and awareness performance measure results presented in the annual report were obtained from the Stewardship Agencies of B.C. Consumer Awareness and Usage Tracking survey conducted in October 2018 by Insights West, an independent third party. The survey is conducted every two years.

Appendix C: Collection Volumes by Tire Type by Regional District

Tire Stewardship BC					
Tire Capture by Tire Type by Regional District (tonnes)					
Date Range: Jan 01, 2018 - Dec 31, 2018					
Regional District	PLT	MT	AG	LS	Total
AL-CL Alberni-Clayoquot	295.30	130.55	2.46	3.77	432.07
BK-NK Bulkley-Nechako	469.90	485.44	21.68	55.30	1,032.32
CAPTL Capital	1,940.50	260.58	13.96	1.52	2,216.57
CARBO Cariboo	941.75	610.04	19.43	55.91	1,627.13
CKOOT Central Kootenay	695.72	240.75	6.87	13.92	957.25
CO-SC Comox-Strathcona	882.23	333.77	6.22	4.29	1,226.51
COKAN Central Okanagan	2,039.53	432.93	14.57	1.95	2,488.97
COLSS Columbia-Shuswap	653.76	296.47	9.42	13.60	973.24
COWVY Cowichan Valley	999.30	276.92	7.54	3.45	1,287.21
EKOOT East Kootenay	779.87	469.76	7.78	21.43	1,278.83
FFGEO Fraser-Ft. George	961.03	1,523.21	22.40	37.20	2,543.85
FN-LD Fort Nelson-Liard	92.09	136.34	1.94	0.00	230.38
FRVLY Fraser Valley	2,721.39	2,660.41	97.22	17.35	5,496.37
MV Metro Vancouver	11,664.42	5,280.49	184.53	8.89	17,138.33
KIT-S Kitimat-Stikine	415.50	204.65	9.15	2.23	631.53
KOOTB Kootenay-Boundary	308.98	85.29	4.30	2.98	401.55
MTWAD Mt. Waddington	121.09	46.98	0.52	0.00	168.58
NANMO Nanaimo	1,276.28	323.90	15.93	7.94	1,624.05
NOKAN North Okanagan	1,212.29	403.99	17.14	23.91	1,657.33
OK-SM Okanagan-Similkameen	1,035.01	211.78	11.40	8.38	1,266.57
PEACR Peace River	922.56	1,071.93	24.83	53.64	2,072.96
QT - Qathet	142.70	87.23	0.92	0.00	230.85
SK-QC Skeena-Queen Charlotte	113.43	49.11	0.89	0.00	163.43
SQ-LI Squamish-Lillooet	538.67	126.94	4.97	1.39	671.97
SUNCO Sunshine Coast	242.79	52.70	4.30	1.13	300.92
TH-NI Thompson-Nicola	1,601.86	1,613.93	35.50	48.87	3,300.16
GRAND TOTALS	33,067.95	17,416.08	545.87	389.04	51,418.93
Converted to KG - 1,000kg per tonne					51,418,930
Population of BC - source data	https://www2.gov.bc.ca/gov/content/data/statistics/people-population-				4,991,687
	(Highlights & Summary Table for Data - PDF)				
KG Per Capita					10.30



**Tire Stewardship BC
2018 Report to Director, Extended Producer Responsibility**

Appendix D: Collection Facility Locations

A listing of the locations can be found @ https://tsbc.ca/pdf/collection_facilities_2018.pdf