

Tire Stewardship BC

Annual Report to the Director

2013

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1. Executive Summary

Products within plan	Tires
Program website	www.tsbc.ca

Recycling Regulation Reference	Topic	TSBC – 2013 Summary Report
Part 2, section 8(2)(a)	Public Education Materials and Strategies	<ul style="list-style-type: none"> • TSBC continued its strong educational campaign through printed materials, media coverage, sponsorships, and directly to the public at Tire Round-Up events held across the province. Key achievements included: <ul style="list-style-type: none"> • creating 3 videos conveying the message of the program in general, what the eco fee is used for and industry innovation; • piloting a social media campaign to launch the videos; • continuing the Community Grant Program to incent the use of BC rubber in qualified projects across the province (45 in 2013); and • completing a consumer survey to determine awareness.
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 576 retailers currently accept up to 4 tires from each member of the public; and • Tire Round-Up events held around the province (12 in 2013). • 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. • In 2013, 3R uses represented 73% of the total tonnes processed.

Recycling Regulation Reference	Topic	TSBC – 2013 Summary Report
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 2013 “Recovery Rate,” applying the calculation recommended by the BC Recycling Regulation, was 78% across all regulated tire types. See Appendix B for a copy of the Audit Report. The “Collection Rate,” however, continues to be 100% and is more indicative of TSBC’s true performance based on the tires actually available for collection, as explained in Section 7. <hr/> <ul style="list-style-type: none"> See Appendix C for breakdown of collection per 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 for the sixth consecutive year, the Advance Disposal Fee rates remain unchanged.

Plan Performance – 2013

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
1. Report total tonnes collected broken down by Regional District	Please see Appendix C for a breakdown of scrap tire collection volumes by tonne in each Regional District	N/A
2. a) 84% Recovery Rate (Total # Units Collected / Total # units sold) b) Approximately 100% Collection Rate (Total # Units Collected / Total # Units Available For Collection)	78% Recovery Rate Approximately 100% Collection Rate	a) Please see Section 7 for an explanation of the variance and Appendix B for a copy of the Audit Report. b) N/A – no unmet demand for scrap tire collection.

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
<p>3. Breakdown of total tonnes processed:</p> <p>a) 3R – 71%</p> <p>b) 4R – 21%</p> <p>c) 5R (Residual) – 7%</p> <p>d) 5R (Off Spec) – 1%</p>	<p>a) 73% – 3R (rubber and steel recycled into products)</p> <p>b) 25% – 4R (rubber and fibre for energy recovery) Broken down as follows:</p> <ul style="list-style-type: none"> • 13% fibre • 12% whole tires or shred <p>c) 1% – 5R (residuals and fibre from 3R process landfilled)</p> <p>d) 1% – 5R (landfill of off spec regulated tires that cannot currently be processed into 3R or 4R)</p>	<p>4R: It is important to note that over 50% of the volume directed to TDF is fibre, a residual from the tire recycling process. TSBC could have directed this material to 5R in order to meet its target but this is contrary to the intent of the 5R hierarchy.</p> <p>5R: In 2013, this number dropped significantly due to a concerted effort by the processor to minimize waste and find 3R and 4R uses for the material.</p> <p>5R: In 2013, only a very small portion of the program tires were still unable to be processed.</p>
<p>4. 1,700 collection sites – Collection site is defined as a retailer that in normal course of business will take back one scrap tire for every new tire sold</p>	<p>1,776 collection sites</p>	<p>Please see Section 4 for a detailed explanation and Appendix B for a copy of the Audit Report.</p>
<p>5. a) 500 Return to Retailer (R2R) locations</p> <p>b) 2 Return to Retailer (R2R) locations per Regional District</p>	<p>576 R2R locations</p> <p>Central Coast is the only Regional District with less than 2 R2Rs (it has 1 R2R location)</p>	<p>N/A</p> <p>This Regional District has only 3 registered retailers in the area.</p>

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
6. 15 collection events	12 collection events	Costs associated with these events have resulted in TSBC reducing the number held. As detailed in Section 4 , in 2014, TSBC is amending its approach by leverage existing events to significantly lower costs.
7. Report on measures taken to reduce abandoned waste	Submitted - please see Appendix E	N/A
8. Less than 24 legitimate collection complaints from retailers and generators	1 legitimate collection complaint received <ul style="list-style-type: none"> • This equates to 0.03% of the 3,393 registered retailer and scrap tire generator sites and substantiates the Collection Rate result of ~100% (please see Section 7) 	N/A
9. Less than 12 consumer complaints	No complaints received	N/A
10. Under \$5 / PTE* program cost *Passenger Tire Equivalent	\$4.63 / PTE	N/A
11. To ensure program stability, no less than 6 months of operational cost in reserve	As of December 31, 2013, TSBC had approximately 8 months of current operational cost in reserve	N/A
12. At least one update to the GHG inventory report between 2013 and 2017	No report planned or conducted in 2013	N/A
13. Delivery of OTR Processing Options Report to Ministry by July 1, 2014	Submitted - please see Appendix D	N/A

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 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;
- The 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 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 2013, of the \$18.5M collected in eco fees, \$15.5M was paid out in Transportation, Processing and Manufacturing Incentives and over \$800,000 awarded in grants for 45 projects in communities throughout BC.

TSBC operates a retail based collection system. The majority of 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 scrap tire disposal at a later date. TSBC refers to these tires as "orphan tires" and offers the consumer two free disposal options: up to 15 collection events throughout the year and/or drop off at 576 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 web site. The R2R location information is also available through the Recycling Council of BC's [Recyclepedia](#) online tool.

After tires are collected, the majority are recycled into products with the remainder used as a fuel supplement. 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 products made from BC rubber *in BC* since 2010 has almost doubled.

In 2013, TSBC operated for 6 months of the year under its [2007 to 2011 Stewardship Plan](#) with the [2013 – 2017 Stewardship Plan](#) approved by the Ministry of Environment on June 28 2014. In the new Plan, TSBC set several new performance measures and targets and at the direction of the Ministry of Environment, agreed to report against these new targets in the 2013 Annual Report. Not only are these targets more aligned with the Ministry’s requirements, they more accurately reflect the activities of TSBC.

3. Public Education Materials and Strategies

TSBC focuses its stakeholder outreach on a broad education and communications campaign, raising consumer awareness on “where the money goes” and “where the tires go.” In 2013, communication methods included the initiatives below.

Tire collection events

TSBC participated in and provided funding for 12 collection events in 2013. The events were either voluntarily hosted by tire retailers or Regional Districts. Media outreach for these events resulted in coverage in over 25 media hits throughout the province. TSBC uses the Round-Ups as an opportunity to hand out tire gauges to promote proper tire maintenance which extends the life of a tire and saves fuel which reduces GHG. The public are also provided with fridge magnets which promote the [Return to Retailer](#) program and let people know they can dispose of their orphan tires at an R2R location in their area rather than abandoning them in the urban or rural landscape or taking them to landfill, possibly for an additional charge.

Community Grant Program

The [Community Grant 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 means of getting the word out on “what happens to the tires and what happens to the money.” The ability to showcase tire recycled products throughout BC is invaluable. In 2013, grants were awarded to 45 applicants from communities throughout BC, which used 1.4 million lbs of BC rubber for playground and spray park surfaces, recreational flooring, pathways and outdoor fitness area projects. The Community Grant Program was featured in 12 community papers across the province and 14 online media outlets, reaching thousands of readers in each corner of BC. Through ongoing communication with grant recipients, TSBC’s media firm also ensured the placement of [onsite signage](#) to officially recognize TSBC as a contributor to these important projects.

Ambassador Tour

In 2013, TSBC was pleased to partner with the BC Used Oil Management Association in its 9th annual [Ambassador Program](#). The program resulted in 715 visits to TSBC retailers, 18 local government visits and 15 community events. All this while earning 45 media hits from radio to newspaper in all regions of the province. This program is an excellent way for TSBC to connect with the retailers face to face and take the opportunity to receive feedback first hand. The focus in 2013 was to understand better the

level of satisfaction by retailers with the scrap tire collection service. TSBC is pleased to report that the result was an average of 8/10, a significant achievement given the high number of collection points across all areas of the province.

Promotional material

- [Videos](#): In 2013 TSBC created 3 videos:
 - An engaging animated video on the program in general with a focus on “where the tires go” for display at retailer sites and tradeshow;
 - A video focusing on the eco fee and “where the money goes”; and
 - An innovation video highlighting the R&D component of the TSBC program.
- **Web Keys**: All three videos are available on the TSBC website but to help spread the word, TSBC handed out web keys (similar to a USB key) with the 3 videos as content to all R2R participants in our program; to attendees at the UBMC tradeshow in September; and to delegates at the Coast Waste Management Association conference in October.
- **Social Media**: In 2013, TSBC ran a pilot project as part of the video launch to assess the need for social media as an ongoing communication tool for TSBC. Using Twitter and You Tube as the main tools, the pilot was only moderately successful. It was determined that TSBC would use social media on a campaign basis only and not as an ongoing communication tool.

Partnerships

With three other stewardship agencies, TSBC co-sponsored the production and delivery of four [Voices of Nature](#) concerts in Surrey and Burnaby in March. *Voices of Nature* is an innovative program that combines music and ecological education and is designed to reach children in elementary school, their teachers and families. The program focuses on environmental stewardship, sending out the strong message that reducing and managing waste is the key way to protect nature in our daily lives. The program is developed and delivered by the [Artist Response Team](#) from Vancouver.

Website

The [TSBC website](#) received over 43,000 visits in 2013 with about two thirds being unique visitors. The website is designed to provide information to two main stakeholder groups: registered participants and the public. For the public, the web site includes information on:

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

RCBC Hotline and Recyclepedia

As in prior years, TSBC contributed funding to the [Recycling Council of BC](#) to operate the [Recycling Hotline](#), its [Recyclepedia](#) online tool and [Smart Phone App](#). These tools are excellent resources for the consumer, particularly for information on tire drop off locations.

Consumer survey

In 2013, TSBC participated in a consumer awareness survey conducted by Insights West on behalf of all the BC Stewardship agencies. In summary, 63% of respondents were aware of the program, 75% perceived the program to be convenient, and 88% trusted that scrap tires were safely recycled. Of those respondents that had a tire to dispose of currently or in the past, 51% knew where to take the tire, with 69% knowing where to find information to locate a drop off location. TSBC will continue to be a participant in this survey through the Stewardship Agencies of BC, with the next survey scheduled for 2015.

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 that, in the normal course of business, will accept one scrap tire for every new tire sold.”* This definition reflects the fact 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 2013 there were 1,776 collection facilities compared to 1,733 in 2012. The change relates to a combination of various events, such as new retailer locations, locations closing or a change in the retailer’s business that resulted in the retailer 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 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.

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 2013, TSBC was proud to be part of a unique partnership that resulted in the cleanup of an abandoned tire recycling plant located on Crown land outside Port Alberni, bordering on the Tseshaht First Nation’s reserve lands. On what began as a problem with no foreseeable solution, the Ministry of Forests and Lands, TSBC, Tseshaht First Nations, Alberni Clayoquot RD, and Western Rubber Products worked together successfully to “get the job done.” The TSBC Board approved a grant to help clean up the site, which started in spring of 2013. Today the site is unrecognizable compared to a year ago. Approximately 4,500 tires were hauled away from the site for recycling. Another 1,300 large tires and other heavy scrap material that could not be recycled were relocated on the site and constructed into a solid dirt-covered berm around the perimeter.

An estimated 6% 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. As a result of a recruitment drive for R2Rs during the 2013 Ambassador Tour, TSBC was able to significantly increase the number of R2R locations from 449 as at December 31 2012 to [576 R2R locations](#) at the end of 2013. 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 [Recyclepedia](#).

TSBC also hosts province wide tire collection events where the public can drop off any tire size, on or off rim, at no charge. The 2013 events are shown in Table 1 below. In 2013, in response to concerns from Metro Vancouver regarding abandoned waste in general in urban environments, TSBC held 6 collection events in the Lower Mainland. While these types of events are successful in terms of diverting tires that might otherwise be abandoned in the rural or urban environments, they are costly to host. In 2014, TSBC is seeking to leverage external initiatives, such as piggy-backing on collection events of other stewardship agencies and/or events already scheduled by retailers such as grand openings, with TSBC providing signage for the host location to display on site prior to the event. In addition, TSBC is seeking to engage schools to initiate local collection events as part of their fundraising activities, with TSBC providing a financial contribution linked directly to the success of their round up.

Table 1 Collection Events – 2013

Date	Facility	City
Apr 06 2013	Kal Tire	Surrey
Apr 06 2013	Kal Tire	Cloverdale
Apr 06 2013	Kal Tire	Langley
Apr 06 2013	Regional District site	Golden
Apr 13 2013	Regional District site	Sicamous
May 03 2013	Recycling Depot	Galiano
May 04 2013	Kal Tire	Fort St John
May 11 2013	OK Tire	Burnaby
May 11 2013	OK Tire	Vancouver
May 11 2013	OK Tire	New Westminster
Jun 01 2013	Kal Tire	Merritt
Oct 05 2013	Kal Tire	Langford

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

Recycling tires at their end-of-life is important, but lengthening their life 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. Motorists can also play their part by ensuring tires are properly inflated and maintained. TSBC continues to work in partnership with The 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. In 2013, TSBC aligned 3 of its round up events in conjunction with Be Tire Smart week in May, handing out tire pressure gauges at these and all of its public events.

Reusability

Retreading of medium truck tires and OTR tires is an ongoing commercially viable activity, and accounts for significant volumes of tires diverted from end-of-life management. TSBC 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, sales of these are not included in the diversion statistics. However, both medium truck and OTR 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” of worn tires not yet at their end-of-life by scrap tire haulers has occurred since the program’s inception in 1991. The majority of 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 2013 results based on the different categories.

3R 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. Also included is the steel and fibre. Only volumes of steel and fibre sold as a product to an end use market are included in this reporting category.

4R Tire Derived Fuel (TDF)

This category comprises the rubber, steel and fibre components of whole tires or shred, used for energy recovery. Volumes reported also include any fibre extracted in the recycling process that is sold to a kiln, which typically represents 50% of the total volume of material diverted to TDF.

5R Residuals

Residuals include 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 landfill.

5R Off Spec

This category includes regulated tires that cannot be processed such as Logger / Skidder Tires.

Table 2 Product Hierarchy Results – 2013

Category	% by weight	Description
3R (Tire Derived Product)	73%	<p>Rubber: recycled into crumb rubber and subsequently used to create a variety of products including: athletic tracks; synthetic turf fields; playgrounds; colourful, resilient flooring in recreational facilities; and flooring and mats for agricultural and industrial use. The tires were also recycled into coloured landscaping mulch, a replacement for bark mulch.</p> <p>Steel: sold to a steel recycler.</p>
4R (Tire Derived Fuel)	25%	<p>Rubber, steel, fibre: primarily used for energy recovery in a BC cement kiln with the steel replacing the iron required to make the cement. Of the 25%, 51% is the fibre, a residual from the recycling process.</p>

Category	% by weight	Description
5R Residuals	1%	Material landfilled: waste component of the recycling process and fibre that could not be sold into market.
5R Off Spec	1%	Material landfilled: all Logger / Skidder Tires and any other program tires that could not be processed.

TSBC supports a mix of TDP and TDF end-use to ensure there is a market for all BC’s 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 TDF usage has appropriate environmental permits.

TDF usage is market driven and varies from year to year. For example, TDF usage was at an all-time low in 2012 due to economic conditions in the cement industry and a record high demand for TDP. However, increased use of tires for energy recovery can occur when TDP markets decline, such as the economic downturn in 2008 to 2010. With over 50% of the TDF volume being fibre, a residual from the recycling process, the volume of whole tires and shred directed to TDF remains low. TSBC is working with industry through its Research and Development program to find TDP solutions for the fibre and anticipates this may occur as early as 2015.

7. Product Sold and Collected and Recovery Rate

The measure of effectiveness of stewardship programs recommended by the BC Recycling Regulation is the “Recovery Rate”, the actual number of scrap tires collected divided by the actual number of new tires sold. TSBC’s results for 2013 are summarized in Table 3 below.

Table 3 Product Sold and Recovery Rates – 2013

Tire category	Units Sold	Units collected and delivered to a processor	Recovery Rate
Passenger & Light Truck	3,139,847	2,448,233	78%
Medium Truck	288,993	235,785	82%
Large Agricultural	12,673	8,711	69%
Logger / Skidder	2,863	898	31%
Total	3,444,376	2,693,627	78%

Annual Recovery Rates vary according to the number of new tires sold or scrapped in any year, both of which are sensitive to changes in BC’s economy, weather and population, all of which are outside of TSBC’s control. In addition, the timing of a sale of a new tire does not correspond directly with either the generation or the collection of a scrap tire. For example, the sale of a new car does not typically

result in the generation of a scrap tire, and with new car sales being over 33% of annual tire sales, this can have a significant impact when comparing sales to collections.

Additional factors outside of TSBC's influence must be taken into account to explain why the Recovery Rate may never approach 100% in a growing economy. One factor is the export of partially worn tires not yet at their end-of-life to markets outside BC for reuse, never to return as scrap tires in BC. The more tires exported for reuse, the better the result, according to the Pollution Prevention Hierarchy (reduce, reuse, recycle, recover) – but the lower the Recovery Rate. Further, as the total number of vehicle registrations continue to increase with BC's population and with the greater use of winter tires (and enforcement by police agencies on certain highways), there is an ever increasing number of tires "in use" or "in storage and ready for use" further reducing the number of scrap tires in BC.

TSBC believes the Recovery Rate is only one of two measures available to assess the program's effectiveness. As such, TSBC will also report the annual "Collection Rate", the actual number of scrap tires collected / estimated number of scrap tires available for collection. The number of tires available for collection is explained below. TSBC believes both rates are required to properly describe its performance in this area.

The collection and transportation of scrap tires from source locations throughout BC to processors is well established, efficient and effective. Over TSBC's seven years of operation starting January 2007, the estimated Collection Rate has been 100%. This means that virtually 100% of the scrap tires available for collection at retailers or scrap tire generators (e.g., landfills and auto wreckers) were collected for recycling, energy recovery or reuse. There are no known stockpiles, and collection complaints by retailers, generators and consumers are extremely rare. This demonstrates the effectiveness of the collection system and TSBC's confidence in the estimated number of scrap tires available for collection.

8. Summary of Deposits, Refunds, Revenues and Expenditures

The TSBC program is funded by an Advance Disposal Fee, commonly referred to as an eco fee. It is a condition of registration with TSBC that retailers remit the 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. Retailers may choose to pass the ADF on to the consumer.

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.

For the sixth consecutive year, the fees in 2013 for the different tire types remained at the rates shown in the Table 4 below.

Table 4 Advance Disposal Fees – 2013

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

Other Off-the-Road (OTR) tires are excluded from the Recycling Regulation because there are currently 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 2013 independently audited financial statements, included as [Appendix A](#) and posted with this [Annual Report on TSBC’s website](#).

9. Plan Performance

In 2013, TSBC operated for the first 6 months of the year under its [2007 to 2011 Stewardship Plan](#) and the remainder of the year under its [new Stewardship Plan](#), approved by the Ministry on June 28, 2014. In the new Plan, TSBC set several new performance measures and targets and it is these targets against which TSBC is reporting for 2013.

Table 5 Plan Performance – 2013

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
1. Report total tonnes collected broken down by Regional District	Please see Appendix C for a breakdown of scrap tire collection volumes by tonne in each Regional District	N/A

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
<p>2. a) 84% <u>Recovery Rate</u> (Total # Units Collected / Total # units sold)</p> <p>b) Approximately 100% <u>Collection Rate</u> (Total # Units Collected / Total # Units Available For Collection)</p>	<p>78% Recovery Rate</p> <p>Approximately 100% Collection Rate</p>	<p>a) Please see Section 7 for an explanation of the variance and Appendix B for a copy of the Audit Report.</p> <p>b) N/A – no unmet demand for scrap tire collection.</p>
<p>3. Breakdown of total tonnes processed:</p> <p>a) 3R – 71%</p> <p>b) 4R – 21%</p> <p>c) 5R (Residual) – 7%</p> <p>d) 5R (Off Spec) – 1%</p>	<p>a) 73% – 3R (rubber and steel recycled into products)</p> <p>b) 25% – 4R (rubber and fibre for energy recovery) Broken down as follows:</p> <ul style="list-style-type: none"> • 13% fibre • 12% whole tires or shred <p>c) 1% – 5R (residuals and fibre from 3R process landfilled)</p> <p>d) 1% – 5R (landfill of off spec regulated tires that cannot currently be processed into 3R or 4R)</p>	<p>4R: It is important to note that over 50% of the volume directed to TDF is fibre, a residual from the tire recycling process. TSBC could have directed this material to 5R in order to meet its target but this is contrary to the intent of the 5R hierarchy.</p> <p>5R: In 2013, this number dropped significantly due to a concerted effort by the processor to minimize waste and find 3R and 4R uses for the material.</p> <p>5R: In 2013, only a very small portion of the program tires are still unable to be processed.</p>
<p>4. 1,700 collection sites – Collection site is defined as a retailer that in normal course of business will take back one scrap tire for every new tire sold</p>	<p>1,776 collection sites</p>	<p>Please see Section 4 for a detailed explanation and Appendix B for a copy of the Audit Report.</p>

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
5. a) 500 Return to Retailer (R2R) locations b) 2 Return to Retailer (R2R) locations per Regional District	576 R2R locations Central Coast is the only Regional District with less than 2 R2Rs, it has 1 R2R location	N/A This Regional District has only 3 registered retailers in the area.
6. 15 collection events	12 collection events	Costs associated with these events have resulted in TSBC reducing the number held. As detailed in Section 4 , in 2014, TSBC is amending its approach by leverage existing events to significantly lower costs.
7. Report on measures taken to reduce abandoned waste	Submitted - please see Appendix E	N/A
8. Less than 24 legitimate collection complaints from retailers and generators	1 legitimate collection complaint received <ul style="list-style-type: none"> This equates to 0.03% of the 3,393 registered retailer and scrap tire generator sites and substantiates the Collection Rate result of ~100% (please see Section 7) 	N/A
9. Less than 12 consumer complaints	No complaints received	N/A
10. Under \$5 / PTE* program cost *Passenger Tire Equivalent	\$4.63 / PTE	N/A
11. To ensure program stability, no less than 6 months of operational cost in reserve	As of December 31, 2013, TSBC had approximately 8 months of current operational cost in reserve	N/A

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
12. At least one update to the GHG inventory report between 2013 and 2017	No report planned or conducted in 2013	N/A
13. Delivery of OTR Processing Options Report to Ministry by July 1, 2014	Submitted - please see Appendix D	N/A

APPENDIX A: 2013 Audited Financial Statements



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Allan Neale, B.Sc., M.B.A., CPA, FCA*

INDEPENDENT AUDITORS' REPORT

**To the Members of
Tire Stewardship B.C. Association**

Report on the Financial Statements

We have audited the accompanying financial statements of Tire Stewardship B.C. Association, which comprise the statement of financial position as at December 31, 2013 and the statements of operations, changes in net assets, and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Tire Stewardship B.C. Association as at December 31, 2013 and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

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.

Norgaard Neale Camden Ltd.

CHARTERED ACCOUNTANTS

April 29, 2014
Victoria, B.C.

** Incorporated professional*

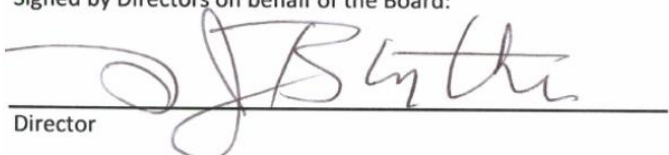
**Tire Stewardship BC
2013 Report to Director, Waste Management**

**Tire Stewardship B.C. Association
Statement of Financial Position**

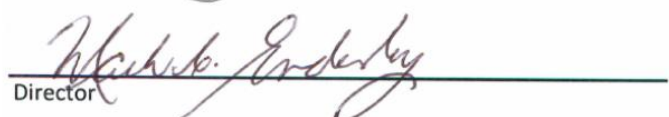
As at December 31	2013	2012
	\$	\$
ASSETS		
Current Assets		
Cash	1,977,885	2,045,939
Current portion of investments (note 2)	-	4,210,916
Accounts receivable	1,898,446	1,812,997
	3,876,331	8,069,852
Investments (note 2)	11,083,129	7,509,248
	14,959,460	15,579,100
LIABILITIES		
Current Liabilities		
Accounts payable and accrued liabilities (note 3)	2,365,093	3,824,359
NET ASSETS (NOTE 4)		
Unrestricted	-	-
Restricted		
Program Reserve	12,594,367	-
Stabilization Reserve	-	11,504,741
Research and Development Reserve	-	250,000
	12,594,367	11,754,741
	14,959,460	15,579,100

COMMITMENTS (NOTE 5)

Signed by Directors on behalf of the Board:



Director



Director

Tire Stewardship B.C. Association
Statement of Operations

For the Year Ended December 31	2013	2012
	\$	\$
REVENUE		
Advance Disposal Fees	18,535,761	17,566,546
Investment Income (note 2)		
From Cash and Cash Equivalents	51,233	162,219
From Fixed Income Securities and Equities	504,412	268,667
Less Investment Management Fees	(50,467)	(28,856)
Total Revenue	19,040,939	17,968,576
EXPENSES		
Program Incentives	15,563,645	16,224,253
Administration		
Program Management	1,299,866	1,232,454
Communications and Education	350,383	298,262
Community Grant Program	725,066	650,042
Professional Fees	89,414	105,640
Board Expenses and Travel	172,939	171,667
Total Expenses	18,201,313	18,682,318
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENSES	839,626	(713,742)

**Tire Stewardship BC
2013 Report to Director, Waste Management**

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

For the Year Ended December 31

	Unrestricted	Restricted			2013	2012
		Program Reserve	Stabilization Reserve	Research and Development Reserve	Total	Total
	\$	\$	\$	\$	\$	\$
Net Assets - Beginning of year	-	-	11,504,741	250,000	11,754,741	12,468,483
Excess (Deficiency) of revenues over expenses	839,626	-	-	-	839,626	(713,742)
Transfers (note 4)	(839,626)	12,594,367	(11,504,741)	(250,000)	-	-
NET ASSETS - END OF YEAR (NOTE 4)	-	12,594,367	-	-	12,594,367	11,754,741

Tire Stewardship B.C. Association
Statement of Cash Flows

For the Year Ended December 31	2013	2012
	\$	\$
CASH PROVIDED FROM (USED FOR):		
OPERATING ACTIVITIES		
Excess (deficiency) of revenues over expenses	839,626	(713,742)
Changes in non-cash working capital balances related to operations -		
Accounts receivable	(85,449)	(226,924)
Accounts payable and accrued liabilities	(1,459,266)	167,080
	(705,089)	(773,586)
INVESTING ACTIVITY		
Net proceeds from sale of investments	637,035	111,178
DECREASE IN NET CASH	(68,054)	(662,408)
Net Cash - Beginning of year	2,045,939	2,708,347
NET CASH - END OF YEAR (NOTE 1)	1,977,885	2,045,939

Tire Stewardship B.C. Association

NOTES TO FINANCIAL STATEMENTS

For the Year Ended December 31, 2013

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. 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 2013-2017 Stewardship Plan was approved by the Ministry on June 28, 2013.

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 5, 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)

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 tire-derived fuel uses, delivered to the facility consuming the fuel). 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.

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

	2013	2012
	\$	\$
GICs with maturity dates of 12 months or less, at amortized cost	-	4,210,916
GICs with maturity dates of more than 12 months, at amortized cost	-	-
Cash and cash equivalents, at amortized cost	356,145	112,919
Fixed income securities, measured at fair value	7,448,803	5,519,199
Equities, measured at fair value	3,278,181	1,877,130
	11,083,129	11,720,164
Current portion of GICs, at amortized cost	-	(4,210,916)
Investments	11,083,129	7,509,248

Investment income is comprised of interest income of \$343,064 (2012 - \$339,327), dividends of \$63,266 (2012 - \$26,791), realized losses of \$80,279 (2012 - loss of \$12,211), unrealized gains of \$229,594 (2012 - gain of \$76,979), less investment management fees of \$50,467 (2012 - \$28,856).

3. GOVERNMENT REMITTANCES

Accounts payable and accrued liabilities include Goods and Services Tax payable of \$115,968 (2012 - Harmonized Sales Tax payable of \$244,258).

4. NET ASSETS

In 2013, TSBC's board of directors established a new Program Reserve to replace the Stabilization Reserve and the Research and Development Reserve. The board has approved a transfer of all the internally restricted net assets of the pre-existing Stabilization and Research and Development Reserves to the new Program Reserve. The board also internally restricted net assets amounting to \$839,626, which were transferred to the Program Reserve.

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.

4. NET ASSETS (continued)

- 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.

Stabilization 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, with the potential financial consequences that may arise if such events were to occur.

Research and Development Reserve:

- Ensures that funds are available to conduct research and development activities needed to ensure a sustainable tire-recycling program in the province of British Columbia.

5. COMMITMENTS

As at December 31, 2013, whole tires and unsold product at registered processor facilities were estimated at 822,793 (2012 – 587,984) passenger tire equivalents (“PTE”). The incentive payments to processors could amount to a future liability of up to \$2,580,189 (2012 – \$1,914,391). TSBC has entered into an agreement for the provision of management and administrative services for a period of 5 years beginning January 1, 2012.

6. 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, 2013.

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.

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.

6. FINANCIAL INSTRUMENTS (continued)

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 equities and fixed income securities for which the values fluctuate with the quoted market price and interest rates.

7. COMPARATIVE FINANCIAL STATEMENTS

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

APPENDIX B: 2013 Non Financial Information Audit Report



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 Allan Neale, B.Sc., M.B.A., CPA, FCA*

INDEPENDENT AUDITORS' REPORT

**To the Members of
 Tire Stewardship B.C. Association**

We have audited the following sections within Tire Stewardship B.C. Association's (the "Stewardship Agency's") Annual Report for the year ended December 31, 2013 (together the "Subject Matter"):

- Section 4: Collection System and Facilities;
- Section 6: Description of how the recovered product was managed in accordance with the Pollution Prevention Hierarchy;
- Section 7: Product Sold and Collected and Recovery Rate; and
- Section 9: Description of performance for the year in relation to targets 2(a), 3, 4 on page 17 of the Annual Report.

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) and (e) of the Recycling Regulation.

The Subject Matter is the responsibility of the Stewardship Agency's management who have prepared the Subject Matter in accordance with the evaluation criteria which are an integral part of the Subject Matter. Our responsibility is to express an opinion on this Subject Matter based on our audit. Our audit does not constitute a legal determination on the Stewardship Agency's compliance with the Recycling Regulation.

EVALUATION CRITERIA

The suitability of the evaluation criteria is the responsibility of management. 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.

SCOPE OF THE AUDIT

We carried out our audit in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000) published by the International Federation of Accountants. This Standard requires, amongst others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to understand and audit the information included within the Subject Matter, and that they comply with specific requirements to ensure their independence.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures within the Subject Matter. An audit also includes assessing the evaluation criteria used and significant estimates made by management, as well as evaluating the overall presentation of the Subject Matter. 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;

INDEPENDENT AUDITORS' REPORT (continued)

- 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.

OPINION

In our opinion, the Subject Matter within the Stewardship Agency's Annual Report for the year ended December 31, 2013 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 description of how 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); and
- The description of performance for the year in relation to targets in the approved stewardship plan under Section 8(2)(b), (d) and (e) of the Recycling Regulation.

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.

Norgaard Neale Camden Ltd.

CHARTERED ACCOUNTANTS

Victoria, BC Canada
June 24, 2014

* Incorporated professional

**Attachment 1
Tire Stewardship B.C. Association (“TSBC”) Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2013**

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 10, Section 4 and Page 17, Table 5
Change in Number and Location of Collection Facilities	Page 10, 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, 2013.
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 Tire Derived Product	Page 13, Table 2 and Page 17, Table 5
4R Tire Derived Fuel	Page 13, Table 2 and Page 17, Table 5
5R Residuals	Page 14, Table 2 and Page 17, Table 5
5R Off Spec	Page 14, Table 2 and Page 17, Table 5

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, 2013**

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 Tire Derived Product ("TDP")

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 Tire Derived Fuel ("TDF")

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 include 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.

4. 5R Off Spec

This category includes regulated tires that cannot be diverted to a 3R or 4R use and is ultimately disposed of at landfill, such as Logger / Skidder tires and cut tires.

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	Page 14, Table 3
Units Collected	Page 14, Table 3
Recovery Rate (Units Collected / Units Sold)	Page 14, Table 3 and Page 17, Table 5

**Attachment 1 (continued)
Tire Stewardship B.C. Association (“TSBC”) Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2013**

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 divided by the number of units sold.
 - 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.

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) and (e) 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	1,700	Page 10, Section 4 and Page 17, Table 5
Change in Number and Location of Collection Facilities	No Target	Page 10, Section 4
End of Fate: 8(2)(d)		
3R Tire Derived Product	71%	Page 13, Table 2 and Page 17, Table 5
4R Tire Derived Fuel	21%	Page 13, Table 2 and Page 17, Table 5
5R Residuals	7%	Page 14, Table 2 and Page 17, Table 5
5R Off Spec	1%	Page 14, Table 2 and Page 17, Table 5
Recovery Rate: 8(2)(e)		
Units Sold	No Target	Page 14, Table 3
Units Collected	No Target	Page 14, Table 3
Recovery Rate (Units Collected / Units Sold)	84%	Page 14, Table 3 and Page 17, Table 5

Attachment 1 (continued)

**Tire Stewardship B.C. Association (“TSBC”) Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2013**

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) and (e) of the Recycling Regulation.

- All stewardship plan targets relating to Section 8(2)(b), (d) and (e) 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.

APPENDIX C: Collection Volumes by Tire Type by Regional District (tonnes)

Regional District	PLTs	MTs	AG	LS
Alberni - Clayoquot	267	163	7	0
Bulkley – Nechako	519	459	24	44
Capital	1,511	181	12	1
Cariboo	712	498	20	14
Central Coast	14	4	0	0
Central Kootenay	650	141	7	6
Central Okanagan	1,542	340	11	2
Columbia – Shuswap	544	185	11	10
Comox – Strathcona	805	279	5	3
Cowichan Valley	837	173	9	2
East Kootenay	707	297	5	9
Fraser-Ft George	870	1,040	26	24
Fort Nelson – Liard	112	208	2	2
Fraser Valley	2,050	1,711	102	4
Greater Vancouver	8,479	3,654	85	12
Kitimat – Stikine	364	170	2	5
Kootenay – Boundary	265	57	2	0
Mt. Waddington	81	60	1	2
Nanaimo	724	261	10	2
North Okanagan	842	317	21	12
Okanagan – Similkameen	832	110	8	4
Peace River	946	880	31	11
Powell River	128	36	1	0
Skeena – Queen Charlotte	91	22	1	0
Squamish – Lillooet	371	86	5	1
Sunshine Coast	188	36	2	0
Thompson – Nicola	1,375	1,497	33	35
Total	25,826	12,865	443	205

Definitions:

PLT = Passenger Tires, Light Truck Tires, ATV,

MT = Medium Truck Tires

AG = Agricultural Tires

LS = Logger Skidder Tires

APPENDIX D: OTR Processing Options – Status Report

Introduction

TSBC has actively researched the recycling of BC's Off-the-Road (OTR) tires since 2010 and reported the status of that research in its Stewardship Plan 2013 – 2017 and 2012 Annual Report.

The research continues to point to two distinct tiers of non-program OTRs:

- Small, medium and large industrial and earthmover tires up to 39 inch rim diameter; and
- Giant tires with a rim diameter over 39 inches used on haul trucks deployed primarily in open pit mines.

Non-program small, medium and large (SML) OTRs

TSBC anticipates that ultimately, end users and retailers as well as processors will request that the SML OTRs be regulated to level the playing field for OTR tire consumers, and to secure the volumes necessary to allow economies of scale for processing.

Prior to any formal consultation with industry on regulating these tire types, TSBC needs a better understanding of the costs associated with collecting and processing SML OTRs, now and in the future. Currently TSBC is working with industry to gather this information.

Initial research shows that currently, a significant number of non-program SML OTRs are being sheared and transported to landfill in Washington State by Western Rubber Products (Western). Additional research is being done through the 2014 Ambassador Program. TSBC is canvassing retailers to learn more about the number of retailers that sell these tires, the current method of disposal and costs, and if the costs are passed onto the end user or absorbed by the retailer.

From a processing perspective, Western is planning a plant upgrade with a significant investment in equipment and technology to create cost and processing efficiencies. The new equipment will allow Western to process the majority of the current volume of non-program SML OTRs.

Non-program giant OTRs

In 2013, TSBC reported that two companies were actively looking at working with industry under a voluntary program to process the Giant OTRs generated in BC and Alberta:

1. Kal Tire in partnership with Liberty Tire – to process the tires into various gradations of shred and crumb rubber for the Tire Derived Product (TDP) and Tire Derived Fuel (TDF) markets.
2. Titan Reclamation Services – to process the tires into steel, oil and gas and carbon black using pyrolysis technology.

As of the date of this report, neither project is off the ground although both claim to be making progress.

TSBC's Next Steps

1. Continue research of current flow, volumes and costs related to the collection and processing of SML OTRs.
2. Maintain a watching brief on both processing options for BC's giant OTR tires.
3. Continue discussions with Alberta on the nature and extent of harmonizing the OTR tire stewardship programs.
4. Continue dialogue with industry on the potential regulation of SML OTRs.

APPENDIX E: Report on Measures to Reduce Abandoned Waste

Introduction

In its 2013 – 2017 Stewardship Plan, TSBC committed to work with Regional Districts to find ways to reduce the impact of abandoned tires on their waste management operations, and report progress annually. This is TSBC's progress report.

Status of Research

In consultation with TSBC and other stewards, Metro Vancouver and the City of Vancouver developed a template to gather data on the type, volumes and locations of waste abandoned in urban environments. The data collection step started in 2013 but front line staff found it challenging to use and as such the data is inconsistent. As a result, the template is undergoing some revisions to allow for easier and more accurate reporting. Indications from the data received in 2013 are that tires are low on the list of abandoned waste in Metro Vancouver.

As part of the 2014 Ambassador Tour, during the visits to local government, the ambassadors will ask for information on illegal dumping activities within each regional district. This will help TSBC quantify the problem and assist TSBC to understand where its efforts should be targeted.

Ongoing Efforts to Reduce Illegal Dumping

Collection events

In 2013, TSBC conducted six events in Metro Vancouver to collect orphan tires. This was the first time TSBC held events in such highly populated areas. The events were intended to determine if there was a need to hold annual events in these areas. The events were widely promoted to make it more convenient and efficient for consumers to dispose of their recyclables. In total, just over 3,000 orphan tires were collected, preventing them from ever being illegally dumped. Another 4,200 orphan tires were collected in six other tire collection events in smaller communities in BC, which included an ongoing partnership with the Columbia Shuswap Regional District during their annual spring clean up initiatives.

These events also provided an opportunity to inform the public on what happens to the eco fees they pay and the products they discard. At the events, motorists were offered free tire pressure gauges and informed that they should ensure proper tire inflation and maintenance to improve safety and reduce tire wear and fuel consumption.

In 2014 TSBC will continue to hold events in both urban and rural communities.

Education

With three other stewardship agencies, TSBC co-sponsored the production and delivery of four [Voices of Nature](#) concerts in Surrey and Burnaby in March 2013. *Voices of Nature* is an innovative program that combines music and ecological education and is designed to reach children in elementary school, their teachers and families. The program focuses on environmental stewardship, sending out the strong message that reducing and managing waste is the key way to protect nature in our daily lives. The program is developed and delivered by the [Artist Response Team](#) from Vancouver. TSBC has committed to sponsorship of this program again in 2014, this time with a link directly to the collection events. Each school participating in the program will be given the opportunity to access funds from TSBC in return for promoting a collection event in their neighbourhood.

Ambassador Program

In 2013, TSBC is partnered with the BC Used Oil Management Association in its 8th annual [Ambassador Program](#). Through this program, TSBC is engaging retailers, local governments, the media and the public directly in discussions about the successes, issues, and opportunities to improve the tire recycling program in BC. A key success story from this program in 2013 was the recruitment of 104 new [Return to Retailer](#) (R2R) sites. R2Rs provide the public with convenient, no cost disposal of up to four tires, contributing to the goal of fewer tires abandoned in rural and urban landscapes.

The success of this program's outreach and the ability to connect one on one with stakeholders has resulted in TSBC participating in the 2014 Ambassador Program.

Next Steps

TSBC will continue to partner with local governments to address the challenges associated with illegally dumped tires in both urban and rural environments.