

Tire Stewardship BC

Annual Report to the Director

2014

Submitted to:

Cameron Lewis, Executive Director
Waste Prevention
Environmental Protection Division
Ministry of Environment
PO Box 9341, STN PROV GOVT
Victoria, BC V8W 9M1

Submitted by:

Rosemary Sutton
Executive Director
Tire Stewardship BC
PO Box 5366
Victoria, BC V8R 6S4
1.866.759.0488



July 1, 2015



Tire Stewardship BC

Annual Report to the Director

2014

Table of Contents

1. Executive Summary	3
2. Program Outline	7
3. Public Education Materials and Strategies.....	8
4. Collection System and Facilities	10
5. Product Environmental Impact Reduction, Reusability and Recyclability	11
6. Pollution Prevention Hierarchy and Product / Component Management	12
7. Product Sold and Collected and Recovery Rate	14
8. Summary of Deposits, Refunds, Revenues and Expenditures	15
9. Plan Performance	16

Appendices

- A** [2014 Audited Financial Statements](#)
- B** [2014 Non Financial Information Audit Report](#)
- C** [Collection Volumes by Tire Type by Regional District](#)
- D** [OTR Processing Options – Status Report](#)
- E** [Report on Measures to Reduce Abandoned Waste](#)

1. Executive Summary

Products within plan	Tires
Program website	www.tsbc.ca

Recycling Regulation Reference	Topic	TSBC – 2014 Summary Report
Part 2, section 8(2)(a)	Public Education Materials and Strategies	- 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: - Partnering with BC Used Oil Management Association (BCUOMA) in the province-wide Ambassador Tour that included retailer site visits, local government visits and attending community events; and - Continuing the Community Grant Program to incent the use of BC rubber in qualified projects across the province (47 in 2014).
Part 2, section 8(2)(b)	Collection System and Facilities	- 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: - Return to Retailer (R2R) program, through which 684 retailers currently accept up to 4 tires from each member of the public; and - Tire Round-Up events held around the province (5 in 2014). - 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	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	- TSBC has always incented the 3R (recycling) options over 4R (energy recovery) options through the financial incentive rates offered for each. - In 2014, 3R uses represented 77% of the total tonnes processed.

**Tire Stewardship BC
2014 Report to Director, Waste Management**

Recycling Regulation Reference	Topic	TSBC – 2014 Summary Report
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	- The 2014 “Recovery Rate,” applying the calculation recommended by the BC Recycling Regulation, was 76% 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.
Part 2, section 8(2)(e.1)		See Appendix C for breakdown of collection by Regional District.
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	- 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 remain at the rates established in 2008.

Plan Performance – 2014

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)	76% Recovery Rate	a) Please see Section 7 for an explanation of the variance and Appendix B for a copy of the Audit Report.
b) Approximately 100% Collection Rate (Total # Units Collected / Total # Units Available For Collection)	Approximately 100% Collection Rate	b) N/A – no unmet demand for scrap tire collection.

**Tire Stewardship BC
2014 Report to Director, Waste Management**

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
3. Breakdown of total tonnes processed: a) 3R – 71% b) 4R – 21% c) 5R (Residual) – 7% d) 5R (Off Spec) – 1%	a) 77% – 3R (rubber and steel recycled into products) b) 22% – 4R (rubber and fibre for energy recovery) Broken down as follows: • 11% fibre • 11% whole tires or shred c) 0.5% – 5R (residuals and fibre from 3R process landfilled) d) 0.5% – 5R (landfill of off spec regulated tires that cannot currently be processed into 3R or 4R)	N/A 4R: It is important to note that 50% of the volume directed to TDF is fibre, a residual from the tire recycling process. TSBC could have directed this material to 5R to meet its target but this is contrary to the intent of the 5R hierarchy. 5R: This low percentage is due to a concerted effort by the processor to minimize waste and find 3R and 4R uses for the material. 5R: In 2014, only a very small portion of program tires were still unable to be processed.
4. 1,700 collection facilities – A collection facility is defined as a retailer that in normal course of business will take back one scrap tire for every new tire sold	1,827 collection facilities	Please see Section 4 for a detailed explanation and Appendix B for a copy of the Audit Report.
5. a) 500 Return to Retailer (R2R) locations b) 2 Return to Retailer (R2R) locations per Regional District	684 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.

**Tire Stewardship BC
2014 Report to Director, Waste Management**

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
6. 15 collection events	5 collection events	Significant costs associated with these events resulted in TSBC amending its approach as outlined in Section 4 . Unfortunately, with the approach involving a partnership with schools, the 2014 BC-wide school teachers strike resulted in planned events not being held. To date in 2015, TSBC has already held or scheduled 14 events, with plans to exceed that number by year end.
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	5 legitimate collection complaints received This equates to 0.01% of the 3,510 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	\$4.95 / PTE	N/A
11. To ensure program stability, no less than 6 months of operational cost in reserve	As of December 31, 2014, TSBC had approximately 7 months of current operational cost in reserve	N/A

**Tire Stewardship BC
2014 Report to Director, Waste Management**

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 2014	N/A
13. Delivery of OTR* Tire Processing Options Report to Ministry by July 1, 2014 *off-the-road	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;
- 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 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 2014, of the \$19.2M collected in eco fees, \$17.7M was paid out in Transportation, Processing and Manufacturing Incentives and over \$800,000 awarded in grants for 47 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 disposal at a later date. TSBC refers to these tires as "orphan" tires and offers the consumer two free disposal options: drop off at up to 15 collection events

throughout the year and/or at 684 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 finished products made from BC rubber *in BC* since 2010 has more than tripled.

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 2014, communication methods included the initiatives below.

Tire collection events

TSBC participated in and provided funding for 5 collection events in 2014. In an effort to reduce the significant costs associated with these events, in partnership with the Artist Response Team (ART), TSBC created an innovative approach to Round-Ups by working with schools to host the Round-Ups in conjunction with concerts held at the schools through the ART education program. Unfortunately, the 2014 BC-wide school teachers strike resulted in only one of the concerts and associated Round-Up being held. The additional 4 Round-Ups were voluntarily hosted by tire retailers or Regional Districts.

TSBC uses 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 offered 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 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. In 2014, grants were awarded to 46 applicants from communities throughout BC, which used 2.3 million lbs of BC rubber, the equivalent of 148,000 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 across the province and applicants are required have [onsite signage](#) to officially recognize TSBC as a contributor to these important projects.

In addition to the 46 projects, TSBC was pleased to have partnered with the Province of BC, Athletics Canada and other organizations to help fund the new \$1M track facility at the [Pacific Institute of Sports Excellence](#) in Victoria. Scheduled for completion in the fall of 2015, the track will use BC recycled rubber and provide a cushioned and durable training surface for the community, local athletes and the Olympians who train there.

Ambassador Tour

In 2014, TSBC was pleased to partner with the BCUOMA in its 9th annual [Ambassador Program](#). The program resulted in visits to 906 TSBC retailers and 17 local governments as well as 24 community events. These initiatives earned 22 media hits ranging from radio to newspaper in all regions of the province and a significant uptake in social media through Twitter, Facebook and Instagram.

The program is an excellent way for TSBC to connect with retailers face to face and gives retailers the opportunity to provide feedback first hand, specifically on their level of satisfaction with scrap tire collection services. TSBC is pleased to report that the average satisfaction score was 8/10, a significant achievement given the high number of collection points across the province. TSBC also used this opportunity to survey retailers on the current disposal methods for non program OTRs. The survey results are addressed in [Appendix D](#).

Promotional material

- Breakfast TV: In May, Breakfast TV (Vancouver) did 3 live segments from Western Rubber Products, a major program participant. The segments showcased the recycling of tires and the products produced. One segment was devoted to the maintenance of tires including tire pressure, rotation and alignment. A copy of the segments is available on the [TSBC web site](#).
- Video: In conjunction with the Canadian Association of Tire Recycling Agencies (CATRA), a video was created that addresses tire recycling across Canada. The video highlights the wide variety of products made and demonstrates the cooperation and collaboration of the tire recycling programs cross Canada.

Partnerships

With three other stewardship agencies, TSBC co-sponsored the production and delivery of the [Voices of Nature](#) concerts in 2014. *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 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 is developed and delivered by the [Artist Response Team](#) from Vancouver. Unfortunately, due to the BC-wide school teachers strike, only the concert in Duncan could proceed, with the remainder deferred to 2015.

Website

The [TSBC website](#) received around 39,000 visits in 2014 with 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, 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 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 2014 there were 1,827 collection facilities compared to 1,776 in 2013. 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 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.

An estimated 4% (down from 6% in 2013) 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 drop in volume of tires going to landfill 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 2014 Ambassador Tour, TSBC was able to significantly increase the number of R2R locations from 576 as at December 31, 2013 to [684 R2R locations](#) at the end of 2014. 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 2014 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 are costly to host. In 2014, 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. Unfortunately, due to the BC-wide school teachers strike, only one of the scheduled events for 2014 was held. However, TSBC is pleased to report that these cancelled events took place in 2015, as part of the 12 that were successfully completed by the time of this report.

Table 1 Collection Events – 2014

Date	Facility	City
Apr 26 2014	Regional District site	Salmon Arm
May 3 2014	Regional District site	Golden
May 10 2014	Langley Tire	Langley
August 17 2014	Kal Tire	Fort Nelson
November 15 2014	Kal Tire	Duncan

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 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. In 2014, TSBC aligned one of its Round-Up events with May's Be Tire Smart week, handing out tire pressure gauges at this 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's program incentivizes 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 tires haulers of worn tires not yet at their end-of-life 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 incentivizes 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 2014 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. The reporting category also includes the steel and fibre sold as a product to an end use market.

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 – 2014

Category	% by weight	Description
3R (Tire Derived Product)	77%	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. Steel: sold to a steel recycler.
4R (Tire Derived Fuel)	22%	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 22%, 50% is the fibre, a residual from the recycling process.
5R Residuals	0.5%	Material landfilled: waste component of the recycling process and fibre that could not be sold into market.
5R Off Spec	0.5%	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 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 combined with 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 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 in 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 2014 are summarized in Table 3 below.

Table 3 Product Sold and Recovery Rates – 2014

Tire category	Units Sold	Units collected and delivered to a processor	Recovery Rate
Passenger & Light Truck	3,220,987	2,437,633	76%
Medium Truck	309,474	250,240	81%
Large Agricultural	15,858	11,364	72%
Logger / Skidder	3,300	507	15%
Total	3,549,619	2,699,744	76%

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 35% of annual tire sales, this can have a significant impact when comparing sales to collections. Specific to 2014, was the concerted effort by new car dealers to offer for sale and include in the payments, 4 new winter tires with every purchase or lease.

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 also reports 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 eight 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 (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. 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. The fees in 2014 for the different tire types remained at the rates established in 2008 as shown in Table 4 below.

Table 4 Advance Disposal Fees – 2014

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 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 2014 independently audited financial statements, included as [Appendix A](#) and posted with this [Annual Report on TSBC's website](#).

9. Plan Performance

TSBC is currently operating under its [2013-2018 Stewardship Plan](#), approved by the Ministry on June 28, 2014. In this plan, TSBC set several new performance measures and targets, as reported below.

Table 5 Plan Performance – 2014

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% <u>Recovery Rate</u> (Total # Units Collected / Total # Units Sold)	76% Recovery Rate	c) Please see Section 7 for an explanation of the variance and Appendix B for a copy of the Audit Report.
b) Approximately 100% <u>Collection Rate</u> (Total # Units Collected / Total # Units Available For Collection)	Approximately 100% Collection Rate	d) N/A – no unmet demand for scrap tire collection.

**Tire Stewardship BC
2014 Report to Director, Waste Management**

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
3. Breakdown of total tonnes processed: a) 3R – 71% b) 4R – 21% c) 5R (Residual) – 7% d) 5R (Off Spec) – 1%	a) 77% – 3R (rubber and steel recycled into products) b) 22% – 4R (rubber and fibre for energy recovery) Broken down as follows: • 11% fibre • 11% whole tires or shred c) 0.5% – 5R (residuals and fibre from 3R process landfilled) d) 0.5% – 5R (landfill of off spec regulated tires that cannot currently be processed into 3R or 4R)	N/A 4R: It is important to note that 50% of the volume directed to TDF is fibre, a residual from the tire recycling process. TSBC could have directed this material to 5R to meet its target but this is contrary to the intent of the 5R hierarchy. 5R: This low percentage is due to a concerted effort by the processor to minimize waste and find 3R and 4R uses for the material. 5R: In 2014, only a very small portion of program tires were still unable to be processed.
4. 1,700 collection facilities – A collection facility is defined as a retailer that in normal course of business will take back one scrap tire for every new tire sold	1,827 collection facilities	Please see Section 4 for a detailed explanation and Appendix B for a copy of the Audit Report.
5. a) 500 Return to Retailer (R2R) locations b) 2 Return to Retailer (R2R) locations per Regional District	684 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.

**Tire Stewardship BC
2014 Report to Director, Waste Management**

Performance Targets (as agreed with Ministry)	Performance	Remediation Strategies (if requirement or target not met)
6. 15 collection events	5 collection events	Significant costs associated with these events resulted in TSBC amending its approach as outlined in Section 4 . Unfortunately, with the approach involving a partnership with schools, the 2014 BC-wide school teachers strike resulted in planned events not being held. To date in 2015, TSBC has already held or scheduled 14 events, with plans to exceed that number by year end.
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	5 legitimate collection complaints received This equates to 0.01% of the 3,510 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	\$4.95 / PTE	N/A
11. To ensure program stability, no less than 6 months of operational cost in reserve	As of December 31, 2014, TSBC had approximately 7 months of current operational cost in reserve	N/A

Tire Stewardship BC
2014 Report to Director, Waste Management

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 2014	N/A
13. Delivery of OTR* Tire Processing Options Report to Ministry by July 1, 2014 *off-the-road	Submitted - please see Appendix D	N/A

APPENDIX A: 2014 Audited Financial Statements



Collins Barrow Victoria Ltd
645 Fort Street, Suite 540
Victoria, BC
V8W 1G2 Canada
T. 250.386.0500
F. 250.386.6151
www.collinsbarrow.com

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, 2014 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, 2014 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.

Collins Barrow Victoria Ltd.
CHARTERED ACCOUNTANTS

March 23, 2015
Victoria, B.C.

Each office is independently owned and operated. The Collins Barrow trademarks are used under license by Collins Barrow Victoria Ltd.



Tire Stewardship BC
2014 Report to Director, Waste Management

Tire Stewardship B.C. Association
Statement of Financial Position

As at December 31	2014	2013
	\$	\$
ASSETS		
Current Assets		
Cash	1,727,994	1,977,885
Accounts receivable	1,724,082	1,898,446
	3,452,076	3,876,331
Investments (note 2)	11,743,637	11,083,129
	15,195,713	14,959,460
LIABILITIES		
Current Liabilities		
Accounts payable and accrued liabilities (note 3)	2,953,381	2,365,093
NET ASSETS (NOTE 4)		
Unrestricted	-	-
Restricted		
Program Reserve	12,242,332	12,594,367
	15,195,713	14,959,460
COMMITMENTS (NOTE 5)		

Signed by Directors on behalf of the Board:



Director



Director

**Tire Stewardship BC
2014 Report to Director, Waste Management**

**Tire Stewardship B.C. Association
Statement of Operations**

For the Year Ended December 31	2014 \$	2013 \$
REVENUE		
Advance Disposal Fees	19,197,235	18,535,761
Investment Income (note 2)		
From Cash and Cash Equivalents	19,941	51,233
From Fixed Income Securities and Equities	703,956	504,412
Less Investment Management Fees	(58,564)	(50,467)
Total Revenue	19,862,568	19,040,939
EXPENSES		
Program Incentives	17,669,281	15,563,645
Administration		
Program Management	1,239,183	1,299,866
Communications and Education	374,253	350,383
Community Grant Program	683,600	725,066
Professional Fees	72,990	89,414
Board Expenses and Travel	175,296	172,939
Total Expenses	20,214,603	18,201,313
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES	(352,035)	839,626

Tire Stewardship BC
2014 Report to Director, Waste Management

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

For the Year Ended December 31

	Unrestricted	Restricted	2014	2013
		Program Reserve	Total	Total
	\$	\$	\$	\$
Net Assets - Beginning of year	-	12,594,367	12,594,367	11,754,741
Excess (Deficiency) of Revenue over Expenses	(352,035)	-	(352,035)	839,626
Transfers (note 4)	352,035	(352,035)	-	-
NET ASSETS - END OF YEAR (NOTE 4)	-	12,242,332	12,242,332	12,594,367

Tire Stewardship BC
2014 Report to Director, Waste Management

Tire Stewardship B.C. Association
Statement of Cash Flows

For the Year Ended December 31	2014	2013
	\$	\$
CASH PROVIDED FROM (USED FOR):		
OPERATING ACTIVITIES		
Excess (deficiency) of revenue over expenses	(352,035)	839,626
Changes in non-cash working capital balances related to operations -		
Accounts receivable	174,364	(85,449)
Accounts payable and accrued liabilities	588,288	(1,459,266)
	<u>410,617</u>	<u>(705,089)</u>
INVESTING ACTIVITY		
Net proceeds from sale of investments (purchase of investments)	(660,508)	637,035
DECREASE IN NET CASH	(249,891)	(68,054)
Net Cash - Beginning of year	1,977,885	2,045,939
NET CASH - END OF YEAR (NOTE 1)	<u>1,727,994</u>	<u>1,977,885</u>

Tire Stewardship BC 2014 Report to Director, Waste Management

Tire Stewardship B.C. Association

NOTES TO FINANCIAL STATEMENTS

For the Year Ended December 31, 2014

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.

Tire Stewardship BC
2014 Report to Director, Waste Management

2. INVESTMENTS

	2014	2013
	\$	\$
Cash and cash equivalents, at amortized cost	228,041	356,145
Fixed income securities, measured at fair value	8,506,471	7,448,803
Equities, measured at fair value	3,009,125	3,278,181
Investments	11,743,637	11,083,129

Investment income is comprised of interest income of \$366,184 (2013 - \$343,064), dividends of \$38,393 (2013 - \$63,266), realized gain of \$151,762 (2013 - loss of \$80,279), unrealized gains of \$167,558 (2013 - gains of \$229,594), less investment management fees of \$58,564 (2013 - \$50,467).

3. GOVERNMENT REMITTANCES

Accounts payable and accrued liabilities include Goods and Services Tax payable of \$121,562 (2013 - \$115,968).

4. NET ASSETS

TSBC's board of directors approved a transfer from the Program Reserve to the Unrestricted Reserve in the amount of \$352,035.

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.

5. COMMITMENTS

As at December 31, 2014, whole tires and unsold product at registered processor facilities were estimated at 784,252 (2013 - 822,793) passenger tire equivalents ("PTE"). The incentive payments to processors could amount to a future liability of up to \$2,572,760 (2013 - \$2,580,189). TSBC has entered into an agreement for the provision of management and administrative services to June 28, 2018.

6. FINANCIAL INSTRUMENTS

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

6. FINANCIAL INSTRUMENTS (continued)

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, 2014.

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.

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.

APPENDIX B: 2014 Non Financial Information Audit Report



Collins Barrow Victoria Ltd
645 Fort Street, Suite 540
Victoria, BC
V8W 1G2 Canada

T. 250.386.0500
F. 250.386.6151

www.collinsbarrow.com

INDEPENDENT REASONABLE ASSURANCE REPORT

**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 undertake a reasonable assurance engagement in respect of the following disclosures within the Stewardship Agency's Annual Report to the Director for the year ended December 31, 2014 (together the "Subject Matter"):

- 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 BC 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

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 in relation to the Subject Matter is to perform a reasonable assurance engagement and to express a conclusion based on the work performed. Our opinion 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 ASSURANCE ENGAGEMENT

We carried out our reasonable assurance engagement 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 the information included within the Subject Matter, and that they comply with the independence and other ethical requirements of the IFAC Code of Ethics for Professional Accountants.

A reasonable assurance engagement includes examining, on a test basis, evidence supporting the amounts and disclosures within the Subject Matter. A reasonable assurance engagement 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:

Each office is independently owned and operated. The Collins Barrow trademarks are used under license by Collins Barrow Victoria Ltd.

an independent member of
BAKER TILLY
INTERNATIONAL



Collins Barrow Victoria Ltd
645 Fort Street, Suite 540
Victoria, BC
V8W 1G2 Canada

T. 250.386.0500
F. 250.386.6151

www.collinsbarrow.com

INDEPENDENT REASONABLE ASSURANCE REPORT (continued)

- 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.

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, 2014 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.

Each office is independently owned and operated. The Collins Barrow trademarks are used under license by Collins Barrow Victoria Ltd.

an independent member of
BAKER TILLY
INTERNATIONAL



Collins Barrow Victoria Ltd
645 Fort Street, Suite 540
Victoria, BC
V8W 1G2 Canada

T. 250.386.0500
F. 250.386.6151

www.collinsbarrow.com

INDEPENDENT REASONABLE ASSURANCE REPORT (continued)

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.

Collins Barrow Victoria Ltd.

CHARTERED PROFESSIONAL ACCOUNTANTS

Victoria, BC Canada
June 30, 2015

Tire Stewardship BC 2014 Report to Director, Waste Management

Attachment 1

Tire Stewardship B.C. Association ("TSBC") Assurance / Evaluation Criteria For Data From Reporting Year Ended December 31, 2014

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, 2014.
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 13, Table 2 and Page 17, Table 5
5R Off Spec	Page 13, 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, 2014**

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 = 3,549,619 units	Page 14, Table 3
Units Collected = 2,699,744 units	Page 14, Table 3
Recovery Rate (Units Collected / Units Sold) = 76%	Page 14, Table 3 and Page 16, Table 5

Tire Stewardship BC 2014 Report to Director, Waste Management

Attachment 1 (continued)

Tire Stewardship B.C. Association ("TSBC") Assurance / Evaluation Criteria For Data From Reporting Year Ended December 31, 2014

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.
 - 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 2014, 257 (2013 – 276) 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) 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 13, Table 2 and Page 17, Table 5
5R Off Spec	1%	Page 13, 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 16, Table 5

Attachment 1 (continued)

**Tire Stewardship B.C. Association ("TSBC") Assurance / Evaluation Criteria
For Data From Reporting Year Ended December 31, 2014**

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	223	130	4	1
Bulkley - Nechako	474	474	25	34
Capital	1425	166	13	0
Cariboo	720	536	20	46
Central Coast	0	0	0	0
Central Kootenay	575	150	7	3
Central Okanagan	1546	260	14	5
Columbia - Shuswap	531	223	13	4
Comox - Strathcona	841	270	10	5
Cowichan Valley	879	212	14	3
East Kootenay	657	439	7	14
Fraser-Ft George	894	1199	34	12
Fort Nelson - Liard	120	216	3	1
Fraser Valley	2033	1803	86	1
Greater Vancouver	8848	4160	161	1
Kiitmat - Stikine	403	161	3	3
Kootenay - Boundary	271	59	11	1
Mt. Waddington	115	54	0	1
Nanaimo	732	197	11	2
North Okanagan	851	269	21	6
Okanagan - Similkameen	763	124	8	2
Peace River	983	915	46	7
Powell River	143	30	1	0
Skeena - Queen Charlotte	131	56	3	0
Squamish - Lillooet	451	105	4	0
Sunshine Coast	191	28	2	0
Thompson - Nicola	1471	1600	40	34
Total	26271	13836	525	186

Definitions:

PLT = Passenger Tires, Light Truck Tires, ATV Tires

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 and its last two Annual Reports.

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

- Small, medium and large (SML) 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. In addition, TSBC spoke with Ministry of Environment staff to understand more about the process of regulating these tires. TSBC understands and appreciates the key to adding these tires to the BC Recycling Regulation is consultation with all affected stakeholders, with initial support to pursue regulation from the retailers that supply these tires into the marketplace and the industries that use them.

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 was done through the 2014 Ambassador Program and is continuing as part of the 2015 Program. TSBC canvassed 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 on to the end user or absorbed by the retailer. The results indicate that most of these tires are being directed to Western and that there is no consistency as to which party is paying the cost, i.e., the retailer or the end user.

From a processing perspective, Western has completed Phase 1 and 2 of its plant upgrade with a significant investment in equipment and technology to create cost and processing efficiencies. Phase 3 will be complete by June 2016. 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 in conjunction with key stakeholders.
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 current 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 to report progress annually. This is TSBC's progress report.

Status of Research

In 2013, Metro Vancouver and the City of Vancouver started collecting data on the type, volumes and locations of waste abandoned in urban environments. However, it became evident early in the process that front line staff found the data collection template challenging to use and as such, the resulting data was inconsistent. While this prompted a decision to revise the template to allow for easier and more accurate reporting, it did not occur in 2014. In addition to the data collection challenges, local governments expressed a concern that the time and effort required to do this work would be wasted if the stewards did not agree to provide funding for the abandoned waste.

Ongoing Efforts to Reduce Illegal Dumping

Return to Retailer

TSBC's [Return to Retailer](#) (R2R) program continued to grow in 2014, with an additional 108 retailers agreeing to participate in this voluntary program. The number of R2R locations in urban areas is significant, indicating that if tires are still being dumped in urban environments, it is behavioural change – not the addition of more drop off locations – that needs to occur as part of reducing / eliminating this activity.

Tire collection events

These events are included as a target in TSBC's current stewardship plan. In 2014, they were again held in both urban and rural environments and in 2015, this approach will continue.

Education

With three other stewardship agencies, TSBC co-sponsored the production and delivery of the [Voices of Nature](#) concerts in 2014. *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 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 is developed and delivered by the [Artist Response Team](#) from Vancouver. Unfortunately, due to the BC-wide school teachers strike, only the concert in Duncan could proceed, with the remainder deferred to 2015.

Ambassador Program

In 2014, TSBC partnered with the BC Used Oil Management Association in its 9th annual [Ambassador Program](#). Through this program, TSBC engages retailers, local governments, the media and the public directly in discussions about the BC tire recycling program's successes, issues, and opportunities for improvement. A key success story from the 2014 program was the recruitment of 108 new R2R sites. R2Rs provide the public with a convenient, no cost disposal option for 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 2015 Ambassador Program.

Next Steps

1. Working group

TSBC has agreed to be part of a local government / BC steward working group to address the challenges associated with illegally dumped tires in both urban and rural environments. The first meeting is expected to be held in the summer of 2015.

2. R2R recruitment, tire collections events and education

TSBC will continue these activities in 2015. However, until there is a baseline available to TSBC to better understand and quantify the problems they are intended to address, the success of these efforts cannot be measured. For this reason, any discussions on additional or alternative efforts are on hold.