Ontario Tire Stewardship

Used Tires Program Plan

Prepared for

Waste Diversion Ontario

December 12, 2009
Incorporating Errata Corrections

December 2009 Plan Errata Corrections

1. Change to Service to Unregistered Collectors – Section 4.4, Page 33

Language in February 27 2009 version of the Plan:

OTS recognizes that there may be locations where used tires are collected that choose to not register with OTS as Collectors, or which do not meet the definition of a Collector. In these instances OTS will provide no-charge pick up, but will not pay a Used Tires Collection Allowance on the tires picked up.

Language in December 2009 version of the Plan:

OTS recognizes that there may be locations where used tires are collected that choose to not register with OTS as Collectors. These locations will not receive free pick-up of used tires, nor will they be paid a Collection Handling Allowance. Without a completed registration OTS cannot ensure that the collector is not charging a disposal fee and so cannot extend the program benefits to that collector.

2. Correction to OTR Tire Stewardship Fees –
    a. Section 7.7, Page 83
    b. Section 7.9, Page 88
    c. Section 8.0, Appendix B, Page 102
    d. Section 8.0, Appendix D, Page 105
    e. Section 10, Schedule B, Appendix B
    f. Section 10, Schedule B, Appendix D

Due to a rounding error in the TSF calculations the rates for OTR tires in the February 27th 2009 are higher than they should be. The changes are as follows

Tire Category	Tire Fee in February 27, 2009 Plan	Revised TSF in December 2009 Plan version
Industrial and Skid/Steer - Includes pneumatic and solid forklift tires, Bobcat/Skid Steer with a rim diameter 16.5" and up	**$12.52**	**$12.51**
Ag Drive and Logger Skidder - Includes drive wheel tires used on tractors and combines and tree harvesting equipment with a rim diameter 16.5" and up	**$15.30**	**$15.29**
Small OTR - from 1300-24 to 23.5-25	**$22.26**	**$22.24**
Medium OTR - over 23.5-25 to 33" rim diameter	**$97.38**	**$97.30**
Large OTR - over 33" to and including 39" rim dia.	**$104.34**	**$104.25**
Giant OTR - over 39" rim dia.	**$250.41**	**$250.20**

3. Adjustments to "Collected Tires" and "% Collected Tires"
    a. Table 19 "Used Tire Collection" – Section 5.2, Page 56
        i. OTR Tonnes Increased
        ii. Tires Collected as a percentage of sales decreased due to an upward revision in the expected number and weight of OTR ties sold.
    b. Table 20 "Scrap Tire Collection (minus culled tires)" – Section 5.2, Page 56
        i. OTR Tonnes Increased
        ii. Tires Collected as a percentage of sales decreased due to an upward revision in the expected number and weight of OTR ties sold.

4. Revision in Ontario Tire Stewardship Contact Information – Section 10, clause 13.1

    Notices to Ontario Tire Stewardship shall be delivered to:
    Ontario Tire Stewardship
    405 The West Mall, Suite 500
    Toronto, Ontario
    M9C 5K7

    Attention: Executive Director
    Facsimile: 1-866-884-7372
    E-mail: ahorsman@ontariots.ca

5. Revision to OTS Board of Directors – Appendix 3, Page 158

Jennifer Barbazza, Wal-Mart Canada has been replaced by Diane Gibson, Wal-Mart Canada

Used Tires Program Plan
Table of Contents

1.0 INTRODUCTION..... 10
1.1 Background..... 10
1.2 Definition of Used Tires..... 11
1.3 Designation of Stewards..... 11
1.4 Discharging Steward Obligations under the Waste Diversion Act..... 12
2.0 USED/SCRAP TIRES BASELINE ESTIMATES..... 12
2.1 Current Generation of Used Tires..... 12
2.2 Current Sales of Used Tires..... 13
2.3 Current Stockpiled Tires..... 14
2.4 Current Collection, Reuse and Recycling of Used Tires..... 15
3.0 CURRENT MANAGEMENT OF USED TIRES IN ONTARIO..... 16
3.1 Overview of Generation, Collection and Recovery of Used Tires..... 16
3.2 Locations and Patterns of Generation..... 18
3.3 Current Collection System Infrastructure..... 18
3.4 Current Reduction, Reuse and Retreading Infrastructure..... 22
3.5 Current Processing Infrastructure for Recycling..... 26
3.6 Markets for Reused and Retreaded Tires and Recycling Products..... 28
4.0 DESCRIPTION OF PROGRAM..... 29
4.1 Guiding Principles..... 29
4.2 Core Elements..... 30
4.3 Reduction..... 31
4.4 Collection System..... 32
4.5 Consolidation and Storage..... 34
4.6 Transportation System……34
4.7 Reuse and Retreading..... 37
4.8 Recycling..... 39
4.8.1 New Processing Options……...44
4.9 Managing Stockpiles..... 45
4.10 Vendor Qualification Standards..... 46
4.11 Market Development..... 46
4.11.1 Fostering Recycled Products and Green Economy..... 47
4.12 Research and Development..... 47
4.13 Promotion and Education..... 48
4.14 Monitoring, Metrics and Response……51
5.0 PROGRAM PERFORMANCE..... 53
5.1 Year 1 to 5 Accessibility Targets..... 53
5.2 Year 1 to 5 Collection, Reuse and Recycling Targets..... 54
5.3 Performance Benchmarks..... 58
5.4 Tracking and Auditing System..... 60
5.5 Annual Program Reviews..... 61
5.6 Compliance Monitoring and Enforcement..... 61
6.0 FEE SETTING METHODOLOGY..... 62
6.1 Authority..... 62
6.2 Used Tire Product Categories..... 62
6.3 Principles..... 64
6.4 Tire Fee Setting Methodology..... 65
6.4.1 Context……..65
6.4.2 Methodology for Setting Used Tire Stewards Fees for Year 1……65
6.4.3 Year 1 Calculation Steps for Setting Tire Stewards Fees……66

6.5 Proposed Methodology for Setting Tire Fees for Years 2-5 of an Approved Plan.71
6.5.1 Modifications to the Used Tire Program Fee-Setting Methodology for Years 2-5……72
7.0 YEAR 1 PROGRAM BUDGET AND FEES.....72
7.1 Incentives and Financial Payments 73
7.1.1 Collection System.....73
7.1.2 Consolidation and Storage 73
7.1.3 Transportation 74
7.1.4 Reuse and Retreading.....74
7.1.5 Recycling.....75
7.1.6 Managing Stockpiles 75
7.1.7 Markets and End Uses 76
7.2 Research and Development.....76
7.3 Promotion and Education 77
7.4 Program Development/Start-Up Costs 78
7.5 OTS Administration 79
7.6 WDO Program Costs.....80
7.7 Total Program Budget 81
7.8 Steward Fee Rates.....86
7.9 Economic Implications for Stewards and Stakeholders 87
8.0 PROGRAM RULES.....92
8.1 Rules for Stewards……..93
9.0 GOVERNANCE 106
10.0 PROGRAM AGREEMENT 107
Appendix 1: Minister's Program Request Letter 149
Appendix 2: OTS Articles of Incorporation.....153
Appendix 3: OTS Board of Directors 158
Appendix 4: Used Tire Exports.....159
Appendix 5: New Tire Volumes in Ontario.....160
Appendix 6: RAC Mystery Shopper Survey.....166
Appendix 7: Ontario Crumb Rubber Processing Survey.....171
Appendix 8: Terms & Conditions for Collectors 173
Appendix 9: Used Tire Tracking Manifest.....174
Appendix 10: Terms & Conditions for Haulers.....175
Appendix 11: Terms & Conditions for Processors 176
Appendix 12: Mediation Guidelines.....177
Appendix 13: Arbitration Guidelines 180
Appendix 14: Guidelines for Tire Storage.....183
Appendix 15: Municipal Used Tire Collection Points.....188
Appendix 16: Alberta Proposed OTR Tire Program Presentation (selected slides) 189
Appendix 17: RMA Bulletin for Used Tires……..190
Appendix 18: Hauling Incentive Flow Diagram……191
Appendix 19:OTDA Collector / Dealer Cost Study……192

List of Tables

Table 1	Ontario New Tire Sales	13
Table 2	Tire Stockpiles in Ontario	15
Table 3	Current Estimated Uses of Ontario Scrap Tires	16
Table 4	On-Road Annual Tire Data	17
Table 5	Off-the-Road Annual Tire Data	17
Table 6	Municipal Used Tire Collection	19
Table 7	Current for Profit Collector Economics	19
Table 8	Current Not for Profit Collector Economics	20
Table 9	Current Hauler Economics	21
Table 10	The Effects of Under Inflation on Treadwear and Fuel Use	23
Table 11	Impact of Speed on Tire Wear	23
Table 12	Tire Treadlife Extension History	25
Table 13	Ontario On-Road Scrap Tire Generation vs. Current Processing Capacity	27
Table 14	Current Crumb Rubber Processor Economics	27
Table 15	Used Tire Culling by Haulers	35
Table 16	Passenger/Light Truck/Medium Truck Tire Processing Incentives	40
Table 17	Ontario On-Road Used Tire Generation vs. Processing Capacity	42
Table 18	OTS Registered Collection Points	53
Table 19	Used Tire Collection	55
Table 20	Scrap Tire Collection (minus culled tires)	55
Table 21	Medium Truck Tire Retreading Targets	55
Table 22	OTR Tire Retreading Targets	56
Table 23	Collection and Diversion Targets for On-Road Tires	57
Table 24	Collection and Diversion Targets for Off-Road Tires	58
Table 25	Used Tire Definitions	63
Table 26	Collector Allowances	73
Table 27	Transportation Incentives	74
Table 28	Year 1 Processing Incentives	75
Table 29	Stockpile Abatement Costs	76
Table 30	Year 1 R&D Budget	77
Table 31	Year 1 P&E Budget	78
Table 32	Program Development and Start-up Budget	79
Table 33	Year 1 Administration Budget	80
Table 34	WDO Direct Costs and Share of Unattributable Costs Allocated to Used Tires	81
Table 35	Year 1 Financial Forecast	82
Table 36	OTR Tire TSFs	83
Table 37	Mix of New Tire Sales	84
Table 38	Contingency as a % of Total TSF Revenue	86
Table 39	Jurisdictional TSF Comparison	88
Table 40	Municipal Used Tire Collection Economics Comparison	89
Table 41	On-Road Tire Hauler Economics Comparison	90
Table 42	Crumb Rubber Processor Economics Comparison	91
Table 43	TDA Processor Economics Comparison	91
Table 44	Fabricated Products Processor Economics Comparison	91

Glossary of Terms

Certificate of Approval (C of A)
Certificate of Approval is a control document issued by the Ontario Ministry of the Enviroment (MoE) that sets out operating conditions for a waste management system or a waste disposal site. C of As are required under the authority of s. 27 of the *Environmental Protection Act*. For further description of the Director's C of A authority refer to s. 39 of the *Environmental Protection Act.*

Collection Allowance
A payment made by Ontario Tire Stewardship (OTS) to registered Collectors to cover the costs of handling and storing used tires once they have been removed from the vehicle.

Collection Targets
The projected quantities of scrap tires to be collected on an annual basis under the Program.

Collector(s)
A for-profit, not-for-profit, or municipal corporation that has entered into an agreement with OTS for the collection of designated used tires.

Consolidation Facility
A location used to receive scrap tires from collection agents for subsequent transport to a primary processor.

Contingency Funds
Funds approved by the OTS Board of Directors on an annual basis to offset potential shortfalls in Program financing due to such factors as higher than the projected annual Program costs used for the purposes of Steward fee-setting; the potential for Steward non-payments resulting from non-compliance or bankruptcies; potential legal liabilities; and additional Program activities that may be required to meet established Program targets.

Crumb Rubber
Crumb rubber is a term usually applied to recycled rubber from vehicle scrap tires. During the recycling process steel and fluff is removed leaving tire rubber with a granular consistency. Continued processing with a granulator and/or cracker mill, possibly with the aid of mechanical or cryogenic grinding, reduces the size of the particles further. The particles are sized and classified based on various criteria including color (black only or black and white). The granulate is sized by passing through a screen, the size based on a dimension (1/4") or mesh (holes per inch: 10, 20, etc.).

Diversion
The management of used tires through reuse, retreading or recycling, instead of disposal into landfills, incinerators or tire derived fuel applications.

Events
Refers to one-day collection events offered by municipalities, retailers, stewards or other stakeholders at which consumers can drop off used tires for management. Events may range in frequency from one to several events per season, often in different locations within a county or region.

Fabricated Products
This material, often referred to as “cut” product, refers to using parts of the tire for other purposes. For example, using the sidewalls to create the base for traffic cones, or using the tread area to build blasting mats.

Fee Setting Methodology
The calculations used to set Stewards Fees by tire product groupings as set out in the Used Tires Program Plan.

Generator
A for-profit, not-for-profit, or municipal corporation that handles only used tires produced through its own operations.

Passenger Tire Equivalent (PTE)
PTE is a notional term using a standard passenger tire weight of 10kg to represent the average weight of larger tires. For example, a Medium Truck tire, which weighs approximately 50 kg, is considered equivalent to 5 PTE in weight.

Processing Incentive Payments
Weight based payments made by OTS to approved Processors to process Used Tires under the Program.

Recycling
The processing of scrap tires by manual or mechanical means for the purpose of capturing the resources for remanufacturing.

Reduction
In the context of this Plan, this term means reducing the number of tires that enter the waste stream through public education to promote extending tire life and/or encouraging retreading.

Retread (Retreading)
To refit a used tire with a new tread. The process of applying a new tread to a used tire whereby the old tread is buffed off and a new tread is applied to the tire casing, then vulcanized to be reused as a tire.

Retreader
A company that refits a used tire with a new tread.

Reuse
In the context of this Plan, reuse means using a tire again for its originally intended purpose without mechanical processing.

Shred
Nominally 25 mm to 300 mm tire pieces resulting from processing. Shred is typically used as a tire derived aggregate or as feedstock material for further processing.

Scrap Tire Generation
The sum of the designated scrap tires discarded by final end users on an annual basis under the Program.

Scrap Tire Processor
A business that processes scrap tires into streams that can be further processed in order to recover specific components within the same organization or sent to downstream processors for use as a raw material in another process, or, where 3Rs options are not available or technically feasible, for use in an energy recovery process or managed through disposal.

Tip Fee
The fee Haulers are charged by Processors to accept a scrap tire when there is a negative value associated with the scrap tire.

Tire Derived Aggregate (TDA)
Tire Derived Aggregate is an engineered product made by cutting scrap tires into nominally 25 mm to 300 mm pieces.

Tire Derived Products (TDP)
This is a generic term to describe marketable products made from scrap tires.

Tire Stewardship Fee (TSF)
Fees assessed by OTS on Stewards under the approved Used Tires Program Plan as set out in the approved Program Rules.

Transportation Incentive Payments
Weight and kilometer driven based payments offered by OTS to registered Haulers to pick up and transport Used Tires under the Program.

Used Tire Hauler
A business that transports scrap tires to a Scrap Tire Processor.

List of Acronyms

AMO	Association of Municipalities of Ontario
AMRC	Association of Municipal Recycling Co-ordinators
ARMA	Alberta Recycling Management Association
CARI	Canadian Association of Recycling Industries
C of A	Certificate of Approval (issued by MOE)
EBR	Environmental Bill of Rights Registry
EOL	End-of-Life
EPR	Extended Producer Responsibility
EU	European Union
IC&I	Industrial, Commercial & Institutional
IFO	Industry Funding Organization
ISP	Industry Stewardship Plan
MHSW	Municipal Hazardous or Special Waste
MOE	Ministry of the Environment
MT	Medium Truck
OECD	Organization for Economic Co-operation and Development
OTCA	Ontario Tire Collectors Association
OTDA	Ontario Tire Dealers Association
OTR	Off-the-Road
OWMA	Ontario Waste Management Association
P&E	Promotion and Education
PLT	Passenger and Light Truck
RCC	Retail Council of Canada
RCO	Recycling Council of Ontario
REOI	Request for Expression of Interest
RFP	Request for Proposal
TDGA	Transportation of Dangerous Goods Act
USEPA	United States Environmental Protection Agency
UTCA	Used Tire Collection Allowance
WDA	Waste Diversion Act
WDO	Waste Diversion Ontario

1.0 INTRODUCTION

INTRODUCTION

This diversion program has been prepared by Ontario Tire Stewardship (OTS), the Industry Funding Organization (IFO) established by Waste Diversion Ontario (WDO) to support development of a diversion program for Used Tires in Ontario. This plan has been developed with input from a wide representation of industry, government and non-government stakeholders. Its primary objective is to foster the implementation of a sustainable used tire stewardship program in the Province of Ontario.

The purpose of this document is to present the plan for the diversion of used tires generated in Ontario as well as clean-up of existing scrap tire stockpiles. Within this document, the term "scrap tire" is used to describe a Used Tire that has been discarded.

In order to facilitate review of this document, supplementary data and exhibits have been provided in the appendices rather than the main body of the plan. A summary of the consultation process and stakeholder comments is provided in a separate document titled *Used Tires Consultation Report*.

The Used Tires diversion programs in other provinces have been reviewed during preparation of the Used Tires Program Plan for Ontario. OTS thanks these jurisdictions for the work that they have done in establishing their programs. Their work has enabled OTS to learn from their best practices currently in place.

1.1 Background

The Waste Diversion Act

In June 2002, the Ontario legislature passed the Waste Diversion Act (WDA) which promotes the reduction, reuse and recycling of waste. The Act establishes WDO and tasks it with developing, implementing and operating diversion programs for designated wastes in accordance with the Act, and with monitoring the effectiveness and efficiency of those programs.

In March 2003, the Minister of the Environment filed Ontario Regulation 84/03, which designated "Used Tires" under the WDA.

Ontario Tire Stewardship

On June 13th, 2003 Ontario Tire Stewardship was created as an IFO in accordance with Section 23(1) of the Act, and charged with the responsibility of submitting a plan in accordance with an earlier Minister's request for a Used Tires Program Plan. On September 10th, 2003, OTS was incorporated under the laws of Ontario as a non-profit organization (*Appendix 2: OTS Articles of Incorporation*), as required under Section 23(3)b.

OTS is managed by a Board of Directors comprised of brand owners and first importers of tires (*Appendix 3: OTS Board of Directors*).

On August 14, 2008, the Minister of the Environment forwarded a Program Request Letter (*Appendix 1: Program Request Letter*) requesting that WDO develop a waste diversion program for Used Tires. WDO entered into a Memorandum of Agreement with OTS to act as WDO's agent in developing the program plan.

1.2 Definition of Used Tires

In the Used Tires Regulation 84/03, a "used" tire is defined as:

"1.Used tires that have not been refurbished for road use. 2. Tires that, for any reason, are not suitable for their originally intended purpose.1. (2) For purposes of subsection (1):"tire" includes a piece or portion of a tire.

In the industry, the term "used" applies in two ways. The first usage is generic, and refers to any tires that have been driven on and removed from a vehicle. Tires that have remaining service life are also referred to as "used", and make their way into existing, markets, either domestically or as exports.

In the industry, used tires that are not reusable are categorized as "scrap". Scrap tires have a negative value due to the costs associated with collection, storage and processing.

The definition used to describe "used tires" in Regulation 84/03 conforms to the industry's definition of "scrap tires".

For the purposes of this diversion program plan Used Tires will be defined as follows:

Product Definition[1]	Inclusions	Exclusions
Tires from all types of passenger and commercial on road and off the road (OTR) motorized vehicles.	Tires are products comprised primarily of rubber mounted on passenger vehicles, motorcycles, trucks, buses, mobile homes, trailers, aircraft, earthmoving, road building, mining, logging, agricultural, industrial and other vehicles to provide mobility.	Toys Bicycles Personal mobility devices Commercial aircraft

1.3 Designation of Stewards

Section 30 of the Waste Diversion Act defines a steward as a person or class of persons having a commercial connection to the designated waste, or to a product from which the designated waste is derived. The Minister's Program Request Letter directs that the funding rules under the program define stewards as brand owners and first importers of tires into Ontario. The program request letter defines brand owners and first importers for the purposes of this program as:

a. "The registered owner of the brand, or

b. A licensee of the brand, or

c. A person who owns the intellectual property rights to the brand, or

d. A person who is the licensee, in respect of the intellectual property rights of the brand.

For the purpose of this program, a first importer means a person who imports tires into Ontario, for which a brand owner does not exist in Ontario, and who is the first to take title to the tires upon or after arrival in Ontario from elsewhere."

The "Rules for Stewards" (found in Section 8.1) address the definition of stewards in conformance with the Minister's Program Request Letter.

1.4 Discharging Steward Obligations under the Waste Diversion Act

Should the Minister approve the Used Tires Program Plan the Minister will file a regulation that designates OTS as the organization responsible to implement the Program. Brand owners and first importers of tires can discharge their legal obligations under the WDA through registering with OTS and complying with the rules for Stewards included in this program plan.

It should be noted that individual brand owners and first importers (or groups thereof) who wish to take direct responsibility for managing their obligations under the WDA can apply to the WDO for approval of an Industry Stewardship Plan (ISP) as provided for under Sections 34(1) and 34(2) of the WDA.

Stewards will be required to register with and pay fees to OTS unless and until an ISP is approved. The requirements for an ISP have been set out by the WDO and can be reviewed at (www.wdo.ca/content/?path=page81+item38390).

2.0 SCRAP / USED TIRES BASELINE ESTIMATES

2.1 Current Generation of Used Tires

While used tire generation is not currently tracked in Ontario, estimated volumes are calculated based on the number of tires sold annually in the province. These estimates are based on the assumption that for each new tire sold, a used tire is generated. Metrics tracked in the United States as well as other countries confirm an average one to one relationship between population and the number of used tires generated.

Used tire generation statistics have been compiled by the Rubber Association of Canada (RAC), the national trade association representing the tire manufacturing industry. Approximately 10.6 million new tires for use on licensed highway vehicles and 1.3 million new tires for use on off the road (OTR) vehicles were sold in Ontario in 2007 (the report summarizing this data can be

found in *Appendix 5: New Tire Volumes in Ontario*). For purposes of estimating used tire generation, it is assumed that each tire sold will result in a used tire being generated.

Of new on-road tires sold about 30% represent tires sold on new vehicles (original equipment) and 70% sold as replacement tires through tire retailers, including tire dealers, auto repair garages, car dealers, and mass merchants. Based on forecasts compiled by the RAC, it is estimated that generation will grow by an average of 2% compounded annually, to 11.5 million units by Year 5 of the program.

Estimates have been factored into this forecast to reflect culling of re-useable tires as well as an "education effect" that reduces the volume of used tires entering the waste stream through consumer awareness of best practices for extending tire life through proper maintenance.

Table 1[1] Ontario New Tire Sales

New Tire Sales	Passenger & Light Truck Tires	Medium Truck Tires (5 PTEs per MT Tire)	Off The Road Tires (Multiple PTEs depending on Tire type)	Total
Units	10,094,200	515,600	1,287,500	11,897,300
PTEs	10,094,200	2,578,000	8,062,400	20,734,600
Tonnes	100,942	25,780	80,624	207,346

2.2 Current Sales of Used Tires

The market for used tires in Ontario varies greatly depending on the type of tire and takes two forms:

- Retreading of tires; and
- Direct resale of used tires without retreading.

Retreading

The domestic market for used medium truck tires for retreading is well established, as is the retreading of off-the-road tires. Truck tires are specifically designed by the tire manufacturer to be retreaded. There are approximately 15 truck tire retreaders in Ontario.

Industry estimates suggest 1 to 1.25 retreaded truck tires are sold for every new truck tire sold. The market for retread tires in Ontario (i.e. the medium and OTR truck retreading market) was estimated at approximately 644,500 tires in 2007, and operates independent of any support from external agencies. As such the Used Tires Program Plan does not anticipate providing

[1] Data Source: Rubber Association of Canada 2008

financial incentives to this industry in the near-term due to the already favorable economics associated with the sale of retreaded medium truck tires. OTS will continue to monitor the flows of tires through this channel to accurately quantify the movement of retread tires, and to identify opportunities, if any, to increase the diversion of tires to this reuse application.

Major trucking firms generally have a well managed tire program in place and deliver their used tires directly to a retreader for retreading.

Retreaders are not considered as brand owners or first importers under the program and will not be levied a fee for sales of retreaded tires. As brand owners and first importers of new tires will be levied a fee, this will increase the pricing spread between a retread and a new tire creating an economic incentive that favors the retreaded tire.

Of 100 tires delivered to a retreader, approximately 20 will be rejected as unsuitable for retreading. Retreaders will be encouraged to register with OTS to ensure free pick-up of the rejected tires unsuitable for retreading.

Retreading of passenger and light truck tires is not supported by the tire manufacturing industry as these tires have not been designed for retreading, though the practice does occur.

Reuse

Used tires are culled at two levels in the management chain:

1) **The tire Retailer**: Based on discussions with used tire stakeholders OTS identified that in some tire retail operations tires that are removed from a customer's vehicle that are still, in the estimation of the retailer, suitable for road use, are set aside for sale and installation on another vehicle. This type of culling is currently unquantified, and will require further exploration during the first year of the program to assess the impact on overall used tire generation and the contribution towards diversion targets.

2) **The tire Hauler**: Tire Haulers perform a secondary cull of tires picked up from retailers that, in the estimation of the Hauler, are suitable for road use. While a portion of these tires may remain in the province for installation on another vehicle, a significantly larger portion are exported to jurisdictions outside Canada where these tires are used on vehicles.

There is a significant reuse market for passenger and light truck (PLT) tires both domestically and in the export market. (See *Appendix 4: Used Tire Exports* for a breakdown of used tire exports from Ontario.)

OTS will continue to track the flows of passenger and light truck tires directed to reuse so as to be able to quantify and report on the volumes of these flows and to assess the impact on overall scrap tire generation and the contribution towards diversion targets.

2.3 Current Stockpiled Tires

Based on a report commissioned by the Ministry of the Environment in October 2008 there are approximately 2.3 million scrap tires in 95 stockpiles across the province as outlined in the following table:

Table 2[2]:

Tire Stockpiles in Ontario	
Number of Tires	**Number of Sites**
3000 – 5000 tires	33
5,000 – 10,000 tires	21
10,001 - 20,000 tires	20
20,001 - 30,000 tires	6
30,001 – 40,000 tires	3
40,001 – 50,000 tires	2
50,001 – 100,000 tires	4
100,001 – 170,000 tires	4
170,001 – 215,000 tires	2
Total	**95**

Stockpiled tires may present significant recycling challenges as they may be too dirty, or too oxidized to be viable for recycling using current methods of processing. Options include cleaning, washing and sorting stockpiled tires before processing, or extracting the latent energy by using the tires as Tire Derived Fuel (TDF). OTS is aware that there are kilns in Quebec and several jurisdictions in the United States where tires unsuitable for diversion applications could be sent for TDF, however the focus of OTS with regards to stockpile clean-up will be to assess the stockpiles individually and divert tires to processing options for recycling as tire conditions allow.

The abatement plan for each stockpile site will be unique. Each stockpile site will have its own characteristics and associated costs and will need to be identified, prioritized, estimated and planned individually. It is anticipated that the program management approach to stockpile abatement will be developed collaboratively with the Ministry of the Environment.

Some of the criteria for prioritizing stockpiles include: number of tires; condition and age of tires and the site; topography and access; site ownership and access; and social, environmental, health impacts and health risks.

To some extent the schedule to eliminate existing stockpiles is contingent on the development and approval of comprehensive individualized site clean-up plans. OTS will utilize contracted Project Managers for site clean-up initiatives.

2.4 Current Collection, Reuse and Recycling of Used Tires

Current processing in Ontario accounts for an estimated 5.85 million PTEs. While end use markets continue to develop, common uses for Tire Derived Products (TDP) include: products manufactured with recycled rubber content, rubberized asphalt, as well as some civil engineering applications that provide effective alternatives to aggregate and sand.

Current uses for scrap tires in Ontario can be summarized as:

- crumb rubber (~4.1 million PTEs),

[2] Data Source: Ministry of the Environment Stockpile Inventory conducted in 2008

- fabricated products (~0.75 million PTEs),
- civil engineering (~1.0 million PTEs),
- landfill (~0.75 million PTEs).

Approximately 3.6 million PTEs are diverted to out of province processors. The balance, about 0.8 million PTEs, are not accounted for and may include illegal dumping. No tires are currently used as Tire Derived Fuel (TDF) in Ontario though one cement kiln has a Certificate of Approval to do so.

Table 3[3]: Current Estimated Uses of Ontario Scrap Tires

Current Used Tire Management (PTEs)							
	Reduction	Reuse	Retreading	Recycling	Unknown	Disposal	Total
On-Road Tires	N/A	259,000	3,222,500	5,850,000	N/A	3,600,000	12,931,500
OTR Tires	N/A	N/A	13,300,500	1,000,000	6,800,000	200,000	21,300,500
Totals		259,000	16,523,000	6,850,000	6,800,000	3,800,000	34,232,000

3.0 CURRENT MANAGEMENT OF USED TIRES IN ONTARIO

3.1 Overview of Generation, Collection and Recovery of Used Tires

Used tires are generated in a number of different scenarios:

- Tires are removed from a vehicle for replacement or because they are no longer suitable for use; and
- A vehicle is scrapped and the tires are removed because they are no longer suitable for use.

There may be time delays between either of these occurring and the tire entering the scrap tire system (due to culling or retreading, uses in applications such as bumpers, tarp hold-downs, or due to illegal dumping), however eventually the tire will enter the scrap tire handling system.

In each of these situations the generation of a used tire results in it entering a system where it is removed from use and stored by the collector (a tire retailer, garage, vehicle dealer, municipal collection depot, commercial maintenance shop, etc.) who may cull some tires deemed suitable for reuse. Remaining used tires are then picked up by the Hauler (generally for a fee) who may again cull some tires deemed suitable for reuse, and who will deliver the remaining tires to a

[3] Data Source: OTS interviews with Processors, Retreaders, Stewards, Haulers and Collectors of Used Tires

Processor (who may again cull some tires deemed suitable for reuse). Current processing options for Ontario scrap tires are:

- Manufacture into molded products;
- Processing into crumb rubber;
- Processing into shred;
- Fabrication into products (such as blasting mats, traffic cone bases); and
- Tire derived fuel.

For each of these end-uses there exist markets and processing capacity both in Ontario (with the exception of TDF, which is not currently in use in the province) and in jurisdictions elsewhere in Canada, the USA and abroad. Tires, both whole and in partially processed form, cross these borders on a regular basis, and may or may not be tracked through manifests or import/export documents.

The primary end uses for exported tires are as TDF (in North American jurisdictions such as Quebec, New York and Michigan) and for reuse in jurisdictions where the remaining tread on the tire makes it suitable for use (e.g. in markets where winter driving is not a factor).

Based on RAC wholesale tire sales data, information received from mass merchant tire retailers and estimates from tire stakeholders in the hauling and processing communities approximately 9.1 million passenger / light truck / medium truck used tires were generated in 2007 (against sales of approximately 10.6 million tires in these categories, using a 15% cull rate[4]). OTR tire sales in 2007 were approximately 1.2 million units, of which approximately 15% were collected and processed.

Table 4[5]: On-Road Annual Tire Data

	2007 Sales of New Tires (Units)	Culled Tires (15% on PL/T Tires only, in Units)	Scrap Tire Generation (Units)
PL/T Tires	10,094,200	1,514,130	8,580,070
MT Tires	515,600	0	515,600
Total	10,609,800	1,514,130	9,095,670

Table 5[6]: Off-the-Road Annual Tire Data

	2007 Sales of New Tires (Units)	Scrap Tire Generation (Units)
OTR Tires	1,287,500	1,287,500

[4] 15% Cull rate includes tires culled by both retailers and Haulers and is based on discussions with used tire stakeholders
[5] Data source Rubber Association of Canada 2008
[6] Data source: Rubber Association of Canada 2008

3.2 Locations and Patterns of Generation

Used tires typically enter the waste stream whenever they are replaced with a new tire on a vehicle, or when the vehicle itself is taken off the road and disassembled by a vehicle recycler. Currently, retailers, vehicle recyclers and other generators pay a negotiated fee to Haulers to pick up used tires.

In Ontario, it is estimated that approximately 15% of the annual generation of used tires have remaining service life and are reused[5]. The culling and resale of used tires that have remaining service life is a significant contributor to revenue and profitability for tire Haulers. Due to Ontario's winter driving conditions, many tires are replaced before the legal limit for tread depth is reached. Some of these resalable tires are resold in Ontario while a significant portion is exported for sale in countries with more temperate climates and driving conditions.

The majority of the remaining (non-resalable) scrap tires are generally taken to a Processor for recycling. Due to the current negative value of a scrap tire, Processors charge Haulers a tipping fee to accept the tires. Efforts to avoid this tipping fee may lead to illegal dumping of tires. The exact magnitude of illegal dumping is unknown.

Scrap tires also enter the waste stream when they are placed in landfill sites.

Scrap OTR tires enter the waste stream in a separate channel. Due to their range of specialized applications, these tires are often generated at point of use, for example mining tires are generated at mines, agricultural tires in agricultural areas, forestry tires in forestry areas. In some cases the tire retailer may provide support to handle these scrap tires. Conversations with these retailers suggest that this support is increasingly requested by the users of these tires. In other cases, the user of the tire disposes of it directly.

3.3 Current Collection System Infrastructure

On-Road Used Tire Collectors

Collectors are entities that register with OTS to provide used tire collection services and includes the following.

1. Municipalities
   The WDO Datacall survey indicates municipalities collect almost 9,000 tonnes of tires each year. They generally charge a fee to drop tires off at their facilities, and this service is open to residents and, in some municipalities, small businesses. Under the current free market system in Ontario the municipality pays to have their used tires picked up.

Table 6[7]: Municipal Used Tire Collection

Municipal Tire Collection								
	2002 Tonnes	2003 Tonnes	2004 Tonnes	2005 Tonnes	2006 Tonnes	2007 Tonnes	2006-2007 % Change	# of Programs Collecting in 2007
Tires	7,332	9,406	39,905	33,893	9,476	8,905	-6.03	89

2. Tire Retailers
   There are approximately 10,000 to 12,000 tire retail points of sale in Ontario. Retailers collect used tires as a service to their customers who buy new tires. In addition, people other than their customers may drop off unwanted tires during business hours and often after hours. Under the current free market in Ontario, many retailers will charge customers a fee to leave behind their unwanted tires. The retailer will then pay a fee to a Hauler to take the used tires away.

3. Private Sites
   In Ontario, it is legal to store less than 5,000 tires without a Certificate of Approval from the Ministry of Environment. This situation generally occurs because landowners charge Haulers and others a 'tip fee' to drop off the tires. Private sites may be operated legally, i.e. with less than 5,000 tires or with more than 5,000 tires under a Certificate of Approval, or may be operated illegally, i.e. with more than 5,000 tires without a Certificate of Approval.

Currently Collectors contract for removal of accumulated used tires with tire Haulers serving their area. As Haulers charge the Collector a fee to remove the tires the Collector will often seek to mitigate the impact of this cost by charging for accepting used tires from residents and customers.

Tire retailers represent the major used tire collection points, accounting for approximately 70% of annual used tire generation. The retailer generally collects a disposal fee from the customer (either separately or in the sale price of a new tire) to cover the costs of having the used tire removed by a Hauler, and the retailer's costs to manage the used tire. A 2006 survey determined the average disposal fee charged by tire retailers in Ontario was $3.00 (*Appendix 6: RAC Mystery Shopper Study*).

Municipalities, public landfills, transfer stations and Public Works yards may all be points of collection for used tires. These Collectors generally charge a disposal fee, however this fee tends to be relatively lower than the fee charged by business Collectors.

Table 7[8]: Current For-Profit Collector Economics (Retailers, Scrap Yards, Mass Merchants)

Average Used Tire Disposal Fee Revenue	$3.00/used tire
Average Cost of Disposal (hauling fee)	$2.25/used tire

[7] Data from WDO Municipal Datacall
[8] Data Source: 2006 RAC "Mystery Shopper Survey" and OTS interviews with Ontario Used Tire Collectors and Haulers

Gross Revenue	$0.75/used tire

Table 8[9]: Current Not-For Profit Collector Economics (e.g. Municipalities)

Average Used Tire Disposal Fee Revenue	$2.00/used tire
Average Cost of Disposal (hauling fee)	$2.25/used tire
Gross Revenue	$ - 0.25/used tire

OTR Used Tire Collectors

There are regional differences between OTR tires:

- Medium and Giant OTR tires tend to be concentrated in Northern Ontario, where mining is a significant economic activity;
- Small (and some Medium) OTR tires tend to be more closely associated with the construction industry, and as such are found more evenly distributed throughout the province;
- Logger/Skidder tires, associated with forestry activities, are found throughout Central and Northern Ontario; and
- Agricultural Drive Tires are located throughout the province, primarily (although not exclusively) in Southern Ontario.

For each of these types of OTR tires there are varying degrees of existing collection infrastructure. The OTR tires used in the mining and forestry sectors tend to remain on-site, potentially being used in secondary applications such as retaining walls and road barriers. Those in use on construction sites are generally managed through a combination of voluntary and contractual arrangements between the user and the tire dealer and/or brand owner. Agricultural tires may have longer residency times on farms being used in secondary applications such as feed and water troughs, barriers and hold-downs for tarps and other covers.

Haulers

Currently in Ontario there are approximately 50 Haulers collecting over 10 million PTEs. Of this number however there are approximately 4 to 5 large Haulers who handle 70% of the volume (both through their operations and through subcontractors). The remaining 30% is handled by approximately 45 smaller Haulers.

The barrier to entry for new entrants to the hauling market is relatively modest for the small Hauler, requiring only a truck and trailer along with the appropriate insurance, permits, worker

[9] Data Source: OTS interviews with Ontario Used Tire Collectors, Municipalities and Haulers

safety certification, etc. However a typical full service Hauler has a significantly larger investment in their business in order to provide capacity to manage large volumes and OTR tires. This may require an investment in excess of $100,000 in a single piece of equipment.

Both small and large Haulers have access to Processors, though small Haulers may choose to subcontract for large Haulers. Processors decide which Haulers to use based on price, service and supply conditions. Often the Processor and Hauler will have a contractual relationship.

Each Hauler, both small and large, will have business relationships with specific retailers, though retailers generally have several competing Haulers from which to choose. This competition helps to keep the cost of collection down and serves to ensure acceptable levels of service. In the current free market system in Ontario, the retailer pays the Hauler to collect the scrap tires and the Hauler pays the Processor a "tip fee" to drop the tires.

Table 9[10]: Current Hauler Economics

Average Hauling Fee	$2.25 / PTE
Cull for Resalable Tires	Yes
Surcharges	Hauler may surcharge at their own discretion
Tipping Fee at Processor	$0.25 - $0.50 / PTE
Average Gross Revenue	$1.75 – 2.00 / PTE plus revenue from resalable tires

OTR Tire Haulers

There is not currently a formal OTR tire hauling sector in Ontario. OTR tire dealers may provide support to customers by providing transportation services for OTR tires as part of the service contract. In these cases the dealer may have a standing relationship with a used tire Hauler and Processor.

There are a number of elements unique to OTR tires, in contrast to on road tires, which make OTR used tire transportation extremely challenging:

- Loading: because of size and weight, service trucks for OTR tires must be equipped with booms or cranes. If the tire is brought back to the tire dealer location, or another staging location, specialized equipment must be available to load the trailer for shipment to the processing plant.

- Closed vans cannot be used for OTR tires; either flatbed or drop deck trailers are required.

- Typical load weights are lower for OTR tires than for on-road tires. Each load is unique.

[10] Data Source: OTS interviews with Ontario Used Tire Collectors, Haulers and Processors

- Trucking cost is increased by the amount of waiting time involved with loading and unloading the trailer.

- Cranes, hydraulic booms or grapples are needed to unload the trailer at the receiving site.

The special needs relating to the transportation of OTR tires result in transportation costs which are on average 25%[11] higher per PTE than costs for on-road tires.

3.4 Current Reduction, Reuse and Retreading Infrastructure

Reduce

The first "R" – reduce is a very important component in any diversion program and generally involves either using less packaging, or no packaging or using suitable alternate materials. With tires the first "R" is somewhat the same. People can choose alternate forms of transportation like car-pooling or public transit, or make life changing decisions such as moving closer to where they work, or they can make simple but effective changes to take better care of their tires so they will last longer.

Industry surveys indicate that almost 70% of motorists have at least one tire with an inflation problem and 23% of motorists have one tire under-inflated by at least 20%. This habitual under-inflation is a major contributor to greenhouse gas emissions (GHG) and significantly reduces tire life. In an effort to combat these issues the tire manufacturing industry in Canada, through its agent, the RAC, created in 2001 a consumer education campaign entitled, *Be Tire Smart - Play Your Part*. Soon thereafter, Natural Resources Canada, the Federal Government department responsible for encouraging motorists to adopt better driving habits, teamed up with the campaign to add their resources as well. Today the *Be Tire Smart* campaign provides educational material to help Canadians understand the value of tire maintenance and how it contributes to reducing their personal environmental footprint by reducing GHG and extending tire life.

The industry website www.betiresmart.ca offers many useful facts from the tire industry to demonstrate the importance of the first R - Reduce. The following paragraphs are extracted from this website.

Proper Tire Maintenance helps REDUCE premature tire wear

Disposing of old tires has an impact on the environment. Canadians discard over 30 million used tires every year. Every effort made to reduce the number of used tires would mean a reduction in the amount of gasoline and other types of energy required to transport, dispose of or recycle them. By better maintaining our tires, we could prevent emissions of carbon dioxide (CO_2) and other pollutants from entering the atmosphere.

Properly maintained tires help a vehicle run efficiently and prolong the life of your vehicle's tires. With proper tire maintenance, the average Canadian driver could save the equivalent of two weeks worth of gasoline every year. As well, because tires will last longer, you could save the cost of one or two sets of tires over the life of a vehicle.

[11] Data Source: Alberta OTR Tire Management Survey, 2006

Running one tire at 180 kPa (26 psi) instead of a recommended 220 kPa (32 psi) could reduce the life of that tire by 10 000 km and can increase fuel consumption by up to three percent.

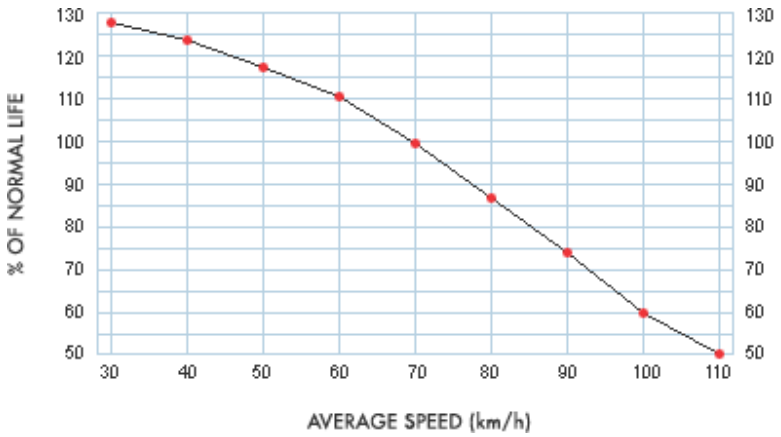
Table 10:

The Effects of Under Inflation on Tire Wear and Fuel Use[12]		
Percentage of Under Inflation	*Percentage Wear Increase*	*Fuel Use Increase*
10%	*5%*	*2%*
20%	*16%*	*4%*
30%	*33%*	*6%*
40%	*57%*	*8%*
50%	*78%*	*10%*

Operating a vehicle with just one tire under-inflated by 20% (8psi) can reduce the life of the tire by 15,000 km and can increase the vehicle's fuel consumption by 4%. Without enough air, the sides of a tire bend and flex too much. This builds up heat, which can cause serious damage and leads to sudden tire failure. It will also increase rolling resistance, which reduces tread life and increases fuel consumption.

Driving fast will substantially reduce the life of your tires. As shown in Figure 1, tread life declines rapidly with increasing speed, wearing about 35 percent faster at110 km/h than at 80 km/h.[13]

Table 11: Impact of Speed on Tire Wear



Aggressive driving is well known to increase fuel consumption. It will also substantially reduce the life of your tires. Premature tire wear can also be caused by numerous mechanical conditions in your car. Worn or loose steering or suspension parts, misalignment and improper mounting and balancing can all contribute to premature tire wear.

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[12] Prepared by Natural Resources Canada using data from StasCan, Energy Statistics Handbook, Quarter II, 2002 and Studies by the Shell, Environmental Protection Agency (USA), and tire companies such as Michelin and Bridgestone as referenced in technical support information.

[13] Pirelli & C.S.p.A., 2002

Improper maintenance shortens the life of tires. Replacing tires more often means that more tires go to landfills or recycling centers, and more energy is then used to produce new tires or to recycle them.

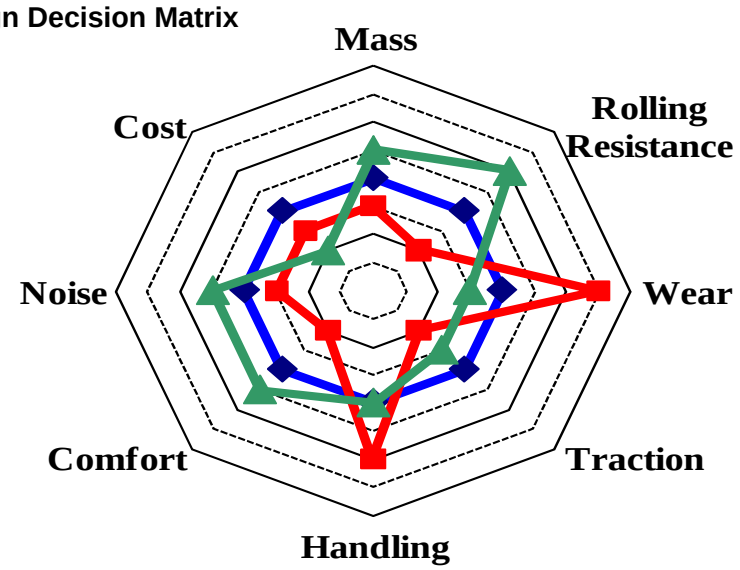
The energy and material used to manufacture four tires is equivalent to 26 litres of gasoline, so just a 10 percent improvement in tire life will deliver significant environmental benefits.[14] For example, it would mean 2.8 million fewer used tires, along with a reduction in the gasoline and other types of energy required to transport, dispose of or recycle them. The energy equivalent to 2.8 million tires, approximately 18 million litres of gasoline, means preventing 43 600 tonnes of carbon dioxide (CO2) from entering the atmosphere.

For every additional litre of fuel consumed, 2.4 kg of CO2, a major greenhouse gas contributing to climate change, is emitted into the atmosphere. Drivers can prolong the life of their tires by reducing speed, driving less aggressively and performing regular maintenance on their vehicles. Some simple tire maintenance steps could substantially reduce the number of tires scrapped, with energy and environmental benefits accruing to all Canadians.

Tire Manufacturing Industry Approach to REDUCTION

The diagram below illustrates some of the factors and trade-offs a tire manufacturer must take into consideration when designing a tire. Tires cannot simply be designed for maximum performance in all areas. For example, a longer wearing tire may also have good rolling resistance, but handling and performance characteristics will suffer somewhat because the tire design will need to have less mass in contact with the road.

Tire Design Decision Matrix



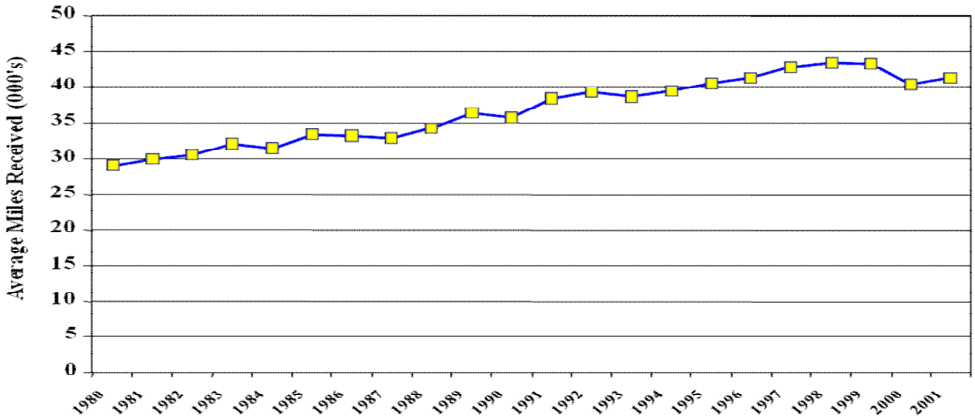
The following chart from the Rubber Manufacturers Association (US) illustrates the long-term trend of increasing average tire wear from 28,000 miles to 43,000 over a 20-year span, representing more than a 50% improvement in extending tire life. Canada and Ontario would experience the same improvement as the same tires are sold in all markets. These improvements come as a result of an ongoing effort among all tire manufacturers to improve tire

[14] The Rubber Association of Canada, 2002

and tread design, rubber compounding and new materials. Collectively, tire manufacturers spend $3 to 4 Billion annually on R&D as a normal course of business.

From a tire life perspective, the increased utility of tires means reduction in the demand for new tires thereby reducing the need to manage these tires at end of life. In addition, extending tire life means reducing consumption of input resources such as oil and chemicals etc.

Table 12: Tire Treadlife Extension History



Source: Panel of Vehicle Owning Households

On-Road Tire Retreading

Commercial medium truck tire retreading is a major factor in the reduction of scrap tire waste generation. The market economics of retreading commercial truck tires support two of the 3 Rs, namely waste reduction and reuse.

Approximately 22 gallons of oil are required to manufacture a new truck tire. Most of the oil is found in the casing, which is reused in the retreading process. As a result, it takes only approximately 7 gallons of oil to produce a retread.

RAC estimates that approximately 560,000 heavy commercial truck retreads were completed in Ontario during 2007. This represents reuse of the equivalent of over 3.0 million PTEs annually within the province.

OTR Tire Retreading

Based on discussions with OTR tire stewards and tire dealers, retreading of OTR tires is widely practiced commercially. With the relatively heavier construction and higher cost, there is a strong incentive to retread OTR tires.

Information on current retreading quantities was unavailable during program plan development, however using an accepted industry standard of 1.25 retreaded OTR tires for every 1 new OTR tire sold results in an approximate estimate of approximately 9.2 million PTEs of retreaded OTR tires sold in 2007.

3.5 Current Processing Infrastructure for Recycling

On-Road Tire Processors

There are approximately 14 scrap tire Processors operating in the province of Ontario, currently managing approximately 5.85 million PTEs representing approximately 49% of the total annual generation in the province. Processors receive tires from the Haulers from whom they generally collect a tip fee which is used by the Processor to offset some of the costs to handle and process the tires. The average tip fee charged by Ontario Processors in 2007 was $50 per tonne[15]. The average sale price for crumb rubber was $242[16] per tonne during the same period.

In Ontario tires are processed into six broad categories of products:

1. Molded products;
2. Crumb rubber;
3. Tire shred;
4. Fabricated products (products that are manufactured from pieces of whole tires such as blasting mats and traffic cone bases); and
5. Tire Derived Fuel.

There are several key challenges for the processing industry in Ontario:

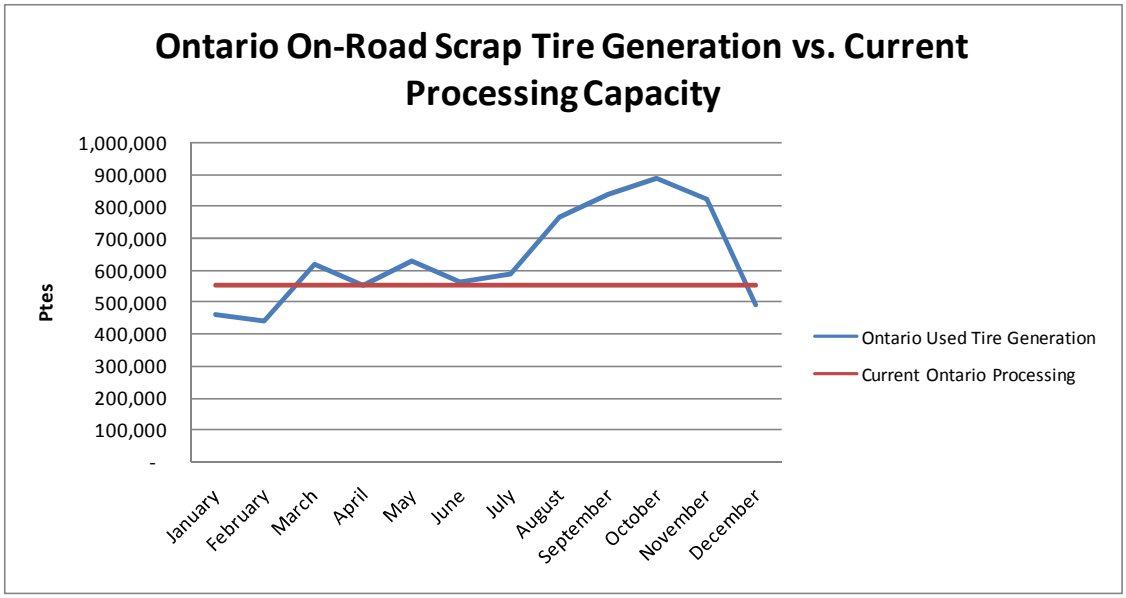
- Seasonality of scrap tire generation results in uneven raw material flows to Processors;
- Competition for scrap tires from Processors who can charge lower tip fees due to less expensive processing options (e.g. TDF in Quebec and the USA); and
- Lack of certainty on end markets and prices for materials due to the commoditized nature of the products.

Processors have developed different ways of managing these challenges. There are existing relationships between certain Haulers and Processors, and several instances where the scrap tire management chain has been vertically integrated with the same company collecting and processing tires.

The seasonality challenge is a function of the market for new tires, which spikes in the spring and again more dramatically in the fall. During these times of the year the generation of used tires jumps dramatically, resulting in times of the year where the flow of scrap tires exceeds the Ontario processing industry's ability to handle the scrap tires.

[15] Based on a 2008 survey of Ontario Processors conducted by OTS
[16] Data Source: Scrap Tire & Rubber 2008 Users Guide, Scrap Tire News

Table 13[17]:



Based on the data collected from stewards, retailers and Ontario Processors, the supply of scrap tires exceeded the processing capacity by a total of 1.3 million PTEs (on road tires only) through nine months of the year in 2007. The supply of scrap tires was significantly below what can be managed by Ontario Processors during three months of the year.

Barriers to new Processors entering the market are the capital-intensive nature of the initial operational set-up, the need to form relationships with Haulers who may already have preferred business relationships with other Processors, and handling the varying flows of scrap tires in the market.

Table 14[18]: Current Crumb Rubber Processor Economics

Tipping Fee	$25 - $50/tonne
Yield adjusted Tipping Fee (approximately 65% crumb yield from a PTE)	$38 - $77/tonne
Average Market Price of 20 mesh crumb rubber	$242/tonne
Average Gross Revenue per tonne for crumb rubber	$280 - $319

[17] Data Source: OTS Survey of Ontario Processors
[18] Data Source: OTS Survey of Ontario Processors

OTR Tire Processing

Currently there is a shortage of diversion options available for OTR tires, with a majority of the tires collected being sent to Quebec or New York for TDF. There are three Processors (one in Quebec, New York State and Michigan) that are currently processing selected types of OTR tires for shred and/or crumb production.

As with transportation, there are a number of elements which make OTR scrap tire processing more challenging than on road tires:

- Size
- Weight – 160 kg to 1200 kg or higher
- Bead Wire can range up to 2 inches in diameter.
- Reinforcing Plies, whether nylon or steel, are heavier and in more layers than with on road tires. In addition, OTR tires must be sorted by type of reinforcing ply at the processing plant.
- Contamination: OTR tires are used in off-road situations which typically results in contamination with dirt and other materials. Operating environments are extremely harsh, and contamination with steel or other metal is not uncommon.
- Compounds: to withstand the harsh service environment, OTR tires may be compounded with high silica content in the tread rubber. This is reported to make the tread compound less desirable for many recycling applications.
- The combination of weight, reinforcing plies, bead wire, contamination and the extremely abrasive compounds, leads to much faster knife wear in the shredder. (One Processor reported that they replace and re-sharpen their shredder knives on a weekly basis, at a cost of $15,000 per weekly change.)

These factors have restricted the growth of an OTR tire processing industry, resulting in no Ontario-based OTR tire processing. Combined the two extra-provincial Processors currently handling OTR tires are processing between 9,000 and 12,000[19] tonnes of Ontario OTR tires, or between 11% and 15% of Ontario's annual generation.

3.6 Markets for Reused and Retreaded Tires and Recycling Products

Reuse

In Ontario, it is estimated that approximately 15% of the annual generation of tires that Haulers pick up from collection sites have remaining service life and can be reused. Due to Ontario's winter driving conditions, many tires are replaced before the legal limit for tread depth is reached. The culling and resale of used tires that have remaining service life is a significant

[19] Data Source: OTS interviews with Quebec and US – based processors of OTR tires

contributor to revenue and profitability for tire Haulers. Some of these resalable tires are resold in Ontario and a significant portion are exported for sale in countries with more temperate climates and driving conditions.

Retreading of Medium Truck Tires

The average price of a new commercial truck tire is approximately $350[20]. The life of a new commercial truck tire, well maintained under highway driving conditions is typically 650,000 to 750,000[21] kilometers. Once a new tire has reached the end of its serviceable tread life, the tire casing, if undamaged, can have any remaining tread "buffed" off, then a new tread molded onto the used casing.

Given that there are some technological limitations to the amount of replacement tread that can be bonded to the tire casing, a retreaded tire typically will have a highway service life of 350,000 to 400,000[22] kilometers. The casings of commercial truck tires are manufactured to sustain up to three retreading applications. This is reflected in the fact that a tire casing that can be retreaded has a market value of approximately $100[23]. When a transportation company provides its own casing to a retreader, the incremental cost for a retreaded tire is approximately $135[24]. This economic benefit drives the commercial retreading of commercial truck tires.

RAC estimates that approximately 560,000 commercial truck retreads were completed in Ontario during 2007. Given that a commercial heavy truck tire represents five PTEs, this represents reuse of the equivalent of 2.8 million PTEs annually within the province.

Recycling

Currently Ontario-based Processors produce approximately 57,000 tonnes[25] of TDP in the form of crumb rubber, TDA and fabricated products. Markets for TDP include:

- **Crumb:** sports fields, playground fill, molded products, rubberized asphalt;
- **TDA:** civil engineering applications, drainage beds, septic applications, landfill applications;
- **Fabricated products:** blasting mats, traffic cone bases, water troughs;

4.0 DESCRIPTION OF PROGRAM

4.1 Guiding Principles

In developing a used tire diversion program for the Province of Ontario, OTS will work to comply with the WDA and the Minister's program request letter. In particular, OTS has developed a Used Tires Program that:

[20] Data Source: OTS interviews of Manufacturers and Dealers of commercial truck tires
[21] Data Source: OTS interviews of Manufacturers and Dealers of commercial truck tires
[22] Data Source: OTS interviews of Manufacturers and Dealers of commercial truck tires
[23] Data Source: OTS interviews of Manufacturers and Dealers of commercial truck tires
[24] Data Source: OTS interviews of Manufacturers and Dealers of commercial truck tires
[25] Data Source: OTS Survey of Ontario Processors

1. ***Is comprehensive*** – Addresses all aspects associated with the management of used tires once they are removed from a vehicle, including the handling, storage (temporary or otherwise), collection, transportation, reuse, processing, recycling and disposal of used tires. The plan also addresses used tires that are in stockpiles across Ontario today;
2. ***Is province wide*** – Ensures that used tire return options are user-friendly, available across the province and accessible to all Ontarians;
3. ***Places priority on the diversion of used tires into higher end uses whenever possible*** – Embodies the principle of the 3Rs [reduction, reuse (i.e. retreading where feasible) and recycling]. This program does not promote the landfill, use of scrap tires as daily cover at landfills, or incineration and only resorts to these measures where 3R options are not available or not technically feasible; and
4. ***Fosters the development of green technology and a green economy*** – Develops and promotes an Ontario-based market for recycling and recycled products that can be made from scrap tires;

OTS will work co-operatively with WDO to meet the requirements set out by the Waste Diversion Act, Ontario Regulation 84/03, and the Ontario Ministry of the Environment.

In collaboration with affected stakeholders, OTS will strive to maximize the number of used tires collected and processed, and to eliminate tire stockpiles. To this end, OTS will promote existing tire collection and processing initiatives and encourage the development of new markets for recycled rubber products and additional processing capacity in Ontario. The program will demonstrate innovation and accountability to implement and operate a sustainable used tire management system.

4.2 Core Elements

Beyond ensuring that diversion activities operate efficiently and effectively, the core program elements play a major role in advancing the development of recycling technologies and applications, development of new or expanded markets for recycled tire products, public education and awareness building through communications.

These program elements will be individually specified by plans that define deliverables, value-add and contribution to OTS's mandate for the Used Tires Program. Governance will be maintained by the establishment of sub-committees of informed volunteers who will collaborate with OTS staff to ensure that the programs are delivered with optimum cost and program benefits.

Further details and plans under each of the program areas will be defined as part of the Year 1 Operating Plan that will be developed upon approval of this Used Tires Program Plan. These elements are:

1. Used tire reduction activities;
2. Used tire collection;
3. Used tire transportation;
4. Scrap tire processing;
5. Stockpile abatement;
6. Stakeholder engagement / consultation.

Post program approval OTS will convene a stakeholder advisory committee to facilitate on-going engagement of program stakeholders. Representatives of the following sectors will be invited to participate in the committee:

- Collectors;
- Haulers;
- Processors;
- Consumers;
- NGOs;
- Non-Collector Municipalities.

4.3 Reduction

Given the varied requirements of tire design and manufacture, OTS is not proposing to attempt to incent tire manufacturers directly in an effort to encourage them to design and build longer lasting tires. Tire manufactures are working independently of OTS to achieve these objectives through investments in R&D.

On-Road Tire Promotion &Education

With its mandate to Reduce, OTS has the opportunity to promote what is already being done nationally with a focus on communicating to Ontarians. Consumer education is essential to building long-term consumer support for Ontario's tire stewardship program.

Tire manufacturers are already working to educate Canadian motorists to get the most service life out of their tires by using their public education campaign called *Be Tire Smart Play Your P.A.R.T* (BTS). The P.A.R.T. acronym stands for Pressure-Alignment-Rotation and Tread.

By following the P.A.R.T. formula you can reduce tires going to landfill or recycling facilities and reduce fuel consumption which could stop over one million tonnes of harmful green house gas emissions from entering the atmosphere.

The BTS Program is already working with tire stewardship groups in Manitoba, British Columbia and the federal and provincial governments.

The BTS Program and OTS can collaborate to continue the important initiatives of the consumer education plan. In addition, OTS can utilize its resources to complement the BTS Program and expand the messaging and activities that are already embedded in the current program.

Some examples contained within the BTS Program include: spear-heading the national campaign around Be Tire Smart Week; supporting material for Car Care Month in May; ongoing media coverage that includes messaging on the Highway 401 electronic Compass Signs Network, professional tire maintenance videos marketed for retailers; point of sale materials; Leadership Kits, etc. These all serve to give retailers the tools they need to educate consumers about the benefits of proper tire maintenance and to convince more tire retailers to act as champions of tire maintenance, which is both good for the environment, and business. By supporting BTS, OTS can motivate tire retailers and dealers to take greater ownership and act as ambassadors for the Ontario Used Tires Program thereby increasing community outreach.

Another example of this outreach approach for BTS in 2008 was a social marketing pilot program called the Care-Van Project which travelled across the GTA and Golden Horseshoe attending community events educating Ontarians on the benefits of proper tire maintenance, showing them how to check tire pressure, the importance of doing so and asking them to pledge to continue with this positive behaviour. Visitors to the Care-Van community outreach vehicle also had a chance to win a set of four tires. This pilot project can easily be adapted to include OTS messaging and have multiple vehicles travelling the province.

By working with BTS, OTS can provide consumers with evidence of the environmental, economic and social value created by Ontario's scrap tire recycling program on an on-going basis. OTS can use existing means developed by the BTS Program but more importantly with more available resources, can develop new and better means of communicating to consumers in Ontario, for example, via paid radio advertising, billboards, 30 second television commercials etc.

The OTS program will undertake education efforts aimed at educating consumers of on-road tires on measures to extend the life of their tires, thereby reducing the annual scrap tire generation. Starting in the second year of the program, OTS expects to be able to reduce the generation of scrap on-road tires by 0.5% each year for 5 years.

OTR Tire P&E

The current reduction applications for OTR tires are not well understood or documented. The tires are often used to the full extent of their life (without retreading) due to their high cost. Commercial operations using OTR tires (such as mining or forestry) generally have formal tire maintenance programs, sometimes supported by the tire dealer or manufacturer, to extend the life of the tires as long as safely possible.

In Year 1 of the program OTS will undertake a review of these practices, their impacts on tire life, and seek to identify ways to extend these best practices to all applicable users of OTR tires.

4.4 Collection System

On-Road Tire Collection

As discussed in Section 3.3 on-road tires are collected (i.e. received from consumers and citizens) by the following Collector categories:

- Retailers/dealers of new tires;
- Municipal landfills, transfer stations and waste management sites;
- Automobile scrap yards; and
- Other supplementary used tire collection sites.

Approximately 12,000[26] retailer/dealer tire sales locations account for about 70% of the total approximately13 million on-road PTEs sold in Ontario annually. Along with sales of new tires these retailer/dealer Collectors collect used tires from passenger and truck tire consumers typically on a one-for-one basis.

[26] Data Source: OTDA

In this regard, this program envisions that retailer/dealer Collectors will continue to be the primary channel by which the program will collect used tires in Ontario.

Under this used tire program tire, retailers/dealers will be encouraged to participate as used tire Collectors on behalf of the Used Tires Program.

Municipal landfills, transfer stations and waste management sites, automobile scrap yards and other used tire collection sites will also be encouraged to register with OTS to provide used tire collection services.

Off-Road Tire Collection

OTR tire collection in year 1 of the program plan will continue to rely on the existing collection points for these tires, currently understood to be the locations outlined in Section 3.3.

In year 1, OTS will undertake a comprehensive review of Ontario-based OTR tire collection points, quantify the number of OTR tires being collected at these points, and categorize the type of Collector. This review will seek to identify:

- Number and locations of OTR tire collection points in Ontario;
- Quantities of OTR tires being collected at these points;
- Opportunities to increase collection efficiencies and rates through collection consolidation and OTR tire steward engagement.

Registered Collectors

OTS and registered Collectors will enter into agreements (See *Appendix 8: Terms and Conditions for Collectors* and *Appendix 9: Used Tire Tracking Manifest*) that will obligate the parties to certain undertakings.

OTS, in retaining the services of tire Collectors, will undertake the following:

- Pay the Collector a Used Tire Collection Allowance (UTCA);
- Through its registered Haulers provide at no-charge to the Collector used tire hauling service for volumes of used tires greater than 50 PTE in southern Ontario and 75 PTE in northern Ontario;
- Ensure that Collectors are provided with no-charge used tire hauling by an OTS registered Hauler within 5 days of seeking such relief from OTS; and
- Perform any necessary audits to ensure the veracity of filed manifests and bills of lading.

OTS is proposing to provide registered Collectors with a Used Tire Collection Allowance of $0.88 per PL/T tire and $3.05 per Medium Truck and OTR tire (*Appendix 19: OTDA Collector / Dealer Cost Study)*.

Non-Registered Collection Points

OTS recognizes that there may be locations where used tires are collected that choose to not register with OTS as Collectors. These locations will not receive free pick-up of used tires, nor will they be paid a Collection Handling Allowance. Without a completed registration OTS cannot ensure that the collector is not charging a disposal fee and so cannot extend the program benefits to that collector.

Used Tire Collectors vs. Used Tire Generators

The primary difference between the entities is that Collectors are handling consumers' tires, while Generators are handling their own tires.

Collectors are eligible for the Collection Allowance to reflect the service provided to third party consumers.

Generators are eligible for free tire pick-up providing they meet the following conditions:
- Must register with OTS
- Minimum tire pick-up of 50 tires in southern Ontario and 75 tires in Northern Ontario
- Tires must be readily accessible and free of water and other debris

4.5 Consolidation and Storage

The consolidation and storage of used tires in Ontario exists as an informal business practice managed primarily by Haulers seeking to balance the pick-up of used tires from Collector locations with the need to prepare specific loads for delivery to Processors.

Under the Used Tires Program this existing consolidation and storage capacity will be leveraged to support efforts to even out the seasonality of the flow of scrap tires to Ontario-based Processors.

4.6 Transportation System

On-Road Tires

Under the program the existing relationships between Haulers and Collectors will continue, however both will have to be registered with OTS and meet the conditions of their registration agreements with OTS. Haulers will need to continue to provide customer service to maintain their business relationships with Collectors, however under the OTS Used Tires Program the Hauler will no longer charge the Collector to take the tire, but will instead be paid by OTS upon delivery of the scrap tires to a registered Processor.

In order to ensure collection of all used tires in the province, OTS will pay transportation incentives to Haulers designed to compensate for travelling to locations where the distances involved, and/or volumes or type of tires collected made it economically unfeasible to pick-up tires from these locations prior to the Used Tires Program. Transportation incentives will be scaled to ensure sufficient coverage for pick up at northern and other remote generator locations.

Under the OTS Used Tires Program, tires culled for reuse are eligible for transportation incentives only to the Hauler's sorting point. Transportation beyond this point will not be included in the transportation incentive provided by OTS.

In the current market, Haulers charge tire retailers/dealers to pick up tires and transport them to end-markets.

In October 2008 the Ontario Tire Dealers Association (OTDA) undertook a survey of Ontario tire dealers. One specific question in the survey asked dealers to provide a summary of Hauler charges they paid for removal of different classes of tires[27].

A Hauler's charge to a tire dealer reflects the gross revenue per tire that Haulers require to haul tires from tire retailers/dealers to end markets. This charge also necessarily includes the costs of any consolidation/cross-docking and temporary storage of tires prior to shipping to end markets. By netting tip fees from the gross charges OTS has been able to estimate the current average provincial haul rate.

Of importance, Haulers also derive revenue from culling tires that have remaining service life for resale. It is estimated that an average of 15%[28] of recovered tires are culled by dealers and Haulers and that these culled tires are resold at an average of $5 per tire[29].

Based on the OTDA survey results, an estimate of Hauler revenues associated with different tip fees and with and without culling is provided in the table below.

Table 15[30]: Used Tire Culling

Estimated cull %	15%
Estimated value of culled tires	$5.00
Number of culled tires	59,500
Estimated value of culled tires	$297,500
Total hauling revenue	$1,293,100[31]
Total hauling revenue/tire	$2.17
Hauler revenue per tire with cull	
Tip fee	revenue per tire
$0.00	$2.17
$0.25	$1.95
$0.50	$1.72
Hauler revenue per tire net cull	
Tip fee	revenue per tire
$0.00	$1.67
$0.25	$1.42
$0.50	$1.17

In determining the average hauling rate for tires in Ontario OTS engaged the services of a consultant to work with the Ontario Haulers to build a transportation system model for the Province. While work is continuing on the transportation system model, data available to the

[27] OTDA received 66 responsive responses comprising about 595,000 passenger tire units in sales (with approximately an additional 200,000 or so medium truck and off-road/agricultural tires).
[28] Data Source: OTS consultations with Collectors, Haulers and Processers
[29] Data Source: OTS consultations with Collectors and Haulers and a survey conducted in 2008 by the OTDA
[30] Data Source: 2008 OTDA Survey
[31] This figure is comprised of the revenue of $1.67 per passenger tire for the recovery of 595,000 tires plus the revenue of $297,500 associated with the 10% of tires resold for reuse.

consultant suggests that an average transportation rate of $170 per tonne is appropriate for budgeting purposes.

OTS is committed to continuing this process with Ontario Haulers and refining the hauling rate structure to accurately reflect the true costs of transporting used tires in the Province. OTS will work with Haulers post-Program approval (but pre-implementation) to test the rates against real-world transportation costs. For this test OTS will ask Haulers to provide OTS with their collection schedule, number and weight of tires collected and where they were dropped off to allow calculation of the hauling incentives that would have been paid under the Program to test the validity of the approach. Based on the results of these tests OTS will revise the rates if needed.

Payment will be triggered by transmittal of the completed hauling manifest that specifies number of tires picked up, origin, number of tires culled for resale, destination locations for culled tire sales, and weight of loads delivered to registered Processors. Haulers will be paid by OTS[32] and payment terms to those Haulers will be specified in the Hauler registration agreement.

Where a Hauler is also a Processor, payment of transportation incentives takes place upon proof of deliver, and payment of processing incentives will take place only on proof of sale of processed rubber.

A Hauler Agreement will spell out performance guarantees, and serve as part of the contract.

Southern Ontario

- Collectors and haulers will set arrangements for tire pick-up to give both parties respectively certainty of pick-up service frequency and recovery volume and timing;
- Service threshold: 3 day pick-up from the time of a call and a minimum pick-up threshold of 50 tires;
- No mandatory requirement for repeat service within 5 days of last pick-up
- Failing the first hauler providing service within 3 days, collectors must call at least 2 other haulers before approaching OTS for relief (and potential invoking of the dispute resolution mechanism).

Northern Ontario

- Collectors and haulers will set arrangements for tire pick-up to give both parties respectively certainty of pick-up service frequency and recovery volume and timing;
- Service threshold: 5 day pick-up from the time of a call and a minimum pick-up threshold of 75 tires;
- No mandatory requirement for repeat service within 7 days of last pick-up
- Failing the first hauler providing service within 5 days, collectors must call at least 2 other haulers before approaching OTS for relief (and potential invoking of the dispute resolution mechanism).

Off-Road Tires

Under the program OTR tires transported to registered Processors will receive a transportation incentive to support increased transportation of used OTR tires to registered Processors. Due to their size and weight, coupled with the often remote or rural locations where these tires are

[32] Payment of transportation incentives directly to Haulers may be revisited by OTS once Ontario-based processing capacity exceeds annual generation of scrap tires in the province.

generated, a relatively higher transportation incentive is required in order to encourage this activity.

Based on research done in other Canadian jurisdictions (notably Alberta) transportation rates for OTR tires are approximately 25% higher than those for on-road tires (*Appendix 16: Alberta Proposed OTR Tire Program presentation*). Taking this into account OTS has determined that an average provincial transportation incentive rate of $212 per tonne is appropriate. As with on-road used tire transportation this incentive will be paid to the Hauler upon delivery of the tires to an OTS registered Processor.

In general terms the transportation system will pick up all tires collected by registered Collectors and deliver them to OTS approved Processors. Practically this will mean the following roles and responsibilities:

Haulers

- OTS approved Haulers will relieve Collectors of used tires on whatever basis (i.e. pre-arranged time of pick-up, frequency of pick-up etc.) is mutually agreeable to both Hauler and a given Collector OR in the absence of such agreement the default service standard will be that a local Hauler will provide tire recovery to any Collector within 5 business days of being notified either by the Collector or OTS that used tire pick-up is required;
- Haulers will pick up tires from Collectors at no charge (provided the Terms & Conditions for Collectors are met);
- Haulers will initiate a manifest regarding the number of used tires picked up at a given Collector. The manifest will terminate at the OTS approved Processor; and
- Haulers will agree to audits to verify manifest claims as required by OTS.

OTS

- Will set Hauler qualification standards and register Haulers based on those standards;
- OTS will remunerate Haulers with transportation incentives that in year one will reflect as best as possible pre-program market rates for the hauling of tires from across Ontario to Processors; and
- OTS will undertake audits of Haulers as required to ensure accuracy of manifested tire flows.

4.7 Reuse and Retreading

Reuse of Tires (without Retreading)

OTS has adhered to the 3R approach whenever possible when developing the Used Tires Program Plan. However, OTS has not proposed targets for reuse of PL/T tires as this may, inadvertently, result in tires being directed to reuse that cannot be safely reused.

The following bulletin from the tire manufacturers association in the U.S. spoke to the concern of used tires in May, 2007 (the full bulletin is located in *Appendix 17: RMA Bulletin for Used Tires*):

RMA urges that used tires not be purchased, sold, or installed if they exhibit any of the following characteristics:

- *Any punctures, or other penetrations, whether repaired or not.*
- *Any inner liner or bead damage.*
- *Indication of internal separation, such as bulges or local areas of irregular/fast tread wear indicating possible tread or belt separation.*
- *Indication of run-flat, under inflated, and/or overloaded damage (e.g. inner liner abrasion, mid- to upper sidewall abrasion and stamping deterioration, delamination, or discoloration, excessive tread shoulder wear, etc.).*
- *Any damage or wear exposing the body material of the tire—cuts, cracks, bulges, scrapes, ozone cracking/weather checking, impact damage, punctures, splits, snags, etc.*
- *Has a history of a continuous inflation pressure loss requiring frequent re-inflation.*
- *Defaced or removed DOT tire identification number (T.I.N.), which is located on the tire sidewall.*
- *Involved in a recall or a replacement program.*
- *Inadequate tread depth for continued service (i.e. nearly worn out). Tires with a tread depth of 2/32" or less at any point on the tire are worn out.*
- *Originally or currently mounted on a rim that is bent, dented, cracked or otherwise damaged.*
- *Stored improperly.*
- *Chemical, fire, excessive heat damage, or other environmental damage.*
- *Designated as a "scrap tire" or otherwise not intended for continued highway service.*
- *Prior use of tire sealant or balance/filler material.*
- *Altered to look like new tires (e.g. a regrooved tread).*
- *Labeled on the sidewall as "Not For Highway Use", "NHS", "For Racing Purposes Only", "Agricultural Use Only", "SL" (service limited agricultural tire), or any other indication that the tire is barred from use on public thoroughfares.*
- *Any other condition which would be cause for permanent removal from service.*

A brief review of the RMA bulletin clearly shows that no reuse operator can be expected to know the conditions under which the tire had been exposed. Setting targets for reuse may, inadvertently, drive an increase in the number of unsafe tires on the road.

The Used Tires Program Plan allows Collectors to cull used tires for resale and Haulers to cull tires for retreading and resale in Ontario or through exports. Due to more harsh winter driving conditions, Ontario motorists often discard used tires sooner than they might if the driving conditions were more favorable. These used tires are being sold to off-shore markets for continued use.

Under the Used Tires Program Plan, PL/T tires culled for reuse will be tracked through the OTS manifest system. Exporters of used tires will be required to provide detailed information to OTS regarding the location of export markets for used tires. OTS will review the destination jurisdictions on an annual basis to identify any issues arising from this practice and will reconsider the payment of Transportation Incentives for tires culled for shipment to any destination where issues are identified.

Under the Used Tires Program, transportation incentives on tires culled for reuse will be paid to transport the tires from the Collector to the Hauler's sorting area.

Retreading of On-Road Tires

As discussed in Section 3, retreading of medium truck tires is already a commercially viable activity, and accounts for significant volumes of tires diverted from end-of-life management (560,000 units, or 2.8 million PTEs in 2007). Tire Stewardship Fees (TSF) are not levied on retreaded medium truck tires.

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. Should retreading of passenger and light truck tire retreading be established in Ontario, Tire Stewardship Fees would not be levied on retreaded passenger and light truck tires.

Retreading of OTR Tires

As with medium truck tires there is an active market for retreaded OTR tires. The program does not levy a TSF on retreaded OTR tires.

4.8 Recycling

On-Road Tire Recycling

In addition to a renewed focus on reduction and reuse of used tires, the OTS plan will also establish a new program to encourage recycling. Registered Processors convert scrap tires into marketable materials.

Processors must be registered with OTS (*Appendix 11: Terms & Conditions for Processors*). Upon delivery of the scrap tires the Processor will complete the Processor section of the OTS manifest acknowledging receipt of the number of tires delivered by the Hauler. The Processor will submit a copy of the completed manifest to OTS to trigger payment of the transportation incentive by OTS to the Hauler.

A Processor Agreement will spell out performance guarantees and serve as the basis for the commercial relationship between OTS and the Processor.

OTS will introduce a hierarchical system of processing incentives to encourage processing of scrap tires into higher value-added products based on the following product categories: Shred, Fabricated Products, Crumb and Manufactured Products.

Processing incentives are paid to the Processors only upon proof of an arms-length sale of processed rubber. In order to encourage higher-value added products the incentive system is based on a hierarchy with crumb rubber production receiving the highest incentive level.

In addition to providing proof of arms-length sale of TDPs to receive the processing incentive, Processors will also be required to demonstrate that these materials are utilized by their customers in a manner compliant with the diversion objectives of the program. This will include providing proof of end use of the TDPs sold by the Processor. OTS will conduct regular reviews of TDP end uses to confirm diversion objectives are being met.

Ontario is fortunate to already have approximately six established crumb rubber producers in place. A survey of these organizations completed in 2008 indicates their plans for expansion of

capacity in the next year (*Appendix 7: Ontario Crumb Rubber Processor Survey Summary*). This supports the program objective of achieving more capacity for production of higher value-added recycled scrap tire products within Ontario. Where certain non arms-length situations exist due to vertical integration or related companies, these sales of TDPs will be reviewed for approval on an individual basis providing details of the end use of the material and payment are provided by the Processor.

In certain cases primary shred (TDP5 on the chart below) may be used as feedstock for other Processors, and may be sold by one Processor to another for this purpose. In these instances the feedstock Processor will receive the incentive for TDP5 production, and the receiving Processor will receive the incentive appropriate to their product, minus the incentive paid to the TDP5 Processor.

Table 16[33]: Passenger / Light Truck / Medium Truck Tire Processing Incentives

Product	Rate per Metric Tonne of Tires	Rate per Metric Tonne of TDP	Rate per Metric Tonne (using TDP5 Feedstock)	Description
TDP 1	$175	$270	$140	95% minus 20 mesh, free of steel
TDP2	$150	$230	$115	80% minus 8 mesh, free of steel
TDP3	$100	$155	$65	Minus ¼" sieve, free of steel
TDP4	$65	$65	N/A	Fabricated products such as blasting mats etc. must utilize at minimum 75% of the tire by weight
TDP5	$55	$55	N/A	Primary Shred used as Tire Derived Aggregate or as a feeder stock for Crumb Rubber production

In setting the Processing Incentive rates for crumb rubber production OTS considered the rate at which scrap tires yield crumb. In consultation with processing stakeholders OTS determined that an average 65% yield rate was appropriate for the purposes of program development, and that this rate would encourage more efficient Processors and reward those Processors that invest in achieving higher yield rates. Using this average yield rate OTS converted the Processing Incentive rates developed in consultation with processing stakeholders to apply to outgoing weights of crumb rubber products.

OTS used the following formula to convert the Processing Incentives:

[(1/65%) x (Processing Incentive on Weight of Scrap Tires)] =
Processing Incentive on Weight of Crumb Rubber

Sample Calculation for Processing Incentive on TDP1

[33] Data Source: OTS Consultations with Ontario Processors

[(1/65%) x ($175 / tonne Scrap Tires)] = $270 / tonne TDP1

This Used Tires Program will optimize the processing of scrap tires, as well as the development of end-markets and value-added products. This will be achieved by implementing a series of fundamental principles and processes, reflected in this plan, that include:

1. *A hierarchy of incentives that encourages value-added processes and products* – In Ontario, the scrap tire recycling industry has an existing capacity to process some 5.85 million PTEs of the scrap tires generated in Ontario into shred, crumb rubber and metal for recycling. More measures are needed to find adequate end-uses for the remaining 4.95 million PTEs.

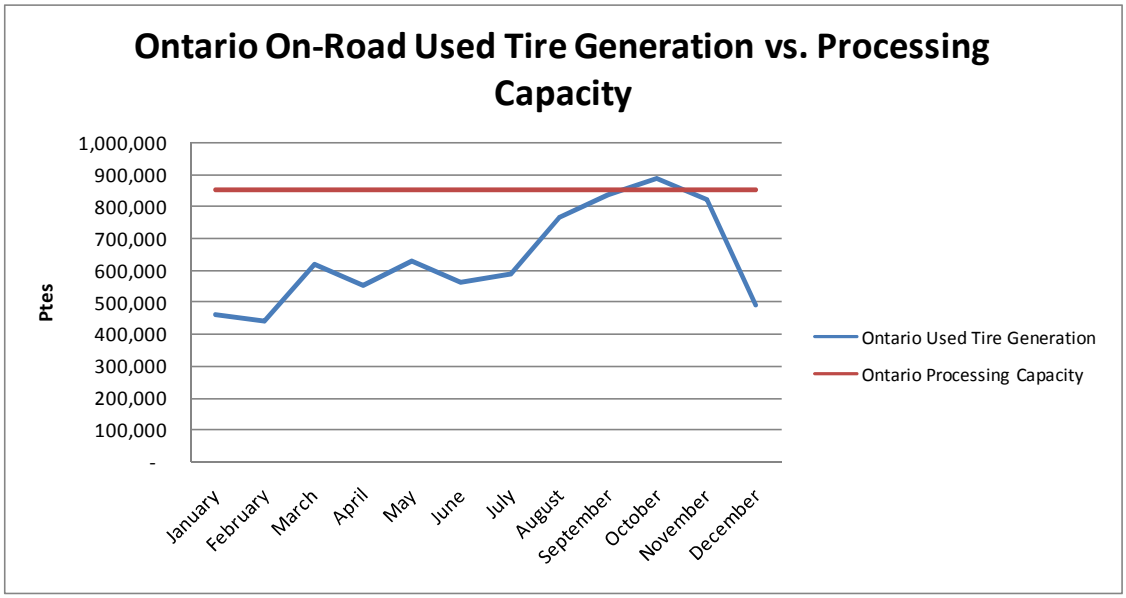
2. While end-use markets for crumb rubber are still developing, crumb is currently being used in a variety of Tire Derived Products (TDP), including products manufactured with recycled rubber content, rubberized asphalt, as well as some civil engineering and landscaping applications that provide effective alternatives to other materials. However, markets for value-added processing have been relatively volatile to-date as the supply of scrap tires and the demand for finished products (crumb rubber pricing) are not always aligned. OTS understands that one of its primary roles during implementation of the Program is to address market development to ensure a sustainable, vibrant rubber recycling industry in Ontario.

3. The OTS plan will establish a stable source of scrap tires for Processors , as well as by focusing on new products, technologies, and processes to reduce the need for landfilling and less favorable management options.

4. OTS anticipates that by implementing this schedule of incentives it will allow Ontario-based Processors to utilize their existing capacity sufficient to process approximately 10.2 million PTEs. Based on interviews with Ontario Processors this capacity could be achieved, over time, with existing equipment and by leveraging existing markets.

5. Assuming that Ontario Processors can build their businesses to accept 10.2 million PTEs over time, current Ontario Processors could process 100% of the annual scrap tire generation (Passenger/Light Truck and Medium Truck tires only) provided the seasonality of scrap tire generation can be managed. Comparing scrap tire generation with processing capacity shows that there is one month of the year where scrap tire generation would exceeds this expanded processing capacity.

Table 17[34]: Potential Ontario Processing Capacity



The Processing Incentive and the Manufacturing Incentive (see Section 4.11) are designed to alter the dynamic of scrap tire markets in order to address two specific objectives identified by the Minister of the Environment in the Program Request Letter:

1) Placing "…a priority on the diversion of used tires into higher end uses whenever possible, based on the principle of the 3Rs [reduction, reuse (i.e. retreading where feasible) and recycling]" and
2) "…foster(ing) the development of green technology and a green economy in its efforts to develop and promote an Ontario-based market for recycling and recycled products…"

The Processing and Manufacturing Incentives are designed to provide Processors with the latitude to invest in their businesses in a manner that best meets the objectives identified above while minimizing unintended economic dislocations (whether in Ontario, inter-provincially or internationally).

In setting the Processing Incentive and Manufacturing Incentive, OTS has taken the following economic realities into consideration:

1) Declining ability for Ontario Processors to compete on tipping fee pricing. The long-term rising trend in fossil fuel prices has driven demand for tires in substitute fuel markets. To meet this demand, substitute fuel suppliers have dropped their tipping fees thus forcing Ontario scrap tire recyclers to drop their own tipping fees in order to ensure supply of scrap tires. Faced with inherently higher operating costs the Ontario scrap tire processing sector is becoming increasingly un-competitive with low cost tire-derived fuel (TDF) markets when attempting to secure scrap tires.
   In order to address this economic reality OTS has undertaken to:

   - Only provide Haulers with Transportation Incentives upon delivery of scrap tires to registered Processors; and

[34] Data Source: OTS Survey of Ontario Processors, 2008

- Incorporate an amount into the Processing Incentive that offsets the tip fees that Processors have typically charged Haulers for dropping tires off at their facilities.

2) Insufficient revenue for Ontario Processors to capitalize. Intense competition with TDF applications and subsidized out-of-province scrap tire Processors has left Ontario Processors with insufficient revenue to recapitalize their processing operations.

   To address this particular issue the Processing Incentive incorporates an amount to allow Processors to invest in newer, more efficient processing technologies. Recognizing the even higher capitalization necessary to produce molded, extruded and calendared recycled rubber products, the Manufacturing Incentive provides additional revenue to allow molded, extruded and calendared product producers to increase their capacity through investment.

Both the Processing Incentive and Manufacturing Incentive are provided as a payment per tonne of product produced by product category and in amounts sufficient to overcome the hurdles identified above.

OTS will review the Processing Incentive and Manufacturing Incentive annually to ensure that any unintended economic effects of the Processing Incentive and Manufacturing Incentive régime are identified and addressed. OTS will also work with manufactured goods producers to develop rules regarding how much of the MI any one producer can access. These rules will be structured such that all producers of manufactured rubber products from TDP's will be treated fairly, and new market entrants will be encouraged.

OTS reserves the right at any time to reduce, refuse to pay or recover all or part of processing incentives in respect of TDPs sold or delivered to a person situated outside of the Province of Ontario (the "**export jurisdiction**") which may, in the opinion of OTS, result in a violation of the laws of Canada or the export jurisdiction or which may result in the possibility of administrative or legal action against OTS, WDO or the Governments of Ontario or Canada or the possibility of trade sanctions against TDPs originating from Ontario. Trade problems could include sale at local prices which are lower than Ontario prices ("dumping") or sale at any price of subsidized goods which could trigger under local laws the right to take administrative or legal action, including the imposition of countervailing duties or interprovincial trade sanctions.

Surplus Scrap Tires

Based on interviews with Processors OTS recognizes that in the early years of the program there may be times of the year when scrap tire generation may exceed processing capacity in Ontario. While it is the hope of OTS that these tires can be held by Haulers to supply Processors when they have available capacity, this may not be possible in the early years of the program or, even with fully developed Ontario-based processing capacity, under all circumstances. To manage tires surplus to Ontario capacity, OTS will, on an annual basis, register and contract with out-of-province Processors through a competitive RFP process.

The RFP for processing services for surplus tires will be structured to ensure that these tires are sent for processing that conforms to the hierarchy laid-out in the plan for tires processed in Ontario. This hierarchy current is (from highest value to lowest):

- Molded, calendered and extruded goods
- Crumb rubber

- Tire Derived Aggregate (for use in civil engineering applications or as feedstock to TDP producers up the value chain)
- Fabricated Products

Only in cases where none of these processing options are available or technically feasible will tires be sent for use in non-diversion end-uses such as TDF.

Processors contracted by OTS to receive Ontario tires will be required to disclose end markets for TDP's made from Ontario tires.

OTS will pay Haulers transportation incentives to transport tires to out-of-province Processors, and will pay the Processors directly for the tires they process based on the price determined through the competitive RFP process.

It is the objective of OTS to develop Ontario processing capacity sufficient to process 100% of the annual scrap tire generation in the province and to, over time, eliminate the need to ship tires out of province for processing.

OTR Tire Recycling

Currently, a recycling infrastructure for OTR tires is not well developed in Ontario. While other jurisdictions (e.g. Alberta) have undertaken studies to assess the opportunities and challenges associated with recycling OTR tires, a clear set of management options and associated costs is not currently available for OTR tires.

Based on the work done in Alberta processing costs for OTR tires are up to 50% higher than for passenger/light truck and medium truck tires. This is due to a number of factors including generally thicker bead wires, abrasive compounds found in the tire intended to increase its durability, and a higher contamination rate due to the uses that OTR tires are generally subjected to.

In the first year of the Used Tires Program, OTS will undertake a review of options available to manage Ontario generated OTR tires. This review will allow OTS to develop a robust program to divert OTR tires to acceptable end-uses. Existing OTR tire processing (12,000 tonnes, primarily shred with a small percentage of crumb production) will be supported by the program through the introduction of a Processing Incentive that may be up to 50% higher than those for the on-road processing credits. This will solidify the economics of these existing Processors and will provide impetus for them to explore options to increase their OTR tire processing capacity.

4.8.1 New Recycling Processes

The current program plan includes incentives for processing applications currently in place in Ontario. These recycling technologies (Fabricated Products, Tire Derived Aggregate, Crumb Rubber, Manufactured Products) have been proven over many years to be technologically and commercially viable, have established end markets and produce measurable diversion results that can allow the program to achieve its diversion goals. For this reason the Used Tires Program Plan relies on, and includes incentives for, these processes.

OTS recognizes that there are numerous recycling technologies for scrap tires in varying stages of development. At this time these do not have established commercial track records or markets

so the development of incentives to include in the plan is premature at this time. This may change however, and OTS will continually seek to engage with developers of these new technologies and to develop incentives that would support the commercialization of these new processes. OTS support would be contingent on the technology contributing to the achievement of the program's diversion objectives.

OTS will establish a working group that will consist of a sub-set of the Board to engage with and review submissions from new technology developers and determine whether the process may be eligible for support under the program based on its contribution to achieving the established program diversion objectives. If the working group determines that the process may be eligible the proponents will be invited to present their process and business plans to the Board, who will then work with the proponent to establish incentives that the program may incorporate and the Terms & Conditions under which these would apply.

4.9 Managing Stockpiles

It is estimated that approximately 2.3 million scrap tires exist in stockpiles across the province, based on a 2008 report from the Ontario Ministry of the Environment.

As the Minister directed that stockpile clean up is to be considered a priority under the early mandate of the program and expedited as much as possible, complete stockpile abatement will be accomplished by utilizing annual budget allocations over the initial three years of program implementation. In order to maximize the total volume of stockpile abatement conducted over the initial three years of this program, unused abatement funds from any fiscal year will be carried forward to the next.

Stockpiled tires may present significant recycling challenges as they may be too dirty, or too oxidized to be viable for recycling using current methods of processing. Options include cleaning, washing and sorting stockpile tires before processing or extracting the latent energy by using the tires as TDF. OTS is aware that there are kilns in Quebec and several jurisdictions in the United States where tires unsuitable for diversion applications could be sent for TDF, however the focus of OTS with regards to stockpile clean-up will be to assess the stockpiles individually and divert tires to higher value added processing options as tire conditions allow.

The abatement plan for each stockpile site will be unique as each stockpile site will have its own characteristics and associated costs. The stockpiles will need to be identified, prioritized, estimated and planned individually. It is anticipated that the program management approach to stockpile abatement will be developed collaboratively with the Ministry of the Environment.

4.10 Vendor Qualification Standards

Used Tires are defined under Regulation 347 of the Ontario Environmental Protection Act and as such companies engaged in the management of used tires must meet certain specific requirements in order to be able to legally collect, haul or process used tires in the Province.

At a minimum all vendors seeking to be registered with OTS to collect, transport or process used/scrap tires will be required to demonstrate that they have the following approvals and qualifications (as required):

- Certificate of Approval;
- Appropriate commercial liability insurance;
- Worker Health & Safety certification;
- All relevant permits and worker certifications associated with the storage, handling and processing of used tires.

All vendors seeking to register with OTS will need to provide proof of these qualifications at the time of registration.

4.11 Market Development

Currently approximately 55%[35] of the annual generation of scrap tires is processed in Ontario into value-added products such as crumb rubber, TDA for civil engineering applications, fabricated products such as traffic cone bases and blasting mats and molded products such as vehicle air handling systems and mats for use in animal pens and sports facilities.

Approximately 43%[36] of the annual generation of scrap tires is exported for processing into crumb and for TDF applications. The remaining 2%[37] is exported for reuse in jurisdictions without winter driving conditions.

Under the Used Tires Program the economics of scrap tire management will be leveraged to incent market conditions that increase the processing of scrap tires into higher value-added applications and away from lower value end uses. OTS will provide a hierarchy of processing incentives where higher incentives will be provided to higher value-add processing and lower incentives will be provided to lower value-add processing. The incentive system is designed to increase Ontario's processing capacity for higher value-add recycling of scrap tires.

Processing Incentive

As outlined in Section 4.8, the Processing Incentive includes two components, including a component to allow Processors to invest in newer, more efficient processing technologies.

Manufacturing Incentive

There are two factors that drive demand: changes in a product's price cause a change in the 'quantity demanded' while changes in other factors cause a 'change in demand'. With regard to molded products the other factors associated with a change in demand are primarily related to the economic realities faced by consumers of molded rubber products themselves (i.e. automobile manufacturers, rubber matting consumers etc.).

All "other factors" being equal, OTS can make a difference in the overall economics of the production and consumption of molded products by providing a direct financial incentive to

[35] Data Source: OTS Survey of Ontario Processors, 2008
[36] Data Source: OTS Survey of Used Tire Exports, 2008
[37] Data Source: OTS Survey of Used Tire Exports, 2008

producers of those products. The producer can then choose how to allocate that incentive within their businesses either in order to drive demand for molded products by lowering their price and/or taking the incremental revenue to put towards building additional capacity to meet growing demand.

In Year 1 OTS is proposing to make $1.6 million available in manufacturing incentives. In 2007 Ontario molded rubber products producers produced about 15,000 tonnes of molded automotive products and 3,500 of other molded products. Prices ranged $0.13/kg (molded products) to $1.10/kg (automotive products). Using this price range and associated production quantities, OTS is proposing a Manufacturing Incentive that translates to about 6% of the product price - $8/tonne for molded products and $65/tonne for automotive products.

OTS will be developing rules regarding the application of the Manufacturing Incentive to ensure that both existing and new entrants to the manufactured products business are treated in a fair manner. This may involve capping the incentive amount that any one manufacturer can access so that both existing and new market entrants can benefit from the Manufacturing incentive.

In Year 2 and beyond, OTS will evaluate the change in demand for molded rubber products in the context of the incentive provided and any discernable changes in the consumer markets of those products. OTS will then refine both the amount of the incentive and how the incentive is applied based on the observed effect the incentive had in Year 1.

4.11.1 Fostering Recycled Products and Green Economy

The Used Tires Program will foster the development of an in-province market for recycled products and an Ontario green economy by striving to achieve the following objectives:

- Support the development of an in-Ontario processing infrastructure capable of managing 100% of the annual generation of scrap tires in the province;
- Through the expansion of Ontario-based Processors drive the creation of new jobs to manage scrap tires;
- Support the development of new markets for TDPs both within Ontario and through export markets;
- Invest in R&D to identify new methods for used tire management; and
- Invest in R&D to identify new uses for Ontario manufactured TDPs.

Through processing incentives and R&D, the Used Tires Program will provide significant impetus and investment into the development of a market for “processed-in-Ontario” and “made-in-Ontario” recycled rubber products.

4.12 Research and Development

OTS recognizes that in order to take advantage of new opportunities to reduce the amount of tires requiring management, improve collection and processing of scrap tires, divert increasing amount of tires through reuse and recycling, and identify new applications for use of scrap tire derived products, investment in R&D will be required.

In Year 1 OTS will invest in R&D activities for on-road tires that will primarily focus on processing and end-use options for the annual scrap tire generation. These activities will be designed to advance the value-added management options available for scrap tires, supporting

the development of a green economy in the province through further research into the benefits of incorporating rubber from scrap tires into asphalt road surfaces.

As was discussed in the transportation section, OTS will undertake an on-going review of the transportation incentive rates to ensure that they accurately reflect the true costs of transporting scrap tires, and that they are supporting the achievement of the program collection and diversion objectives.

OTS will also conduct a “Time and Motion” study to assess handling and storage costs at used tire collection sites to accurately assess these costs and determine what level of Used Tire Collection Allowance is appropriate for used tires collected at these locations.

Off-Road Tires

In developing the Used Tires Program OTS determined that information regarding current management of OTR tires including collection, transportation and diversion options for OTR tires was extremely limited. In Year 1 OTS will undertake R&D projects to:

- Identify OTR generation points and quantities;
- Identify OTR collection points and quantities;
- Develop an inventory of current diversion options for OTR tires;
- Study barriers and opportunities to increased diversion of OTR tires; and
- Accurately assess OTR tire diversion costs.

On an annual basis OTS will review the need for R&D investment in used tire management and end uses to continue to advance the beneficial end uses of used tires, as well as reduction and reuse activities designed to reduce the generation of scrap tires in Ontario.

4.13 Promotion and Education

This section outlines strategies and tactics that will be used to promote the objectives of the Used Tires Program to ensure broad public knowledge and understanding and to encourage full participation in the province-wide program for tires.

With the principles of good communication planning, implementation and evaluation in mind, this outline describes the elements that will be included in an integrated communication strategy detailing public awareness and education activities. The first critical step in developing the strategy will be to undertake empirical awareness and opinion research that will provide information that will shape the plan.

P&E audiences include:

- **Scrap tire generators** both residential and IC&I sources of existing scrap tires
- **Retailers** selling and/or taking back program tires
- **Stewards (brand owners and first importers)** of obligated tires
- **Collectors** including not-for-profit and for-profit organizations, municipalities, private waste and recycling companies, as well as those interested in becoming an OTS registered Collector
- **Primary and downstream Processors** approved to process scrap tires, as well as those interested in becoming an OTS registered Processor

- **Other stakeholders** such as industry associations and environmental non-government organizations (ENGOs)

Appropriate information and key messages will be important for each audience to enable them to engage in the Used Tires Program Plan implementation process.

Pre-Commencement Stage (plan approval to commencement date)

Upon approval of the Used Tires Program Plan, the pre-launch period will require a series of communication activities that relate specifically to preparations for the launch and rollout of the diversion program. These will include:

- Supporting the consultation/information process for vendor registration
- Undertaking qualitative and quantitative research among key audiences to learn about the opportunities and barriers to the effective rollout of the diversion plan and to establish awareness and attitude benchmarks against which year over year progress will be measured
- Development of the integrated strategic communication plan
- Designing the Program launch event plan
- Creating information mechanisms that will introduce the Used Tires Program to the public to build public awareness and anticipation of the launch and new diversion opportunities

The creative materials used in the implementation potentially could be adapted from the public education and awareness program from the Used Tire programs operating in other provinces (taking into account any significant program delivery differences).

Key messages will include:

- What constitutes a Program tire
- Aggressive promotion of reduction, reuse and recycling opportunities
- Details of the Program rollout and accessibility
- Uses of scrap tires
- Producer responsibility
- For Collectors, Haulers and Processors - operating requirements

OTS communication activities will be divided into two streams: corporate communications; and scrap tire generator/stakeholder promotion and education.

Corporate communications will be directed to stewards and stakeholders who, because of their obligations and/or interest, must be kept apprised of requirements, developments, plan implementation and progress. This begins in the pre commencement stage of the Program and is on-going. It will include a comprehensive information website and information sessions, e.g. meetings, webcasts, webinars, as needed.

Scrap tire generator/stakeholder P&E will target the external audiences who will participate in all aspects of the scrap tire diversion program in Ontario, including the general public. This P&E program will support every aspect and objective of the diversion program.

Preparations beginning in the Pre-Commencement stage that lead up to the Program launch and implementation of Year 1 tactics will include:

- Program branding
- Expand OTS website to provide information for all audiences
- Fact sheets and FAQs
- News releases and feature articles
- Media kits and tours
- Plans for launch kick-off event
- Clip art and original photography
- Province-wide program information advertising
- Event collection days promotion
- Brochure or similar information publication to be available at municipal and other information distribution points
- Point of sale information

Launch and Post-Commencement Stage—Year 1

The launch event will kick off the Used Tires Program. Post-commencement P&E will encompass activities that:

- Promote used tire diversion province-wide
- Provide information about where to find collection points, special collection events and "take back" opportunities

The strategic communication plan created in the pre-commencement stage will inform the development of the P&E tactics and materials that are required. Care must be taken to ensure that the P&E rolls out in a manner that supports collection activities where they exist while working in conjunction with program delivery to provide collection opportunities in areas where gaps exist.

Post-commencement activities include:

- Province-wide paid and unpaid promotion of the objectives of the Program to generate awareness of and general support of the Program; potential vehicles include but not be limited to:
    - Newspaper advertisements and articles
    - Radio commercials and news pieces
    - Outdoor media in urban areas
    - Signs on the sides of transportation vehicles
    - Posters placed in tire retailers, mass merchants and garages
    - Point-of-purchase information pieces

- P&E that focuses on the activities motorists can implement to reduce tire wear and the benefits of reuse and recycling of used tires. This may include but is not limited to:
    - Media advertising and articles to promote proper tire maintenance and the philosophy of reuse and recycling as well as encourage public and private, not-for-profit and for-profit organizations to become part of the collection network through listings of locations in hard and soft copies of phone books and on the website
- P&E materials and activities especially designed for collection events

As the Program matures and citizens are familiar with the Program, the messages likely will need to be revised. Consequently, the strategic communication plan will be dynamic and will be reviewed and updated annually to ensure it continues to address the overall goals of the Program Plan and the year-to-year objectives and targets.

An annual report will be produced to record the results of P&E activities in the first and subsequent years.

OTR Tires

In Year 1 OTS will focus P&E activities for OTR tires on engaging users of these tires on the responsible end of life management options for OTR tires. It is expected that through this engagement and education of these generators OTS will be able to leverage existing infrastructure and capacity to increase collection and diversion of OTR tires under the program.

4.14 OTS Monitoring, Metrics and Response

The Program must ensure that there is accurate information on the flow of used tires from collection through to final destination to be able to measure diversion performance, to ensure that program costs can be fairly allocated, and to ensure that there is progress toward moving materials from disposal to reuse and recycling in accordance with the Minister's Program Request Letter.

Therefore, the Program will incorporate a tracking system that will include the following:

- Registration of each contracted collection site and collection event with a unique number, as well as a contractual agreement to ensure adherence to Program Terms & Conditions;
- Each used tire will be tracked through the OTS manifest system that will include the collection site number, number and general categorization of tires collected (e.g. passenger light truck or OTR), and date of pick-up;
- The tire Hauler will pick up the tires and maintain a record of the collection location, number/types of tires delivered to Processors, number/type of tires culled for reuse or retreading and the destination and quantity of any tires exported for reuse;
- Upon delivery of the scrap tires to a Processor, the Processor will record the type and number of tires received, as well as the program registration of the Hauler. This information will be transferred to OTS through the manifest, allowing OTS to reconcile the movements of scrap tires in the province;
- OTS will require all used tire Collectors, Haulers and Processors to meet a vendor standard prior to being registered; and
- As part of the Terms & Conditions of the Processor registration Processors will be required to report on sales and end-uses of processed materials.

This tracking system will be implemented by OTS in Year 1 to allow for on-going monitoring and evaluation of Program performance.

Other performance benchmarks that will be tracked and reported as part of OTS's annual report to WDO will include but are not limited to:

- Total volumes collected by Collector type (tonnes and PTEs);
- Total system costs per tonne and per unit by tire category;
- Administrative costs per tonne and PTE;
- Collection costs per tonne and PTE;
- Levels of service received by registered Collectors;
- Transportation costs per tonne and PTE;
- Processing costs per tonne;
- Total volumes reused (tonnes and percentage of total collected);
- Destination and quantities of any tires exported for reuse;
- Total volumes recycled (tonnes, percentage of total collected and percentage of available for collection);
- Quantity of tires processed in Ontario and outside of Ontario including products produced;
- Total volumes disposed (tonnes, percentage of total collected and percentage of available for collection);
- Evaluation of the communication and public awareness tools to assess the strategy's effectiveness; and
- Accessibility of Ontario residents to collection points across Ontario.

The Program will be continuously monitored for opportunities to make improvements, both from an operational and strategic perspective. Issues to be reviewed on an ongoing basis include:

- Opportunities for increasing used tire collection;
- Levels of incentive rates and how they support the achievement of program objectives;
- New processing options that could be leveraged to increase overall program diversion rates;
- OTR tire management opportunities that could be utilized to increase diversion rates; and
- Design initiatives undertaken by stewards that could result in increased reduction, reuse or recycling opportunities.

Following the approval of the Used Tires Program Plan, OTS will contract a Program administrator to manage the implementation and operation of the Used Tires Program. On behalf of OTS, the Program administrator has the following responsibilities:

- Administer the implementation of the Program;
- Identification, registration and auditing of obligated Stewards;
- Identification of and contracting with all service providers including auditors, collection sites, transportation service providers, and processing facilities;
- Collection and disbursement of fees through a process that ensures confidentiality of data;
- Program communications and public awareness;
- Interface with the public and service providers contracted under the Program;
- Preparation of the annual report and other reporting requirements of WDO;
- Propose Program performance targets in addition to those outlined in the Used Tires Program Plan to support OTS's efforts on continuous improvement;
- Overall day-to-day management of the Program including liaison with Ontario stakeholders, WDO and the Ministry of Environment;
- Creation of an annual Program business plan including setting and adhering to operating budgets;

- Contracting with the MOE for enforcement; and
- Reporting to the OTS Board.

Whereas the Program is expected to continue with no specified end date, the contract between OTS and the Program administrator will have a specified end date and any decision to extend the contract or seek a Program administrator through a competitive bid process prior to contract expiration, shall be at the discretion of OTS.

5.0 PROGRAM PERFORMANCE

5.1 Year 1 to 5 Accessibility Targets

If all tire retailers, garages and municipalities voluntarily agree to act as used tire Collectors, OTS anticipates sufficient province-wide accessibility to collection. In the lead-up to full program implementation OTS will be focused on registering the Collectors (in addition to Haulers, Processors and Stewards) and expects to register over 10,000 collection locations before the program commences.

OTS recognizes that there may be parts of the province (for example in rural or northern areas) where access to a collection location may not be currently available. In these situations OTS will look to alternative methods of collection. One option may be through use of existing municipal depots/transfer sites that do not currently accept tires. Where appropriately located and where the municipality is amenable, OTS will encourage the municipality to register as a collection site under the program.

OTS will continuously monitor the level of accessibility that consumers have to collection points where used tires can be dropped-off for no charge. This tracking will be especially important in the early stages of program implementation as special collection events will be managed and paid for by OTS (delivered in conjunction with tire retailers and municipalities on a voluntary basis) to collect used tires retained by consumers.

Table 18: OTS Registered Collection Points

Region	Ontario Counties*	Collection Method	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
Central	Brant, Dufferin, Durham, Grey, Haliburton, Halton, Hamilton, Kawartha Lakes, Muskoka, Niagara, Northumberland, Peel, Simcoe, Toronto, York **Population: 7.411,276**	Garages	963	1,284	1,605	1,926	2,247	2,568
		Municipal waste management sites	57	51	42	32	19	13
		Tire Retailers	7,702	7,382	8,216	8,986	9,115	9,628
		Mass Merchants	140	147	155	163	172	182
		Other Private Collection Sites	26	19	19	19	19	19
		Sub-total	8,888	8,883	10,037	11,126	11,572	12,410
East	Elgin, Frontenac, Hastings, Lanark, Leeds and	Garages	234	312	390	468	545	623
		Municipal waste management sites	14	12	10	8	5	3

Region	Ontario Counties*	Collection Method	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5
	Grenville, Lennox and Addington, Ottawa, Perth, Peterborough, Prescott and Russell, Prince Edward, Renfrew, Stormont, Dundas and Glengarry **Population: 1,896,400**	Tire Retailers	1,807	1,792	1,995	2,182	2,213	2,338
		Mass Merchants	46	49	53	58	64	71
		Other Private Collection Sites	6	5	5	5	5	5
		Sub-total	2,107	2,170	2,453	2,721	2,832	3,040
North	Algoma, Cochrane, Kenora, Nipissing, Parry Sound, Rainy River, Sudbury, Thunder Bay, Timiskaming **Population: 931,109**	Garages	95	127	159	191	223	254
		Municipal waste management sites	6	5	4	3	2	1
		Tire Retailers	763	731	814	890	903	954
		Mass Merchants	41	43	46	50	56	62
		Other Private Collection Sites	2	2	2	2	2	2
		Sub-total	907	908	1,025	1,136	1,186	1,273
West	Bruce, Chatham-Kent, Haldimand-Norfolk, Huron, Lambton, Manitoulin, Middlesex, Oneida, Oxford, Waterloo, Wellington **Population: 2,472,808**	Garages	208	277	347	416	485	555
		Municipal waste management sites	12	11	9	7	4	3
		Tire Retailers	1,664	1,595	1,775	1,941	1,969	2,080
		Mass Merchants	47	50	54	59	65	71
		Other Private Collection Sites	6	4	4	4	4	4
		Sub-total	1,937	1,937	2,189	2,427	2,527	2,713
		Grand Total	**13,839**	**13,898**	**15,704**	**17,410**	**18,117**	**19,436**

5.2 Year 1 to 5 Collection, Reuse and Recycling Targets

In accordance with the Minister's Program Request Letter, OTS has developed a 5 year collection and diversion plan. This plan demonstrates how the Used Tires Program will achieve 90% diversion of on-road tires by 2013, and 50% diversion of OTR tires by 2013. The lower diversion goal for OTR tires is due to the relatively lower level of development of the OTR tire diversion infrastructure, combined with the added complexities of managing these tires due to their size, composition and locations of generation.

Table 19: Used Tire Collection

Tire Collections	PL/T Tires	MT Tires	OTR Tires	Total
Units	10,094,200	515,600	193,125	10,802,925
PTEs	10,094,200	2,578,000	1,209,360	13,881,560
Tonnes	100,942	25,780	12,094	138,816
As a % of Tire Sales	100%	100%	15%	67%
Note: Tire Collection for PL/T tires and MT tires is estimated at 100%, for OTR tires is 15%				

Table 20: Scrap Tire Collection (minus culled tires)

Tire Collections (minus PL/T tire Cull)	PL/T Tires	MT Tires	OTR Tires	Total
Units	8,580,070	515,600	193,125	9,288,795
PTEs	8,580,070	2,578,000	1,209,360	12,367,430
Tonnes	85,801	25,780	12,094	123,674
As a % of Tire Sales	85%	100%	15%	60%
Note: Tire collections for PL/T and MT tires is estimated at 100%, for OTR tires is 15% Cull of PL/T tires is estimated at 15%				

Table 21: Medium Truck Tire Retreading Targets

MT Tire Retreading Targets	Year 1	Year 2	Year 3	Year 4	Year 5
Units	525,912	536,430	547,159	558,102	569,264
PTEs	2,629,560	2,682,151	2,735,794	2,790,510	2,846,320
Tonnes	26,296	26,822	27,358	27,905	28,463
Note: Annual sales increase are forecasted at 2% per annum, and for every new tire sold it is assumed that 1.25 retreaded tires are sold					

38

Table 22: OTR Tire Retreading Targets

OTR Tire Retreading Targets	Year 1	Year 2	Year 3	Year 4	Year 5
Units	1,313,250	1,339,515	1,366,305	1,393,631	1,421,504
PTEs	8,223,648	8,388,121	8,555,883	8,727,001	8,901,541
Tonnes	82,236	83,881	85,559	87,270	89,015
Note: Annual sales increase are forecasted at 2% per annum, and for every new tire sold it is assumed that 1.25 retreaded tires are sold					

Table 23: Collection and Diversion Targets for On-Road Tires

Ontario Tire Stewardship					
Used Tire Diversion Program - On-Road Tire Diversion and Collection Forecast					
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Generation (Units)					
Passenger/Light Truck Tires	10,094,200	10,296,084	10,502,006	10,712,046	10,926,287
Commercial Tires	515,600	525,912	536,430	547,159	558,102
Convert to PTEs					
Passenger/Light Truck Tires	10,094,200	10,296,084	10,502,006	10,712,046	10,926,287
Medium Truck Tires	2,578,000	2,629,560	2,682,151	2,735,794	2,790,510
Total PTEs	12,672,200	12,925,644	13,184,157	13,447,840	13,716,797
Convert to Tonnes (Metric)					
Passenger/Light Truck Tires	100,942	102,961	105,020	107,120	109,263
Medium Truck Tires	25,780	26,296	26,822	27,358	27,905
Total Tonnes	126,722	129,256	131,842	134,478	137,168
Education Reduction	0.0%	0.5%	1.0%	1.5%	2.0%
PL/T PTEs Available for Collection	10,094,200	10,244,604	10,396,986	10,551,365	10,707,761
PL/T Tonnes Available for Collection	100,942	102,446	103,970	105,514	107,078
MT PTEs Available for Collection	2,578,000	2,616,412	2,655,330	2,694,757	2,734,700
MT Tonnes Available for Collection	25,780	26,164	26,553	26,948	27,347
Total PTEs Available for Collection	12,672,200	12,861,016	13,052,315	13,246,122	13,442,461
Total Tonnes Available for Collection	126,722	128,610	130,523	132,461	134,425
Collection Targets	100%	100%	100%	100%	100%
Collected PL/T PTEs	10,094,200	10,244,604	10,396,986	10,551,365	10,707,761
Collected PL/T Tonnes	100,942	102,446	103,970	105,514	107,078
Collected MT PTEs	2,578,000	2,616,412	2,655,330	2,694,757	2,734,700
Collected MT Tonnes	25,780	26,164	26,553	26,948	27,347
Total PTEs Collected	12,672,200	12,861,016	13,052,315	13,246,122	13,442,461
Total Tonnes Collected	126,722	128,610	130,523	132,461	134,425
Less 15% Reusable Cull of PL/Ts					
PL/T PTEs Culled	1,514,130	1,536,691	1,559,548	1,582,705	1,606,164
PL/T Tonnes Culled	15,141	15,367	15,595	15,827	16,062
Tires Available for Recycling					
PL/T PTEs	8,580,070	8,707,913	8,837,438	8,968,660	9,101,597
PL/T Tonnes	85,801	87,079	88,374	89,687	91,016
MT PTEs	2,578,000	2,616,412	2,655,330	2,694,757	2,734,700
MT Tonnes	25,780	26,164	26,553	26,948	27,347
Total PTEs Available	11,158,070	11,324,325	11,492,767	11,663,418	11,836,297
Total Tonnes Available	111,581	113,243	114,928	116,634	118,363
% Directed to Recycling	100%	100%	100%	100%	100%
Total Tonnes to Recycling	111,581	113,243	114,928	116,634	118,363
Average Residue (10%)	11,158	11,324	11,493	11,663	11,836
Total Tonnes Recycled	100,423	101,919	103,435	104,971	106,527
As % of Collected Tonnes Net of Reusable Cull	90%	90%	90%	90%	90%
Total Reduction, Reuse and Recycling					
Tonnes	115,564	117,286	119,030	120,798	122,588
As a % of Total PTEs	91.19%	91.19%	91.19%	91.19%	91.19%

Table 24: Collection and Diversion Targets for Off-Road Tires

Ontario Tire Stewardship					
Used Tire Diversion Program - Off-Road Tire Diversion and Collection Forecast					
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Generation (Units)					
Off-Road Tires	1,287,500.00	1,313,250.00	1,339,515.00	1,366,305.30	1,393,631.41
Convert to PTEs					
Off-Road Tires	8,062,400.00	8,223,648.00	8,388,120.96	8,555,883.38	8,727,001.05
Convert to Tonnes (Metric)					
Off-Road Tires	80,624.00	82,236.48	83,881.21	85,558.83	87,270.01
Education Reduction	0.0%	0.5%	1.0%	1.5%	2.0%
OTR PTEs Available for Collection	8,062,400	8,182,530	8,304,240	8,427,545	8,552,461
OTR Tonnes Available for Collection	80,624	81,825	83,042	84,275	85,525
Collection Targets	15%	25%	32%	40%	50%
Collected OTR PTEs	1,209,360	2,045,632	2,657,357	3,371,018	4,276,231
Collected OTR Tonnes	12,094	20,456	26,574	33,710	42,762
Tires Available for Recycling					
PTEs	1,209,360	2,045,632	2,657,357	3,371,018	4,276,231
Tonnes	12,094	20,456	26,574	33,710	42,762
% Directed to Recycling	100%	100%	100%	100%	100%
Total Tonnes to Recycling	12,094	20,456	26,574	33,710	42,762
Average Residue (5%)	605	1,023	1,329	1,686	2,138
Total Tonnes Recycled	11,489	19,434	25,245	32,025	40,624
As % of Collected Tonnes	95%	95%	95%	95%	95%
Total Reduction, Reuse and Recycling					
Tonnes	11,489	19,434	25,245	32,025	40,624
As a % of Total Tonnes	14.25%	23.63%	30.10%	37.43%	46.55%

5.3 Performance Benchmarks

Performance will be measured according to the following key indicators for diversion operations, recycled products mix, core stewardship programs and OTS administration.

The following key performance indicators and Year 1 Goals may be revised as the Year 1 Operating Plan is developed, subject to approval by WDO.

Operations

- Number of used tires collected annually under Used Tires Program

  Year 1 Goal: Collect 100% of used on-road tires and 15% of scrap OTR tires collected,

- Number of used tires diverted annually under Used Tires Program

  Year 1 Goal: Divert 91% of On-Road used tires and 14.25% of Off-Road tires available for collection,

- Number of registered services providers vs. available Collectors, Haulers, Processors

  Year 1 Goal: Register 11,600 collection locations within Ontario. Register 40 Haulers within Ontario. Register 10 Processors within Ontario.

- Compliance audits per quarter

  Year 1 Goal: Establish compliance audit triggers, process and deliverables. Audit a minimum of 10% of registered Collectors, 10% of Haulers and 10% of Processors.

- Compliance ratio vs. number of audits

  Year 1 Goal: Establish compliance baseline on completed audits to set continuous improvement goals

- Rate of stockpile abatement

  Year 1 Goal: To clean up a minimum of one-third of the identified illegal stockpiled tires

Recycled Products Mix and Market Development

- Mix of primary scrap tire processing products i.e. Crumb, Fabricated Products, Shred, TDF

  Year 1 Goal: To achieve the Collection and Diversion goals in the Diversion Forecast

- Market growth in higher value-added recycled products

  Year 1 Goal: To review and revise the Manufacturing Incentive based on new manufacturing capacity added to the system.

- Proportion of processed scrap tires that go into Ontario end-uses and products

  Year 1 Goal: To increase Ontario based processing of scrap tires by 50% from its baseline capacity.

Core Stewardship Programs

- Commercialization of technologies for increasing the proportion of recycled rubber in end-use products

  Year 1 Goal: Invest in 2 projects aimed at furthering commercialization of diversion end-uses for on-road tires.

- Development of new value-added products manufactured from recycled rubber

  Year 1 Goal: To facilitate the development of a market, or creation of a new market, for crumb rubber that can consume an additional 50% of annual crumb production

- Conduct OTR generation, collection and processing benchmarking survey

  Year 1 Goal: To map the generation / collection points for OTR tires in Ontario.

- Public awareness of benefits of tire maintenance, tire recycling and end-use applications

Year 1 Goal: To develop and test an OTS communications campaign with a focus group of consumers that will be implemented in Q2 of Year 1.

OTS Administration

- Number of registered stewards

  Year 1 Goal: Register 90% of identified stewards.

- Compliance audits per quarter

  Year 1 Goal: Establish compliance audit triggers, process and deliverables. Audit stewards accounting for 80% of used tire volumes.

- Program financial performance to plan

  Year 1 Goal: Receive 95% of budgeted fees from stewards.

  Year 1 Goal: Collect and divert targeted number of tires, remove one-third of stockpiled tires and implement R&D and P&E programs within budget.

- Staff performance to position objectives

  Year 1 Goal: All staff to define and confirm position performance objectives and expectations with Executive Director

  Year 1 Goal: All staff to achieve "meets" or "exceeds" on position performance objectives

- Fulfillment of personal development plans

  Year 1 Goal: All staff to define and confirm personal development goals with Executive Director

  Year 1 Goal: All staff to complete all activities and deliverables specified in personal development plans.

- Turnover and retention of staff

  Year 1 Goal: To ensure that recruiting and onboarding of new staff results in no unplanned turnover of staff

5.4 Tracking and Auditing System

Tracking System

OTS recognizes the importance of being able to accurately track the movement of used tires in Ontario post-program implementation. Due to the financial incentive program model being advanced in this program plan, OTS anticipates a high-level of overall compliance with program rules and operation.

The primary tracking mechanism of the OTS Used Tires Program is the program manifest system. Once the program is launched there will be continuous management of incoming manifests from Haulers and processors, with on-going reconciliation to match manifest information with used tire movements through the system. This process will seek to confirm the

majority of the tire load movements on an annual basis (from Collector, to Hauler to Processor to material consumer).

Steward Audits

OTS will also engage in an audit of stewards to ensure all subject tire sales into the province of Ontario are being reported and remitted on. OTS estimates that there are several hundred stewards captured under the brand owner and first importer steward definitions. OTS intends to perform financial audits of stewards representing 80% of the annual used tire volumes, and 98% on a rolling 3-year schedule.

OTS will seek audit efficiencies with other stewardship programs both within Ontario and outside the province, provided the degree of audit rigor necessary can be met.

5.5 Annual Program Reviews

Annual Program Reviews

OTS is committed to continuous improvement in all aspects of its mandate as the IFO for used tire diversion in Ontario. Through an annual program review process, forecasts will be updated on a three year rolling basis. Rigorous assessment of program effectiveness and operational efficiency will form integral parts of the review. In addition, TSF levy amounts will be assessed as part of the annual program review process and adjusted if required.

The effect/adequacy of financial incentives provided through this program will also form an integral part of annual program review. This assessment will consider the following three key dimensions:

- Do the financial incentives result in the achievement of program objectives?
- What are the impacts of the incentives on reduction, reuse and recycling?
- How do these fees affect the value chain for used tire diversion and recycling?

The results of the annual review will be documented in the Annual OTS Report.

In addition, as per the Section 33 of the Waste Diversion Act, OTS will provide an annual report to the WDO not later than April 1 following the completion of each program year. The annual report will also be posted in the OTS website at www.ontariotirestewardship.org.

Through each successive annual review, OTS will assess its progress in developing a self-sustaining used tire diversion and recycling system for the Province of Ontario.

5.6 Compliance Monitoring and Enforcement

Compliance Monitoring and Enforcement

Monitoring compliance, particularly during the initial phase of the program will be a critical element for ensuring success. The forms and processes that will be developed for the program will be designed to facilitate efficient operations and compliance monitoring. While the

frequency, duration and accountabilities with respect to audit activities need to be defined, it is clearly a prerequisite for program success. Upon approval of this Used Tires Program Plan, OTS will work collaboratively with representatives from MOE and WDO to define programs, processes, policies and accountabilities for dispute resolution, compliance monitoring and program enforcement.

Dispute Resolution

In order to ensure that disputes among OTS and any of its diversion partners are resolved in a timely, fair and impartial manner, a dispute resolution process has been developed (*Appendix 12: Mediation Guidelines, Appendix 13: Arbitration Guidelines*). This process provides a transparent escalation pathway that specifies process, roles and timing. In some instances, an outside mediator or arbitrator will be used for specified types of disputes.

In order to best manage diversion issues before they require formalized dispute resolution, a well-documented issues management process will be developed and posted on the OTS website.

6.0 FEE SETTING METHODOLOGY

This section describes the authority with which OTS assesses Steward Fees, and describes the principles behind and the detailed fee setting methodology that will be employed by OTS under the Used Tires Program Plan. This information is presented in the following format:

6.1 Authority
6.2 Used Tire Product Categories
6.3 Principles
6.4 Used Tire Fee Setting Methodology

6.1 Authority

Under the WDA the Industry Funding Organization for an approved Program Plan may assess fees against companies designated as Stewards under the plan. Section 30 of the *Act* sets out the powers for fee setting as follows:

"30. (1) If an industry funding organization is designated by the regulations as the industry funding organization for a waste diversion program, the organization may make rules,

(a) designating persons or classes of persons as Stewards in respect of the designated waste to which the waste diversion program applies;
(b) setting the amount of the fees to be paid by Stewards under subsection 31 (1) or prescribing methods for determining the amount of the fees;
(c) prescribing the times when fees are payable under subsection 31 (1);" [2002, c.6, s.30 (1)]

6.2 Used Tire Product Categories

Three Tire Categories for the purpose of setting Tire Stewardship Fees have been established:

1. On Road Tires – Passenger/Light Truck Tires

2. On Road Tires – Medium Truck; and
3. Off Road Tires.

Table 25: Used Tire Definitions

	Product Category	Definition
1)	On-Road Tires – Passenger/Light Truck	**Passenger Tires, Small RV Tires, ST Trailer tires and Light Truck Tires and Temporary Spares** Includes passenger tires are designed for use on passenger cars, light trucks, small RVs and multipurpose passenger vehicles (MPVs), including sport utility vehicles (SUVs) and crossover utility vehicles (CUV's), and to comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 109). The light truck tire category is tires designed for use on consumer or commercial light trucks, under 10,000 lbs. Gross Vehicle Weight, and comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119). Codes found on the sidewall of light passenger and light truck tires are P (Passenger) and LT (Light Truck). Temporary spare tires are marked T (Temporary). **Motorcycle, Golf Cart and All Terrain Vehicle Tires** Includes all tires specifically designed for on/off highway motorcycles, motorcycle sidecars, motor bikes, mopeds, mini-cycles, golf carts and all terrain vehicles. **Forklift, Small Utility, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer tires measuring 16” rim size and under **Free Rolling Farm Tires** Includes free rolling farm and implement tires up to 16” rim size used on farm equipment.
2)	On-Road Tires – Medium Truck	**Medium Truck Tires** Also commonly known as Commercial Truck Tires – Truck and Bus tires including Wide Base or Heavy Truck tires designed for truck/bus applications and Larger RV tires not marked "P or LT”. All of which comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119).

	Product Category	Definition
3)	Off-the-Road (OTR) Tires	**Agricultural Drive and Logger Skidder Tires** Includes drive wheel tires used on tractors and combines and tree harvesting equipment. These tires are normally identified with a sidewall marking with suffix letters (R), or (HF) or (LS) and are 16.5" and up rim size. These tires are listed in The Tire and Rim Association Inc. annual yearbook Section 5 Agricultural. **Forklift, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer Tires measuring 16.5" and over. **Small Off The Road Tires** Sizes 1300R24 to 23.5R25 Rim Size **Medium Off The Road Tires** Above 23.5R25 to 33 inch Rim Size **Large Off The Road Tires** Above 33 inch to and including 39 inch Rim Size **Giant Off The Road Tires** Over 39 inch Rim Size **Industrial (Solid) Tires** Solid Industrial Tires e.g. for Forklift Trucks etc.

6.3 Principles

Section 30 of the WDA also defines principles relating to fees as follows:

"(3) In making rules under clause (1) (b), the industry funding organization shall have regard to the following principles:

1. The total amount of fees paid by Stewards under subsection 31 (1) should not exceed the sum of the following amounts:
   i. The costs of developing, implementing and operating the program.
   ii. A reasonable share of costs not referred to in subparagraph i) that are incurred by Waste Diversion Ontario in carrying out its responsibilities under this Act.
   iii. A reasonable share of costs incurred by the Ministry in administering this Act.

2. The fee paid by a Steward should fairly reflect the proportion of the sum referred to in paragraph 1 that is attributable to the Steward." [2002, c. 6, s. 30 (3)]

Ontario Tire Stewardship (OTS), recognizing the principles previously established by other Industry Funding Organizations, adopted the following guiding principles to be applied to the fee setting process:

1) There should be no cross-subsidization of management costs across Used Tire Product Categories.
2) Stewards fees will be based on Tire units supplied in the Program year but will cover the projected cost to manage the Used Tires being managed through the Program in that year.
3) Fee setting is to begin with the cost to manage each Used Tire Product Category under the Program as determined by a transparent cost allocation methodology.
4) Material-specific fees may then be modified to achieve (a) the overarching Program policy goal to divert waste from disposal and (b) material specific policy goals including achieving targets established for accessibility, collection, reduction, reuse, and recycling.
5) Common and shared OTS costs will be assessed across all Stewards in a fair and transparent manner.

These guiding principles were used to develop the fee-setting methodology.

6.4 Tire Fee-Setting Methodology

6.4.1 Context

In addition to the requirements set out by the WDA, the fee-setting methodology for the Used Tires Program Plan must also meet the requirements and policy objectives as set out in the Minister's Used Tires Program Request Letter. Furthermore, while OTS has used the best available data for the purposes of setting fees for Year 1 of the Used Tires Program Plan, the quality of the data that will be available for fee setting in subsequent Program years will be improved significantly by the requirement for Stewards and service providers to provide more detailed reports upon Program approval and implementation.

6.4.2 Methodology for Setting Used Tire Stewards' Fees for Year 1

OTS has calculated the Year 1 fees for Used Tires Stewards using the following methodology and incorporating into the fee calculations the best available data and agreed approaches for allocating costs.

Section 7.0 describes the cost items included in the fees. These costs include program activities such as program management, collection, transportation, processing, reuse, recycling and, where 3Rs options are not available or technically feasible, disposal.

Direct costs (e.g. collection incentives, transportation incentives, processing incentives, manufacturing incentives and directed P&E or R&D) are directly allocated to the appropriate Tire Category. Shared costs (e.g. program development and start-up, OTS administration, WDO costs attributable to Used Tires, stockpile abatement costs and enforcement costs) are allocated based on the Passenger Tire Equivalents by Tire Category in the given budget year.

6.4.3 Year 1 Calculation Steps for Setting OTS Used Tire Stewardship Fees

OTS has calculated and applied specific fee rates to each of the Used Tire Product Categories to support the management of Used Tires as set out in the Program Plan in the following steps:

Step 1: ***Establish Tire Categories Based on Similar Handling and Cost Drivers***

Three Tire Categories for the purpose of setting Tire Stewardship Fees have been established as described in Section 6.2:

- On-Road Passenger/Light Truck Tires;
- On-Road Medium Truck Tires; and
- Off-the-Road Tires

Step 2a: ***Determine 2007 Unit Sales Data by Tire Category***

For each Tire Category, determine number of tires supplied into Ontario to determine Unit Sales by Tire Category based on:

- 2007 Wholesale Sales Data for program tires sold into the Ontario market. While Wholesale Sales Data represents sales into the market rather than direct sales to consumers, it represents the best available data. Use of these data assumes that wholesale sales into the market are matched by sales to consumers, with no fluctuation in wholesale or retail inventory levels throughout the distribution chain.
- New vehicle sales data to quantify the flow of new tires into the province on vehicles. It is estimated that this channel accounts for almost 30% of the new tires entering the Ontario market.

Step 2b: ***Adjust 2007 Sales Data by Tire Category to Represent Estimated Reported Sales by Registered Stewards***

Multiply Unit Sales by Tire Category by 95% to calculate Adjusted Unit Sales on the basis that 95% of Stewards' Sales will be reported in Year 1.

Step 3a: ***Determine Passenger Tire Equivalents for each Tire Category***

Establish Passenger Tire Equivalents for On-Road Passenger/Light Truck Tires, On-Road Medium Truck Tires and Off-the-Road Tires on the basis of:

Tire Categories	**Passenger Tire Equivalents for Budget Costs**	**Passenger Tire Equivalents for Calculation of TSF**
On-Road Passenger/Light Truck Tires	Adjusted Unit Sales multiplied by 1	Adjusted Unit Sales multiplied by 1
On-Road Medium Truck Tires	Adjusted Unit Sales multiplied by 2	Adjusted Unit Sales multiplied by 5
Off-the-Road Tires	Adjusted Unit Sales multiplied by tire weight divided by 10 kilograms	Adjusted Unit Sales multiplied by tire weight divided by 10 kilograms

Step 3b: ***Calculate Total Passenger Tire Equivalents for Adjusted Unit Sales by Tire Category***

Calculate Total Passenger Tire Equivalents by Tire Category for allocating Shared Costs:

Tire Categories	Calculated Passenger Tire Equivalents for Adjusted Unit Sales
On-Road Passenger/Light Truck Tires	Multiply Adjusted Unit Sales (Step 2b) by 1 (Step 3a).
On-Road Medium Truck Tires	Multiply Adjusted Unit Sales (Step 2b) by 3 (Step 3a).
Off-the-Road Tires	Multiply Adjusted Unit Sales (Step 2b) by weight of tires divided by 10 kilograms (Step 3a).

Step 4a: *Determine Collection Cost Per Tire Category*

On-Road Passenger/Light Truck Tires

The Collection Cost for On-Road Passenger/Light Truck Tires is based on a Collection Allowance per tire. The Collection Allowance is set by the OTS Board based on market research.

On-Road Medium Truck Tires

The Collection Cost for On-Road Medium Truck Tires is based on a Collection Allowance per tire. The Collection Allowance is set by the OTS Board based on market research.

Off-the-Road Tires

A Collection Allowance has not been set for Off-the-Road Tires on the basis that Off-the-Road tires are typically transferred from a user's location directly to Processors.

Step 4b: *Calculate Total Collection Cost*

Tire Categories	Calculating Collection Cost
On-Road Passenger/Light Truck Tires	Multiply number of On-Road Passenger/Light Truck Tires collected by Collection Allowance (Step 4a).
On-Road Medium Truck Tires	Multiply number of On-Road Medium Truck Tires collected by Collection Allowance (Step 4a).
Off-the-Road Tires	Not applicable.

Step 5a: *Determine Transportation Cost Per Tire Category*

On-Road Passenger/Light Truck

The Transportation Cost for On-Road Passenger/Light Truck is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

On-Road Medium Truck Tires

The Transportation Cost for On-Road Medium Truck Tires is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

Off-the-Road Tires

The Transportation Cost for Off-the-Road Tires is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

Step 5b: *Calculate Total Transportation Cost*

Tire Categories	Calculating Transportation Cost
On-Road Passenger/Light Truck Tires	Multiply number of On-Road Passenger/Light Truck collected by Transportation Incentive (Step 5a).
On-Road Medium Truck Tires	Multiply number of On-Road Medium Truck Tires collected by Transportation Incentive (Step 5a).
Off-the-Road Tires	Multiply number of Off-the-Road Tires collected by Transportation Incentive (Step 5a).

Step 6a: *Determine Processing Cost per Tonne*

Processing Incentives for categories of Tire Derived Products are set by the OTS Board based on market research. Processing Incentives are expressed in both:

- price per tonne of Used Tires delivered to a Processor, and
- the equivalent price per tonne of the resulting Tire Derived Product.

Step 6b: *Calculate Quantity of Tires Available for Processing*

Calculate the number of Used Tires available for processing by deducting the number of tires culled for reuse from Used Tires collected by Tire Category.

Calculate the weight of Used Tires available for processing by multiplying the number of Used Tires available for processing by the weight of the Used Tires.

Calculate the weight of Used Tires available for processing by category of Tire Derived Product by applying the assumed percentage ratio of Tire Derived Products to the total weight.

Step 6c: C*alculate Total Processing Cost*

Calculate Total Processing Cost by multiplying the weight of Tires available for processing by category of Tire Derived Product (Step 6b) by the Processing Incentive for the category of Tire Derived Product expressed as price per tonne of Used Tires delivered to a Processor (Step 6a).

Step 7a: *Determine Manufacturing Incentive Cost per Tonne*

The Manufacturing Incentive Cost is based on the Manufacturing Incentive per tonne of crumb rubber used in new product manufacture. The Manufacturing Incentive is set by the OTS Board based on market research.

Step 7b: *Determine Quantity of Crumb Rubber Eligible for Manufacturing Incentive*

The quantity of crumb rubber eligible for the Manufacturing Incentive is set by the OTS Board as an upset limit.

Step 7c: C*alculate Total Manufacturing Incentive Cost*

Calculate Total Manufacturing Incentive Cost by multiplying the quantity of crumb rubber eligible for the Manufacturing Incentive (Step 7b) by Manufacturing Incentive per Tonne (Step 7a).

Step 8: *Determine Additional Direct Program Costs by Tire Category*

Additional Direct Program Costs include but are not limited to the following:
- Additional costs that are identifiable and specifically linked to certain Tire Categories.
- Research and Development to determine cost-effective ways of handling, transporting and processing specific categories of Used Tires.
- Promotion and Education to promote:
    - collection of specific categories of Used Tires;
    - achievement of the program Collection objectives;
    - engagement of Used Tire Program stakeholders;
    - awareness of the benefits that the Used Tire Program will generate in regards to the Ontario environment and the Green economy.

Step 9a: *Determine Shared Costs by Tire Category*

Shared costs include both OTS administration costs, program delivery costs, program start-up costs and stockpile abatement costs.

a) OTS Administration Costs include but are not limited to the following:

- OTS Board operating costs
- Accounting
- Legal
- Registering obligated Stewards
- Receiving, verifying and auditing Steward's Reports
- Reporting to WDO, MOE, OTS Board and Stewards
- IT activities to develop and maintain reporting and accounting systems
- General administration costs including: Staff recruitment and staff costs, telephone, postage, stationery, printing, and photocopy/fax, subscriptions, equipment leases, meeting expenses, bank charges, office supplies, rent, travel, insurance, depreciation, computer supplies, Internet access and website maintenance

b) Program Delivery Costs include but are not limited to:

- OTS share of WDO costs that can be directly attributed to Used Tires and the OTS share of WDO's costs that are not directly attributable to programs.
- Development of a methodology for the ongoing measurement of the quantities of Used Tires available for collection using a variety of sources that would include other similar programs.
- Used Tires data tracking and verification processes to support vendor standards
- OTS administration of the tendering and contracting process for Program services related to Used Tires.

- Developing plans for meeting accessibility, collection, reduction, reuse and recycling targets and for the purposes of future fee setting.
- Designing and implementing research and development programs to improve overall Used Tires Program efficiency and cost effectiveness.
- Determining approaches to promoting reuse.
- Annual review and modification, as required, of the Program cost calculations, cost allocation methodologies, fee setting methodology and fee setting through the approved fee setting methodology, including:
    - Assessment and consultation on provision for potential factors to modify Used Tire Product Category fee rates or adding Used Tires Product Category specific costs to achieve policy objectives;
    - OTS Used Tires cost allocation field work as required.
    - Planning and implementation work related to any subsequent phases of the Used Tires Program as directed by the Minister.
    - Design and implementation of the provincial Used Tires promotion and education program.
    - OTS and MOE Used Tires related compliance activities.

c) ***Program Development Costs*** are costs for Program Plan development in 2003/2004 and 2008/2009 and include but are not limited to:

- Development and operation of OTS committees and working groups that helped to develop the Used Tires Plan.
- Discussions and negotiations with service providers, other stakeholders and WDO in the development of the plan.
- Consultation with municipalities, industry and the general public in the development and review of the draft plan.
- The analytical and technical work completed by OTS in the drafting of the plan.
- Consulting support for the development and drafting of the plan.
- Legal costs related to development of the Program Plan

d) Program Start-up costs will be incurred to put the resources, facilities and systems in place that will be required to successfully implement the Used Tires Program Plan in a timely manner. Program Start-up Costs include, but are not limited to, the following:

- Providing clarifications and responding to requests from WDO and the MOE for additional information following submission of the final Program Plan, as required.
- Ongoing discussions and pre-implementation planning with key stakeholders.
- Development of Used Tires Program administrative procedures.
- IT, data management and tracking systems development.
- Legal and accounting services.
- Communications and advertising.
- Industry consultation.
- Identification, notification and registration of service providers.
- Establishment and operation of OTS registration “call centre”.
- Identifying, notifying and registering obligated Stewards.

e) Stockpile Abatement Costs include the costs to remove Used Tires from identified stockpile sites, transport the tires to Processors, process the tires and manage the stockpile abatement program.

Step 9b: ***Calculate Shared Costs by Tire Category***

Calculate Total Shared Costs by adding OTS Administration Costs plus Program Delivery Costs plus Program Development Costs plus Program Start-Up Costs plus Stockpile Abatement Costs (Step 9a).

Calculate a Shared Cost per Passenger Tire Equivalent by dividing Total Shared Costs by Total Passenger Tire Equivalents for Adjusted Unit Sales for all Tire Categories (total of Step 3b).

Calculate Shared Costs by Tire Category by multiplying the Shared Cost per Passenger Tire Equivalent by the number of Passenger Tire Equivalents by Tire Category (Step 3b).

Step 10: ***Calculate Total Costs by Tire Category***

Tire Categories	Calculating Total Cost
On-Road Passenger/Light Truck Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).
On-Road Medium Truck Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).
Off-the-Road Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).

Step 11: ***Calculate Tire Stewardship Fees***

Tire Categories	Calculating Tire Stewardship Fees
On-Road Passenger/Light Truck Tires	Divide Total Costs (Step 10) by Total On-Road Passenger/Light Passenger Tire Equivalents for Calculation of TSF (Step 3b)
On-Road Medium Truck Tires	Divide Total Costs (Step 10) by Total On-Road Medium Truck Passenger Tire Equivalents for Calculation of TSF (Step 3b)
Off-the-Road Tires	Divide Total Costs (Step 10) by Total Off-the-Road Passenger Tire Equivalents for Calculation of TSF (Step 3b)

6.5 Proposed Methodology for Setting Tire Fees for Years 2 - 5 of an Approved Plan

OTS will calculate the Year 2 - 5 fees for Stewards using the same methodology as for Year 1, with specific differences and improved data as noted below:

- Determining the quantities of obligated Used Tire materials introduced into the Ontario market on the basis of Stewards' reports received during Year 1;
- Contracts between OTS and service providers for the collection, transportation, and processing of Used Tires and manufacturing of products from crumb rubber;
- Number and weight of Used Tires by Category transported and received by Processors to calculate weight per Tire Category;
- Marketplace costing studies as completed;
- Analysis of cost allocation;

- Analysis of specific R&D or service agreements required to expand collection and diversion infrastructure for Used Tires and to meet targets for accessibility, collection, reuse and recycling of Used Tires;
- Findings from review of the performance of recovery channels;
- The results of research and monitoring of P&E activities undertaken in Year 1; and
- Additional Used Tires product data, as reported in Year 1 Steward's Reports.

6.5.1 Modifications to the Used Tire Program Fee Setting Methodology for Years 2 - 5:

Following consultation on Year 2 fee setting and subsequent years, the OTS Board of Directors may consider applying factors to modify the fees calculated in Year 1 methodology to account for possible differences in the collection and diversion performance achieved and the relative cost to manage related Used Tires or to meet other Used Tires Program Plan policy objectives established by the OTS Board.

In Year 2 and subsequent years it may be appropriate for OTS to add any shortfall or surplus incurred or generated in the previous fiscal period, either on specific Tire Categories or shared across categories as required. The general approach for such action is described as follows:

a. Establish any amount of fees either underpaid or overpaid by Stewards of each Tire Category for costs incurred during the previous fiscal period;

b. Establish any deficit or surplus in the amount of common expenses incurred during the previous fiscal period allocated on the same basis used to determine allocation of common costs; and

c. Establish any credits to Stewards to account for items managed directly by Stewards but for which costs do not fall to the Program.

There are numerous factors that make it difficult to collect precisely 100 percent of the fees set including non-payment and late-payment by Stewards, mergers and acquisitions, changes in sales between data at the time the fees were established and at which the Stewards make payments, higher or lower actual recovery rates on which payments must be made than had been projected for setting fees, etc.

The amount of any surplus that the OTS Board of Directors agrees to maintain from Tire Category specific contributions will be directed only to activities prescribed in the Used Tires Program Plan and fee setting methodology in respect of the specific Tire Categories for which the contributions have been made.

7.0 YEAR 1 PROGRAM BUDGET AND FEES

For the purposes of overall fee setting OTS has considered the allocation of both direct and shared costs for the three tire categories, On-Road tires, Medium Truck tires and OTR tires. This approach has been adopted based on the premise that the size and construction differences between these three categories of tires drive the costs of managing them in the Used Tires Program. OTS will review this position annually to test its continued validity.

7.1 Incentives and Financial Payments

The Used Tires Program financial model is based on the provision of financial incentives to encourage certain approaches to the management of scrap tires in Ontario to achieve diversion and other objectives identified in the Minister's Program Request Letter and the WDA.

The introduction of incentives to the used tire collection, transportation and processing industries is intended to improve the economics of each of these activities so scrap tires will be sought after as a feedstock material, thereby creating a sustainable "pull" for scrap tires into a value-added processing and manufacturing system.

7.1.1 Collection

The Used Tires Program will provide free pick-up of used tires from Collectors. On average Collectors across Ontario are charged between $2.25 and $3.25 per tire for pick-up. Elimination of these costs is a significant financial benefit to Collectors.

Collectors will receive a Collection Allowance for collection of used tires. This is intended to offset the costs Collectors incur in handling and storing used tires once they are removed from a vehicle. The amount of these Collection Allowances was determined through a Time and Motion study conducted by the OTDA in 2008 (*Appendix 19: OTDA Collector / Dealer Cost Study).*

Table 26[39]: Collector Allowances

Collection Allowance			
	Rate	Units	Year 1 Program Cost
PL/T Tires	$ 0.88	10,094,200	$ 8,882,896.00
MT Tires	$ 3.05	515,600	$ 1,572,580.00
OTR Tires (< or = 1 PTE)	$ 0.88	134,940	$ 118,747.20
OTR Tires (>1 PTE)	$ 3.05	8,728	$ 26,619.64
Note: Collection Allowances on PL/T and MT tires are determined based on the results of a 2008 OTDA Time and Motion Study. Collection Allowances for OTR tires are allocated based on tire size.			

7.1.2 Consolidation and Storage

It is anticipated that consolidation of used tires may be required where economics do not support pickup of small quantities, i.e. small retailers or municipalities with low volumes of used tire generation, or outlying areas. Similarly, it is anticipated that storage of used tires may be required to adjust for supply/demand seasonality with Processors.

Many Haulers consolidate and store tires as part of their regular business, and OTS recognizes the importance of this function (*Appendix 14: Guidelines for Tire Storage*).

[39] Data Source: 2006 RAC "Mystery Shopper Survey" and OTS interviews with Ontario Used Tire Collectors and Haulers

As the Transportation Incentive provided under the Used Tires Program includes an allowance for consolidation and storage, a separate consolidation and storage incentive is not included in the program.

7.1.3 Transportation

The year 1 Transportation Incentives have been set at an average level of $1.70 per tonne/kilometer for on-road tires, and $2.12 per tonne/kilometer for OTR tires. Specific rates for transportation have been tentatively set by OTS based on the BC transportation rates, and will be revised to allow for fuel surcharges.

Assuming approximately 127,000 tones of on-road used tires entering the transportation system, OTS has budgeted $21.5 million for transportation incentives in year 1 of the program for the transport of on-road tires. In addition, due to uncertainties associated with projecting annual transportation costs OTS has budgeted an 8% contingency.

(For an example of how these incentives will be applied see *Appendix 18: Transportation Incentive Flow Diagram)*

For OTR tires the program plan makes the assumption that in year 1 approximately 12,000 tonnes will be transported, requiring a transportation incentive budget of approximately $2.5 million. In addition, due to uncertainties associated with projecting annual transportation costs OTS has budgeted an 8% contingency.

In the case of both on-road and OTR tires the contingencies are necessary to address transportation uncertainties such as:

- Initial transport rates are set too low;
- There is a higher number of surplus tires than anticipated in the program plan;
- OTR tire volumes increase beyond the forecast in the program plan;
- OTS needs to support Haulers in storing surplus tires.

Table 27:

Transportation Incentives					
	Average Rate ($/tonne)	Tonnes	Transportation Incentives	Contingency (8%)	Program Cost
On-Road Tires	$ 170.00	126,722	$ 21,542,740.00	$ 1,723,419.20	$ 23,266,159.20
OTR Tires	$ 212.00	12,000	$ 2,544,000.00	$ 203,520.00	$ 2,747,520.00
Total		138,722	$ 24,086,740.00	$ 1,926,939.20	$ 26,013,679.20

7.1.4 Reuse and Retreading

The Used Tires Program will not levy stewards' fees on the sale of used tires or on manufacturers of retreaded tires.

7.1.5 Recycling

Processing Incentives on the basis of a tonne of product are provided for crumbing, shredding fabricating and a Manufacturing Incentive is provided for molded products produced from crumb rubber.

Table 28: Year 1 Processing Incentives

Processing / Manufacturing Incentives					
	Rate/Tonne of TDP	**Year 1 Tonnes**	Incentive	Contingency (8%)	Program Cost
Manufacturing Incentive					
On-Road Tires	$ 160.00	10,207	$ 1,633,120.00		$ 1,633,120.00
Off Road Tires	0	N/A	$ -		$ -
Crumb Incentive (Average)					
On-Road Tires	$ 235.00	71,518	$ 16,806,730.00	$ 1,344,538.40	$ 18,151,268.40
Off Road Tires	$ 294.00	2,393	$ 703,542.00	$ 56,283.36	$ 759,825.36
TDA Incentive					
On-Road Tires	$ 55.00	12,773	$ 702,515.00	$ 56,201.20	$ 758,716.20
Off Road Tires	$ 150.00	9,575	$ 1,436,250.00	$ 114,900.00	$ 1,551,150.00
Fabricated Products Incentive					
On-Road Tires	$ 65.00	11,070	$ 719,550.00	$ 57,564.00	$ 777,114.00
Off Road Tires		N/A	$ -		$ -
Note: Total Processed TDP quantities and allocation between On-Road and Off-Road tires are based on a 2008 survey of Ontario Processors (and 3 out of Province processors for OTR tires)					

7.1.6 Managing Stockpiles

Stockpile abatement is a core requirement of the Used Tires Program, and is specifically required by the Minister's Program Request Letter. The OTS program allocates sufficient funds to eliminate identified stockpiles in Ontario within three years.

Table 29[40]: Stockpile Abatement Costs

Stockpile Abatement			
	# of Stockpiled Tires to be abated (PTEs)	Average $/Tire Cost	Program Cost
Year 1	800,000	$2.70	$2,160,000.00
Year 2	800,000	$2.70	$2,160,000.00
Year 3	800,000	$2.70	$2,160,000.00

7.1.7 Markets and End Uses

Through strategic use of a Manufacturing Incentive, OTS will strive to increase the demand and markets for recycled tire products in Ontario.

Incentive payments will be made to manufacturers upon the sale of approved end-use products. The amount of financial support will be contingent on the percentage and composition of recycled scrap tire material in the end-use product (see table in Section 7.1.5 for quantification of end use incentives).

7.2 Research and Development

In Year 1 OTS will invest 1.3% of the program budget in On-Road tire R&D, and 2.1% of the program budget in OTR tire R&D.

R&D investment in on-road used tire management will be focused on exploring and developing beneficial end-uses for these tires, including the overall benefits of rubberized asphalt and suitable applications.

R&D investment in OTR used tire management will be focused on developing a comprehensive picture of the existing OTR tire collection, hauling and processing system in Ontario. The objective will be to identify major points of collection of OTR tires, hauling challenges and areas to leverage, and to identify opportunities to increase higher value-added processing of used OTR tires in Ontario.

[40] Data Source: The Average Cost per Tire for Stockpile Abatement is based on the average costs of abatement for recent stockpile remediations.

Table 30: Year 1 R&D Budget

Direct R&D Budget			
	Rate	PTEs	Program Cost
On-Road Tires	$ 0.08	12,038,590	$ 963,087.20
OTR Tires	$ 0.20	7,659,280	$ 1,531,856.00
Note: For a more information on the Direct R&D activities that will be undertaken in Year 1 by OTS see section 4.12			

7.3 Promotion and Education

As part of the launch and implementation of the Used Tires Program Plan OTS will undertake a suite of P&E activities to support the achievement of the Year 1 Program objectives. These include (but may not be limited to):

- **Information letters** from OTS to Stewards, Generators, Haulers, Processors, Municipalities. These letters can be initiated starting from the time of Minister's approval of the plan, leading up to the program launch
- **Point of Sale** materials for retail outlets that provide background on the OTS program, the benefits of scrap tire diversion to higher value-added recycled uses and the possible pass-through of TSFs by stewards
- **Website** communications through www.ontariotirestewardship.org to continue ensuring transparency with up-to-date information relevant to the program as well as a vehicle for gathering stakeholder feedback
- **Diversion Partners Portal** on the OTS web-site to facilitate registrations as well as availability of real time processing site capacity
- **Toll Free Telephone Number** to facilitate contact by public, diversion partners and other stakeholders
- **Media Communications** that will include:
    - OTS program launch news conference with the Minister of the Environment as well as key stakeholders
    - Targeted coverage by Ontario media about the program operation, results and benefits to Ontarians

OTS will invest in public education to encourage Ontario motorists to adopt better tire maintenance practices which could have a direct impact on extending tire life therefore reducing the number of tires required to be managed at end of life. The Used Tires Program will spend $0.20 per on-road tire PTE for public education on proper tire maintenance to achieve reduction and $0.05 for OTR PTE for general program P&E.

Table 31: Year 1 P&E Budget

Direct P&E Budget			
	Rate	PTEs	Program Cost
On-Road Tires	$ 0.20	12,038,590	$ 2,407,718.00
OTR Tires	$ 0.05	7,659,280	$ 382,964.00
Note: For a more information on the Direct P&E activities that will be undertaken in Year 1 by OTS see section 4.13			

7.4 Program Development / Start-Up Costs

Program development costs were incurred by WDO and OTS in the development of the Used Tire Stewardship plan in 2003/4 and 2008, including:

- Convening and incorporation of the Used Tires IFO to develop the Used Tires Program Plan
- Discussions among MOE, WDO and OTS in the development of the plan
- Consultation with municipalities, industry and the general public in the development and review of the draft plan
- The analytical and technical work completed by OTS in the drafting of the plan itself
- Legal costs related to the revision of OTS governance, development of the program plan and rules and drafting of the program agreement between the WDO and OTS in preparation for delivery of the plan.

Program Start-up Costs are costs that will be incurred by OTS and WDO to put the resources and systems in place that will be required to successfully implement the Used Tires Program in a timely manner. These costs will include:

- Providing clarifications and responding to requests for additional information following submission of the Used Tires Program Plan, as required
- Ongoing discussions and pre-implementation planning with key stakeholders
- Development of program administrative procedures
- IT and data management systems development
- Legal and accounting services
- Communications and advertising
- Industry consultation
- Identification and notification of potential Stewards
- Registering obligated Stewards.

Table 32[41]: Program Development and Start-Up Budget

Program Development & Start-Up Costs	Program Impact	
WDO Costs	$	426,519
Seed Funding Repayment	$	725,000
Legal	$	100,000
Stakeholder Identification	$	16,000
Registration / Tracking System Design	$	285,000
Establish Operational Proram Environment	$	550,000
Develop & Implement Financial systems	$	450,000
Hardware & Technical services costs	$	130,000
Steward / Collector / Hauler / Processor Registration	$	80,000
Total	$	2,762,519

7.5 OTS Administration

OTS administration costs include:

• Accounting, Legal
• Receiving, verifying and auditing Stewards' reports
• Reporting to WDO, MOE and the OTS board and membership
• IT activities to develop and maintain reporting and accounting systems
• General administration costs including:

Staff recruitment and staff costs, Telephone, Postage, Stationary and printing, Subscriptions, Photocopy/Fax, Equipment leases, Meeting expenses, Bank charges, Office supplies, Rent, Travel, Insurance, Depreciation, Computer supplies, Internet access

[41] For a breakdown of WDO costs refer to section 7.6

Table 33: Year 1 Administration Budget

Program Administration	Program Impact	
WDO Costs	$	311,835
Legal	$	100,000
Steward Audits	$	100,000
Collector Audits	$	150,000
Hauler Audits	$	150,000
Processor Audits	$	300,000
Executive Director	$	200,000
Staff Admin Support	$	70,000
Office Space	$	25,000
Consultations	$	120,000
Maintain financial systems, Communications to stewards & stakeholders, KPI reporting, Continuous Inprovement projects	$	1,500,000
MoE Enforcement	$	200,000
Total	$	3,226,835

7.6 WDO Program Costs

Under Section 32 of the WDA, IFOs that are designated by regulation as the IFO for a waste diversion program are required to establish and maintain a fund in respect of the program to be held in trust for the following purposes:

1. To pay the costs of developing, implementing and operating the waste diversion program.
2. To pay a reasonable share of costs not referred to in paragraph 1 that are incurred by Waste Diversion Ontario in carrying out its responsibilities under this Act.
3. To pay a reasonable share of costs incurred by the Ministry in administering this Act.

Paragraph 1 includes all such costs, whether incurred by WDO or the IFO. Paragraph 2 states that the fund maintained by each IFO will be applied to pay “a reasonable share of costs not referred to in paragraph 1 that are incurred by WDO in carrying out its responsibilities under the WDA”. An IFO is therefore responsible for WDO's costs directly attributable to developing, implementing and operating the diversion program for their designated material (Paragraph 1)

and a reasonable share of WDO costs that cannot be directly attributed to designated materials or diversion programs (Paragraph 2).

The following principles guide WDO's cost recovery:

- clearly identify those costs directly associated with specific IFO and ISP program development, implementation and monitoring;
- recover costs directly associated with specific IFO and ISP program development, implementation and monitoring from the respective IFO or ISP; and
- recover unattributable costs from IFOs based on the principle of reasonable sharing of costs.

The following table provides WDO's actual costs associated with Used Tires from 2003 to 2008 and estimated costs for 2009 for the purposes of setting the Used Tires Program budget and Year 1 fees, and are included in the Program Development and Start-Up costs in Section 7.4. Additionally OTS has budgeted for the on-going WDO costs in overseeing the Program under the Administration costs in Section 7.6.

Table 34: WDO Direct Costs and Share of Unattributable Costs Allocated to Used Tires

Waste Diversion Ontario Costs Related to Used Tires program development to December 31, 2008

	March 26 to December 31, 2003	2004	2005	2006	2007	2008	Total March 26, 2003 to December 31, 2008
Board Meetings		$593	$344			$1,241	$2,178
Committee Meetings		$12					$12
Consulting	$4,285					$28,179	$32,464
Legal Fees	$4,175	$1,654	$4,486			$15,219	$25,534
Media and Communications	$350		$183	$203	$124	$292	$1,152
Office & General	$47	$101	$48			$268	$464
Staffing	$13,027	$6,256	$4,138	$184	$180	$22,971	$46,756
Telephone		$14	$132	$1	$1	$14	$162
Travel & Business Dining	$563	$154	$174	$2	$15	$1,653	$2,561
Website Management		$43					$43
Total Direct Costs	$22,447	$8,827	$9,505	$390	$320	$69,837	$111,326
Share of Unattributable Costs	$0	$141,383	$101,936	$14,231	$0	$57,643	$315,193
Total Direct & Share of Unattributable Costs	$22,447	$150,210	$111,441	$14,621	$320	$127,480	$426,519

7.7 Total Program Budget

The OTS Financial Forecast covers the initial year of the program. The financial statement and program delivery performance ratios on the next page illustrate the anticipated pro forma results.

Table 35: Year 1 Financial Forecast

Year 1 Tire Program Budget				
	PL/T Tires	MT Tires	OTR Tires	Total Program Cost
PTEs	9,589,490	2,449,100	7,659,280	
Direct Costs				
Collection	$ 8,882,896.00	$ 1,572,580.00	$ 118,747.20	$ 10,574,223.20
Transportation	$ 19,545,969.23	$ 1,996,770.77	$ 2,544,000.00	$ 24,086,740.00
Processing	$ 17,544,168.40	$ 2,317,746.60	$ 2,139,792.00	$ 22,001,707.00
Direct R&D	$ 873,819.80	$ 89,267.40	$ 1,531,856.00	$ 2,494,943.20
Direct P&E	$ 2,184,549.50	$ 223,168.50	$ 382,964.00	$ 2,790,682.00
Total Direct Costs	$ 49,031,402.94	$ 6,199,533.26	$ 6,717,359.20	$ 61,948,295.40
Direct Costs per PTE	$ 5.11	$ 2.53	$ 0.88	
Shared Costs				
Program D & S	$ 1,453,289.03	$ 148,464.63	$ 1,160,765.34	$ 2,762,519.00
Administration	$ 1,697,553.54	$ 173,418.12	$ 1,355,863.34	$ 3,226,835.00
Stockpiles	$ 1,136,319.54	$ 116,083.76	$ 907,596.70	$ 2,160,000.00
Shared R&D	0	0	0	
Shared P&E	0	0		
Total Shared Costs	$ 4,287,162.11	$ 437,966.51	$ 3,424,225.38	$ 8,149,354.00
Shared Costs per PTE	$ 0.45	$ 0.18	$ 0.45	
Contingencies				
Transportation	$ 1,372,811.20	$ 350,608.00	$ 254,400.00	$ 1,977,819.20
Processing	$ 1,285,948.83	$ 172,354.77	$ 213,979.20	$ 1,672,282.80
Stockpiles	$ 56,815.98	$ 5,804.19	$ 45,379.84	$ 108,000.00
Total Contingencies	$ 2,715,576.01	$ 528,766.96	$ 513,759.04	$ 3,758,102.00
Contingencies per PTE	$ 0.28	$ 0.22	$ 0.07	
TSF per PTE	$ 5.84	$ 2.93	$ 1.39	
TSF per Tire	$ 5.84	$ 14.65	See following Table	
Total Program Budget				**$ 73,855,751.40**

Table 36: OTR Tire TSFs

Year 1 TSF per OTR Tire by Type			
OTR Tire Type	PTEs / Tire	TSF / PTE	TSF / Tire
Agricultural Drive and Logger Skidder Tires	11	$ 1.39	$ 15.29
Small & Large Industrial	9	$ 1.39	$ 12.51
Small Off The Road Tires	16	$ 1.39	$ 22.24
Medium Off The Road Tires	70	$ 1.39	$ 97.30
Large Off The Road Tires	75	$ 1.39	$ 104.25
Giant Off The Road Tires	180	$ 1.39	$ 250.20

Notes to Financial Forecast

1. Annual Generation

Estimates based on 2007 baseline provided by Rubber Association of Canada (RAC) with estimated 2% compounded annual growth in passenger/light truck as well as medium truck tire volume over five years. Estimates also include:

- 15% cull from used tires for reusable passenger/light truck tires
- Anticipated reduction in passenger/light truck used tire volume through consumer education on tire maintenance benefits
    - i. Year 1 – Nil
    - ii. Year 2 - .5%
    - iii. Year 3 – 1%
    - iv. Year 4 – 1.5%
    - v. Year 5 – 2%

The mix of used tires generated annually in Ontario is precipitated by a mix of replacement purchases and new vehicle sales. It is estimated that 30% of the new tires sold in Ontario are sold on new vehicles.

Table 37: Mix of New Tire Sales

New Tire Sales	Passenger & Light Truck Tires	Medium Truck Tires (5 PTEs per MT Tire)	Off The Road Tires (Multiple PTEs depending on Tire type)	Total
Units	10,094,200	515,600	1,287,500	11,897,300
PTEs	10,094,200	2,578,000	8,062,400	20,734,600
Tonnes	100,942	25,780	80,624	207,346

2. Conversion of Units to PTEs

As the range of sizes and weights of used tires vary significantly, the tire recycling industry uses a common measure to provide an indication of tire volume. This measure is Passenger Tire Equivalents (PTE).

In determining the cost allocation for the purposes of calculating the TSF for the two categories of on-road tires (Passenger/Light Truck and Medium Truck) OTS reviewed the costs incurred in actually managing the two types of tires in a used tire management system. Based on interviews with used tire management stakeholders, and a review of costs and allocation models in use in other Canadian jurisdictions OTS has determined that MT tires should attract two times (2x) the program costs on a per tire basis.

In conforming to this approach OTS has presented a budget that allocates costs for PL/T tires and MT tires separately. All costs are shown as per PTE figures, and for the purposes of the program costs MT tires are determined to have a 2 PTE weighting, and PL/T tires a 1 PTE weighting.

For the TSF calculation MT tires are assumed to have a 5 PTE weighting, and PL/T tires a 1 PTE weighting.

3. Conversion to Metric Tonnes

Average weight of a PTE is 22lbs (10 kilograms), 100 PTEs in a metric tonne (2204 lbs.)

4. Annualized Tire Stewardship Fee (TSF) Phase In

The Tire Stewardship Fee is the amount that the steward will remit to OTS for every new tire sold. Experience in other provinces has shown that there is an initial phase-in period in the first year of the diversion program as stewards become registered. OTS built in an assumption that 95% of the tires sold into the Ontario market would be captured in the first year of the program due to the various ways in which tires enter the market. OTS will continually strive to collect remittances on 100% of the tires entering Ontario, and will track the impact of these efforts on the TSF.

5. TSF Collection, Credit and Incentive Payment Costs

It is anticipated that services for retailer registration, collection of TSF, payment to Collectors, Haulers and Processors will be outsourced. Based on the experience of other jurisdictions, fees for these services will be in the range of 8% of TSF collected.

6. Operations Expenses

A Collection Allowance will be provided to registered Collectors. This allowance is intended to cover the costs associated with handling and storing used tires after they have been removed from the vehicle.

Transportation Incentives are based on province-wide rates for PT/LT and MT tires, as well as for OTR transportation.

Processing Incentives are based on approved processing activities. These include crumb and shred rubber, fabricated products and civil engineering. Payment of these incentives is contingent on the Processor providing proof of sale of the processed materials.

In addition to these costs OTS has built in contingencies to cover potential cost overruns in the transportation and processing of used tires under the program.

7. Administrative and Enforcement Fees

These are budget estimates.

8. Stockpile Clean-up

A budget cost of $2.70[42] per PTE has been estimated for stockpile abatement. Based on this cost, the funds allocated for stockpile clean-up for the three years of the plan will result in a reduction of an estimated 2.3 million scrap PTEs[43].

9. OTS Administration

These expenses are budget estimates but are directionally in alignment with costs associated with delivery of programs in other jurisdictions. More detailed budget planning will be completed to specify budget items for operating the office. Start-up costs have been indicated as a separate line item. These need to be further substantiated.

10. Contingency

Contingency is entered as a reserve expense item for uncontrollable variances in either TSF revenue or expenses. In Year 1, contingency expense is set at 5% of the forecast On-road tire management cost, and 5% of the OTR tire management cost. At this point in time, without additional insight from actual operating performance, and taking into account current economic challenges and uncertainty which may significantly impact markets for recycled materials along with a lack of baseline data on the actual management costs of stockpiled and OTR tire, this is an acceptable variance level.

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[42] Data Source: The Average Cost per Tire cost for Stockpiled Tire Abatement is based on the average costs of abatement for recent Stockpile remediations.
[43] Data Source: MoE Stockpile Survey, 2008

Table 38: Contingency as a % of Total Program Costs

Contingencies					
	Transportation (8% Contingency)	Processing (8% Contingency)	Stockpiles (5% Contingency)	Total	Contingency as a % of Program Cost
On-Road Tires	$ 1,723,419.20	$ 1,458,303.60	$ 62,620.16	$ 3,244,342.96	5%
OTR Tires	$ 254,400.00	$ 213,979.20	$ 45,379.84	$ 513,759.04	5%

11. Program Delivery Performance Ratios

In an effort to benchmark the operating performance of OTS, metrics used by other scrap tire program organizations have been adopted. These have been expanded to track all expense categories as a percentage of total gross TSF collected. These are: TSF collection costs, operations expenses, administrative and enforcement fees to government agencies, core stewardship programs, stockpile abatement and OTS administrative costs.

12. Budget Surplus

The Program Budget has been developed based on the best available costs that OTS has at this time. As a result OTS does not anticipate a budget surplus. However should a surplus result in any Program year OTS will apply the surplus to the next year budget, ensuring that there is no cross subsidization among tire categories as a result.

7.8 Steward Fee Rates

Tire Stewardship Fees and Collection Processes

Stewards are required to remit a Tire Stewardship Fee (TSF) for each new eligible program tire sold in Ontario, either through replacement tire sales or together with a new vehicle (e.g., when a new car is sold, the tire levy of $5.84 must be collected on each of the tires, including the spare if the vehicle has one). Similarly, for Medium Truck tires, the TSF would be collected for every tire on the vehicle including the spare and on OTR tires a TSF per PTE will be remitted. The TSF will not be applied to reused or retreaded tires.

For the purpose of applying the TSF, a tire is considered to be new from the time when it is manufactured until the time it is sold for consumption or use, or is taken out of stock for consumption or use. The TSFs of $5.84 for passenger (PT) or light truck (LT) tire and $14.65 for a Medium Truck (MT) tire and $1.39 per PTE for OTR tires will be remitted 30 days after month-end to OTS. Interest penalties and administration fees for late payment are specified in the Steward's Rules.

OTS will engage the services of an outsourcing organization to register Brand Owners and First Importers. The outsourcing organization will also be accountable for collection of all TSFs and pursuit of delinquent accounts. They will also operate a 'compliance dashboard' to identify any program compliance issues that may require a spot audit to assess for compliance.

OTS will develop a financial audit protocol that will be administered by a third party auditor. The audit will serve to ensure TSF collection integrity and that Stewards are properly and accurately submitting fee remittances.

GST Status

The TSF is subject to PST; however, GST status remains to be determined. Some provincial tire boards have received approval from the Canada Revenue Agency (CRA) to not charge the Federal Goods and Services Tax (GST) on the TSF.

This position by CRA has not been consistent across the country and will require a specific ruling for the Ontario program. A plan has been initiated to obtain a ruling from CRA for the Ontario program.

Until such time as OTS receives a formal ruling on GST applicability, it will be assumed that the TSF is subject to GST.

7.9 Economic Implications for Stewards and Stakeholders

Stewards

Under the proposed Used Tires Program stewards bear the responsibility for reporting on sales of new program tires into Ontario, and remitting the appropriate TSF to OTS on these sales. This new obligation will impose a new cost on the stewards that was not borne prior to program implementation in the province. Given the amount of the levy as compared to the overall cost of the tire the impact on the business of stewards of passenger and light truck tires is expected to be manageable. There may be a negative impact on the sales of these tires in areas that border other jurisdictions which may not have similar costs attached to the sale of tires, or where the TSF is lower.

Regarding OTR tires, the imposition of the TSFs in this Program Plan may affect stewards' business as to date no other Canadian jurisdiction has applied TSFs to OTR tires. Regarding, medium truck tires, existing TSFs on medium truck tires in other Canadian jurisdictions are currently below the actual costs to manage these tires.

Table 39: Jurisdictional TSF Comparison

	Proposed Ontario TSF	Quebec TSF	Manitoba TSF	New York TSF	Michigan TSF
Passenger / Light Truck Tires	$ 5.84	$ 3.00	$ 4.50	$ 2.50	None
Medium Truck Tires	$ 14.65	$ 3.00	$ 9.00	$ 2.50	None
OTR Tires TSF/PTE	$ 1.39	None	None	None	None
Agricultural Drive and Logger Skidder Tires	$ 15.29	None	None	None	None
Forklift, Bobcat/Skid Steer and Industrial Tires	$ 12.51	None	None	None	None
Small Off The Road Tires	$ 22.24	None	None	None	None
Medium Off The Road Tires	$ 97.30	None	None	None	None
Large Off The Road Tires	$ 104.25	None	None	None	None
Giant Off The Road Tires	$ 250.20	None	None	None	None

Tire Retailers

Currently, most Ontario tire retailers charge customers a disposal fee to handle and dispose of customers' used tires and then pay a Hauler to remove the used tires for disposal.

Under the proposed Ontario plan, it is expected that the tire retailer will play a critical role as the primary Collector of used tires in the province and as such the primary financial impact on the tire retailer will be the end of the need to pay Haulers to pick-up used tires they have collected. It is expected that this will reduce the incidence of illegal dumping by removing one of the barriers to tire retailers accepting tires from consumers at no charge.

In addition the program will pay the Used Tire Collector under the program, a Collection Allowance to cover the costs of handling and storing the used tire after it is removed from the vehicle.

The Used Tire Collection Allowance for PL/T tires is $0.88 per tire, for MT is $$3.05 per tire, for OTR tires <= 1 PTE is $0.88 per tire and for OTR tires > 1 PTE is $3.05 per tire.

Municipalities

Based on discussions with municipal stakeholders, municipalities currently collecting used tires charge a range of disposal fees, the average of which is approximately $2.00 per tire. Municipalities generally pay approximately $2.25 per tire to a Hauler to pick up used tires.

Under the program municipalities will no longer be charged a fee for used tire pick up. Additionally the program will pay the municipality, as a Collector under the program, a Collection Allowance to cover the costs of handling and storing the used tire after it is removed from the vehicle.

Table 40[44]: Municipal Used Tire Collection Economics Comparison

Value Chain Element	Current State	Proposed Program
Average Used Tire Disposal Fee Revenue	$2.00/used tire	Nil
Average Cost of Disposal (hauling fee)	$2.25/used tire	Nil
Collector Handling Incentive	Nil	$0.88/ P/LT tire
Net	$- 0.25/used tire	$0.88/ P/LT tire

Haulers

In the current situation, Haulers charge used tire generators (retailers, automobile recyclers, municipalities etc.) a fee for picking up used tires that is typically in the range of $2.25 per Passenger and Light Truck tire. The Hauler then culls reuseable tires for resale and transports the balance to a Processor for recycling. On a less frequent basis, there may also be retreadable commercial tire casings that Haulers can then sell to a retreader. The cull of reuseable and retreadable tires makes up a significant revenue stream for Haulers.

The Hauler pays the Processor a tipping fee of approximately $25-$50 per metric tonne for receiving the tires for recycling. The margin between the fee per tire paid to the Hauler and the tipping fee paid by the Hauler to the Processor constitutes a revenue stream for Haulers.

Under the proposed program, Haulers are paid a Transportation Incentive, may negotiate additional charges for pick-up of tires on rims, and/or in the event that tires are not stored in conformance with the Terms & Conditions for Collectors (*Appendix 8*: *Terms & Conditions for Collectors*), may cull tires to be sold for reuse and retreading and do not pay a tipping fee when delivering scrap tires to a registered Processor.

The table below summarizes the economics for Haulers in the current state as well as under the proposed program. The values illustrating the economics are average estimated values established during consultations and are for comparison purposes only.

Table 41[45]: On-Road Tire Hauler Economics Comparison

Value Chain Element	Current State	Proposed Program
Hauling Fee/P/LT	Average $2.25 / P/LT	Average $1.70 / P/LT

[44] Data Source: OTS Survey of Municipal stakeholders
[45] Data Source: OTS interviews with Ontario Used Tire Collectors, Haulers and Processors

Cull for Resalable Tires	Yes	Yes
Surcharges	Hauler may negotiate a surcharge	Hauler able to negotiate a charge to Collector for approved surcharges eg. tires on rims
Tipping Fee	$0.25 - $0.65/ PTE	N/A
Net	$1.60 - $2.00 / PTE	$1.70 / PTE

Note: Transportation incentives will be adjusted to compensate for fuel surcharges on a regular basis.

Processors

Currently, Processors' financial performance varies significantly due to seasonal, and market conditions as well as the cost structures of individual operations. The uses to be supported through processing incentives include crumb rubber production, fabricated products and civil engineering. Currently crumb rubber and fabricated products are the primary processing uses in Ontario.

Consistency of supply and predictability in the off-setting financial effect of processing incentives will bring business stability for Processors and set the stage for growth in value-added recycling across the hierarchy of supported uses. Given the variability in business focus and cost structure for crumb rubber producers there will likely continue to be rationalization and consolidation in this portion of the scrap tire value chain as it matures.

The following tables summarize the economics for Processors in the current state as well as under the proposed program. The values illustrating the economics are average estimated values that were established during consultations as well as market pricing research and are for comparison purposes only.

The Processing Incentives include two components: one to offset the Processors need to charge a tip fee, thus reducing or eliminating the incentive to dispose of tires outside the formal used tire management system; and a second component to encourage Processors to invest in their business to develop Ontario processing capacity to be able to manage 100% of the annual scrap tire generation in the Province.

Table 42[46]: Crumb Rubber Processor Economics Comparison

Value Chain Element	Current State	Proposed Program
Tipping Fee	$25 - $50/tonne	N/A

[46] Data Source: OTS Survey of Ontario Processors

Yield adjusted Tipping Fee (approximately 70% crumb yield from a PTE)	$38 - 77/tonne	N/A
Crumb Rubber Processing Incentive (on sale of finished product)	N/A	$235/tonne
Average Market Price of Crumb Rubber	$242/tonne	$242/tonne
Average Gross Margin/Tonne Crumb Rubber	$280 - $319/tonne	$477/tonne

Table 43[47]: TDA Processor Economics Comparison

Value Chain Element	Current State	Proposed Program
Tipping Fee	$25 - $50/tonne	N/A
TDA Processing Incentive (on sale of finished product)	N/A	$55/tonne
Average Market Price of TDA	$15/tonne	$15/tonne
Average Gross Revenue/Tonne TDA	$40-65/tonne	$70/tonne

Table 44[48]: Fabricated Products Processor Economics Comparison

Value Chain Element	Current State	Proposed Program
Tipping Fee	$0/tonne	N/A
Fabricated Products Processing Incentive (on sale of finished product)	N/A	$65/tonne
Average Market Price of Crumb Rubber	$20/tonne	$20/tonne
Average Gross Revenue/Tonne	$20/tonne	$85/tonne

<u>Manufacturing incentive</u>

[47] Data Source: OTS Survey of Ontario Processors
[48] Data Source: OTS Survey of Ontario Processors

In Year 1 OTS is proposing to make $1.6 million available in manufacturing incentives (MI). In 2007 Ontario molded, extruded and calendered rubber products producers produced about 15,000 tonnes of molded automotive products and 3,500 of other molded products. Prices ranged $0.13/kg (molded products) to $1.10/kg (automotive products) with an average price of $0.92/kg

OTS is proposing to make a MI of $160/tonne available on every tonne of volume of manufactured products produced up to the production of an additional 10,207 tonnes. OTS will work with manufactured goods producers to develop rules regarding how much of the MI any one producer can access. These rules will be structured such that all producers of manufactured rubber products from TDP's will be treated fairly, and new market entrants will be encouraged.

8.0 PROGRAM RULES

OTS, as the IFO for Used Tires is required to develop Rules for the Used Tire Program. Section 30 and 31 of the WDA outlines what the rules cover:

Section 30: Rules relating to Stewards

30. (1) If an industry funding organization is designated by the regulations as the industry funding organization for a waste diversion program, the organization may make rules,

(a) designating persons or classes of persons as Stewards in respect of the designated waste to which the waste diversion program applies;
(b) setting the amount of the fees to be paid by Stewards under subsection 31 (1) or prescribing methods for determining the amount of the fees;
(c) prescribing the times when fees are payable under subsection 31 (1);
(d) requiring the payment of interest or penalties on fees that are not paid in accordance with subsection 31 (1);
(e) exempting Stewards or classes of Stewards from subsection 31(1), subject to such conditions and restrictions as may be prescribed by the rules;
(f) requiring Stewards to keep records prescribed by the rules and governing the submission of those records to persons specified by the rules and the inspection of those records by persons specified by the rules;
(g) requiring Stewards to provide reports and other information to persons specified by the rules.

Stewards

30. (2) A rule made under clause (1) (a) shall not designate a person as a Steward in respect of a designated waste unless the person has a commercial connection to the designated waste or to a product from which the designated waste is derived.

Section 31: Payment of Stewardship fees

31. (1) A person who is designated under the rules made by an industry funding organization as a Steward in respect of a designated waste shall pay to the organization the fees determined in accordance with the rules at the times specified by the rules.

8.1 Rules for Stewards

ONTARIO TIRE STEWARDSHIP

RULES FOR STEWARDS WITH RESPECT TO PAYMENT OF TIRE STEWARDSHIP FEES

1. Interpretation

In these Rules, the following terms shall have the following meanings. A reference to a statute or act of any legislature shall, unless otherwise expressly provided, be deemed to refer to such statute or act as it existed at the date of these Rules and as it may be amended or replaced from time to time. The headings used throughout these Rules are solely for convenience and are not to be used as an aid in the interpretation of these Rules. The singular or masculine or neuter, as used in these Rules, shall be construed to mean the plural or feminine or body corporate where the context of these Rules may so require. Capitalized terms which are not otherwise defined will have the meaning given to them in the *Waste Diversion Act, 2002*:

Affiliate means an affiliated body corporate within the meaning of subsection 1(4) of the *Business Corporations Act* (Ontario).

Base Interest Rate means the interest rate established from time to time under the Rules of Civil Procedure of the *Courts of Justice Act*, as amended from time to time, for prejudgment interest;

Brand means a trademark within the meaning of the *Trade-marks Act (Canada)*, whether or not registered pursuant thereto;

Brand Owner means, with respect to Branded Tires, during any time in the Data Period:

(a) a Person Resident in Ontario who is the registered owner of the Brand, or

(b) a Person Resident in Ontario who is a licensee of the registered owner of the Brand, or

(c) a Person Resident in Ontario, who owns the intellectual property rights to the Brand, or

(d) a Person Resident in Ontario, who is a licensee, in respect of the intellectual property rights to the Brand;

Branded means that a Brand is attached to or otherwise associated with Tires;

Commencement Date means the first day of the first calendar month which begins at least 120 days after the date of publication of the Regulation on the e-Laws Website designating OTS as the industry funding organization for Used Tires; provided that, if 120 days from such date

of publication will fall in the months of October, November or December, then Commencement Date means January 1 of the next succeeding calendar year;

Commercial Connection, for the purposes of these Rules, means that a Person derives a direct economic benefit when the particular New Tires are Supplied in Ontario;

Commercial Tires means medium truck Tires as defined in Appendix A: *OTS Definition of Program Tires;*

Data Period means each one month period ending the last day of each calendar month starting on the Commencement Date;

e-Laws Website means the website of the Government of Ontario for statutes, regulations and related materials that is available on the Internet at www.e-laws.gov.on.ca or at another website address specified by a regulation made under subsection 1(3) of the *Legislation Act, 2006*;

Filed means electronically submitted or mailed to OTS at an address identified to the Stewards by mail or electronically, with confirmation of transmission in the case of sending by electronic means;

First Importer means a Person Resident in Ontario who imports New Tires into Ontario but is not a Brand Owner of such New Tires, and includes a Person Resident in Ontario who is the first to take title to or delivery or possession of such Tires, upon or after arrival in Ontario from elsewhere during the Data Period. A Person who takes delivery/possession of New Tires only for the purpose of transporting them to another Person in Ontario is not the First Importer of the Tires;

Light Truck Tires means Tires designed for light trucks as defined in Appendix A: *OTS Definition of Program Tires*;

New Tires means all Tires Supplied with a new vehicle, or new replacement Tires or new additional Tires Supplied separately or with used vehicles, but does not include Used Tires or Retreaded Tires;

OEM means a manufacturer or first importer of new vehicles for Supply in Ontario;

OTS means Ontario Tire Stewardship;

Passenger Tires means Tires designed for passenger vehicles as defined in Appendix A: *OTS Definition of Program Tires*;

Person includes an individual, partnership, joint venture, sole proprietorship, company or corporation, government (whether national, federal, provincial, state, municipal, city, county or otherwise and including any instrumentality, division, body, department, board or agency of any of them), trust, trustee, executor, administrator or any other kind of legal personal representative, unincorporated organization, association, institution, entity, however designated;

Published Address means an address in Ontario appearing in a current telephone directory or a recognized current published business directory;

Resident in Ontario means either of the following: (i) having a published address in Ontario; or (ii) having a permanent establishment in Ontario for the purposes of the *Corporations Tax Act (Ontario)***;**

Retreaded Tires means Used Tires which have been reconditioned for the purpose of extending the useful life of the Tires, including replacement of the tread rubber only or replacement of tread and sidewall rubbers;

Rules means these rules, and includes additional rules or amendments to these Rules from time to time, as published by OTS on its website;

Steward means a Person designated as such under Rule 2; and "Stewards" means more than one Steward;

Steward's Report means a report prepared by a Steward and filed with OTS describing the aggregate amount of New Tires Supplied in the Data Period by the Steward and its Affiliates, containing the information required by Appendix B;

Supplied means:

(i) sold or otherwise transferred (whether by transfer of possession or title);
(ii) leased;
(iii) donated;
(iv) disposed of; or
(v) otherwise made available or distributed

for use in the Province of Ontario, and includes an import of New Tires for a purpose set out in Rule 2(3)(b); **Supply** and **Supplies** have similar meanings;

Tire Stewardship Fees means the fees payable to OTS pursuant to Rule 4;

Tires means products comprised primarily of rubber for mounting on passenger vehicles, motorcycles, trucks, buses, mobile homes, trailers, aircraft, earthmoving, road building, mining, logging, agricultural, industrial and other vehicles to provide mobility, but does not include tires on or for toys, bicycles, personal mobility devices and commercial aircraft;

Unbranded means a Brand is not attached to or otherwise associated with Tires;

Used Tires means all Tires, including any part of a tire, that, for any reason, are not suitable for their originally intended purpose**,** but does not include Retreaded Tires.

2. Designation of Stewards

For the purposes of determining which Person shall be designated as a Steward for New Tires, the following provisions shall apply, in the order in which they are set out, If two or more Persons are designated as a Steward pursuant to the following, the earlier provision shall prevail.

(1) An OEM is designated as the Steward with respect to all New Tires on vehicles Supplied by the OEM;

(2) A Brand Owner is designated as a Steward with respect to all New Tires;

(a) Supplied in the Data Period in respect of which it is the Brand Owner; and

(b) to which it has a Commercial Connection;

(3) A First Importer is designated as a Steward with respect to all New Tires:

(a) Supplied in the Data Period of which it is the First Importer; or
(b) of which it is the First Importer in the Data Period for use by it or its Affiliate in the Province of Ontario, other than New Tires purchased by an individual for personal use;

(4) If there are Unbranded Tires Supplied in the Data Period, and if the manufacturer is Resident in Ontario, the manufacturer of such Tires shall be designated as the Steward for such Tires; otherwise the First Importer shall be designated as the Steward for such Tires;

(5) If there are two or more Brand Owners for the same Tires Supplied in the same Data Period, the Brand Owner most directly connected to the manufacture of the Tires shall be designated as the Steward;

(6) Where there is no Steward for a particular Supply of New Tires in Ontario, any Person who elects to become a Steward for such New Tires shall, upon obtaining the consent of OTS and executing an agreement to be bound by these Rules, be designated a Steward for such Supply.

3. Steward's Report

(1) Every Steward shall file its first Steward's Report with OTS on or before the later of:

(a) the last day of the first calendar month after the end of the first Data Period after the Commencement Date; and

(b) 90 days after such Steward is notified of the existence of these Rules and how to obtain a copy of them.

(2) Stewards may amend a Steward's Report with the consent of OTS to correct information in the Steward's Report that is in error or to replace data previously reported.

(3) Once it has filed its first Steward's Report, a Steward shall file a Steward's Report in accordance with the schedule as set out in Appendix C.

(4) Notwithstanding the above OTS may require a Steward to file a Steward's Report by sending a written request to the Steward.

4. Fees Payable

(1) Stewards shall pay Tire Stewardship Fees to OTS on New Tires Supplied in the relevant Data Period in accordance with Appendix C. The amount of Tire Stewardship Fees shall be calculated in accordance with Appendix D by multiplying the number of units of each type of New Tires included in the Steward's Report by the Fee Rate set out opposite such type.

(2) Notwithstanding that a Steward has not received the notice in Rule 3(1), it is responsible for payment of Tire Stewardship Fees for all New Tires for which it is a Steward from and after the Commencement Date to the date on which it receives such notice.

(3) OTS may provide a credit for Tire Stewardship Fees which are overpaid, or which are for the same New Tires for which another Person has paid Tire Stewardship Fees.

(4) A Person described in any provision of Rule 2 who receives a Supply of New Tires from a Person who may be a Brand Owner, First Importer or OEM (the "provider") must ensure that the provider is a Steward with an OTS identification number. The OTS identification number will be posted on the OTS website.

(5) A Steward shall remit GST applicable to the Tire Stewardship Fee to OTS with each monthly remittance of the Tire Stewardship Fee.

5. Penalties, Interest and Back Fees

(1) Stewards who fail to pay Steward's Fees by the dates specified in Appendix D will be subject to a penalty calculated at 10% of Tire Stewardship Fees due and payable.

(2) If the amounts reported in a Steward's Report are inaccurate, any deficiency in Tire Stewardship Fees resulting from such inaccuracies shall be immediately due and payable from the date of the filing of the correcting Steward's Report or the date the Steward first knew of such inaccuracy, whichever is earlier, and, if not paid within 30 days, will be subject to a penalty equal to 10% of such Tire Stewardship Fee deficiency.

(3) Interest on the amounts payable under Rules 5(1) and 5(2) shall accrue from their respective due dates at the Base Interest Rate plus 3% per annum. In addition, a Steward shall pay all collection costs, including all proper and reasonable legal fees, incurred by OTS, whether or not an action or any other legal remedy has been commenced.

(4) OTS may waive all or part of any penalty, interest or charges otherwise payable under this Rule 5.

6. Record Provision and Retention

(1) Upon request from OTS, Stewards shall promptly provide data used in the preparation of the Steward's Report, including calculation methodology, product data, internal audit reports, list of Brands reported and list of Brands excluded from report and such other information or data in the Steward's possession or control as may be reasonably requested by OTS to substantiate the accuracy of the Steward's Report.

(2) A Steward shall retain records or, on receipt of written request, provide records at an address in the Province of Ontario to substantiate and verify the amount set out in its Steward's Report for a period of not less than five years from the date of the Steward's Report to which they relate. A Steward shall grant access to OTS upon its request to examine its books and records to enable OTS to audit and inspect such records respecting a Steward's Report up to five years after the date of receipt of such Steward's Report by OTS.

7. Dispute Resolution

If any dispute arises between a Steward and OTS as to the amount of New Tires that is required to be included in a Steward's Report:

(1) The parties shall attempt to resolve the dispute through designated representatives from each of OTS and the Steward within 30 days after written notice of the dispute was first given, or as otherwise agreed upon.

(2) If the parties are unable to resolve the dispute within the above period, the Steward and OTS shall, within 30 days thereafter, jointly select an arbitrator to arbitrate the dispute. If the Steward does not nominate an arbitrator within the 30 day period, OTS shall nominate the arbitrator. The arbitration shall be conducted in accordance with the *Arbitration Act, 1991*.

(3) The arbitrator shall render a written decision on the dispute within 14 days after the arbitration hearing or submission. The decision of the arbitrator shall be final and binding on the parties and shall be subject to appeal only on questions of law and not on questions of fact, in accordance with Section 45 of the *Arbitration Act, 1991*, and shall be enforceable against OTS and the Steward, as the case may be, immediately on the issue of such decision to the parties to the dispute.

8. Interpretive Memoranda

OTS may publish on its website non-binding interpretive memoranda on these Rules and how it proposes to administer them.

9. Publishing of Names

(1) OTS will provide all Stewards with an identification number.

(2) The names and identification numbers of Stewards filing Steward's Reports will be posted on the OTS website.

(3) OTS may post a list on its website of all Brands reported in Steward's Reports from time to time, and all OEM's, Brand Owners, First Importers and other Stewards associated with such Brands.

10. Notice

Any notice, request or other communication from OTS to a Steward which is required or may be given under these Rules may be delivered or transmitted by means of electronic communication, personal service or by prepaid first class postage to the Steward at a Published Address in Ontario and shall be deemed to have been received on the third day after posting and on the first day after the date of electronic transmission, in each case which is not a Saturday, Sunday or public holiday in Ontario.

11. Amendments to Rules

These Rules may be amended by OTS from time to time. On receipt of any necessary approvals and the publication of the amended Rules on OTS' website, such amendments will come into effect and apply to all Stewards from and after the effective date.

Appendix A: Tires Definitions

	Product Category	Definition
1)	On-Road Tires	**Passenger Tires, Small RV Tires, ST Trailer tires and Light Truck Tires and Temporary Spares** Passenger tires are designed for use on passenger cars, light trucks, small RVs and multipurpose passenger vehicles (MPVs), including sport utility vehicles (SUVs) and crossover utility vehicles (CUV's), and to comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 109). The light truck tire category is tires designed for use on consumer or commercial light trucks, under 10,000 lbs. Gross Vehicle Weight, and comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119). Codes found on the sidewall of light passenger and light truck tires are P (Passenger) and LT (Light Truck). Temporary spare tires are marked T (Temporary). **Motorcycle, Golf Cart and All Terrain Vehicle Tires** Includes all tires specifically designed for on/off highway motorcycles, motorcycle sidecars, motor bikes, mopeds, mini-cycles, golf carts and all terrain vehicles. **Forklift, Small Utility, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer tires measuring 16” rim size and under **Free Rolling Farm Tires** Includes free rolling farm and implement tires up to 16” rim size used on farm equipment. **Medium Truck Tires** Also commonly known as Commercial Truck Tires – Truck and Bus tires including Wide Base or Heavy Truck tires designed for truck/bus applications and Larger RV tires not marked "P or LT”. All of which comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119).
2)	Off-Road Tires	**Agricultural Drive and Logger Skidder Tires** Includes drive wheel tires used on tractors and combines and tree harvesting equipment. These tires are normally identified with a sidewall marking with suffix letters (R), or (HF) or (LS) and are 16.5”

		and up rim size. These tires are listed in The Tire and Rim Association Inc. annual yearbook Section 5 Agricultural. **Forklift, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer Tires measuring 16.5” and over. **Small Off The Road Tires** Sizes 1300R24 to 23.5R25 Rim Size **Medium Off The Road Tires** Above 23.5R25 to 33 inch Rim Size **Large Off The Road Tires** Above 33 inch to and including 39 inch Rim Size **Giant Off The Road Tires** Over 39 inch Rim Size **Industrial (Solid) Tires** Solid Industrial Tires e.g. for Forklift Trucks etc.

Appendix B

ONTARIO TIRE STEWARDSHIP (OTS)

TIRE STEWARDSHIP FEE RETURN

Revised: 02/13/09

Registrant Name (Operating name)	**Registration Number**

Reporting Period (Calendar month in which tire sales occurred)	**Due Date** The TSF Return and related payment are due **30 days after the end of the month following the Reporting Period**. Interest is payable on all overdue amounts. A Return **must** be submitted for every month, even if there were no TSF applicable sales in the Reporting Period.

SALES & TSFs IN REPORTING PERIOD

Tire Types	**# Tires Sold**	**TSF Rate Per Tire**	**$ TSF Due**
Passenger & Light Truck / Motor Cycle / ATV / Free Rolling Farm Tires		X **$5.84** =	, . 0 0
Medium Truck Tires		X **$14.65** =	, . 0 0
Agricultural Drive and Logger Skidder Tires		X **$15.29** =	
Small & Large Industrial Tires		X **$12.51** =	
Small Off The Road Tires		X **$22.24** =	
Medium Off The Road Tires		X **$97.30** =	
Large Off The Road Tires		X **$104.25** =	, . 0 0
Giant Off The Road Tires		X **$250.20** =	, . 0 0
	TOTAL TSF DUE		, . 0 0
		GST @ 5%	, .
TOTAL REMITTANCE PAYABLE (TSFs + GST)			, .

WHERE TO REMIT:

A cheque or money order for the total amount should be made payable to **Ontario Tire Stewardship,** attached to this TSF Return, and forwarded to the following address:

Note: Nil Returns can be faxed to ######

CERTIFICATION:

I certify that the amounts indicated above are the amounts of the Tire Stewardship Fees that I am required to remit for the reporting period indicated. OTS is entitled to examine my records relating to sales of new tires and the remittance of the Tire Stewardship Fees.

Authorized signature:

_____ **Date:** _____ / _____ / _____

Month Day Year

GST #: ####### Please tick this box to sign up for the Return to Retailer Program ☐

Appendix C

Payment and Reporting Schedule

Payment and reporting schedule will be monthly. The reporting schedule will depend on when a Steward is notified.

Monthly Data period	**Data period end date**	**payment deadline**
First month	Last day of first month	30 days from last day of first month
Second month	Last day of second month	30 days from last day of second month
Etc.	Etc.	Etc.

All obligated Stewards are required to file individual Steward's Reports from the commencement date of these Rules. Obligated Stewards are required to file a Steward's Report for all outstanding Steward's Reports by the date outlined in Rule 4 of these Rules and then the regular schedule of filings and payments shall apply.

Stewards who fail to pay Tire Stewardship Fees as set out in the instalment schedule above shall pay in addition:

- A penalty of 10% of the Tire Stewardship Fees due and payable.
- Interest at the Base Interest Rate plus 3% on any outstanding balance due.

Appendix D

Table of Fees: 12 months post-Commencement

Tire Type	PTEs per tire	TSF per PTE	TSF per Tire
PL/T Tires	1	$ 5.84	$ 5.84
MT Tires	5	$ 2.93	$ 14.65
Agricultural Drive and Logger Skidder Tires	11	$ 1.39	$ 15.29
Small & Large Industrial Tires	9	$ 1.39	$ 12.51
Small Off The Road Tires	16	$ 1.39	$ 22.24
Medium Off The Road Tires	70	$ 1.39	$ 97.30
Large Off The Road Tires	75	$ 1.39	$ 104.25
Giant Off The Road Tires	180	$ 1.39	$ 250.20

9.0 GOVERNANCE

The governance of Ontario Tire Stewardship is expected to progress through the following distinct phases:

- Development of the Program Plan
- Implementation of the Program Plan upon approval by the Minister
- Re-evaluation of the governance structure after initial registration of obligated Stewards is completed.

Stage I – Development of the Phase 1 Program Plan

Under a Memorandum of Agreement (MOA) between WDO and Ontario Tire Stewardship (OES) the following governance structure for OTS was established for the development of the Used Tires Program Plan:

- Directors (voting)
    - Three representatives - tire manufacturers
    - Two representatives - vehicle manufacturers
    - Two representatives - retailers who are both brand owners and first importers of tires
    - Two representatives - retailers and/or wholesale distributors who are first importers of tires
- Observer (non-voting)
    - Representative, Waste Diversion Ontario

Stage II – Implementation of the Phase 1 Program Plan upon Plan Approval

Paragraph 26 (2) 6 of the WDA requires that information submitted with the Program Plan include:

A proposal for a regulation governing the composition and appointment of the board of directors of the industry funding organization.

Given that the actual number of Used Tires Stewards and the quantity of fees to be paid by each of the Phase 1 material categories is uncertain until such time that the first full Used Tires Steward reporting cycle is complete, it is proposed that this regulation be structured such that the OTS board of directors be composed of the following members:

- Three members appointed by The Rubber Association of Canada.
- Two members appointed by Retail Council of Canada.
- Two members appointed by Ontario Tire Dealers Association.
- One member appointed by Canadian Vehicle Manufacturers Association.
- One member appointed by Association of International Automobile Manufacturers of Canada.

Stage III – Following the Initial Registration of Used Tires Stewards

At the first Ontario Tire Stewardship annual meeting following the first complete fiscal year of the Used Tires Program, or at such later date as may be determined, OTS will review the composition of the board of directors to determine if changes are required to appropriately reflect the composition of the registered Stewards at that time. OTS will assess the marketplace to ensure Stewards are adequately represented on the OTS Board. If changes are deemed to be required, a methodology for selection and a proposal will be made to WDO and the Minister for a regulation that would amend the composition of the board of directors.

Thereafter, directors will likely be elected every two (2) years.

10.0 PROGRAM AGREEMENT

PROGRAM AGREEMENT

Preamble

THIS AGREEMENT made in duplicate is effective as of this ____ day of _____, 2009
B E T W E E N:

WASTE DIVERSION ONTARIO,
a corporation without share capital
incorporated by the *Waste Diversion Act, 2002*

(hereinafter referred to as “Waste Diversion Ontario”)

- and -

ONTARIO TIRE STEWARDSHIP,
a corporation without share capital
incorporated pursuant to the *Corporations Act* (Ontario)

(hereinafter referred to as “Ontario Tire Stewardship”)

WHEREAS according to Subsection 25 (3) of the *Act*, a waste diversion program developed under this *Act* must include an agreement between Waste Diversion Ontario and the industry funding organization that the program is developed in cooperation with, governing the role of the industry funding organization in the implementation and operation of the program and governing the exercise of the industry funding organization’s powers under the *Act*;

AND WHEREAS Waste Diversion Ontario has caused Ontario Tire Stewardship as the industry funding organization to be established under Section 24 of the *Act* for the purposes of developing and implementing a waste diversion program for Used Tires under the *Act*;

NOW THEREFORE in consideration of the premises and mutual agreements contained herein and subject to the terms and conditions hereinafter set forth, the parties covenant and agree as follows:

1. Purpose of the Agreement

1.1 The purpose of this Agreement between Waste Diversion Ontario and Ontario Tire Stewardship is to:

(a) Define the roles and responsibilities of the two parties during the implementation and operation of the Waste Diversion Program for Used Tires;

(b) Set out the operating relationships between the two parties during the implementation and operation of the Waste Diversion Program for Used Tires; and

(c) Ensure openness and transparency to serve the public interest.

2. Definitions and Interpretation

2.1 Terms beginning with capital letters and used herein without definition shall have the meanings given to them in the Act, unless otherwise specified.

2.2 When used in this Agreement, the following words and expressions have the following meanings:

(a) "**Act**" means the *Waste Diversion Act, 2002*, S.O. 2002, c. 6, as it may be amended from time to time;

(b) "**Agreement**" means this Program Agreement which is entered into pursuant to Section 25 (3) of the *Act* and includes all attached schedules and any amendments thereto;

(c) "**Business Day**" means any working day, Monday to Friday inclusive, excluding statutory and other holidays, namely: New Year's Day; Good Friday; Easter Monday; Victoria Day; Canada Day; Civic Holiday; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day, Boxing Day and any other day which the Government of Ontario has elected to be closed for business;

(d) "**Documentation**" means, for purposes of Section 9 of this Agreement, correspondence, documentation whether paper or electronic pertaining to public consultation during development of the Used Tires Program Plan, minutes of meetings of the Board of Directors and subcommittees, internal reports, consultants' reports, agendas and other information and data obtained, created or maintained by Ontario Tire Stewardship;

(e) "**FIPPA**" means the *Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. F.31, as amended;

(f) "**Funds**" means monies received by Ontario Tire Stewardship as described in Subsection 32(3) of the *Act*;

(g) "**Material change**" means a change to this agreement or the Used Tires Program Plan which requires review and approval by Waste Diversion Ontario and by the Minister as outlined in Section 3.5;

(h) **"Minister"** means the Minister of the Environment, Province of Ontario;

(i) **"Ministry"** means the Minister's ministry;

(j) "**Operating Agreement"** means the Operating Agreement (including all amendments) entered into between Waste Diversion Ontario and the Minister;

(k) "**Stewards**" means the persons or classes of persons designated under the Used Tires Program Plan rules as responsible for paying fees to Ontario Tire Stewardship;

(l) **"Steward"** means any member of the class of "Stewards";

(m) "**Used Tires**" means waste materials defined under Ontario Regulation 84/03;

(n) **"Used Tires Program Plan**" means the waste diversion program submitted by Waste Diversion Ontario in cooperation with Ontario Tire Stewardship and submitted to the Minister for approval, of which this Agreement forms a part; and

(o) "**Waste Diversion Program**" means a program referred to in Sections 23 and 25 of the *Act*.

2.3 In this Agreement,

(a) Words denoting the singular include the plural and vice versa and words denoting any gender include all genders;

(b) The word "including" or "includes" shall mean "including [or includes] without limitation";

(c) Any reference to a statute shall mean the statute in force as at the date hereof, together with all regulations promulgated thereunder, as the same may be amended, re-enacted, consolidated and/or replaced, from time to time, and any successor statute thereto, unless otherwise expressly provided;

(d) When calculating the period of time within which or following which any act is to be done or step taken, the date which is the reference day in calculating such period shall be excluded; if the last day of such period is not a Business Day, the period shall end on the next Business Day;

(e) All dollar amounts are expressed in Canadian dollars;

(f) Any tender of notices or documents under this Agreement shall be made upon the relevant party at the address set out in Section 13;

(g) The division of this Agreement into separate sections and subsections, and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Agreement; and

(h) Except as specifically defined or provided for in this Agreement, words and abbreviations which have well known or trade meanings are used in accordance with their recognized meanings.

2.4 The parties acknowledge that the recitals to this Agreement are true and correct.

3. Term of Agreement and Amendment

3.1 The term of this Agreement shall commence upon approval of the Used Tires Program Plan by the Minister and shall remain in effect until five (5) years after that date and for

successive periods of five (5) years each thereafter unless terminated earlier in accordance with Section 17 of this Agreement or amended in accordance with Subsection 3.5.

3.2 Any changes to the terms of this Agreement shall be by written amendment signed by both parties. No changes shall be effective or shall be carried out in the absence of such an amendment.

3.3 The parties agree to conduct a review of the performance and implementation of this Agreement not later than two (2) years following the date of this Agreement first written above and every two (2) years thereafter. As part of such review, each of the parties may suggest any appropriate amendments to the terms of this Agreement.

3.4 Notwithstanding Subsection 3.3, the parties agree that Waste Diversion Ontario and Ontario Tire Stewardship shall be able to suggest appropriate amendments to the terms of this Agreement to the Minister at any time.

3.5 No material change may be made to the Used Tires Program Plan or to the terms of this Agreement without the written approval of the Minister as set out in Section 27 of the *Act*. Material changes include but are not limited to the following:

(i) Definition of Used Tires in the approved Used Tires Program Plan.

(ii) Definition of Stewards - Meaning the persons or classes of persons designated under the Rules included in the Used Tires Program Plan as responsible for paying fees to Ontario Tire Stewardship.

(iii) Change in the methodology for calculating fees as outlined in the approved Used Tires Program Plan.

4. Roles of the Parties

4.1 Waste Diversion Ontario represents and warrants that it has approved the Used Tires Program Plan.

Waste Diversion Ontario:

(a) Will ensure that the terms and conditions of this Agreement are carried out in a responsible, complete and thorough manner, and on a timely basis;

(b) Will provide estimates to Ontario Tire Stewardship from time to time of the following: (i) the costs incurred or expected to be incurred by Waste Diversion Ontario in respect of developing, implementing and operating the Waste Diversion Program in respect of Used Tires; (ii) a reasonable share of the other costs incurred or expected to be incurred by Waste Diversion Ontario in carrying out its responsibilities under the *Act*; (iii) and a reasonable share of the costs incurred or expected to be incurred by the Ministry in administering the *Act*, all of which are to be charged to Ontario Tire Stewardship under Section 32 of the *Act*;

(c) Will invoice Ontario Tire Stewardship for the costs referred to in paragraph 4.1(b) commencing at the end of the first quarter following the date upon which the Used Tires Program Plan commences, following designation of Ontario Tire Stewardship by the regulations made under the *Act* as the industry funding organization for the Used Tires Program Plan (such costs to include costs

identified in paragraph 4.1(b) incurred prior to the date upon which Ontario Tire Stewardship is so designated);

(d) Will implement the programs, policies and procedures identified as the responsibility of Waste Diversion Ontario in the Used Tires Program Plan approved by the Minister; and

(e) Will implement relevant activities and functions as outlined in the Operating Agreement with the Minister.

4.2 Ontario Tire Stewardship:

(a) Will, following approval by the Minister, implement the Used Tires Program Plan;

(b) Will honour invoices from Waste Diversion Ontario for amounts set out in Section 4.1with payment within 30 days;

(c) Will comply with all of its obligations under the *Act* including the preparation of an annual report pursuant to Section 33 of the *Act*; and

(d) Will adopt a Code of Conduct for directors, officers and committee members substantially equivalent to the Code of Conduct set out in By-Law 2008-1 of Waste Diversion Ontario and otherwise in form and substance satisfactory to Waste Diversion Ontario.

5. Methodology and Rules Concerning Fees

5.1 Ontario Tire Stewardship has adopted the Methodology for Calculating Ontario Tire Stewardship Fee Rates set out in Schedule A hereto. Any amendments to the Methodology set out in Schedule A hereto shall be subject to the prior written approval of Waste Diversion Ontario and the Minister.

5.2 Ontario Tire Stewardship proposes to adopt the Rules for Stewards with respect to the Payment of Fees set out in Schedule B hereto, which have been approved by Waste Diversion Ontario. Once Ontario Tire Stewardship has been designated in a regulation as the industry funding organization in respect of Used Tires, Ontario Tire Stewardship will formally make the Rules. At such time, the Rules so made will be initialled by the parties for identification and appended hereto as Schedule B, whereupon such Rules shall be deemed to replace the Rules set out in Schedule B hereto for all purposes. Any amendments to the Rules set out in Schedule B hereto and any new rules shall be subject to the prior written approval of Waste Diversion Ontario.

6. Transparency

6.1 Ontario Tire Stewardship will maintain an Internet website accessible by the public and will post every rule made pursuant to the *Act* on its website. Subject to confidentiality or proprietary considerations, and provided that information is available in electronic format, Ontario Tire Stewardship's website is to include information on, or contain the appropriate electronic links to, the Used Tires Program Plan and Ontario Tire Stewardship's annual report pursuant to Section 33 of the *Act*. Ontario Tire Stewardship will provide a copy of a rule to every person who requests a copy and may charge the person a reasonable fee for such copy.

7. Information Sharing

7.1 Subject to confidentiality and proprietary considerations and requirements, Ontario Tire Stewardship shall provide data and information obtained in the course of developing, implementing and operating the Used Tires Program Plan to Waste Diversion Ontario upon request. The parties acknowledge and agree that data and information which might be confidential or proprietary in relation to one Steward may cease to be proprietary or confidential if aggregated with data and information relating to more than one Steward, provided that after such aggregation it will not be possible to identify individual Stewards within the aggregated information. Information to be shared shall include, without limitation, comments received from Stewards with respect to the Used Tires Program Plan.

7.2 The parties acknowledge and agree that they have developed the Information Sharing Protocol set out in Schedule C hereto for the purpose of implementing the provisions of Section 7.1 above and agree to implement the terms of such Information Sharing Protocol in all respects.

7.3 Ontario Tire Stewardship acknowledges that information provided by Waste Diversion Ontario to the Minister is under the control of the Minister within the meaning of FIPPA. Waste Diversion Ontario shall retain full control over all other information obtained, created or maintained by Waste Diversion Ontario.

7.4 Any data or materials provided by Ontario Tire Stewardship to Waste Diversion Ontario which are confidential and are to remain confidential shall be clearly marked as confidential. In the event that the Minister receives a request under the FIPPA relating to the disclosure of any such confidential information which has been provided by Waste Diversion Ontario to the Minister and provides notice thereof to Waste Diversion Ontario, Waste Diversion Ontario agrees to provide Ontario Tire Stewardship with notice to that effect. Notwithstanding the foregoing, Ontario Tire Stewardship acknowledges that the Minister is bound by FIPPA and may be required by order of a court or tribunal to disclose confidential information provided by Ontario Tire Stewardship to Waste Diversion Ontario which has in turn been provided by Waste Diversion Ontario to the Minister.

7.5 Each of the parties agrees to hold data and information received from the other which are marked confidential in confidence, unless:

(a) Such party is required to disclose such data or information by applicable law or by the order of any court or tribunal of competent jurisdiction; provided that the party required to disclose shall provide as much advance notice as possible to the other party of such requirement;

(b) Such data or information have become generally available to the public without breach of this Agreement;

(c) Such data or information were developed independently by the recipient without the use of such confidential data or information or were lawfully received from another source having the right to furnish such data or information; or

(d) Such data or information were previously known to the recipient free of any restriction as evidenced by documentation in the recipient’s possession.

8. Stakeholder and Public Consultation

8.1 Waste Diversion Ontario may require Ontario Tire Stewardship to provide opportunities for consultation with stakeholders, including the public, who may be affected by any proposed material changes to the Used Tires Program Plan. Such consultation is to be open, accessible and responsive to concerns expressed.

9. Ontario Tire Stewardship Responsibility for Documentation and Audit

9.1 Ontario Tire Stewardship shall be responsible for maintaining Documentation in carrying out its responsibilities under this Agreement, in a responsible and complete manner. Documentation may be maintained in paper or electronic format, as permitted by applicable law.

9.2 Without limiting the generality of the foregoing, the Board of Directors of Ontario Tire Stewardship shall maintain the following:

(a) All Documentation relating to its consultation activities, comments and responses received and a review of whether and how comments and responses were addressed; and

(b) All Documentation relating to the Funds.

9.3 The receipt and disbursement of the Funds will be reflected in the audited financial statements of Ontario Tire Stewardship. The audited financial statements are to be prepared in accordance with generally accepted accounting principles and accompanied by the auditor's report thereon.

9.4 Ontario Tire Stewardship agrees to implement and maintain measures to protect the security and integrity of the Documentation and to protect the Documentation against loss, alteration and destruction.

10. Complaints and Inquiries Handling

10.1 Waste Diversion Ontario shall be responsible for handling all complaints and inquiries it receives in the following manner:

(a) Waste Diversion Ontario will be responsible for determining if the complaint and/or inquiry is related to:

(i) its responsibilities as set out under the *Act* or as set out in this Agreement;

(ii) any other action of Waste Diversion Ontario; or

(iii) Ontario Tire Stewardship;

(b) If the complaint/inquiry is related to Waste Diversion Ontario's responsibilities as set out under the *Act* or as set out in this Agreement, or to any other action of Waste Diversion Ontario, Waste Diversion Ontario will be responsible for addressing the complaint or responding to the inquiry;

(c) If the complaint/inquiry is related to Ontario Tire Stewardship, Waste Diversion Ontario shall forward the complaint/inquiry to Ontario Tire Stewardship asking it

to address the complaint or respond to the inquiry (in accordance with any applicable dispute resolution mechanism) and report to Waste Diversion Ontario within one calendar month and every calendar month thereafter until the dispute is resolved;

(d) In the event that Waste Diversion Ontario receives complaints/inquiries pertaining to enforcement issues, Waste Diversion Ontario will forward such complaints/inquiries to the Ministry; and

(e) With respect to any other complaint or inquiry, Waste Diversion Ontario will be responsible for forwarding the complaint or inquiry to the appropriate person.

11. Insurance

11.1 Ontario Tire Stewardship shall put into effect and maintain throughout the term of this Agreement all the necessary and appropriate insurance for a prudent not-for-profit corporation.

11.2 Without limitation to the generality of the foregoing, Ontario Tire Stewardship shall obtain and maintain directors and officers liability insurance in amounts which are customary for a prudent not-for-profit corporation.

12. Assignment

12.1 Ontario Tire Stewardship shall not assign any of its rights or obligations under this Agreement or any part thereof without the prior written consent of Waste Diversion Ontario and the Minister.

12.2 Ontario Tire Stewardship shall not subcontract any of its rights or obligations under this Agreement or any part thereof without the prior written consent of Waste Diversion Ontario.

13. Notices

13.1 All notices to or upon the respective parties hereto shall be in writing and shall be delivered to the party to which such notice is required to be given under this Agreement at the respective address set out below by personal delivery, facsimile with confirmation of transmission, pre-paid registered post or electronically by email. All notices shall be deemed to have been duly given:

(a) one (1) Business Day after such notice is received by the other party when delivered by personal delivery, by facsimile or by email; or

(b) five (5) Business Days after posting by prepaid registered post. In the event of a postal disruption, notices must be given by acknowledged email, personal delivery or by a signed back facsimile and all notices delivered within one (1) week prior to the postal disruption must be confirmed by a signed back facsimile to be effective.

Notices to Waste Diversion Ontario shall be delivered to:
Waste Diversion Ontario
45 Sheppard Avenue East, Suite 920
North York, Ontario M2N 5W9
Attention: Executive Director
Facsimile: 416-226-1368

Email: glendagies@wdo.ca

Notices to Ontario Tire Stewardship shall be delivered to:
Ontario Tire Stewardship
405 The West Mall, Suite 500
Toronto, Ontario
M9C 5K7

Attention: Executive Director
Facsimile: 1-866-884-7372
E-mail: **ahorsman@ontariots.ca**

13.2 Either party may, by written notice delivered to the other party, designate a new address or facsimile number for these notices.

14. Waiver

14.1 No term, condition or provision hereof shall be or be deemed to have been waived by Waste Diversion Ontario by reason of any act, forbearance, indulgence, omission, or event. Only an express written waiver by Waste Diversion Ontario shall be binding and each such waiver shall be conclusively deemed to be limited to the circumstances, right or remedy therein specified.

15. Severability

15.1 In the event that any provision of this Agreement or any part of such provision shall be determined to be invalid, unlawful or unenforceable to any extent, such provision or part thereof shall be severed from the remaining terms and conditions of this Agreement which shall continue to be valid and enforceable to the fullest extent permitted by law.

16. Dispute Resolution

16.1 Ontario Tire Stewardship shall include a dispute resolution mechanism in all contracts to which Ontario Tire Stewardship is a party with the exception of contracts for goods and services in the ordinary course of business.

16.2 If any dispute arises between Ontario Tire Stewardship and Waste Diversion Ontario as to their respective rights and obligations under this Agreement, the parties shall use the following dispute resolution procedures to resolve such disputes:

(a) The parties shall attempt to resolve disputes in the spirit of mutual cooperation through discussions and negotiations between the designated representatives of the parties within thirty (30) days of the date upon which written notice of the dispute was first given by one party to the other or as otherwise agreed upon;

(b) If the parties are unable to resolve the dispute in the manner aforesaid, either party shall have the right, on notice in writing to the other, to require that such dispute be submitted to the Executive Director of Waste Diversion Ontario and the CEO of Ontario Tire Stewardship for discussion and resolution within thirty (30) days of the date of the notice requiring such dispute to be submitted to them or as otherwise agreed upon;

(c) In the event that the Executive Director of Waste Diversion Ontario and the CEO of Ontario Tire Stewardship are unable to resolve such dispute, either party shall have the right, on notice in writing to the other, to require that such dispute be submitted to the Chair of the Board of Directors of Waste Diversion Ontario and the Chair of the Board of Directors of Ontario Tire Stewardship for discussion and resolution within thirty (30) days of the date of the notice requiring such dispute to be submitted to them or as otherwise agreed upon;

(d) If the Chair of the Board of Directors of Waste Diversion Ontario and the Chair of the Board of Directors of Ontario Tire Stewardship are unable to resolve the dispute, either party shall have the right to refer the matter to binding arbitration in accordance with the provisions of the *Arbitration Act, 1991*, S.O. 1991, c. 17, as amended. Each party shall bear the cost of its own counsel and witnesses but the costs of the arbitration including the fees of the arbitrator(s), the cost of court reporters and transcripts and the cost of the arbitration facility shall be borne equally by the parties. The arbitration shall take place in Toronto, Ontario, Canada, before a single arbitrator to be chosen jointly by the parties. If the parties cannot agree on the choice of an arbitrator within thirty (30) days of the notice requiring such dispute to be submitted to arbitration, then the parties will each select an arbitrator who in turn will select a third arbitrator as soon as reasonably practicable following such thirty (30) day period and, subject to the agreement of the parties, such third arbitrator may act as the sole arbitrator of the dispute and the first two so appointed shall be deemed to have resigned; and

(e) The parties may determine the procedure to be followed by the arbitrator(s) in conducting the proceedings, or may request the arbitrator(s) to do so. The arbitrator(s) shall issue a written award within thirty (30) days of completion of the hearing.

16.3 Notwithstanding the provisions of Subsection 16.2, if such dispute relates to the costs recoverable by Waste Diversion Ontario (on its own behalf or on behalf of the Ministry) from Ontario Tire Stewardship, to any invoice issued by Waste Diversion Ontario to Ontario Tire Stewardship in respect of such costs or to any other issue which, in the reasonable opinion of Waste Diversion Ontario, pertains to the calculation of or responsibility for costs in relation to the Used Tires Program Plan, the following provisions shall apply:

(a) The parties shall attempt to resolve such dispute in the spirit of mutual co-operation through discussions and negotiations between the designated representatives of the parties within fifteen (15) days of the date upon which written notice of the dispute was first given by one party to the other or as otherwise agreed upon;

(b) If the parties are unable to resolve the dispute in the manner aforesaid, either party shall have the right, on notice in writing to the other, to require that such dispute be submitted to the respective auditors of the parties for discussion and resolution within fifteen (15) days of the date of the notice requiring such dispute to be submitted to them or as otherwise agreed upon;

(c) In the event that the respective auditors of the parties are unable to resolve such dispute within such further fifteen (15) day period, such auditors shall, upon the request in writing of either party, select a third independent auditor as soon as possible to act as an arbitrator and to resolve such dispute in accordance with

the provisions of the *Arbitration Act*, 1991, S.O. 1991, c. 17, as amended. In the event that the respective auditors of the parties are unable to agree upon the selection of an independent auditor to serve as arbitrator within five (5) days of the date of the written request by either party, Waste Diversion Ontario shall propose three (3) independent auditors to Ontario Tire Stewardship and Ontario Tire Stewardship shall, within two (2) days of receipt of such list, select one of such auditors to serve as the arbitrator;

(d) The auditor chosen as arbitrator shall make a final decision within fifteen (15) days of its appointment or such longer period as the parties may agree upon; and

(e) If any such dispute with respect to an invoice has not been finally resolved prior to the due date of such invoice, Ontario Tire Stewardship shall pay the undisputed amount immediately to Waste Diversion Ontario and shall pay the disputed amount into a solicitor's trust account to be held pending the conclusion of the dispute resolution procedure. The disputed amount shall be disbursed by the solicitor in accordance with the results of the dispute resolution procedure. Each party agrees to continue performing its obligations under the Agreement pending the resolution of any dispute with respect to an invoice.

16.4 Ontario Tire Stewardship will develop a dispute resolution procedure providing for the resolution of any dispute between Ontario Tire Stewardship and a person with respect to the person's obligations under Section 31 of the Act or the person's obligations under the rules made by Ontario Tire Stewardship under Section 30 of the Act, such dispute resolution procedure to be satisfactory in all respects to Waste Diversion Ontario.

16.5 Ontario Tire Stewardship agrees to submit any dispute with respect to payments or in-kind contributions to be made to service providers under the Used Tires Program Plan for resolution in accordance with the dispute resolution procedure adopted by Waste Diversion Ontario for this purpose, as amended from time to time. Waste Diversion Ontario agrees to consult with Ontario Tire Stewardship upon request, but without obligation, with respect to the terms of such dispute resolution procedure.

17. Termination

17.1 If, in the reasonable opinion of Waste Diversion Ontario, there has been a breach of this Agreement by Ontario Tire Stewardship, Waste Diversion Ontario may terminate this Agreement after giving Ontario Tire Stewardship ninety (90) Business Days prior written notice of the breach or default if Ontario Tire Stewardship fails to remedy such breach by the expiry of such ninety (90) Business Day notice period. In the event that the remedy of such breach by Ontario Tire Stewardship reasonably requires more than ninety (90) Business Days , Ontario Tire Stewardship shall so advise Waste Diversion Ontario without delay and provide a revised time line. Waste Diversion Ontario shall notify Ontario Tire Stewardship in writing as to whether the revised time line is acceptable and, if it is, the revised time line to remedy such breach will apply.

17.2 Notwithstanding subsection 17.1, Waste Diversion Ontario may terminate this Agreement immediately upon written notice to Ontario Tire Stewardship if:

(a) Ontario Tire Stewardship assigns or subcontracts any of its rights or obligations under this Agreement or any part thereof except as expressly provided for herein;

(b) Ontario Tire Stewardship makes a voluntary assignment or a proposal under the *Bankruptcy and Insolvency Act* or a petition or any other proceeding shall be filed, instituted or commenced with respect to Ontario Tire Stewardship under any bankruptcy, insolvency, debt restructuring, reorganization, liquidation, winding-up or similar law now or hereafter in effect, unless such proceedings are commenced by a party other than Ontario Tire Stewardship and are being diligently contested by Ontario Tire Stewardship and are stayed within 30 days from the date of notice of such proceedings being received by Ontario Tire Stewardship;

(c) A receiver or trustee is appointed for any part of the assets of Ontario Tire Stewardship; or

(d) Ontario Tire Stewardship ceases for any reason whatsoever to be the designated industry funding organization for the Used Tires Program Plan or the Used Tires Program Plan is terminated for any reason whatsoever.

18. Agreement Binding

18.1 This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective permitted successors and assigns.

19. Entire Agreement

19.1 This Agreement embodies the entire Agreement between the parties with regard to the operation of Ontario Tire Stewardship and supersedes any prior understanding or agreement, collateral, oral or otherwise, existing between the parties at the date of execution of this Agreement.

20. Public Announcements

20.1 Neither Waste Diversion Ontario nor Ontario Tire Stewardship shall make any press release or other formal public announcement which refers to the role of the other in the development and implementation of the Used Tires Program Plan without first consulting the other concerning the contents of such proposed press release or public announcement in accordance with the terms of the Information Sharing Protocol appended hereto as Schedule C. The parties agree that prior consultation shall not be required in respect of routine communications or other general information provided by either of the parties to the public with respect to the implementation of the Used Tires Program Plan.

21. Governing Law

21.1 This Agreement shall be construed and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereby agree that any dispute arising out of or in relation to this Agreement shall be determined in Ontario.

21.2 Ontario Tire Stewardship agrees that it shall, and shall use reasonable commercial efforts to require its officers, directors and staff to, comply with all laws, ordinances, rules and regulations which apply to the operation of Ontario Tire Stewardship, any activities of Ontario Tire Stewardship and the responsibilities of Ontario Tire Stewardship under the *Act*.

22. Signatures

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the date stated in the Preamble to this Agreement.

WASTE DIVERSION ONTARIO

Per: _____

-
-

I have authority to bind Waste Diversion Ontario

ONTARIO TIRE STEWARDSHIP

Per: _____

- Glenn Maidment
- President

I have authority to bind Ontario Tire Stewardship

SCHEDULE A

METHODOLOGY FOR CALCULATING ONTARIO TIRE STEWARDSHIP FEE RATES

FEE SETTING METHODOLOGY

This section describes the authority with which OTS assesses Steward Fees, and describes the principles behind and the detailed fee setting methodology that will be employed by OTS under the Used Tires Program Plan. This information is presented in the following format:

- **Authority**
- **Used Tire Product Categories**
- **Principles**
- **Used Tire Fee Setting Methodology**

Authority

Under the WDA the Industry Funding Organization for an approved Program Plan may assess fees against companies designated as Stewards under the plan. Section 30 of the *Act* sets out the powers for fee setting as follows:

"30. (1) If an industry funding organization is designated by the regulations as the industry funding organization for a waste diversion program, the organization may make rules,

(a) designating persons or classes of persons as Stewards in respect of the designated waste to which the waste diversion program applies;

(b) setting the amount of the fees to be paid by Stewards under subsection 31 (1) or prescribing methods for determining the amount of the fees;

(c) prescribing the times when fees are payable under subsection 31 (1);" [2002, c.6, s.30 (1)]

Used Tire Product Categories

Three Tire Categories for the purpose of setting Tire Stewardship Fees have been established:

4. On Road Tires – Passenger/Light Truck Tires
5. On Road Tires – Medium Truck; and
6. Off Road Tires.

Table 25: Used Tire Definitions

	Product Category	Definition
1)	On-Road Tires – Passenger/Light Truck	**Passenger Tires, Small RV Tires, ST Trailer tires and Light Truck Tires and Temporary Spares** Includes passenger tires are designed for use on passenger cars, light trucks, small RVs and multipurpose passenger vehicles (MPVs), including sport utility vehicles (SUVs) and crossover utility vehicles (CUV's), and to comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 109). The light truck tire category is tires designed for use on consumer or commercial light trucks, under 10,000 lbs. Gross Vehicle Weight, and comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119). Codes found on the sidewall of light passenger and light truck tires are P (Passenger) and LT (Light Truck). Temporary spare tires are marked T (Temporary). **Motorcycle, Golf Cart and All Terrain Vehicle Tires** Includes all tires specifically designed for on/off highway motorcycles, motorcycle sidecars, motor bikes, mopeds, mini-cycles, golf carts and all terrain vehicles. **Forklift, Small Utility, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer tires measuring 16” rim size and under **Free Rolling Farm Tires** Includes free rolling farm and implement tires up to 16” rim size used on farm equipment.
2)	On-Road Tires – Medium Truck	**Medium Truck Tires** Also commonly known as Commercial Truck Tires – Truck and Bus tires including Wide Base or Heavy Truck tires designed for truck/bus applications and Larger RV tires not marked "P or LT”. All of which comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119).

	Product Category	Definition
3)	Off-the-Road (OTR) Tires	**Agricultural Drive and Logger Skidder Tires** Includes drive wheel tires used on tractors and combines and tree harvesting equipment. These tires are normally identified with a sidewall marking with suffix letters (R), or (HF) or (LS) and are 16.5" and up rim size. These tires are listed in The Tire and Rim Association Inc. annual yearbook Section 5 Agricultural. **Forklift, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer Tires measuring 16.5" and over. **Small Off The Road Tires** Sizes 1300R24 to 23.5R25 Rim Size **Medium Off The Road Tires** Above 23.5R25 to 33 inch Rim Size **Large Off The Road Tires** Above 33 inch to and including 39 inch Rim Size **Giant Off The Road Tires** Over 39 inch Rim Size **Industrial (Solid) Tires** Solid Industrial Tires e.g. for Forklift Trucks etc.

Principles

Section 30 of the WDA also defines principles relating to fees as follows:

"(3) In making rules under clause (1) (b), the industry funding organization shall have regard to the following principles:

1. The total amount of fees paid by Stewards under subsection 31 (1) should not exceed the sum of the following amounts:
   i. The costs of developing, implementing and operating the program.
   ii. A reasonable share of costs not referred to in subparagraph i) that are incurred by Waste Diversion Ontario in carrying out its responsibilities under this Act.
   iii. A reasonable share of costs incurred by the Ministry in administering this Act.

2. The fee paid by a Steward should fairly reflect the proportion of the sum referred to in paragraph 1 that is attributable to the Steward." [2002, c. 6, s. 30 (3)]

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Ontario Tire Stewardship (OTS), recognizing the principles previously established by other Industry Funding Organizations, adopted the following guiding principles to be applied to the fee setting process:

1) There should be no cross-subsidization of management costs across Used Tire Product Categories.
2) Stewards fees will be based on Tire units supplied in the Program year but will cover the projected cost to manage the Used Tires being managed through the Program in that year.
3) Fee setting is to begin with the cost to manage each Used Tire Product Category under the Program as determined by a transparent cost allocation methodology.
4) Material-specific fees may then be modified to achieve (a) the overarching Program policy goal to divert waste from disposal and (b) material specific policy goals including achieving targets established for accessibility, collection, reduction, reuse, and recycling.
5) Common and shared OTS costs will be assessed across all Stewards in a fair and transparent manner.

These guiding principles were used to develop the fee-setting methodology.

Tire Fee-Setting Methodology

Context

In addition to the requirements set out by the WDA, the fee-setting methodology for the Used Tires Program Plan must also meet the requirements and policy objectives as set out in the Minister's Used Tires Program Request Letter. Furthermore, while OTS has used the best available data for the purposes of setting fees for Year 1 of the Used Tires Program Plan, the quality of the data that will be available for fee setting in subsequent Program years will be improved significantly by the requirement for Stewards and service providers to provide more detailed reports upon Program approval and implementation.

Methodology for Setting Used Tire Stewards' Fees for Year 1

OTS has calculated the Year 1 fees for Used Tires Stewards using the following methodology and incorporating into the fee calculations the best available data and agreed approaches for allocating costs.

Section 7.0 describes the cost items included in the fees. These costs include program activities such as program management, collection, transportation, processing, reuse, recycling and, where 3Rs options are not available or technically feasible, disposal.

Direct costs (e.g. collection incentives, transportation incentives, processing incentives, manufacturing incentives and directed P&E or R&D) are directly allocated to the appropriate Tire Category. Shared costs (e.g. program development and start-up, OTS administration, WDO costs attributable to Used Tires, stockpile abatement costs and enforcement costs) are allocated based on the Passenger Tire Equivalents by Tire Category in the given budget year.

Year 1 Calculation Steps for Setting OTS Used Tire Stewardship Fees

OTS has calculated and applied specific fee rates to each of the Used Tire Product Categories to support the management of Used Tires as set out in the Program Plan in the following steps:

Step 1: ***Establish Tire Categories Based on Similar Handling and Cost Drivers***

Three Tire Categories for the purpose of setting Tire Stewardship Fees have been established as described in Section 6.2:

- On-Road Passenger/Light Truck Tires;
- On-Road Medium Truck Tires; and
- Off-the-Road Tires

Step 2a: ***Determine 2007 Unit Sales Data by Tire Category***

For each Tire Category, determine number of tires supplied into Ontario to determine Unit Sales by Tire Category based on:

- 2007 Wholesale Sales Data for program tires sold into the Ontario market. While Wholesale Sales Data represents sales into the market rather than direct sales to consumers, it represents the best available data. Use of these data assumes that wholesale sales into the market are matched by sales to consumers, with no fluctuation in wholesale or retail inventory levels throughout the distribution chain.
- New vehicle sales data to quantify the flow of new tires into the province on vehicles. It is estimated that this channel accounts for almost 30% of the new tires entering the Ontario market.

Step 2b: ***Adjust 2007 Sales Data by Tire Category to Represent Estimated Reported Sales by Registered Stewards***

Multiply Unit Sales by Tire Category by 95% to calculate Adjusted Unit Sales on the basis that 95% of Stewards' Sales will be reported in Year 1.

Step 3a: ***Determine Passenger Tire Equivalents for each Tire Category***

Establish Passenger Tire Equivalents for On-Road Passenger/Light Truck Tires, On-Road Medium Truck Tires and Off-the-Road Tires on the basis of:

Tire Categories	**Passenger Tire Equivalents for Budget Costs**	**Passenger Tire Equivalents for Calculation of TSF**
On-Road Passenger/Light Truck Tires	Adjusted Unit Sales multiplied by 1	Adjusted Unit Sales multiplied by 1
On-Road Medium Truck Tires	Adjusted Unit Sales multiplied by 2	Adjusted Unit Sales multiplied by 5
Off-the-Road Tires	Adjusted Unit Sales multiplied by tire weight divided by 10 kilograms	Adjusted Unit Sales multiplied by tire weight divided by 10 kilograms

Step 3b: ***Calculate Total Passenger Tire Equivalents for Adjusted Unit Sales by Tire Category***

Calculate Total Passenger Tire Equivalents by Tire Category for allocating Shared Costs:

Tire Categories	Calculated Passenger Tire Equivalents for Adjusted Unit Sales
On-Road Passenger/Light Truck Tires	Multiply Adjusted Unit Sales (Step 2b) by 1 (Step 3a).
On-Road Medium Truck Tires	Multiply Adjusted Unit Sales (Step 2b) by 3 (Step 3a).
Off-the-Road Tires	Multiply Adjusted Unit Sales (Step 2b) by weight of tires divided by 10 kilograms (Step 3a).

Step 4a: *Determine Collection Cost Per Tire Category*

On-Road Passenger/Light Truck Tires

The Collection Cost for On-Road Passenger/Light Truck Tires is based on a Collection Allowance per tire. The Collection Allowance is set by the OTS Board based on market research.

On-Road Medium Truck Tires

The Collection Cost for On-Road Medium Truck Tires is based on a Collection Allowance per tire. The Collection Allowance is set by the OTS Board based on market research.

Off-the-Road Tires

A Collection Allowance has not been set for Off-the-Road Tires on the basis that Off-the-Road tires are typically transferred from a user's location directly to Processors.

Step 4b: *Calculate Total Collection Cost*

Tire Categories	Calculating Collection Cost
On-Road Passenger/Light Truck Tires	Multiply number of On-Road Passenger/Light Truck Tires collected by Collection Allowance (Step 4a).
On-Road Medium Truck Tires	Multiply number of On-Road Medium Truck Tires collected by Collection Allowance (Step 4a).
Off-the-Road Tires	Not applicable.

Step 5a: *Determine Transportation Cost Per Tire Category*

On-Road Passenger/Light Truck

The Transportation Cost for On-Road Passenger/Light Truck is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

On-Road Medium Truck Tires

The Transportation Cost for On-Road Medium Truck Tires is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

Off-the-Road Tires

The Transportation Cost for Off-the-Road Tires is based on a Transportation Incentive per tonne per kilometer. The Transportation Incentive is set by the OTS Board based on market research.

Step 5b: *Calculate Total Transportation Cost*

Tire Categories	Calculating Transportation Cost
On-Road Passenger/Light Truck Tires	Multiply number of On-Road Passenger/Light Truck collected by Transportation Incentive (Step 5a).
On-Road Medium Truck Tires	Multiply number of On-Road Medium Truck Tires collected by Transportation Incentive (Step 5a).
Off-the-Road Tires	Multiply number of Off-the-Road Tires collected by Transportation Incentive (Step 5a).

Step 6a: *Determine Processing Cost per Tonne*

Processing Incentives for categories of Tire Derived Products are set by the OTS Board based on market research. Processing Incentives are expressed in both:

- price per tonne of Used Tires delivered to a Processor, and
- the equivalent price per tonne of the resulting Tire Derived Product.

Step 6b: *Calculate Quantity of Tires Available for Processing*

Calculate the number of Used Tires available for processing by deducting the number of tires culled for reuse from Used Tires collected by Tire Category.

Calculate the weight of Used Tires available for processing by multiplying the number of Used Tires available for processing by the weight of the Used Tires.

Calculate the weight of Used Tires available for processing by category of Tire Derived Product by applying the assumed percentage ratio of Tire Derived Products to the total weight.

Step 6c: C*alculate Total Processing Cost*

Calculate Total Processing Cost by multiplying the weight of Tires available for processing by category of Tire Derived Product (Step 6b) by the Processing Incentive for the category of Tire Derived Product expressed as price per tonne of Used Tires delivered to a Processor (Step 6a).

Step 7a: *Determine Manufacturing Incentive Cost per Tonne*

The Manufacturing Incentive Cost is based on the Manufacturing Incentive per tonne of crumb rubber used in new product manufacture. The Manufacturing Incentive is set by the OTS Board based on market research.

Step 7b: *Determine Quantity of Crumb Rubber Eligible for Manufacturing Incentive*

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The quantity of crumb rubber eligible for the Manufacturing Incentive is set by the OTS Board as an upset limit.

Step 7c: C*alculate Total Manufacturing Incentive Cost*

Calculate Total Manufacturing Incentive Cost by multiplying the quantity of crumb rubber eligible for the Manufacturing Incentive (Step 7b) by Manufacturing Incentive per Tonne (Step 7a).

Step 8: *Determine Additional Direct Program Costs by Tire Category*

Additional Direct Program Costs include but are not limited to the following:
- Additional costs that are identifiable and specifically linked to certain Tire Categories.
- Research and Development to determine cost-effective ways of handling, transporting and processing specific categories of Used Tires.
- Promotion and Education to promote:
    - collection of specific categories of Used Tires;
    - achievement of the program Collection objectives;
    - engagement of Used Tire Program stakeholders;
    - awareness of the benefits that the Used Tire Program will generate in regards to the Ontario environment and the Green economy.

Step 9a: *Determine Shared Costs by Tire Category*

Shared costs include both OTS administration costs, program delivery costs, program start-up costs and stockpile abatement costs.

c) OTS Administration Costs include but are not limited to the following:

- OTS Board operating costs
- Accounting
- Legal
- Registering obligated Stewards
- Receiving, verifying and auditing Steward's Reports
- Reporting to WDO, MOE, OTS Board and Stewards
- IT activities to develop and maintain reporting and accounting systems
- General administration costs including: Staff recruitment and staff costs, telephone, postage, stationery, printing, and photocopy/fax, subscriptions, equipment leases, meeting expenses, bank charges, office supplies, rent, travel, insurance, depreciation, computer supplies, Internet access and website maintenance

d) Program Delivery Costs include but are not limited to:

- OTS share of WDO costs that can be directly attributed to Used Tires and the OTS share of WDO's costs that are not directly attributable to programs.
- Development of a methodology for the ongoing measurement of the quantities of Used Tires available for collection using a variety of sources that would include other similar programs.
- Used Tires data tracking and verification processes to support vendor standards
- OTS administration of the tendering and contracting process for Program services related to Used Tires.

- Developing plans for meeting accessibility, collection, reduction, reuse and recycling targets and for the purposes of future fee setting.
- Designing and implementing research and development programs to improve overall Used Tires Program efficiency and cost effectiveness.
- Determining approaches to promoting reuse.
- Annual review and modification, as required, of the Program cost calculations, cost allocation methodologies, fee setting methodology and fee setting through the approved fee setting methodology, including:
    - Assessment and consultation on provision for potential factors to modify Used Tire Product Category fee rates or adding Used Tires Product Category specific costs to achieve policy objectives;
    - OTS Used Tires cost allocation field work as required.
    - Planning and implementation work related to any subsequent phases of the Used Tires Program as directed by the Minister.
    - Design and implementation of the provincial Used Tires promotion and education program.
    - OTS and MOE Used Tires related compliance activities.

c) ***Program Development Costs*** are costs for Program Plan development in 2003/2004 and 2008/2009 and include but are not limited to:

- Development and operation of OTS committees and working groups that helped to develop the Used Tires Plan.
- Discussions and negotiations with service providers, other stakeholders and WDO in the development of the plan.
- Consultation with municipalities, industry and the general public in the development and review of the draft plan.
- The analytical and technical work completed by OTS in the drafting of the plan.
- Consulting support for the development and drafting of the plan.
- Legal costs related to development of the Program Plan

d) Program Start-up costs will be incurred to put the resources, facilities and systems in place that will be required to successfully implement the Used Tires Program Plan in a timely manner. Program Start-up Costs include, but are not limited to, the following:

- Providing clarifications and responding to requests from WDO and the MOE for additional information following submission of the final Program Plan, as required.
- Ongoing discussions and pre-implementation planning with key stakeholders.
- Development of Used Tires Program administrative procedures.
- IT, data management and tracking systems development.
- Legal and accounting services.
- Communications and advertising.
- Industry consultation.
- Identification, notification and registration of service providers.
- Establishment and operation of OTS registration “call centre”.
- Identifying, notifying and registering obligated Stewards.

e) Stockpile Abatement Costs include the costs to remove Used Tires from identified stockpile sites, transport the tires to Processors, process the tires and manage the stockpile abatement program.

Step 9b: ***Calculate Shared Costs by Tire Category***

Calculate Total Shared Costs by adding OTS Administration Costs plus Program Delivery Costs plus Program Development Costs plus Program Start-Up Costs plus Stockpile Abatement Costs (Step 9a).

Calculate a Shared Cost per Passenger Tire Equivalent by dividing Total Shared Costs by Total Passenger Tire Equivalents for Adjusted Unit Sales for all Tire Categories (total of Step 3b).

Calculate Shared Costs by Tire Category by multiplying the Shared Cost per Passenger Tire Equivalent by the number of Passenger Tire Equivalents by Tire Category (Step 3b).

Step 10: ***Calculate Total Costs by Tire Category***

Tire Categories	Calculating Total Cost
On-Road Passenger/Light Truck Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).
On-Road Medium Truck Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).
Off-the-Road Tires	Add Direct Program Costs (Step 4 to Step 8) + Shared Costs by Tire Category (Step 9b).

Step 11: ***Calculate Tire Stewardship Fees***

Tire Categories	Calculating Tire Stewardship Fees
On-Road Passenger/Light Truck Tires	Divide Total Costs (Step 10) by Total On-Road Passenger/Light Passenger Tire Equivalents for Calculation of TSF (Step 3b)
On-Road Medium Truck Tires	Divide Total Costs (Step 10) by Total On-Road Medium Truck Passenger Tire Equivalents for Calculation of TSF (Step 3b)
Off-the-Road Tires	Divide Total Costs (Step 10) by Total Off-the-Road Passenger Tire Equivalents for Calculation of TSF (Step 3b)

Proposed Methodology for Setting Tire Fees for Years 2 - 5 of an Approved Plan

OTS will calculate the Year 2 - 5 fees for Stewards using the same methodology as for Year 1, with specific differences and improved data as noted below:

- Determining the quantities of obligated Used Tire materials introduced into the Ontario market on the basis of Stewards' reports received during Year 1;
- Contracts between OTS and service providers for the collection, transportation, and processing of Used Tires and manufacturing of products from crumb rubber;
- Number and weight of Used Tires by Category transported and received by Processors to calculate weight per Tire Category;
- Marketplace costing studies as completed;
- Analysis of cost allocation;
- Analysis of specific R&D or service agreements required to expand collection and diversion infrastructure for Used Tires and to meet targets for accessibility, collection, reuse and recycling of Used Tires;

- Findings from review of the performance of recovery channels;
- The results of research and monitoring of P&E activities undertaken in Year 1; and
- Additional Used Tires product data, as reported in Year 1 Steward's Reports.

Modifications to the Used Tire Program Fee Setting Methodology for Years 2 - 5:

Following consultation on Year 2 fee setting and subsequent years, the OTS Board of Directors may consider applying factors to modify the fees calculated in Year 1 methodology to account for possible differences in the collection and diversion performance achieved and the relative cost to manage related Used Tires or to meet other Used Tires Program Plan policy objectives established by the OTS Board.

In Year 2 and subsequent years it may be appropriate for OTS to add any shortfall or surplus incurred or generated in the previous fiscal period, either on specific Tire Categories or shared across categories as required. The general approach for such action is described as follows:

a. Establish any amount of fees either underpaid or overpaid by Stewards of each Tire Category for costs incurred during the previous fiscal period;

b. Establish any deficit or surplus in the amount of common expenses incurred during the previous fiscal period allocated on the same basis used to determine allocation of common costs; and

c. Establish any credits to Stewards to account for items managed directly by Stewards but for which costs do not fall to the Program.

There are numerous factors that make it difficult to collect precisely 100 percent of the fees set including non-payment and late-payment by Stewards, mergers and acquisitions, changes in sales between data at the time the fees were established and at which the Stewards make payments, higher or lower actual recovery rates on which payments must be made than had been projected for setting fees, etc.

The amount of any surplus that the OTS Board of Directors agrees to maintain from Tire Category specific contributions will be directed only to activities prescribed in the Used Tires Program Plan and fee setting methodology in respect of the specific Tire Categories for which the contributions have been made.

SCHEDULE B

RULES FOR STEWARDS WITH RESPECT TO PAYMENT OF FEES

PROGRAM RULES

OTS, as the IFO for Used Tires is required to develop Rules for the Used Tire Program. Section 30 and 31 of the WDA outlines what the rules cover:

Section 30: Rules relating to Stewards

30. (1) If an industry funding organization is designated by the regulations as the industry funding organization for a waste diversion program, the organization may make rules,

(a) designating persons or classes of persons as Stewards in respect of the designated waste to which the waste diversion program applies;
(b) setting the amount of the fees to be paid by Stewards under subsection 31 (1) or prescribing methods for determining the amount of the fees;
(c) prescribing the times when fees are payable under subsection 31 (1);
(d) requiring the payment of interest or penalties on fees that are not paid in accordance with subsection 31 (1);
(e) exempting Stewards or classes of Stewards from subsection 31(1), subject to such conditions and restrictions as may be prescribed by the rules;
(f) requiring Stewards to keep records prescribed by the rules and governing the submission of those records to persons specified by the rules and the inspection of those records by persons specified by the rules;
(g) requiring Stewards to provide reports and other information to persons specified by the rules.

Stewards

30. (2) A rule made under clause (1) (a) shall not designate a person as a Steward in respect of a designated waste unless the person has a commercial connection to the designated waste or to a product from which the designated waste is derived.

Section 31: Payment of Stewardship fees

31. (1) A person who is designated under the rules made by an industry funding organization as a Steward in respect of a designated waste shall pay to the organization the fees determined in accordance with the rules at the times specified by the rules.

Rules for Stewards

ONTARIO TIRE STEWARDSHIP

RULES FOR STEWARDS WITH RESPECT TO PAYMENT OF TIRE STEWARDSHIP FEES

12. Interpretation

In these Rules, the following terms shall have the following meanings. A reference to a statute or act of any legislature shall, unless otherwise expressly provided, be deemed to refer to such statute or act as it existed at the date of these Rules and as it may be amended or replaced from time to time. The headings used throughout these Rules are solely for convenience and are not to be used as an aid in the interpretation of these Rules. The singular or masculine or neuter, as used in these Rules, shall be construed to mean the plural or feminine or body corporate where the context of these Rules may so require. Capitalized terms which are not otherwise defined will have the meaning given to them in the *Waste Diversion Act, 2002*:

Affiliate means an affiliated body corporate within the meaning of subsection 1(4) of the *Business Corporations Act* (Ontario).

Base Interest Rate means the interest rate established from time to time under the Rules of Civil Procedure of the *Courts of Justice Act*, as amended from time to time, for prejudgment interest;

Brand means a trademark within the meaning of the *Trade-marks Act (Canada)*, whether or not registered pursuant thereto;

Brand Owner means, with respect to Branded Tires, during any time in the Data Period:

(a) a Person Resident in Ontario who is the registered owner of the Brand, or

(b) a Person Resident in Ontario who is a licensee of the registered owner of the Brand, or

(c) a Person Resident in Ontario, who owns the intellectual property rights to the Brand, or

(d) a Person Resident in Ontario, who is a licensee, in respect of the intellectual property rights to the Brand;

Branded means that a Brand is attached to or otherwise associated with Tires;

Commencement Date means the first day of the first calendar month which begins at least 120 days after the date of publication of the Regulation on the e-Laws Website designating OTS as the industry funding organization for Used Tires; provided that, if 120 days from such date of publication will fall in the months of October, November or December, then Commencement Date means January 1 of the next succeeding calendar year;

Commercial Connection, for the purposes of these Rules, means that a Person derives a direct economic benefit when the particular New Tires are Supplied in Ontario;

Commercial Tires means medium truck Tires as defined in Appendix A: *OTS Definition of Program Tires;*

Data Period means each one month period ending the last day of each calendar month starting on the Commencement Date;

e-Laws Website means the website of the Government of Ontario for statutes, regulations and related materials that is available on the Internet at www.e-laws.gov.on.ca or at another website address specified by a regulation made under subsection 1(3) of the *Legislation Act, 2006*;

Filed means electronically submitted or mailed to OTS at an address identified to the Stewards by mail or electronically, with confirmation of transmission in the case of sending by electronic means;

First Importer means a Person Resident in Ontario who imports New Tires into Ontario but is not a Brand Owner of such New Tires, and includes a Person Resident in Ontario who is the first to take title to or delivery or possession of such Tires, upon or after arrival in Ontario from elsewhere during the Data Period. A Person who takes delivery/possession of New Tires only for the purpose of transporting them to another Person in Ontario is not the First Importer of the Tires;

Light Truck Tires means Tires designed for light trucks as defined in Appendix A: *OTS Definition of Program Tires*;

New Tires means all Tires Supplied with a new vehicle, or new replacement Tires or new additional Tires Supplied separately or with used vehicles, but does not include Used Tires or Retreaded Tires;

OEM means a manufacturer or first importer of new vehicles for Supply in Ontario;

OTS means Ontario Tire Stewardship;

Passenger Tires means Tires designed for passenger vehicles as defined in Appendix A: *OTS Definition of Program Tires*;

Person includes an individual, partnership, joint venture, sole proprietorship, company or corporation, government (whether national, federal, provincial, state, municipal, city, county or otherwise and including any instrumentality, division, body, department, board or agency of any of them), trust, trustee, executor, administrator or any other kind of legal personal representative, unincorporated organization, association, institution, entity, however designated;

Published Address means an address in Ontario appearing in a current telephone directory or a recognized current published business directory;

Resident in Ontario means either of the following: (i) having a published address in Ontario; or (ii) having a permanent establishment in Ontario for the purposes of the *Corporations Tax Act (Ontario)***;**

Retreaded Tires means Used Tires which have been reconditioned for the purpose of extending the useful life of the Tires, including replacement of the tread rubber only or replacement of tread and sidewall rubbers;

Rules means these rules, and includes additional rules or amendments to these Rules from time to time, as published by OTS on its website;

Steward means a Person designated as such under Rule 2; and "Stewards" means more than one Steward;

Steward's Report means a report prepared by a Steward and filed with OTS describing the aggregate amount of New Tires Supplied in the Data Period by the Steward and its Affiliates, containing the information required by Appendix B;

Supplied means:

(i) sold or otherwise transferred (whether by transfer of possession or title);
(ii) leased;
(iii) donated;
(iv) disposed of; or
(v) otherwise made available or distributed

for use in the Province of Ontario, and includes an import of New Tires for a purpose set out in Rule 2(3)(b); **Supply** and **Supplies** have similar meanings;

Tire Stewardship Fees means the fees payable to OTS pursuant to Rule 4;

Tires means products comprised primarily of rubber for mounting on passenger vehicles, motorcycles, trucks, buses, mobile homes, trailers, aircraft, earthmoving, road building, mining, logging, agricultural, industrial and other vehicles to provide mobility, but does not include tires on or for toys, bicycles, personal mobility devices and commercial aircraft;

Unbranded means a Brand is not attached to or otherwise associated with Tires;

Used Tires means all Tires, including any part of a tire, that, for any reason, are not suitable for their originally intended purpose**,** but does not include Retreaded Tires.

13. Designation of Stewards

For the purposes of determining which Person shall be designated as a Steward for New Tires, the following provisions shall apply, in the order in which they are set out, If two or more Persons are designated as a Steward pursuant to the following, the earlier provision shall prevail.

(1) An OEM is designated as the Steward with respect to all New Tires on vehicles Supplied by the OEM;

(2) A Brand Owner is designated as a Steward with respect to all New Tires:

(a) Supplied in the Data Period in respect of which it is the Brand Owner; and

(b) to which it has a Commercial Connection;

(3) A First Importer is designated as a Steward with respect to all New Tires:

(a) Supplied in the Data Period of which it is the First Importer; or
(b) of which it is the First Importer in the Data Period for use by it or its Affiliate in the Province of Ontario, other than New Tires purchased by an individual for personal use;

(4) If there are Unbranded Tires Supplied in the Data Period, and if the manufacturer is Resident in Ontario, the manufacturer of such Tires shall be designated as the Steward for such Tires; otherwise the First Importer shall be designated as the Steward for such Tires;

(5) If there are two or more Brand Owners for the same Tires Supplied in the same Data Period, the Brand Owner most directly connected to the manufacture of the Tires shall be designated as the Steward;

(6) Where there is no Steward for a particular Supply of New Tires in Ontario, any Person who elects to become a Steward for such New Tires shall, upon obtaining the consent of OTS and executing an agreement to be bound by these Rules, be designated a Steward for such Supply.

14. Steward's Report

(1) Every Steward shall file its first Steward's Report with OTS on or before the later of:

(a) the last day of the first calendar month after the end of the first Data Period after the Commencement Date; and

(b) 90 days after such Steward is notified of the existence of these Rules and how to obtain a copy of them.

(2) Stewards may amend a Steward's Report with the consent of OTS to correct information in the Steward's Report that is in error or to replace data previously reported.

(3) Once it has filed its first Steward's Report, a Steward shall file a Steward's Report in accordance with the schedule as set out in Appendix C.

(4) Notwithstanding the above OTS may require a Steward to file a Steward's Report by sending a written request to the Steward.

15. Fees Payable

(1) Stewards shall pay Tire Stewardship Fees to OTS on New Tires Supplied in the relevant Data Period in accordance with Appendix C. The amount of Tire Stewardship Fees shall be calculated in accordance with Appendix D by multiplying the number of units of each type of New Tires included in the Steward's Report by the Fee Rate set out opposite such type.

(2) Notwithstanding that a Steward has not received the notice in Rule 3(1), it is responsible for payment of Tire Stewardship Fees for all New Tires for which it is a Steward from and after the Commencement Date to the date on which it receives such notice.

(3) OTS may provide a credit for Tire Stewardship Fees which are overpaid, or which are for the same New Tires for which another Person has paid Tire Stewardship Fees.

(4) A Person described in any provision of Rule 2 who receives a Supply of New Tires from a Person who may be a Brand Owner, First Importer or OEM (the "provider") must ensure that the provider is a Steward with an OTS identification number. The OTS identification number will be posted on the OTS website.

(5) A Steward shall remit GST applicable to the Tire Stewardship Fee to OTS with each monthly remittance of the Tire Stewardship Fee.

16. Penalties, Interest and Back Fees

(1) Stewards who fail to pay Steward's Fees by the dates specified in Appendix D will be subject to a penalty calculated at 10% of Tire Stewardship Fees due and payable.

(2) If the amounts reported in a Steward's Report are inaccurate, any deficiency in Tire Stewardship Fees resulting from such inaccuracies shall be immediately due and payable from the date of the filing of the correcting Steward's Report or the date the Steward first knew of such inaccuracy, whichever is earlier, and, if not paid within 30 days, will be subject to a penalty equal to 10% of such Tire Stewardship Fee deficiency.

(3) Interest on the amounts payable under Rules 55(1) and 55(2) shall accrue from their respective due dates at the Base Interest Rate plus 3% per annum. In addition, a Steward shall pay all collection costs, including all proper and reasonable legal fees, incurred by OTS, whether or not an action or any other legal remedy has been commenced.

(4) OTS may waive all or part of any penalty, interest or charges otherwise payable under this Rule 5.

17. Record Provision and Retention

(1) Upon request from OTS, Stewards shall promptly provide data used in the preparation of the Steward's Report, including calculation methodology, product data, internal audit reports, list of Brands reported and list of Brands excluded from report and such other information or data in the Steward's possession or control as may be reasonably requested by OTS to substantiate the accuracy of the Steward's Report.

(2) A Steward shall retain records or, on receipt of written request, provide records at an address in the Province of Ontario to substantiate and verify the amount set out in its Steward's Report for a period of not less than five years from the date of the Steward's Report to which they relate. A Steward shall grant access to OTS upon its request to examine its books and records to enable OTS to audit and inspect such records respecting a Steward's Report up to five years after the date of receipt of such Steward's Report by OTS.

18. Dispute Resolution

If any dispute arises between a Steward and OTS as to the amount of New Tires that is required to be included in a Steward's Report:

(1) The parties shall attempt to resolve the dispute through designated representatives from each of OTS and the Steward within 30 days after written notice of the dispute was first given, or as otherwise agreed upon.

(2) If the parties are unable to resolve the dispute within the above period, the Steward and OTS shall, within 30 days thereafter, jointly select an arbitrator to arbitrate the dispute. If the Steward does not nominate an arbitrator within the 30 day period, OTS shall nominate the arbitrator. The arbitration shall be conducted in accordance with the *Arbitration Act, 1991*.

(3) The arbitrator shall render a written decision on the dispute within 14 days after the arbitration hearing or submission. The decision of the arbitrator shall be final and binding on the parties and shall be subject to appeal only on questions of law and not on questions of fact, in accordance with Section 45 of the *Arbitration Act, 1991*, and shall be enforceable against OTS and the Steward, as the case may be, immediately on the issue of such decision to the parties to the dispute.

19. Interpretive Memoranda

OTS may publish on its website non-binding interpretive memoranda on these Rules and how it proposes to administer them.

20. Publishing of Names

(1) OTS will provide all Stewards with an identification number.

(2) The names and identification numbers of Stewards filing Steward's Reports will be posted on the OTS website.

(3) OTS may post a list on its website of all Brands reported in Steward's Reports from time to time, and all OEM's, Brand Owners, First Importers and other Stewards associated with such Brands.

21. Notice

Any notice, request or other communication from OTS to a Steward which is required or may be given under these Rules may be delivered or transmitted by means of electronic communication, personal service or by prepaid first class postage to the Steward at a Published Address in Ontario and shall be deemed to have been received on the third day after posting and on the first day after the date of electronic transmission, in each case which is not a Saturday, Sunday or public holiday in Ontario.

22. Amendments to Rules

These Rules may be amended by OTS from time to time. On receipt of any necessary approvals and the publication of the amended Rules on OTS' website, such amendments will come into

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effect and apply to all Stewards from and after the effective date.

Appendix A: Tires Definitions

	Product Category	Definition
1)	On-Road Tires	**Passenger Tires, Small RV Tires, ST Trailer tires and Light Truck Tires and Temporary Spares** Passenger tires are designed for use on passenger cars, light trucks, small RVs and multipurpose passenger vehicles (MPVs), including sport utility vehicles (SUVs) and crossover utility vehicles (CUV's), and to comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 109). The light truck tire category is tires designed for use on consumer or commercial light trucks, under 10,000 lbs. Gross Vehicle Weight, and comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119). Codes found on the sidewall of light passenger and light truck tires are P (Passenger) and LT (Light Truck). Temporary spare tires are marked T (Temporary). **Motorcycle, Golf Cart and All Terrain Vehicle Tires** Includes all tires specifically designed for on/off highway motorcycles, motorcycle sidecars, motor bikes, mopeds, mini-cycles, golf carts and all terrain vehicles. **Forklift, Small Utility, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer tires measuring 16” rim size and under **Free Rolling Farm Tires** Includes free rolling farm and implement tires up to 16” rim size used on farm equipment. **Medium Truck Tires** Also commonly known as Commercial Truck Tires – Truck and Bus tires including Wide Base or Heavy Truck tires designed for truck/bus applications and Larger RV tires not marked "P or LT”. All of which comply with Canadian Motor Vehicle Safety Standard (CMVSS No. 119).
2)	Off-Road Tires	**Agricultural Drive and Logger Skidder Tires** Includes drive wheel tires used on tractors and combines and tree harvesting equipment. These tires are normally identified with a sidewall marking with suffix letters (R), or (HF) or (LS) and are 16.5”

		and up rim size. These tires are listed in The Tire and Rim Association Inc. annual yearbook Section 5 Agricultural. **Forklift, Bobcat/Skid Steer Tires** Includes pneumatic forklift tires, Bobcat/Skid Steer Tires measuring 16.5” and over. **Small Off The Road Tires** Sizes 1300R24 to 23.5R25 Rim Size **Medium Off The Road Tires** Above 23.5R25 to 33 inch Rim Size **Large Off The Road Tires** Above 33 inch to and including 39 inch Rim Size **Giant Off The Road Tires** Over 39 inch Rim Size **Industrial (Solid) Tires** Solid Industrial Tires e.g. for Forklift Trucks etc.

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Appendix B

ONTARIO TIRE STEWARDSHIP (OTS)

TIRE STEWARDSHIP FEE RETURN

Revised: 02/13/09

Registrant Name (Operating name)	**Registration Number**

Reporting Period (Calendar month in which tire sales occurred)	**Due Date** The TSF Return and related payment are due **30 days after the end of the month following the Reporting Period**. Interest is payable on all overdue amounts. A Return **must** be submitted for every month, even if there were no TSF applicable sales in the Reporting Period.

SALES & TSFs IN REPORTING PERIOD

Tire Types	**# Tires Sold**	**TSF Rate Per Tire**	**$ TSF Due**
Passenger & Light Truck / Motor Cycle / ATV / Free Rolling Farm Tires		X **$5.84** =	, . 0 0
Medium Truck Tires		X **$14.65** =	, . 0 0
Agricultural Drive and Logger Skidder Tires		X **$15.29** =	
Small & Large Industrial Tires		X **$12.51** =	
Small Off The Road Tires		X **$22.24** =	
Medium Off The Road Tires		X **$97.30** =	
Large Off The Road Tires		X **$104.25** =	, . 0 0
Giant Off The Road Tires		X **$250.20** =	, . 0 0
	TOTAL TSF DUE		, . 0 0
		GST @ 5%	, .
TOTAL REMITTANCE PAYABLE (TSFs + GST)			, .

WHERE TO REMIT:

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A cheque or money order for the total amount should be made payable to **Ontario Tire Stewardship,** attached to this TSF Return, and forwarded to the following address:

Note: Nil Returns can be faxed to ######

CERTIFICATION:

I certify that the amounts indicated above are the amounts of the Tire Stewardship Fees that I am required to remit for the reporting period indicated. OTS is entitled to examine my records relating to sales of new tires and the remittance of the Tire Stewardship Fees.

Authorized signature:

_____ **Date:** _____ / _____ / _____

Month Day Year

GST #: ####### Please tick this box to sign up for the Return to Retailer Program ☐

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Appendix C

Payment and Reporting Schedule

Payment and reporting schedule will be monthly. The reporting schedule will depend on when a Steward is notified.

Monthly Data period	**Data period end date**	**payment deadline**
First month	Last day of first month	30 days from last day of first month
Second month	Last day of second month	30 days from last day of second month
Etc.	Etc.	Etc.

All obligated Stewards are required to file individual Steward's Reports from the commencement date of these Rules. Obligated Stewards are required to file a Steward's Report for all outstanding Steward's Reports by the date outlined in Rule 4 of these Rules and then the regular schedule of filings and payments shall apply.

Stewards who fail to pay Tire Stewardship Fees as set out in the instalment schedule above shall pay in addition:

- A penalty of 10% of the Tire Stewardship Fees due and payable.
- Interest at the Base Interest Rate plus 3% on any outstanding balance due.

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Appendix D

Table of Fees: 12 months post-Commencement

Tire Type	PTEs per tire	TSF per PTE	TSF per Tire
PL/T Tires	1	$ 5.84	$ 5.84
MT Tires	5	$ 2.93	$ 14.65
Agricultural Drive and Logger Skidder Tires	11	$ 1.39	$ 15.29
Small & Large Industrial Tires	9	$ 1.39	$ 12.51
Small Off The Road Tires	16	$ 1.39	$ 22.24
Medium Off The Road Tires	70	$ 1.39	$ 97.30
Large Off The Road Tires	75	$ 1.39	$ 104.25
Giant Off The Road Tires	180	$ 1.39	$ 250.20

SCHEDULE C

INFORMATION SHARING PROTOCOL

In accordance with subsection 7.2 of the Program Agreement, Waste Diversion Ontario and Ontario Tire Stewardship agree to keep each other informed and apprised of matters as they relate to the implementation and operation of the Used Tires Program Plan as set out below:

- Ontario Tire Stewardship agrees to routinely provide WDO with information which is compiled or developed by Ontario Tire Stewardship during program development or implementation that is pertinent to WDO's responsibilities under the Waste Diversion Act.

- Ontario Tire Stewardship agrees to routinely provide WDO with draft and final copies of minutes from Board and Committee meetings.

- Ontario Tire Stewardship agrees to provide WDO with copies of minutes from staff and/or consultant project meetings related to implementation (or development) of the (insert material) Program Plan, upon request.

- Ontario Tire Stewardship and WDO agree to share communications from stewards and stakeholders that include complaints or criticisms of the (insert material) Program Plan implementation (or development) process immediately upon receipt and to co-operate in determining an appropriate response to the complaint or criticism.

- Ontario Tire Stewardship and WDO agree to share information about inbound calls from the media or other members of the public, identifying key questions and flagging potentially contentious issues. Media calls and requests for interviews should be accorded priority, with Ontario Tire Stewardship notifying WDO designated communications staff as soon as possible.

- Ontario Tire Stewardship agrees to share with WDO all draft versions of hardcopy or electronic communications materials for review including but not limited to:
  a) Communications plans
  b) Advertising plans;
  c) News releases;
  d) Media advisories;
  e) Media backgrounders;
  f) Schedules of upcoming media events or releases; and
  g) Significant policy positions.

- The communications materials referred to above will be shared between designated communications staff at Ontario Tire Stewardship and WDO as soon as the material is ready to be submitted to WDO for review, comment and final approval, or seven (7) business days prior to release, whichever is earlier. If timely response to events does not allow for seven (7) days lead time, Ontario Tire Stewardship agrees to provide the materials to WDO as soon as available.

- For the purposes of this Information Sharing Protocol, the Executive Director is the designated communications staff of WDO.

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- WDO agrees to share draft and final versions of news releases, fact sheets and announcements related to (insert material) Program Plan with Ontario Tire Stewardship. WDO will keep Ontario Tire Stewardship apprised of releases and events in as timely a manner as possible once approved for release.

- Ontario Tire Stewardship will handle inquiries related to its responsibilities under the Program (or Memorandum of) Agreement.

- WDO will handle inquiries related to its responsibilities under Waste Diversion Act and the Program (or Memorandum of) Agreement.

- WDO and Ontario Tire Stewardship agree to give each other at least seven (7) days notice regarding any planned events and public appearances (media interviews, etc.) by its officers and representatives. If event planning does not allow for seven (7) days lead time, the parties agree to advise each other as soon as possible.

- If Ontario Tire Stewardship is seeking the participation of the WDO Chair or the Minister in any of its events or public appearances, Ontario Tire Stewardship agrees to give WDO Chair and the Minister at least two (2) month's notice.

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