



Tire Recycling in Saskatchewan





Tires and their impact on the environment




- Durable
- Long lasting
- Virtually indestructible
- Definitely not bio-degradable



After many years on the job, they can last hundreds of years as an environmental legacy for generations of Saskatchewan residents who weren't even born when they were made.




What else?



Unfit for landfills, tires become prime breeding grounds for mosquitoes, rats and mice.

Not to mention, a huge fire hazard.



Like in 1990, when over 12 million tires in Hagersville, Ontario caught fire and burned for over 17 days.


It contaminated water wells and forced 1700 people to evacuate the toxic fumes.



Saskatchewan produces more than
1.5 million tires
each year, every year!!!




An environmental disaster? ...or one of the best eco stories around!




Just to give you an idea...



If all the tires produced in Saskatchewan were placed flat, side-by-side...

the tires would expand across the largest part of the province over

1 ½ times!!!




And so...



That's a lot of tires!!! And to prevent them from taking over our province, the Saskatchewan Scrap Tire Corporation (SSTC) was started.

- The SSTC is responsible for delivering a province-wide tire recycling program.
- It was established in 1996 as a non-profit, non-government, industry led organization.
- Saskatchewan already has a handle on virtually all tires that are available for recycling and are being collected, processed and recycled daily!

That's more than
41 million pounds
of engineered rubber per year!



There are 3 phases in our program:

Phase 1 – Current Generation Tires
Daily activity of gathering scrap tires accumulated at the retail level.

Phase 2 – Municipal Landfill Cleanup
Involved removing tires from registered landfills in Saskatchewan.

Phase 3 – Private Stockpiles
Involves removing stockpiles from private lands like farmland and urban residential property.



**Phase 1
Current Generation Tires**

Every business that sells new tires in Saskatchewan needs to be registered with the program and every new tire sold has a **Tire Recycling Fee (TRF)**, 100% of which pays for the program.

Tire Recycling Fee Rates:

Passenger Car/Light Truck	\$4
Medium Truck	\$9
Agricultural	\$15
OTR 1	\$35
OTR 2	\$75

There are **1,350** registered retailers in Saskatchewan.

1.5 million tires were reported sold!




**Phase 2
Municipal Landfill Cleanup**

Prior to the SSTC's program, tires were disposed of into landfills.

This phase involved removing those tires from registered landfills and in exchange for the free clean up, municipalities were required to pass bylaws banning scrap tires from their landfill.

Removed over **2,000,000** from over **300** landfills.





**Phase 3
Private Stockpiles**

Involved removing stockpiles of tires from private lands like farmland and urban residential property.

In the Spring of 2010, the SSTC launched a regional pilot project to test various methods.

In 2012, a total of **81** RMs took part, and combined, over **104,000** tires equaling **5.5 million** pounds were collected by non-profit service groups. Over **\$82,000** was paid out to local non-profit organizations.



RE-CYCLE
Bike Tire Recycling Program

Bicycle tires are not typically part of the SSTC's regular program but with voluntary recycling partnership between supporting bike retailers and the SSTC, we are able to collect and recycle them at no charge.

We have over **20** registered bike retailers registered.

So far we have diverted over **3,700** bike tires so far.




RETURN2RETAILER

R2R is a new program that began as a pilot project in Regina in 2012 as an effort to remove orphan tires from urban residents.

It was designed to provide residents with an opportunity to drop off a small, manageable number of rimless scrap passenger car tires, free of charge to select retailers.

SSTC in partnership with Canadian Tire, Kal Tire and Quality Tire locations, collected over **2700** tires.





Be Tire Smart Campaign

Be Tire Smart (BTS) is an advocacy campaign of the Rubber Association of Canada with a goal of educating motorists about the benefits of proper tire inflation and maintenance.

Things like proper tire pressure, alignment, rotation and tread helps save fuel and helps tires last longer.

This is a case where inflation is a good thing!
But, at the end of the road, every tire needs to be retired to a new productive life...



Community Demonstration Grant Program



Promotes and encourages communities and non-profit organizations to undertake projects that make use of recycled tire products made in Saskatchewan.

Each project serves as an example of environmental stewardship and innovation.

Approximately **\$30,000** in grants are provided each year to use in rubber playground surfacing, rubber matting and sports field turf.

Re-tire, Re-Claim, Re-cycle

The SSTC is responsible for the system that collects and transports those millions of tires from all over the province to be processed at recycling facilities right here in Saskatchewan.



- Tire Retailers**
 - There are 1,350 Tire Retailers in the province.
 - Tires are picked up at no cost to the retailer.
- Collectors**
 - 4 Collection Companies
 - Responsible for the pick up and transportation of tires
- Processors**
 - 2 Processing Facilities in the province.
 - Responsible for recycling and creating marketable products.

Where does all of this take place?

There are two locally owned processing facilities located right here in Saskatchewan:




Shercom Industries Inc. Saskatoon, SK *Assiniboia Rubber Recycling Assiniboia, SK*

41 Million
POUNDS OF WASTE TIRE
WERE COLLECTED

39, 229, 513
POUNDS WERE RECYCLED


11, 668, 881
POUNDS OF RUBBER
18, 488, 034
POUNDS OF STEEL FIBER
1, 038, 081
POUNDS OF FIBER
8, 041, 847
POUNDS OF WASTE MATERIAL

All scrap tires that are collected are delivered to these processing facilities.

How tires are Recycled?



Shredding Crumb Repurposing Energy Recovery




Shredding


Roughly half of tires are turned into shred.

Shredding is an industrial strength process that tears tires apart and turns it into rubber aggregate that replaces rock and stone.

Tire shred is known to –

- Increase drainage in roadways or soft areas,
- Reduce erosion
- Reduce frost damage to roads








Crumb

The second recycling process chops and grinds the shred further into what is known as crumb.

Crumbs are smaller and more uniform in size. Using heat, pressure, color dyes and modern bonding materials, crumb can be molded into useful products.

Examples of products are:

- Paving Tiles
- Sports field turf
- Playground surfacing
- Speed bumps
- Loose playground material


What else can you use crumb for?

Crumb can be used in paving applications and when done so, it looks like asphalt but it is soft, water-proof, weather-proof and safe!

This process can be used for playgrounds.



...or rubber matting



...or can even be used to...



Pave highways!

The benefits of paving with rubber asphalt are endless!

Rubber asphalt:

- Reduces Reflective Cracking and Rutting
- More cost effective
- Improves skid resistance
- Reduces Maintenance Costs
- Reduces Road Noise

Over **600** km of Saskatchewan roadways have been paved using more than **550,000** tires.




Repurposing

The third form of recycling is repurposing, where large portions of tires can be made into products such as:

- Blasting mats
- Water troughs
- Snow plow blades

Energy Recovery

Energy recovery is the fourth way to recycle scrap tires. Although we do not use this method currently, tires can be used as a supplement in place of oil, coal or other fuels.

Since its inception, the SSTC has:

- Removed historical scrap material from over **300** landfills.
- Diverted over **20,000,000** tires from landfill disposal.
- Have seen over **600** km of highways paved with rubberized asphalt.
- Removed tire stockpiles from private land in **81** municipalities through the Black Gold Rush Program
- Gave back to over **65** communities through the Community Demonstration Grant Program.



The bigger picture...

The Saskatchewan Scrap Tire isn't just about making tires eco-friendly, it's about helping you and I be more eco practical.



It would be very difficult for individuals to effectively and responsibly deal with the tires that they use in their daily lives.



So, by collecting, transporting, processing and transforming this durable product, the SSTC makes it possible for all of us to lessen our impact on the environment for future generations!



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SCRAP TIRE
CORPORATION**

For more information on the SSTC and
programs we offer please visit our website:
www.scraptire.sk.ca

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