

*Junction Creek
Stewardship Committee*



*Comité d'intendance
du ruisseau Junction*

JUNCTION CREEK CLEAN-UP REPORT 2019



Prepared by the Junction Creek Stewardship Committee

Junction Creek Clean-Ups

The Junction Creek watershed is a valued natural asset in the Greater Sudbury community; offering green spaces to enjoy nature, recreational opportunities, habitat for wildlife, and flood management. As an urban waterway, garbage dumping and littering have been an ongoing issue for stream health. The Junction Creek Stewardship Committee coordinates creek clean-ups with volunteers and community groups as part of the City of Greater Sudbury's Adopt-a-Spot Program to encourage citizen stewardship. Over the past 20 years, **84,991 kg** of garbage has been removed from Junction Creek and its surrounding shorelines.

In an effort to gain a better understanding of the types and sources of litter polluting the watershed, the stewardship committee began litter monitoring surveys in the urban reaches of Junction Creek and partnered with **Plastic-Free Greater Sudbury** to conduct inventory tallies during clean-ups in 2019. Results from the data will identify garbage 'hot spots' along Junction Creek to target educational programs and make science-based recommendations on how to reduce litter and plastic waste in the waterways of Greater Sudbury.

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The Junction Creek Stewardship Committee

Our Vision:

"A healthy and revitalized Junction Creek ecosystem"

Our Mission:

"To lead the way for improving and maintaining a healthy Junction Creek watershed by:

- conducting research and monitoring programs to create understanding and inform sound decisions
- organizing restoration activities to recover and protect the watershed
- providing educational opportunities to share knowledge and promote its ecological, economic, and health benefits
- connecting the community with Junction Creek to empower long-term stewardship"





Junction Creek Litter 'Hot Spots'

Waste accumulation in the urban reaches of Junction Creek

MAP LEGEND

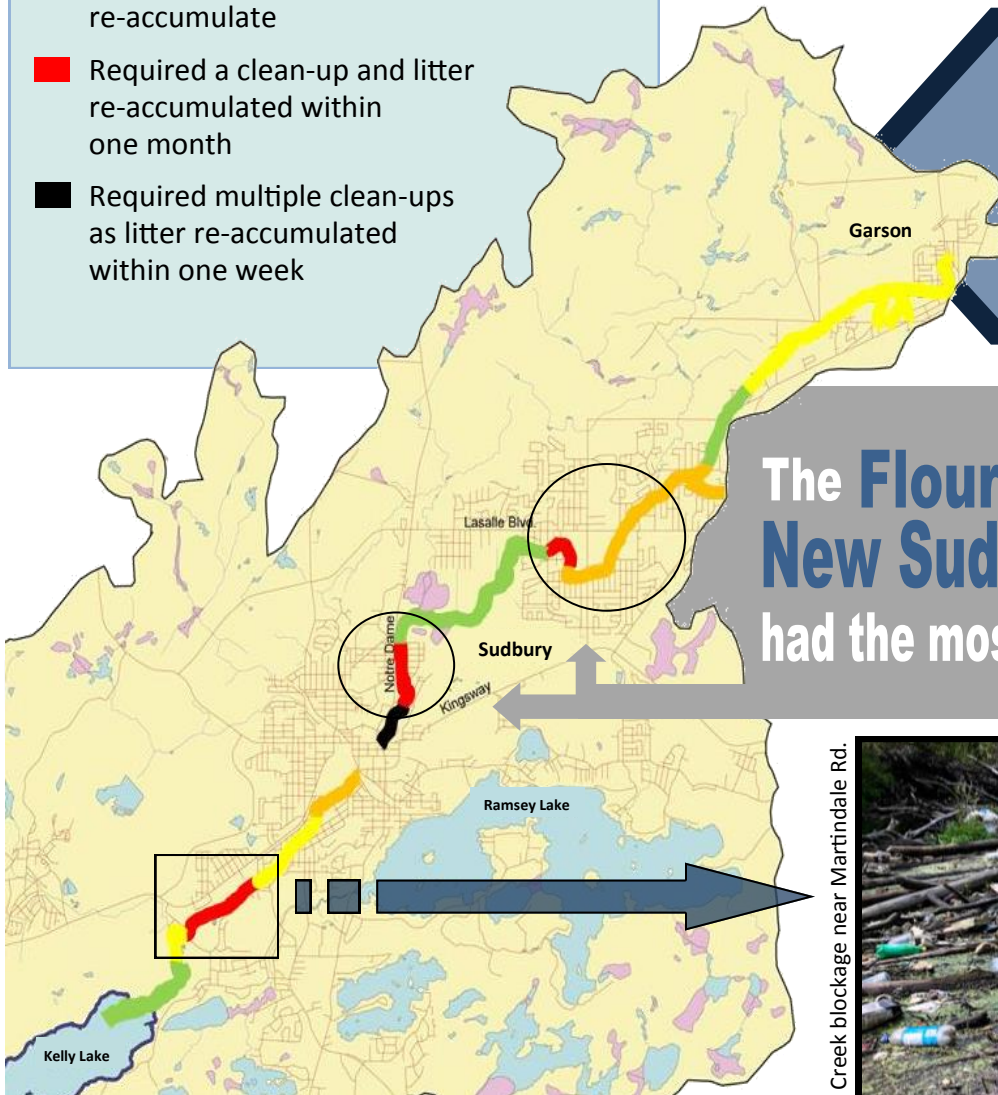
- Clean, did not require a clean-up and did not have litter
- Did not require a clean-up but still had some litter
- Required a clean-up but litter did not re-accumulate
- Required a clean-up and litter re-accumulated within one month
- Required multiple clean-ups as litter re-accumulated within one week

DID YOU KNOW?

Junction Creek drains into Lake Huron. Meaning the impact we have on our local watershed has a ripple effect on the Great Lakes!

PLASTIC WRAPPERS
are the **#1**
item found
in Junction Creek

The **Flour Mill, Gatchell & New Sudbury** communities had the most litter accumulation



Creek blockage near Martindale Rd.



PLASTIC WASTE IN JUNCTION CREEK 2019

Litter and plastic waste removed from the urban reaches of Junction Creek, Greater Sudbury



TOP 7 ITEMS FOUND

1 6,122
Plastic Wrappers

2 3,578
Plastic Bags

3 1,976
Plastic Bottles

4 1,737
Disposable Cups

5 1,162
Plastic Straws & Lids

6 1,053
Styrofoam Pieces

7 994
Aluminum Cans

11 CLEANUPS
257 VOLUNTEERS
170 BAGS OF GARBAGE
2,516 KG OF TRASH

SINGLE-USE PLASTICS
POLLUTE FOR OVER
500 YEARS



LESS THAN 10%
OF ALL PLASTIC
HAS BEEN RECYCLED



JUNCTION CREEK CLEAN-UPS 2019



Summary Chart: Junction Creek Clean-Ups 2019

DATE & SITE	KG OF TRASH	AREA m ²	# of HELPERS	TOP 3 ITEMS
April 28 New Sudbury area - New Sudbury Centre	225	9,922	44	
May 4 New Sudbury area - Lasalle Superstore	624	7,625	60	
July 10 Flour Mill area - Mountain St. to Leslie St.	492	5,309	15	
July 30 Little Britain area - Saint Catherines St. to Saint James St.	53	6,172	12	
Aug. 14 Flour Mill area - Agnes St. to Leslie St.	153	5,211	16	
Aug. 16 Flour Mill area - Mountain St. to Leslie St.	126	5,309	12	
Aug. 28 Gatchell area - West of Martindale St.	27	2,858	3	
Sept. 7 Flour Mill area - Perreault St. to King St.	357	4,138	20	
Sept. 23 Little Britain area - Riverside Dr. to Regent St.	75	2,214	9	
Oct. 3 New Sudbury area - Madison Ave. to Lansing Ave.	104	21,088	16	
Oct. 5 New Sudbury area - Fielding St. to Barrydowne Rd.	280	5,300	50	shopping carts

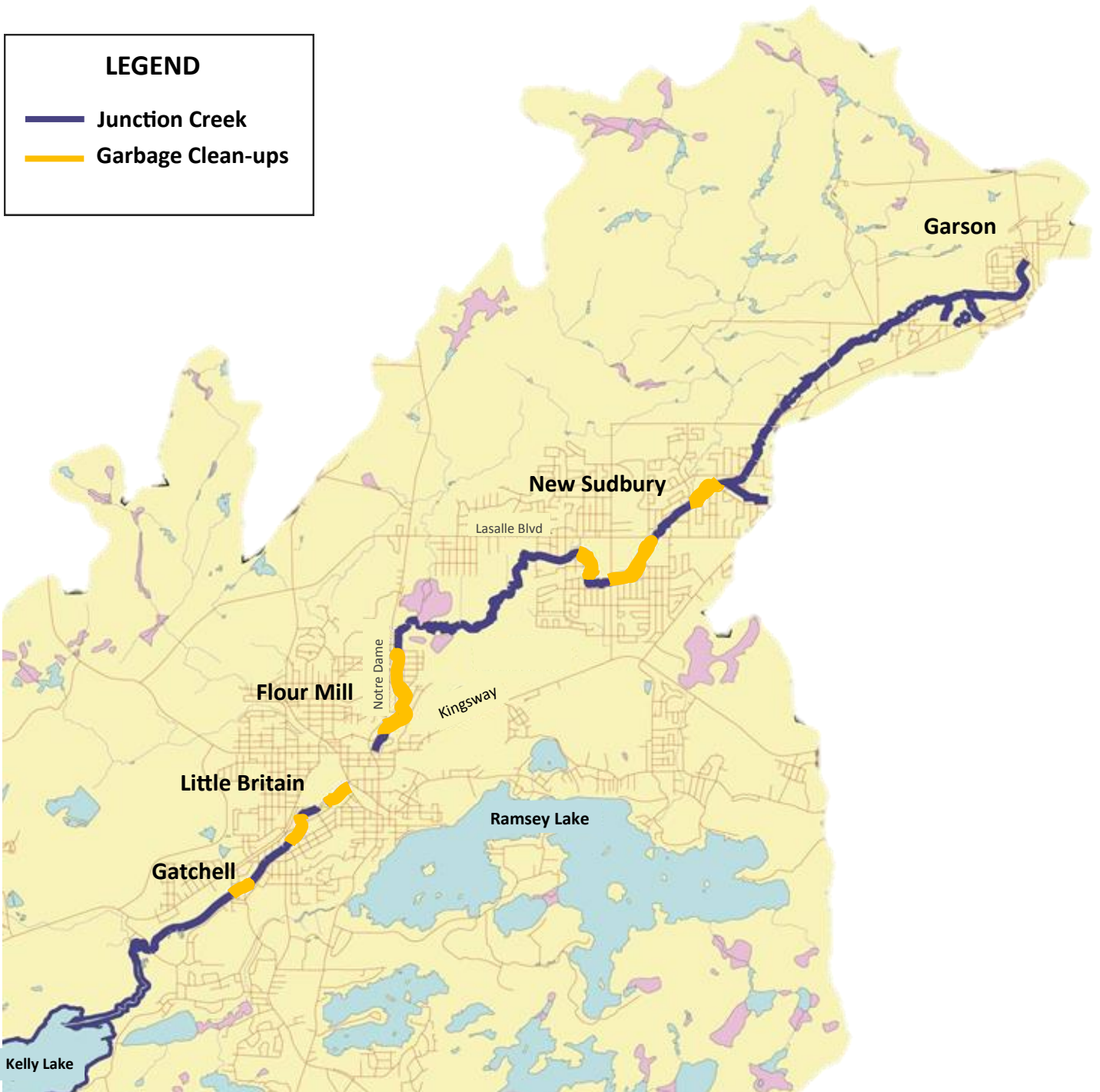
= Plastic Bottles
 = Plastic Bags
 = Plastic Wrappers
 = Plastic Fragments
 = Aluminum Cans

Map of Junction Creek Clean-Ups 2019

Garbage clean-ups along Junction Creek are part of the City of Greater Sudbury's Adopt-a-Spot program and funded by projects working to restore Junction Creek (see page 19 for list of supporters).

LEGEND

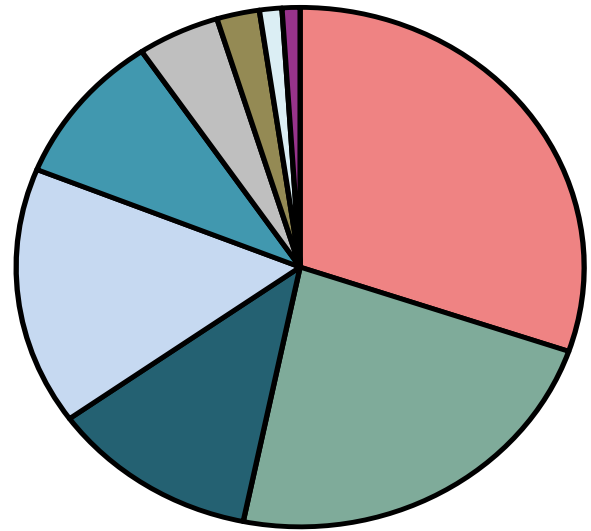
- Junction Creek
- Garbage Clean-ups



April 28th 2019

225 kg of trash 9,922m²

44 Volunteers (Public Clean-up)



● Plastic Wrappers	1305
● Plastic Bags	990
○ To-Go Cups	512
● Plastic Straws & Lids	692
● Plastic Bottles	408
○ Styrofoam	202
● Lighters	105
○ Aluminum Cans	55
● Cardboard	44

Other items found:

Satellite dish, bricks, metal piping, shopping carts.

Photos



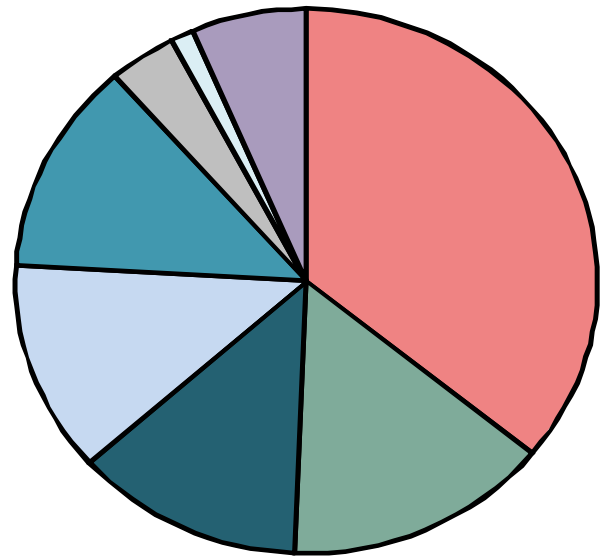
Lasalle Superstore (New Sudbury Area)

Reach #6.1

May 4th 2019

624 kg of trash 7,625m²

60 Volunteers (Public Clean-up)



● Plastic Wrappers	2565
● Plastic Bags	1060
○ To-Go Cups	910
● Plastic Straws & Lids	895
● Plastic Bottles	903
○ Styrofoam	270
● Cigarette Butts	459
○ Aluminum Cans	89

Other items found:

Wood, cardboard

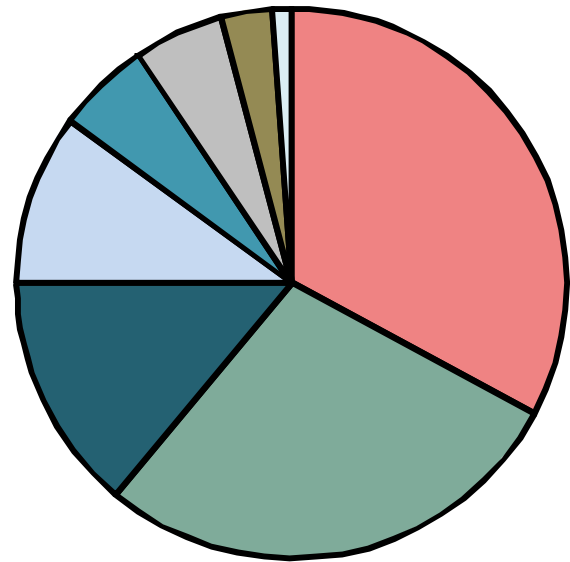
Photos



July 10th & August 16th 2019

618 kg of trash 5,309m²

27 Volunteers (Pinchin Ltd. & Monarch Recovery Services)



● Plastic Bags	355
● Plastic Wrappers	304
● Cigarette Butts	150
● Aluminum Cans	109
● Plastic Bottles	59
● Plastic Straws & Lids	57
● To-Go Cups	33
● Styrofoam	12

Other items found:

Weed cutter, propane tank, bicycles x2, shopping carts x5



Photos



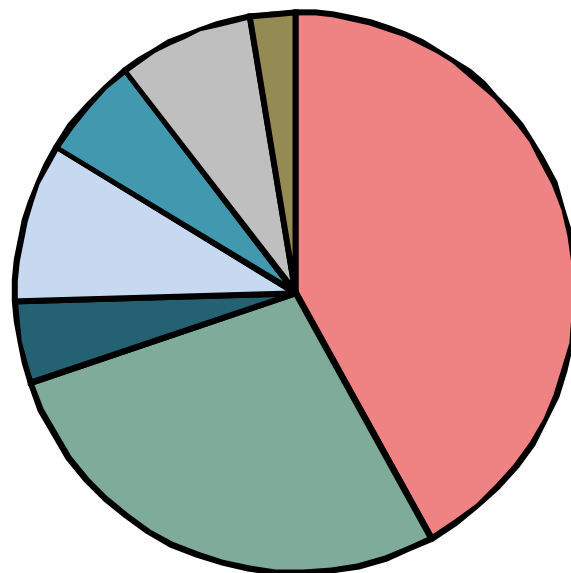
St. Catherines St. to St. James St. (Little Britain Area) Reach #12.1

July 30th 2019

53 kg of trash

6,172m²

12 Volunteers (Melbrook Martial Arts Academy)



● Plastic Wrappers	193
● Plastic Bags	128
● To-Go Cups	22
● Plastic Bottles	42
● Plastic Straws & Lids	27
● Styrofoam	36
● Aluminum Cans	12

Other items found:

Propane tank, balls, tire



Photos



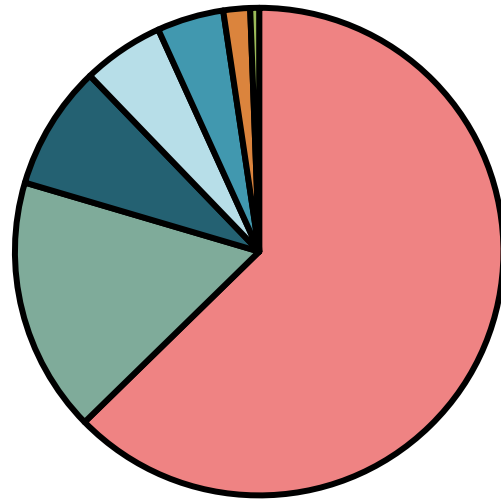
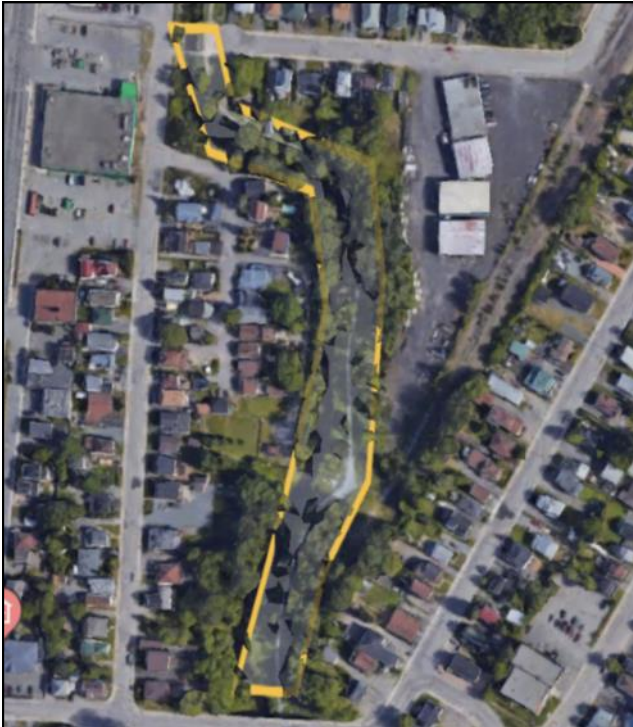
Agnes St. to Leslie St. (Flour Mill Area)

Reach #11.3

August 14th 2019

153 kg of trash 5,211m²

16 volunteers (Big Brothers Big Sisters)



Aluminum Cans	638
Plastic Wrappers	172
Plastic Bottles	84
Plastic Bags	55
Cardboard	45
Plastic Straws & Lids	18
Styrofoam	6

Other items found: Canopy umbrella, carpet, mirror

64% of aluminum cans found all year!

Photos



West of Martindale Rd. (Gatchell Area)

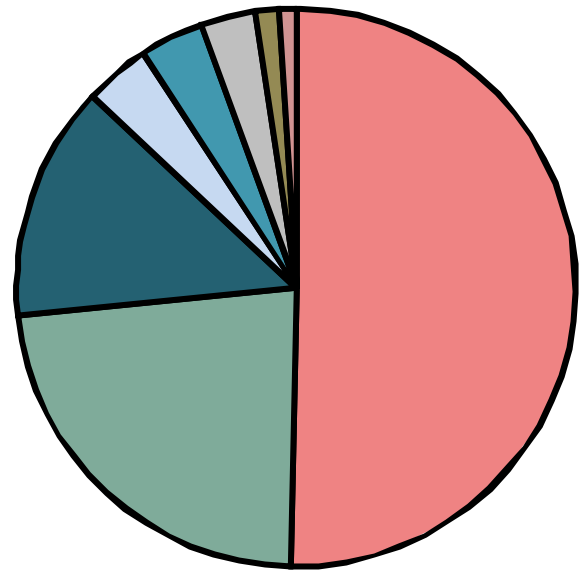
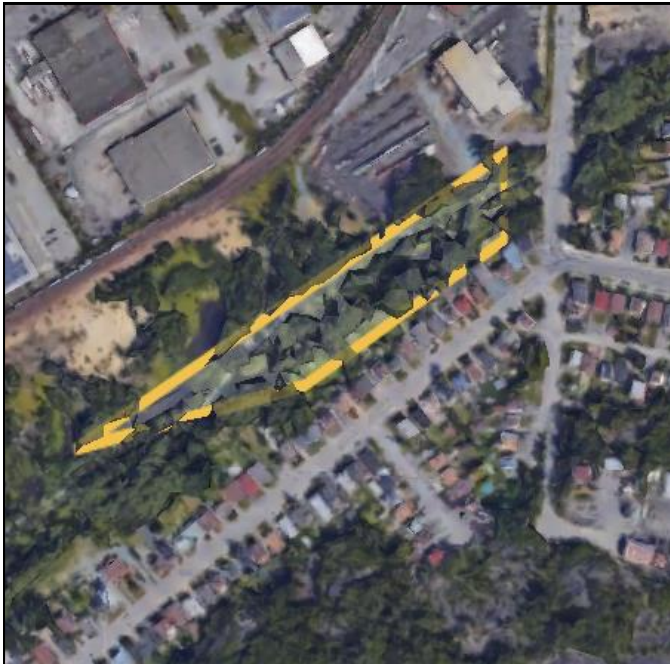
Reach #14.1

August 28th 2019

27 kg of trash

2,828m²

JCSC staff via canoe



● Styrofoam	403
● Plastic Bottles	185
● Plastic Fragments	109
● Plastic Straws & Lids	30
● Plastic Wrappers	30
● Lighters	25
● Glass Bottles	11
● To-Go Cups	8

Other items found:
Hockey stick, bike lock



Photos



Perrault St. to King St. (Flour Mill Area)

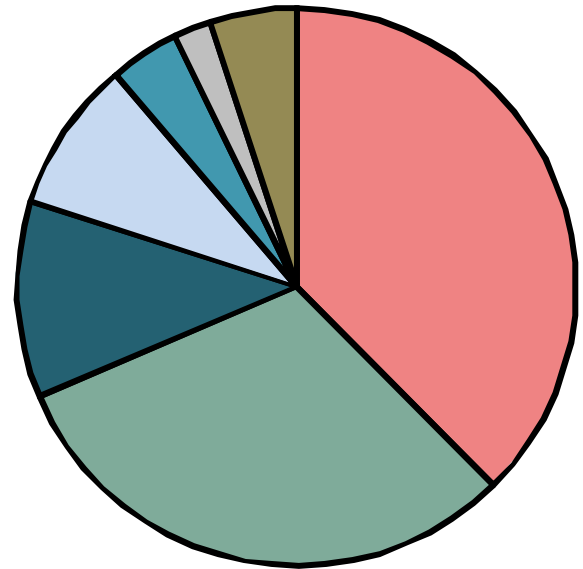
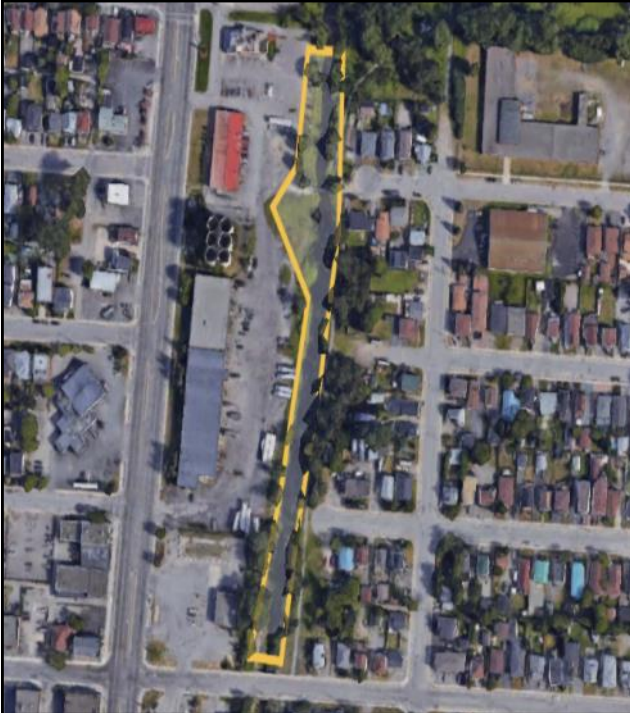
Reach #11.1

September 7th 2019

357 kg of trash

4,138m²

20 Volunteers (Rainbow Routes Association and general public)



● Plastic Bags	704
● Plastic Wrappers	580
● Plastic Bottles	214
● Plastic Straws & Lids	165
● Styrofoam	76
● Aluminum Cans	41
● To-Go Cups	93

Other items found:

Arm chair, vacuum, fire extinguisher



Photos

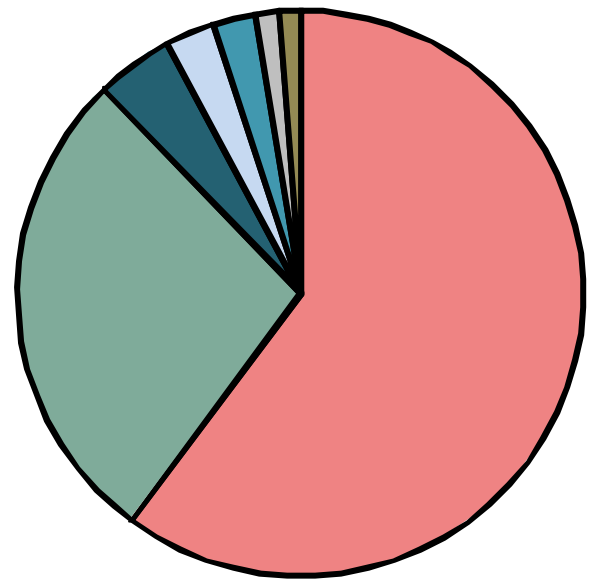
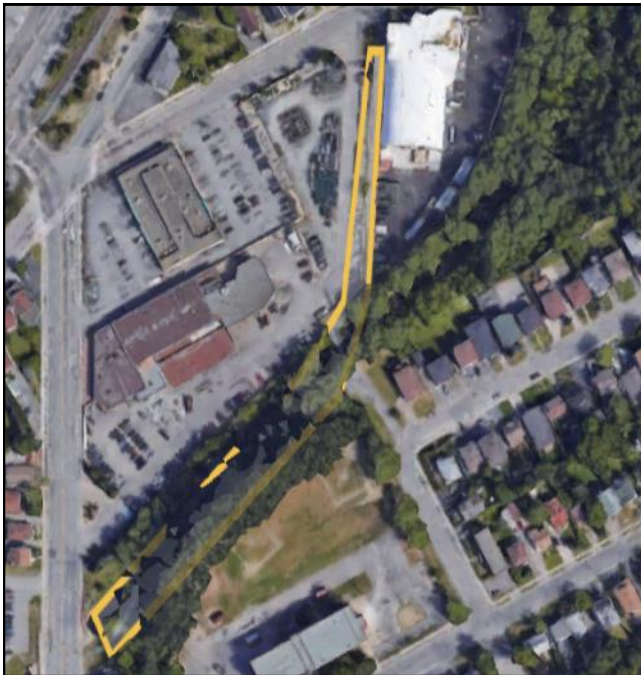


Riverside Dr. to Regent St. (Little Britain Area) Reach #12.2

September 23th 2019

75 kg of trash 2,214m²

9 Volunteers (Medicor Research Inc.)



● Plastic Wrappers	582
● Plastic Bags	267
● Plastic Bottles	42
○ Aluminum Cans	28
● Plastic Straws & Lids	23
○ To-Go Cups	13
● Styrofoam	12

Other items found:
Hydro wires, ladder

Photos

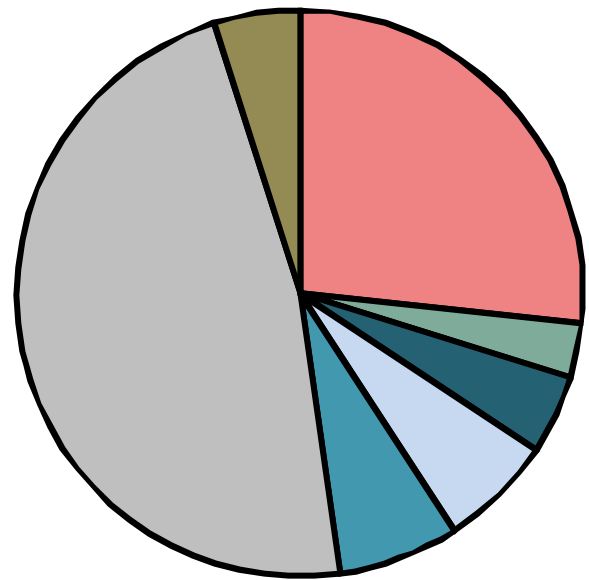


Madison Ave. to Lansing Ave. (New Sudbury Area) Reach #5.2

October 3th 2019

104 kg of trash 41,589m²

16 Volunteers (TD Bank & Enviroclub Chelmsford)



● Plastic Bags	119
● Plastic Straws & Lids	14
● To-Go Cups	20
● Plastic Bottles	29
● Styrofoam	31
● Plastic Wrappers	211
● Aluminum Cans	22

Other items found:

Office chair, table frame



Photos



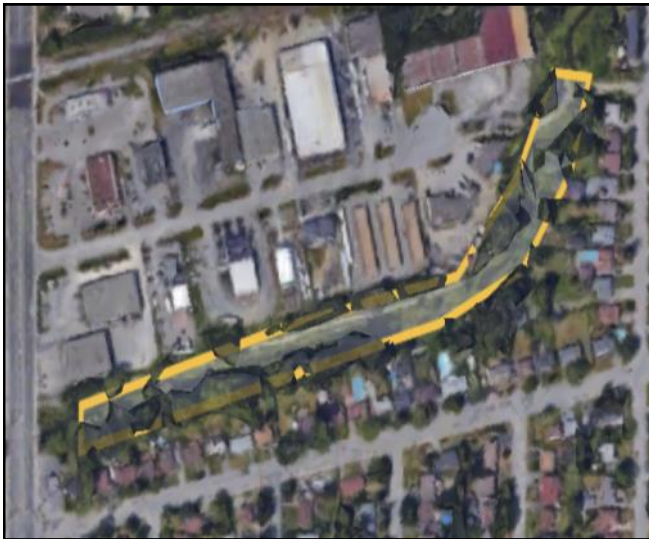
Fielding St. to Barrydowne Ave. (New Sudbury Area) Reach #6.2

October 5th 2019

280 kg of trash 5,300m²

50 Volunteers (Public Clean-up)

** clean-up was part of TD Tree Day event.
No inventory was taken of garbage removed .*



4 BAGS OF
GARBAGE
+ 12 shopping carts

CALL OUT FOR CLEAN-UPS

Clean-ups are organized from April to October and are 2 hours in duration. Volunteers include community groups, local businesses, and members of the general public.

If you are interested in coordinating a clean-up in your area or becoming an Adopt-a-Creek partner, please email programs@junctioncreek.com or call (705) 525-8736.

Thank you for helping to clean-up Junction Creek!
Your efforts go a long way in the restoration of Sudbury's urban waterway.

RECOMMENDATIONS FOR LITTER MITIGATION ALONG THE URBAN REACHES OF JUNCTION CREEK

Litter and plastic waste are common environmental issues in urban watersheds. The accumulation of litter has a negative ecological and economic impact: it is aesthetically displeasing; impairs water quality; degrades habitats; and is harmful to wildlife. Plastic waste in particular can persist in the environment for thousands of years, breaking apart into tiny pieces known as microplastics and leaching harmful substances which bioaccumulate in the food-chain.

Understanding the extent and source of litter in the Junction creek watershed is the first step to taking action to reduce litter and plastic waste from entering the local waterways. Data collected over the long-term litter monitoring and inventory program will reveal trends to tailor effective remediation methods for Junction Creek. Below is a list of recommendations to mitigate litter in the urban reaches of Junction Creek and the Greater Sudbury community.

Note: these options will be explored in more detail following the collection of additional data and further site evaluations. Stay tuned for a report on litter mitigation recommendations in the near future.

Being proactive about waste & litter

A. Encouraging waste reduction & providing necessary resources

Reducing the amount of waste created is a proactive approach to reducing litter from entering the watershed, and can be accomplished by providing accessible and affordable programs/resources that minimize waste.

B. Installation of waste bins in target locations

Providing additional waste bins, including recycling and compost receptacles, along the Junction Creek Waterway Park trail to offer more opportunities for citizens to dispose of their waste instead of littering.

C. Awareness through signage

Installing informative signage to increase awareness about local waterways, inform bystanders about the environmental issues and projects, and encourage creek-friendly practices.

D. Targeted educational programs and presentations

Focusing educational programs and public presentations to target communities in litter 'hot spots' and address the most common items of garbage collected during the clean-ups.

Hindering litter from entering waterways

A. Create natural barriers by rehabilitating shoreline habitat

Strong winds and runoff can carry litter from the shoreline and surrounding lands into waterways. This can be prevented by planting trees and shrubs to act as natural barriers along the creek and boundaries of parking lots. The litter that gets caught in the vegetation can then be easily removed during clean-up events.

B. Filtration systems in stormwater drainage

There are various methods to stop/ filter litter and debris from entering stormwater systems, such as catch basin filters. These methods should be explored further to determine feasibility and effectiveness.

C. Installation of trash booms and/or trash traps

Trash booms (see photo on the right) are floating barriers often used for the containment of floating plastic and debris. This is an effective method to capture floating litter for easy removal, and prevent it from continuing downstream and entering into lakes and oceans.



Photo credit United States Environmental Protection Agency 2017

D. Continue garbage clean-ups

Litter is not always intentional nor preventable. Ongoing garbage clean-up programs are needed to remove this litter and support a healthy watershed and community.

THANK YOU FOR THE SUPPORT

The Junction Creek Clean-Up Report 2019 was created as part of the “Reducing Plastic Waste in Urban Waterways” project. This is a multi-year project in partnership with Plastic-Free Greater Sudbury designed to address the issue of plastic waste and litter in Greater Sudbury’s central urban waterway, known as Junction Creek. The project will enhance creek clean-up and monitoring methods to: further evaluate litter and plastic waste accumulation, identifying litter ‘hot spots’ and potential sources, raise awareness in the community, and provide recommendations for mitigation and continuous education.

Thank you to all the volunteers that participated in the clean-ups and improved the health of Junction Creek and the Greater Sudbury community! Support for this project and clean-up activities in 2019 were provided by:

This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



Foundation



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