



2022
Annual
Report

10 million
Regreening
Program



2022 Partners

Regreening Program

City of Greater Sudbury
Collège Boréal
Conservation Sudbury
Employment & Service Development Canada
Natural Resources Canada
One Tree Planted
SPC Nickel
Sudbury Community Foundation
Sudbury earthdancers
Sudbury Integrated Nickel Operations, a Glencore Company
tentree
Tree Canada
Vale

Ugliest Schoolyard Contest

Corporate Sponsor: Sudbury Integrated Nickel Operations, a Glencore Company

Azilda Greenhouses
Brown's Concrete Products Ltd.
Ethier Sand and Gravel
Futurescape Landscaping
Northern Wildflowers
Pioneer Construction
Private Citizen
Sudbury Horticultural Society
Vale



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2022 Highlights

The annual Regreening Program operated from the first week of May to the second week of October. The implementation of the 5 YEAR PLAN 2021-2025 continued in its second year resulting in 24 temporary employment opportunities. By season end crew limed 4 hectares (ha) of barren land in the Coniston area and planted over 150,000 tree, shrub, and understory tree seedlings throughout Greater Sudbury. Tree planting to date now exceeds 10 million trees and a celebration was held in July with special guests present including Dr. Jane Goodall, Founder of the Jane Goodall Institute and UN Messenger of Peace, and The Right Honourable Justin Trudeau, Prime Minister of Canada.

Regreening Component	2022	To Date (since 1978)
Tree Seedlings Planted	116,448	10,114,522
Shrubs and Understory Tree Seedlings Planted	34,298	531,611
Area Limed	4.0 ha	3,497 ha
Area Fertilized	---	3,266 ha
Area Seeded	---	3,194 ha
Forest Floor Transplants	0.065 ha	2.19 ha
Program Cost	\$1,072,190	\$36,405,331
Temporary Employment Opportunities	24	4,868
Awards	---	15
Number of Schoolyards Regreened	2	50
Volunteer Tree Planters	210	13,221
Trees Planted by Volunteers	3,050*	388,611
Trees Provided for Residential Plantings	400*	431,799

*Values are included in the Tree, Shrubs and Understory Tree Seedlings Planted.

The 18th annual “Ugliest Schoolyard Contest” hosted by VETAC continued with one winning school and one runner-up prize package. Several local businesses, corporations and special interest groups provided funding, materials and offered services to complete the schoolyard projects. Corporate funding of \$20,000 from Sudbury Integrated Nickel Operations, a Glencore Company (Sudbury INO), enabled these schools to offer greener, more engaging environments for students. Schoolyard regreening efforts occurred in late August to mid-September.

The large-scale forest floor transplant project proceeded again in 2022 with 47 forest floor plots established on six sites. The total area covered by forest floor transplants is 2.19 ha since 2010.



The Regreening Process

Crushed Limestone, Fertilizer and Seed

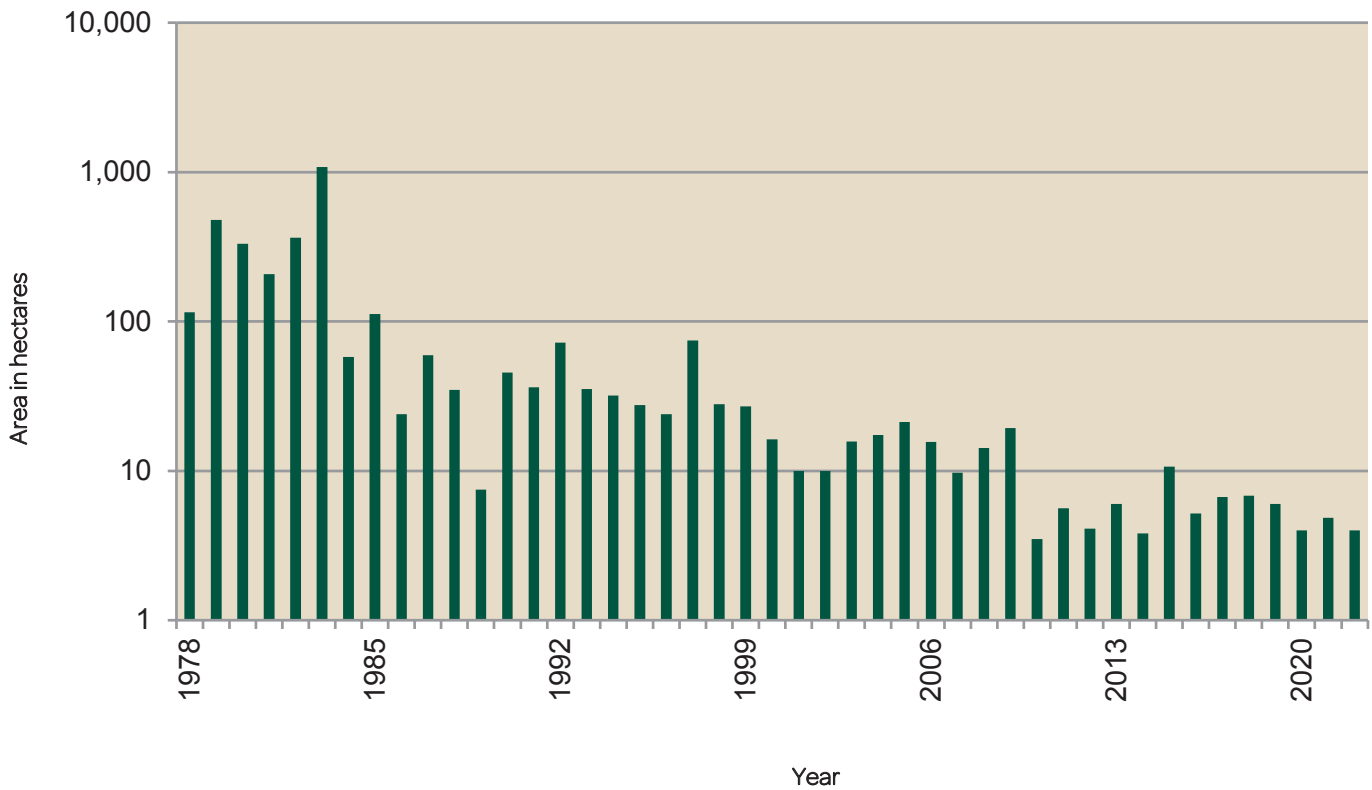
The liming activity focused on an area of barren land west of Coniston which is a continuation of work performed in 2019 and 2020. Four hectares of barren land received the manual application of crushed dolomitic limestone. Fertilizer and seed application will occur in 2023.

Refer to the following page for a map of the location of liming activities.

To date, the City’s Regreening Program has manually treated 3,497 ha of barren land with crushed limestone.

Area Limed 1978 to 2022

The bar graph below indicates the area in hectares limed per year by the municipal Regreening Program since 1978 with a total of 3,497 ha limed to date.



Vale Aerial Seeding Program

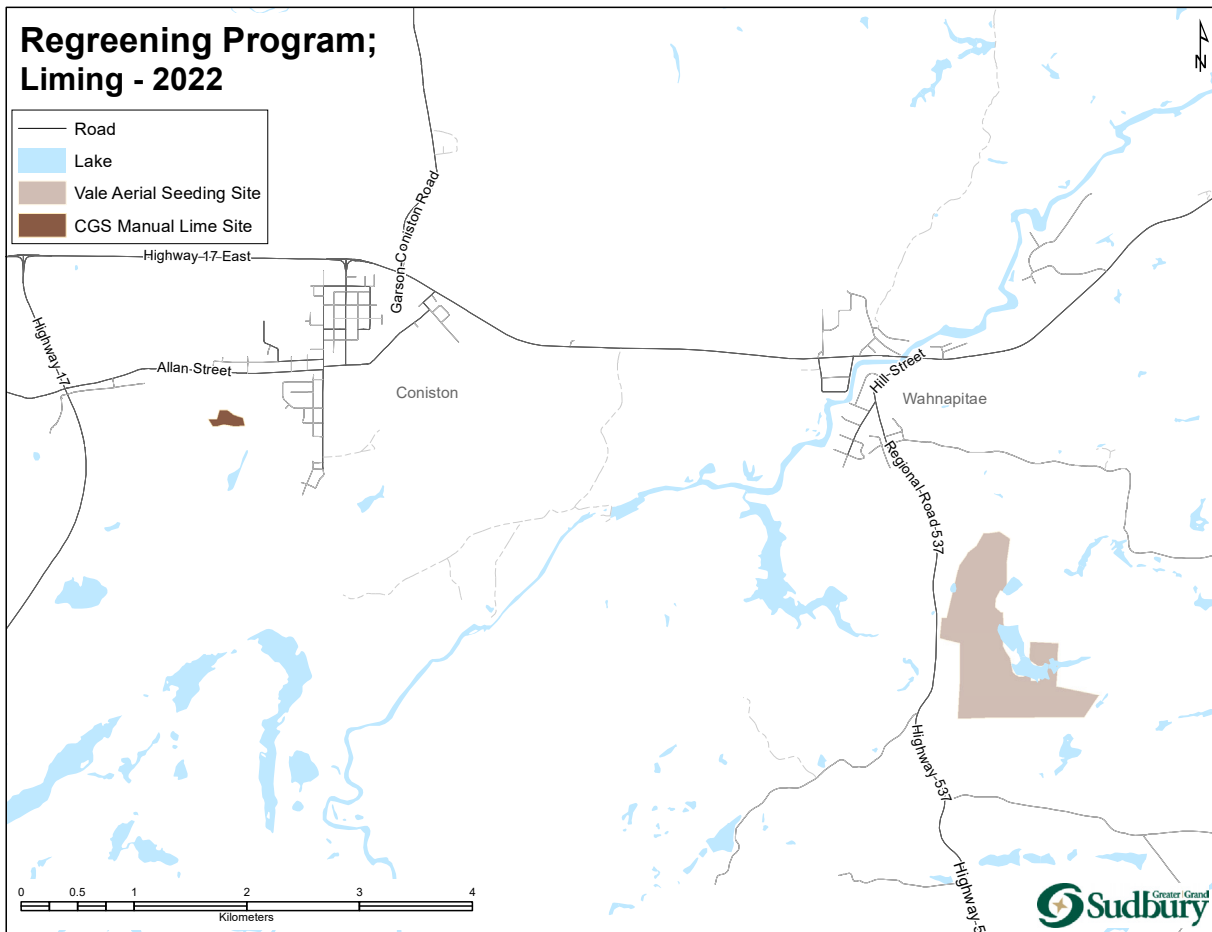
Although not part of the municipal program, Vale aerially seeded approximately 100 ha of barren land south of Wahnapiatae using pelletized dolomitic limestone, fertilizer, and seed mixture. This activity is part of Vale's ongoing collaboration with the City's Regreening Program.

Vale and the Regreening Program use the following seed mix:

- 40% fall rye (*Secale cereale*)
- 20% Canada wildrye (*Elymus canadensis*)
- 20% little bluestem (*Schizachyrium scoparium*)
- 10% slender wheatgrass (*Elymus trachycaulus*)
- 10% alsike clover (*Trifolium hybridum*)

The seeded area will be planted with tree/shrub seedlings in 2023.

Map – Lime Site 2022



NOTE: Up-to-date mapping is available on the [Regreening App](#).

Tree Planting

A total of 116,448 tree seedlings and 34,298 shrub/understory tree seedlings were planted at various locations in Greater Sudbury through the spring and fall. Since 1978, the Program has planted a total of 10,114,522 trees and 531,611 shrub/understory trees.

The success of this year's tree planting is attributed to sponsors and donations. Seedlings were provided by Vale (99,406) and Conservation Sudbury (510). Funds for seedling purchases were supported by Tree Canada (40,000) and One Tree Planted (5,000) with the remainder provided by the City. Labour and logistics for the planting of the seedlings were supported by the 2 Billion Tree program (50,000 seedlings) and tentree (85,416 seedlings). Costs for tree planting include the labour cost of tree planters and the costs of transportation, storage, watering, etc.

Tree Canada also supported the planning, purchase, and planting of 125 potted trees along the Whitson River Trail in the community of Chelmsford. Although outside of the Regreening Program's focus area, efforts to enhance community urban regreening are supported when possible.

Seven species of deciduous understory trees, 13 shrub species and seven canopy tree (conifer and deciduous) species were planted in 2022. See table/list below/to the right.

To date, 30 species of canopy trees (13 conifer and 17 deciduous), 11 species of understory trees and 41 species of shrubs have been planted. A total of 82 different tree and shrub species have been part of the Regreening 'recipe' to date.

The 40,000 seedlings funded through Tree Canada were planted between two sites: adjacent to the Sudbury Landfill site and in Wahnapiatae along the south side of Hwy 17E.

The barren land that Vale aerially seeded, located south of Wahnapiatae, was selected for the 2 Billion Tree program funding where trees were planted more densely in certain areas to achieve increased carbon sequestration capability. In all, 100,000 seedlings were planted consisting of the typical first phase planting mix of jack pine, red pine, white pine, red oak and green alder. Vale's seedling contribution was instrumental in securing the 2 Billion Tree program funding.

Refer to the tree planting map on the next page for locations of the planting sites.

2022 Planting Included:

Canopy Trees

Yellow Birch

Ironwood

White Spruce

Jack Pine

White Pine

Red Pine

Red Oak

Understory Trees

Striped Maple

Mountain Maple

Green Alder

Smooth Serviceberry

Red-twigged Serviceberry

Common Elderberry

American Mountain-ash

Shrubs

Bearberry

Running Serviceberry

Round Leaf Dogwood

Red Osier Dogwood

Mountain-holly

Common Juniper

Fly Honeysuckle*

Staghorn Sumac

Smooth Wild Rose

Red Elderberry

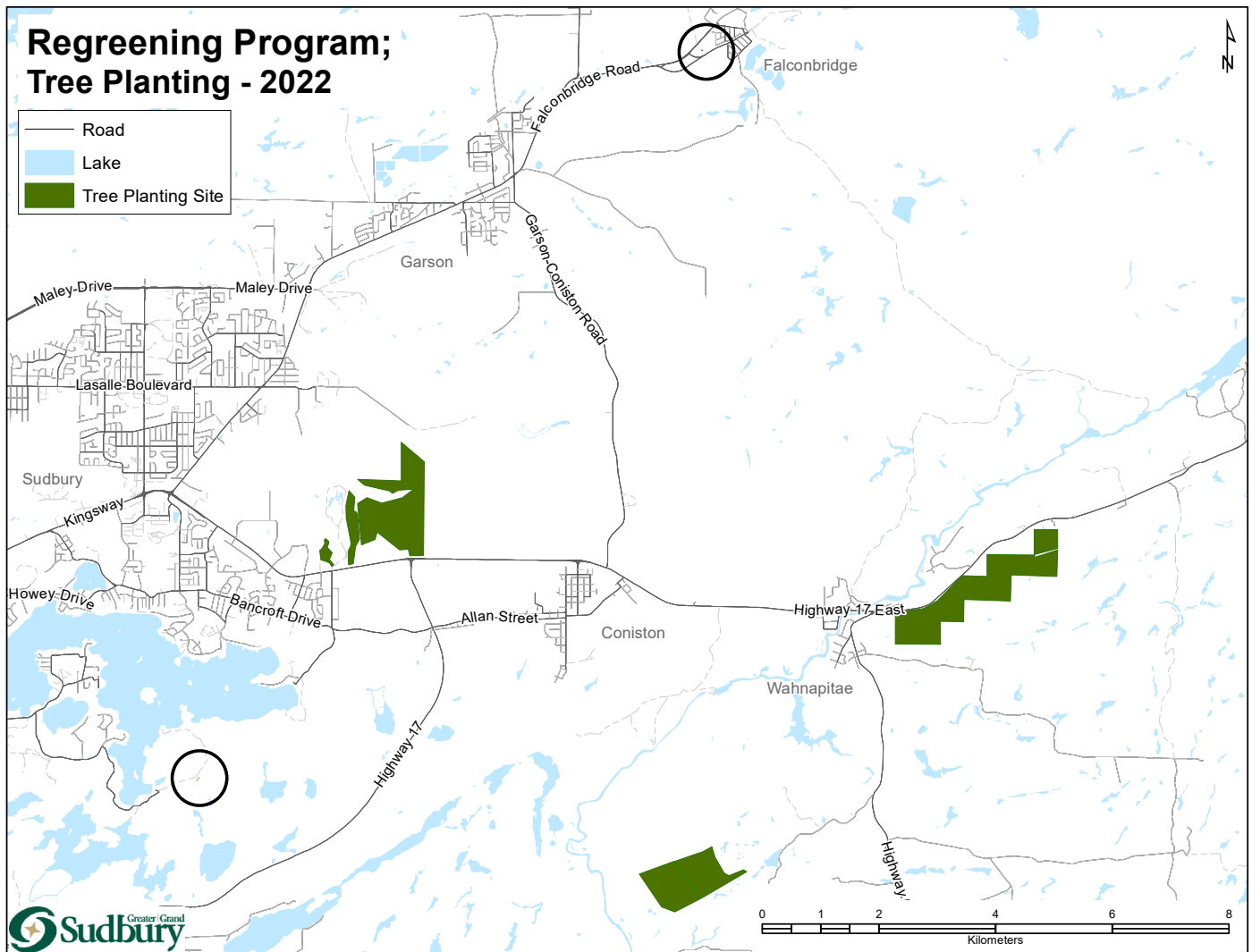
Steeplebush

Canada Yew

Wild Raisin

*NEW SPECIES

Map – Tree Planted Areas 2022



NOTE: Up-to-date mapping is available on the [Regreening App](#).



Quality & Survival Assessments

Tree Canada requires that funded plantations be evaluated for quality and survival. A certified assessor (Registered Professional Forester and professor at Collège Boréal) visited the planting crew on-site in the spring. Overall, the crew's quality was evaluated at 95.5% for spring seedlings. Survival assessments were also conducted. There was an average of 84.6% survival in first year plantation (several understory tree/shrub species and tamarack), 87.2% survival in second year plantation (pine and tamarack) and 91% survival in fifth year plantation (bur and red oak). Pine and oak trees tended to have the greatest survival (>90%) with lower scores for striped maple (83.1%) and tamarack (75.4% and 82.3%).

Volunteer Tree Planting Events

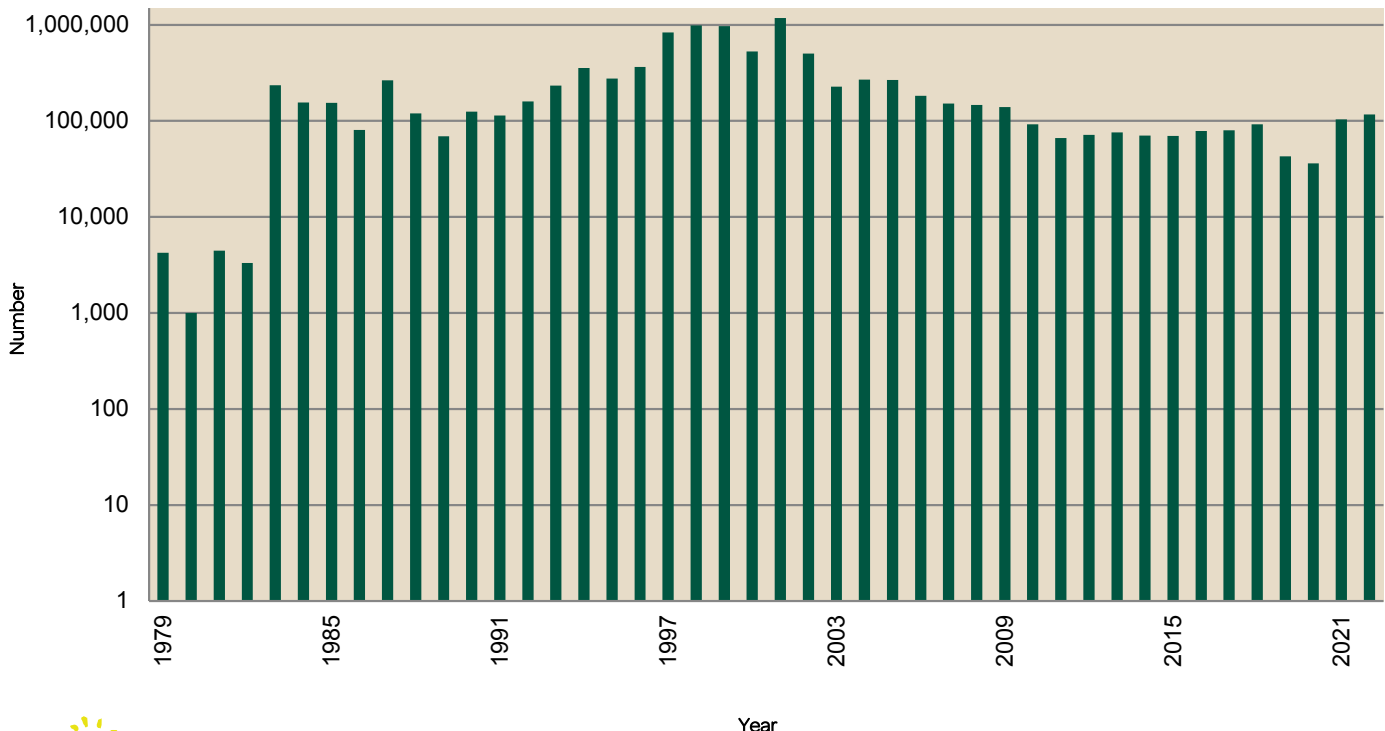
The Regreening Program offers seedlings, planting equipment and guidance to local groups wanting to participate in the regreening effort. Volunteer participation provides an educational opportunity on environmental issues and information on the City's Regreening Program, tree planting experience as well as a sense of community pride and ownership of the natural environment.

Group planting activities were undertaken by Lockerby Composite School, Laurentian University graduate students, the Dibendaagziwin Committee coordinated through the Truth and Reconciliation Coordinator at Laurentian University, and several Scout troops as part of the IMAX filming event. Together, about 210 volunteers planted 3,050 seedlings this year.

Since the volunteer program began, 13,221 volunteers have planted 388,611 seedlings.

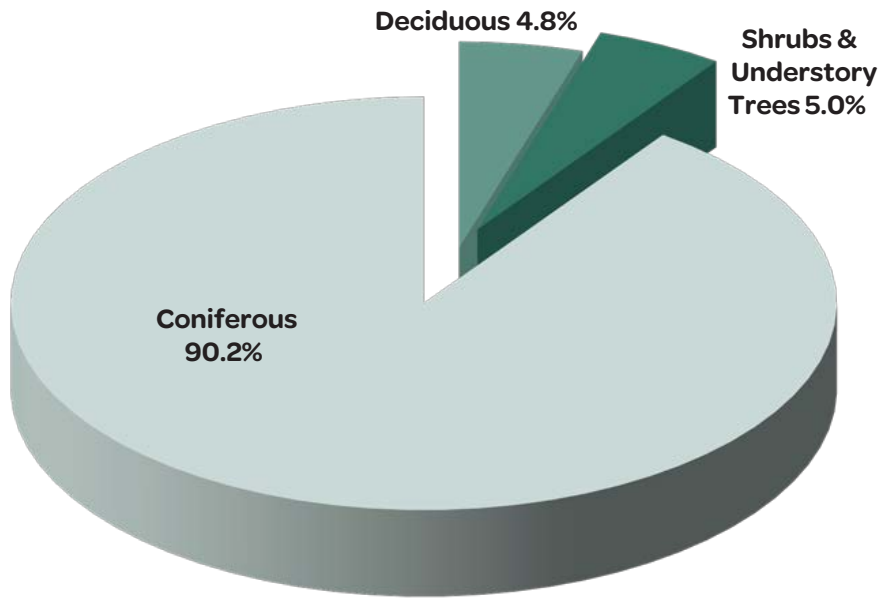
Number of Trees Planted 1979 to 2022

The bar graph below indicates the number of trees planted each year since 1979 totaling 10,114,522 trees.



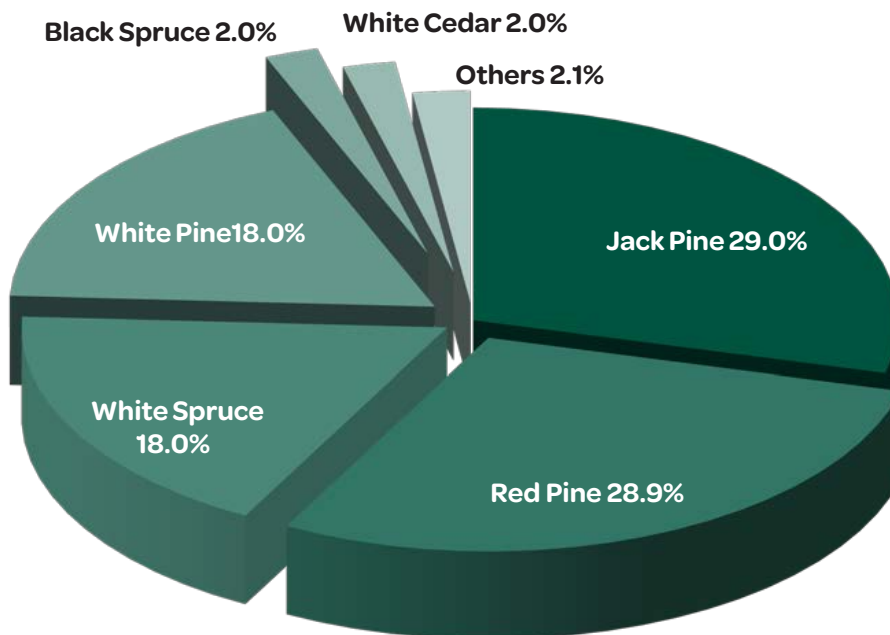
Percent of Species Planted 1979 to 2022

The pie graph below illustrates the percentage of each type of species planted since 1979 totaling 10,646,133 plants.



Percent Coniferous Species Planted 1979 to 2022

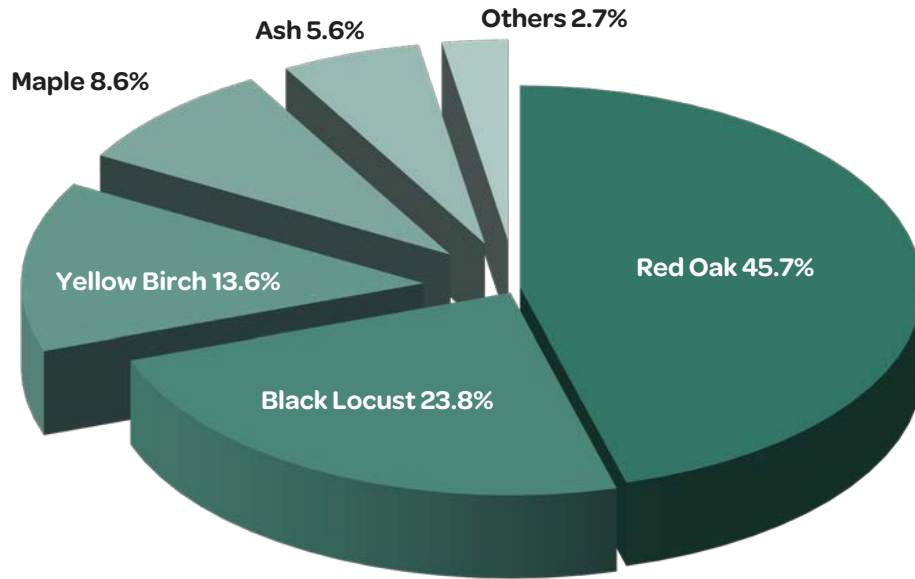
The pie graph below illustrates the percentage of each coniferous tree species planted since 1979 totaling 9,599,523 trees.



Others Include: tamarack 1.4%, balsam fir 0.3%, Norway spruce 0.2%, larch 0.1%, hemlock 0.1%, and Austrian pine <0.05%.

Percent Deciduous Species Planted 1979 to 2022

The pie graph below illustrates the percentage of each deciduous tree species planted since 1979 totaling 514,999 trees.

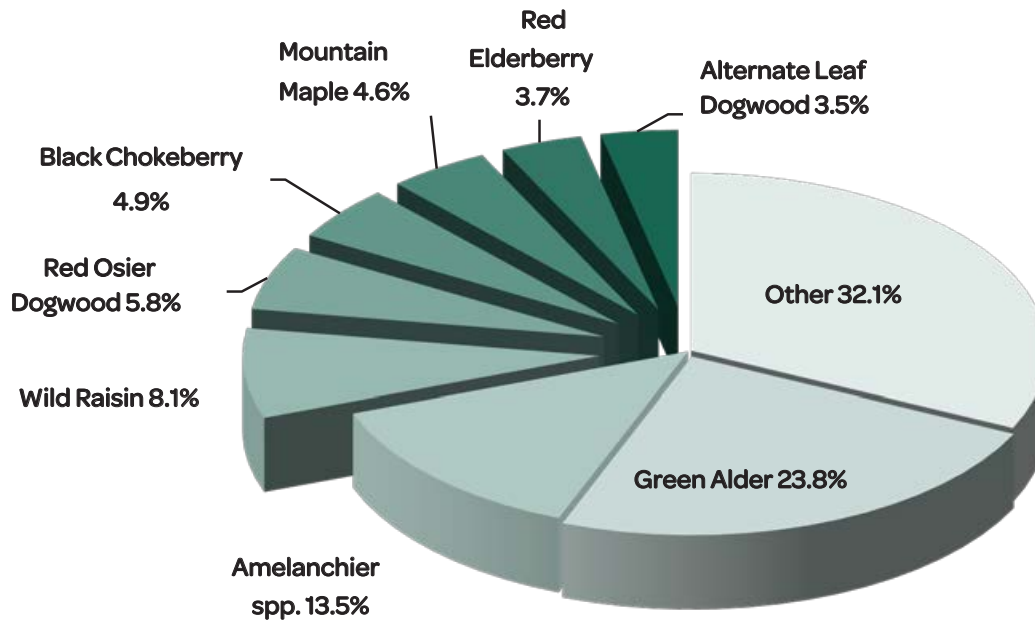


Others Include: Russian olive 1.0%, bur oak 0.7%, ironwood 0.6%, American beech 0.1%, basswood 0.1%, bitternut hickory 0.1%, white oak <0.1% and black oak <0.1%.



Percent Shrubs and Understory Trees Planted 1979 to 2022

The pie graph below illustrates the percentage of each type of shrub or understory tree species planted since 1979 totaling 531,611 plants.



Others include: common elderberry 3.4%, striped maple 3.3%, round leaf dogwood 2.8%, mountain-holly 2.2%, staghorn sumac 2.0%, bearberry 1.9%, hardhack 1.5%, caragana/Siberian pea shrub 1.4%, winterberry holly 1.3%, American mountain-ash 1.3%, smooth wild rose 1.2%, bush honeysuckle 1.2%, swamp rose 0.8%, ninebark 0.8%, buffalo berry 0.7%, high-bush cranberry 0.7%, common juniper 0.7%, choke cherry 0.6%, clematis 0.5%, prickly wild rose 0.4%, showy mountain-ash 0.4%, fly honeysuckle 0.4%, white meadowsweet 0.3%, mugho pine 0.3%, snowberry 0.3%, nannyberry 0.3%, Canada yew 0.2%, broad-leaved meadowsweet <0.2%, hobblebush <0.2%, buttonbush <0.2%, pin cherry <0.2%, wild black currant 0.1%, black chokeberry 'Viking' <0.1%, flowering raspberry <0.1%, sweet gale <0.1%, Canada plum 0.05%, wintergreen <0.05%, red chokeberry <0.05%, American hazel <0.05%, and sandcherry <0.05%.

Seed Collecting

Crew and staff collected propagules (seeds, berries, nuts) of 19 species that were subsequently shipped to a contract nursery to grow for future stock. Over 50 L of propagules were collected resulting in over 1.5 kg of clean seed. See the adjacent table for species and quantity of clean seeds collected in grams.

The crew also collected 400 L of uncleaned (including stems) poverty oat grass seed, thanks to Hanmer business OCL Trucking and Custom Crushing, which permitted the crews access to their property. Seeds for these native grasses are not readily available commercially and therefore are collected manually from local sources. Seeds were sown directly on the manual lime site in the fall.



Species	Clean Seed (in grams)
Wild Raisin	242
Prickly Wild Rose	236
Sweet Gale	226
Alternate-leaved Dogwood	200
Mountain-holly	146
Staghorn Sumac	132
Green Alder	126
Winterberry Holly	92
Highbush Cranberry	52
Red Elderberry	47
Smooth Serviceberry	41
Common Elderberry	38
Ninebark	34
Running Serviceberry	29
Fly Honeysuckle	27
Black Chokeberry	16
Red-twigged Serviceberry	7
American Mountain-ash	6
Juneberry	<1

Biodiversity

According to The Convention on Biological Diversity’s website, “Ecosystems and their biodiversity underpin economic growth, sustainable development and human wellbeing. Yet the loss of biodiversity continues, resulting in serious reductions in ecosystem goods and services, negatively impacting economic prosperity and environmental sustainability.”

Thanks to the efforts of VETAC and the City’s Regreening Program over the past 44 years through reclamation activities and the creation and implementation of the local Biodiversity Action Plan 2009, this trend has been reversed in the Greater Sudbury area. Biodiversity is actually increasing.

Forest Floor Transplants

The practice of transplanting forest floor plants has occurred yearly since 2010 as a technique for re-introducing species, improving habitat, creating a seed bank and increasing the diversity of older reclamation sites. Forest floor from Crown land north of Capreol and private land in St. Charles was harvested from mid-June to August.

The Regreening crews hand dug the top 10 cm of soil containing plants, seeds, microorganisms and invertebrates from the donor site. The vegetation was watered overnight and transported to regreened (receptor) sites in Greater Sudbury for transplanting. The focus this year was to introduce shade tolerant species in appropriately shaded sites, but several exposed mats for shade intolerant species were also transplanted to various sites.

Criteria for selecting receptor sites for the understory transplants include the following: adequate canopy cover, low understory species diversity, sufficient soil depth and organic layer (>5cm) and surrounding areas that are large enough to allow the species to spread. This year, 2,034 trays of plant material were transplanted covering an area of approximately 0.065 ha. Of these, 252 trays were placed in exposed sites and the remaining 1,782 trays were placed in understory sites. There were 6 sites in all, representing 47 plots (each plot measures approximately 4m x 4m) and over 30 species re-introduced to the regreening sites.

Over the 13 years of this initiative, 1,450 plots have received understory transplants covering a total area of approximately 2.008 ha, 140 plots received exposed transplants covering an area of just over 0.186 ha and approximately 185 different species have been introduced. The area covered by forest floor (2.19 ha) is now the equivalent to approximately 2.5 football fields or about 1.5 baseball fields in size.

NOTE: Up-to-date mapping is available on the [Regreening App](#).

Fly Honeysuckle

A new species to the Regreening Program, fly honeysuckle (*Lonicera canadensis*), was planted this year after collection of seed in 2019 and 2021 from the Panache Lake area. The host plants were in dense stands occupying creek edges and occurring along and within adjacent pine forest. This native shrub is ideal for a variety of sites as it tolerates most soil and moisture regimes and is easily adaptable to the variety of regreening sites in various stages of recovery. Due to early spring flowering, this species is beneficial to an array of pollinators and as a nectar source for the ruby-throated hummingbird. In total, 500 seedlings were planted at various sites.

Long-Term Monitoring

Monitoring Plots

Adding a variety of shrubs and understory trees to recovering landscapes has many benefits from enhancing habitat to increasing the resistance and recovery from effects of natural disturbances such as climate change, disease, or insect infestations. To gauge the success of these species, monitoring plots are established to test their survivability and suitability through compiling long-term monitoring data.

This year two species were planted in monitoring plots: Canada yew (*Taxus canadensis*) and fly honeysuckle (*Lonicera canadensis*). Currently there are 34 species represented in monitoring plots, 20 have only one replicate while 14 have multiple replicates. Work will continue to add replicates and new species as they become available. Monitoring has taken place over the past 12 years and after assessing 34 species in past monitoring plots, 21 species showed relatively high survival rate (>80%).

Pink Lady's Slipper Monitoring

Monitoring efforts continue in plots of pink lady's slipper established early in the forest floor mat transplant exercise. The largest native orchid in the area, this species is typical of dry upland conifer mixedwood stands. The presence of multiple pink lady's slipper individuals 12 years after transplant indicates that this species is surviving and thriving. Of note, it generally takes 10 years from germination to flowering stage. There currently appears to be some stabilization of flowering individuals after the initial decline experienced shortly after transplanting. In 2022, all four sites located within the semi-barrens showed significant increase in flowering individuals. Three of those sites contained the most flowering individuals ever recorded in past monitoring efforts. Three individuals, two of which were in flower, were found to have spread four meters away from the original plots at the Jane Goodall Reclamation Trail site. Since monitoring plots were first established in 2011, a few individuals have been found many meters away from the original plots, suggesting that a wider search area is required to monitor spread in the future. The examination of the soil characteristics (pH, moisture, texture) at each site might help to explain some of the trends being observed between the impact zones.



Ugliest Schoolyard Contest

Local schools continued to be regreened this year thanks to VETAC's 18th annual Ugliest Schoolyard Contest. A generous grant of \$20,000 was received from Sudbury Integrated Nickel Operations (INO), a Glencore Company, and numerous sponsors provided material/supplies, services, and financial support. The winning school was Chelmsford Valley District Composite School (CVDCS), and a runner-up package was provided to Redwood Acres Public School.



In addition to the Sudbury INO funding, Brown's Concrete Supplies provided a voucher for the purchase of concrete materials, and Ethier Sand and Gravel Limited provided soil while Pioneer Construction supplied mulch to the runner-up school. Other in-kind donations from Azilda Greenhouses, Futurescape Landscaping Supplies, Northern Wildflowers, a private citizen donation, Vale and Sudbury Horticultural Society ensured the projects were a great success.

The winning school received five large caliper trees in stone planters for shade and added seating in an outdoor classroom arrangement. The runner-up received soil and mulch, along with some perennials.

At CVDCS, Azilda Greenhouses, Futurescape Landscaping, and Brown's Concrete worked with municipal regreening staff to plant five large silver maple trees in raised planters to create an outdoor classroom for the students in late August. With the easing of COVID-19 restrictions, students were once again able to participate in the schoolyard transformations once they returned to the classroom in September.



Students from all grade levels at the school worked with Horticultural Society and VETAC volunteers to plant a row of cedar trees along the south end of the schoolyard to provide a wind and sound barrier for the outdoor classroom. Virginia creeper and virgin's bower clematis vines were planted along the fence to provide additional greenery and a wide variety of native plants were planted in a new bog garden that was created to help absorb excess water from the schoolyard after spring runoff and heavy rainfalls. The last step was to place mulch and water all the plants which was a great opportunity for the younger students to get involved.

The Horticultural Society, Northern Wildflowers and a private personal donation went towards suppling perennials for the planters at Redwood Acres Public School. Ethier Sand and Gravel provided garden soil and Pioneer Construction donated the mulch to support the project. VETAC and Horticultural Society volunteers did the heavy lifting of weeding out planter boxes preparing them for the younger students to plant the variety of perennials. Students worked together to deliver mulch to the beds and then watered all the plants.

Sudbury Horticultural Society photographer Lisa Robinson helped to document the projects with her extensive collection of photos used to create SMUGMUG photo galleries. All photos can be accessed through the website greatersudbury.ca/VETAC .

Without the on-going support of the Contest from all the sponsors, these important greening projects would not be possible. All sponsors are recognized on the website and an advertisement was posted in the Sudbury Star on December 17, 2022.

The Canadian Biodiversity Institute and Earth Day Ottawa initiated the first Ugliest Schoolyard Contest in Ottawa in 1998. Based on this example, VETAC's local version of the Contest launched in 2005 and has seen 50 local schoolyards greened through the generous support of dozens of local businesses and organizations. Thousands of local students are benefitting every day from the improved schoolyard environments.



Labour

Program staff included two forepersons, four crew leaders, 10 workers and six students involved in regular regreening activities with two Biodiversity Research Assistants engaged in monitoring activities associated with regreening work. In total, 24 temporary positions were created in 2022. Six student/worker positions were partially funded through Canada Summer Jobs for an eight-week period resulting in \$15,160 in wage recovery.

The table below outlines the temporary positions created and the number of weeks worked, with 24 positions created in 2022.

Position Title	# Positions	# Weeks	Activity
Foreperson	1	6	Supervision
	1	29	
Crew Leader	1	28	Supervision
	3	26	
Regreening Worker	10	24	Tree planting, liming, transplanting, fertilizing, seeding, seed collection
Student	6	18	
Biodiversity Research Assistant	2	31	Field data collection and analysis, seed collection
Total Positions	24		



Funding

The Regreening Program relies on donations to operate the yearly Program. Many successful partnerships have been developed over time and new opportunities are always being sought. New partners this year include SPC Nickel and One Tree Planted. Funding from Natural Resources Canada for the 2 Billion Tree Campaign was granted again this year. Vale and Sudbury INO continued with their significant support of all aspects of the Program.

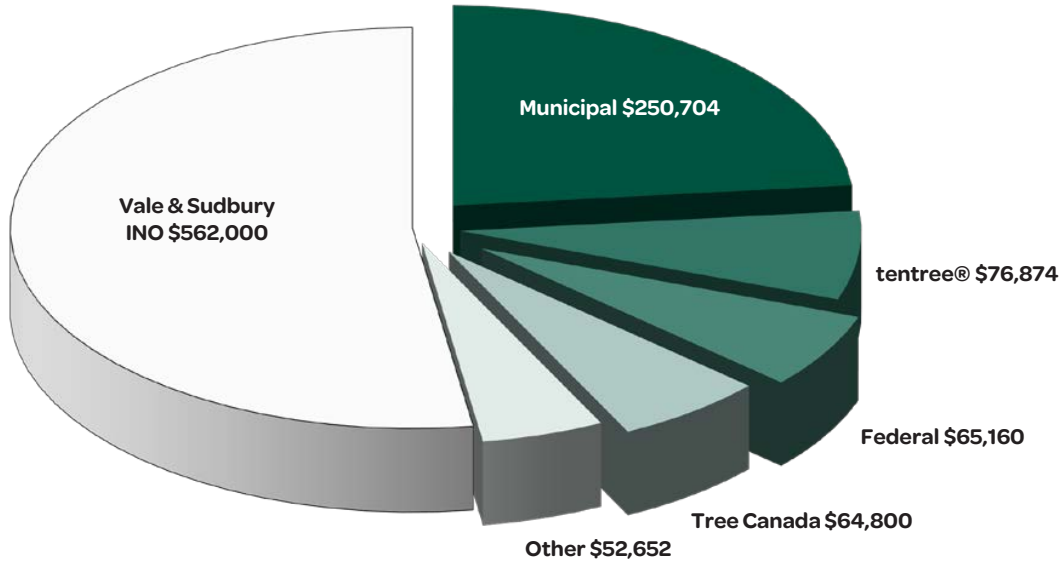
The table below outlines the program contributors and the dollar amount associated with their contributions in 2022 for a total of \$1,072,190.

Program Contributor	Description	Source	Amount
Labour			
Employment & Service Development Canada	Wage subsidy for 6 positions over an 8-week period	Federal	\$15,160
tentree	Financial support to have 85,416 seedlings planted	Private	\$76,874.40
Cash			
SPC Nickel	Financial contribution	Mining Co.	\$2,000
Sudbury earthdancers	Financial contribution	Private	\$6,015
Sudbury Community Foundation	Financial contribution	Private	\$13,360
Natural Resources Canada	2 Billion Tree Campaign	Federal	\$25,000
Vale	Financial contribution	Mining Co.	\$50,000
Sudbury INO	Financial contribution	Mining Co.	\$250,000
Materials			
Conservation Sudbury	Donation of 510 seedlings	Private	\$220
Tree Canada	Funding to purchase 40,000 seedlings	Private	\$60,000
Tree Canada	Funding to purchase and plant 125 potted trees	Private	\$4,800
One Tree Planted	Funding to purchase 5,000 seedlings	Private	\$5,257
Vale	Donation of 100,582 seedlings	Mining Co.	\$25,000
Ugliest Schoolyard Contest *			
Sudbury INO	Financial contribution	Mining Co.	\$20,000
Vale	In-kind contribution	Mining Co.	\$2,000
Sudbury Horticultural Society	Financial contribution	Private	\$600
Private Citizen	Financial contribution	Private	\$200
Subtotal	Sum of external funding sources	Various	\$821,486
City of Greater Sudbury	Financial contribution	Municipal	\$250,704
Grand Total	Sum of all funding sources	Various	\$1,072,190

*DOES NOT INCLUDE MATERIAL AND IN-KIND DONATIONS PROVIDED BY OTHER SPONSORS

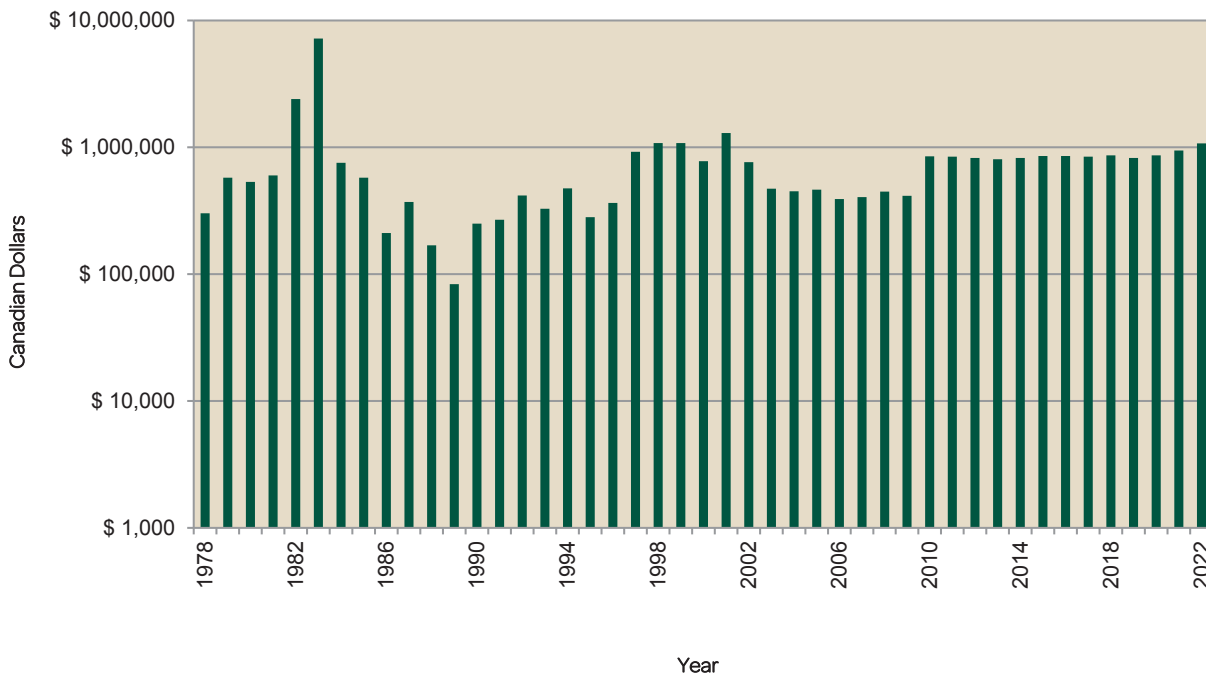
Funding Contributions by Source 2022

The graph below illustrates 2022 funding contributions by source.



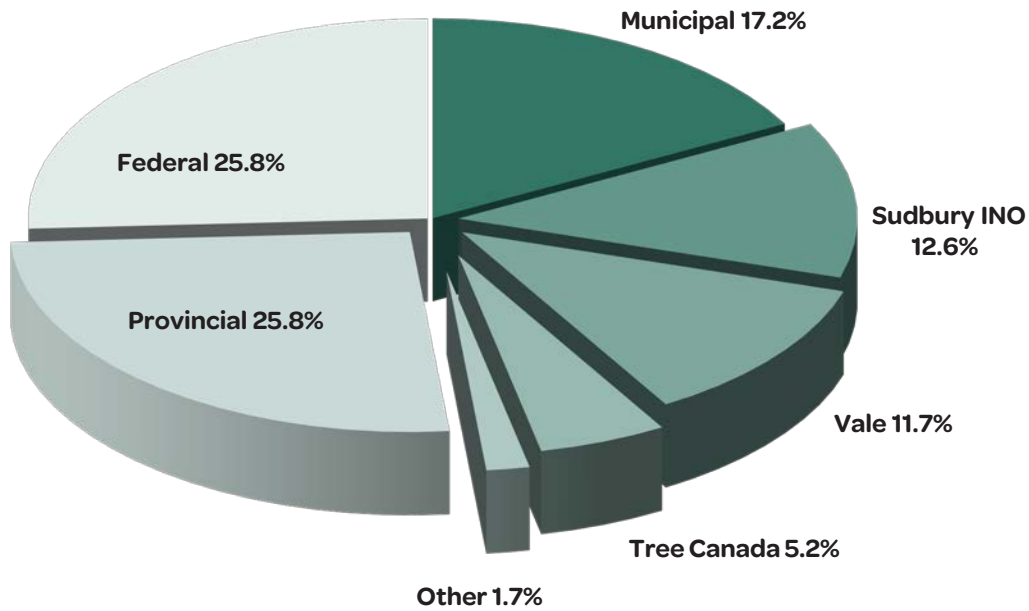
Yearly Program Costs 1978 to 2022

The bar graph below indicates yearly program costs from 1978 to 2022 with a grand total of \$36,405,331.



Percent Funding Contributions by Source 1978 to 2022

The graph below illustrates funding contributions in percentages by source from 1978 to 2022.



Since 1978, the City's contribution to the Program has averaged 17.2% of the total costs with 82.8% coming from external sources. To date, the Program costs exceed \$36.4 million.



Community Engagement

Species of the Month

The 2020 Species of the Month campaign was abruptly put on hold after the Covid-19 outbreak in March of that year, resulting in mass business closures, including the local libraries. VETAC reinstated the campaign in April this year providing local libraries with bookmarks featuring a new species monthly to provide to library patrons. This was the second Species of the Month campaign to date. The first one was held in 2015 where post cards were provided featuring a new species monthly.

These campaigns are aimed at raising awareness on the importance of Greater Sudbury's ecological recovery efforts in improving the habitat for wildlife. These campaigns are part of the City's Biodiversity Action Plan, which was developed and is being implemented in partnership with Vale and Sudbury INO, as well as numerous organizations within the Greater Sudbury community.

Tree Giveaway

Mayor Bigger declared 2022 the Year of the Garden in Greater Sudbury. As part of the celebration of events, the Sudbury Horticultural Society partnered with the Sudbury Market to set up booths on Saturday, May 14, 2022, and requested that VETAC's Tree Giveaway also be held at that time. At the event, VETAC handed out 200 smooth wild rose (*Rosa blanda*) and 200 American mountain-ash (*Sorbus americana*) seedlings to local citizens. With the dissolution of the Garden Festival, the Sudbury Market may be the future home of this initiative for the foreseeable future, in conjunction with the Sudbury Horticultural Society.



Events

Ontario Professional Foresters Association (OPFA)

The Annual General Meeting (AGM) of the Ontario Professional Foresters Association was held in Sudbury this year from April 12 to 14. The conference was held virtually with a series of meetings including a virtual tour of Sudbury's regreening efforts and progress made over the last decade. Tina McCaffrey provided the introduction and Peter Beckett covered the history of smelting damage in the area and the Regreening Program itself (which can be viewed here https://drive.google.com/file/d/1Hz90BduVxMuQ6vSPPKmlkJsh-_mChBB6/view?usp=sharing). The production was highly based on the educational videos that were established in 2019 and posted on the City's website.

Glencore also hosted a tour to discuss the history of Sudbury's regreening story, as well as looking at specific rehabilitation and restoration practices occurring on their tailings and in their aggregate extraction areas. Marc Hébert of Collège Boréal provided a video tour of some of their interesting experiments regarding soil amendments.

10 Millionth Tree

On July 7, The Right Honourable Justin Trudeau, Prime Minister of Canada, Dr. Jane Goodall, Founder of the Jane Goodall Institute and UN Messenger of Peace, along with Environment and Climate Change Minister Steven Guilbeault joined the Greater Sudbury community in celebrating the milestone planting of the Regreening Program's 10 millionth tree.

Residents were invited to attend the public event held at the William Bell Gazebo at Bell Park on the shores of Ramsey Lake to celebrate the community's ongoing commitment to local regreening efforts.

The 10 millionth tree, an ironwood (*Ostrya virginiana*), was later installed in its new home in the switch back planting beds at Bell Park adjacent to a stone monument marking the occasion.



Filming

As one of the leading giant-screen film producers in Canada, Science North was working on two films this past year which feature local regreening efforts. Jane Goodall's Reasons for Hope will be their 7th IMAX film production which will be seen in theatres around the world. As part of this film, local regreening efforts will be highlighted as one of Dr. Goodall's reasons for hope, specifically the resilience of nature. Science North took this opportunity to expand on this filming to create The Sudbury Regreening Story, a 20-minute documentary dedicated to local regreening efforts. This production will be Dynamic Earth's Signature Film, their 4th large format film, showing in the Epiroc Theatre for years to come.

Film crews for both film formats spent several days with the Regreening Program staff to capture all phases of regreening work. On one occasion, staff were joined by local scouting troops and the Sudbury earthdancers to assist with tree planting and grass seeding efforts. This representative snapshot speaks to the thousands of volunteers over the past four decades that have participated in some way to local regreening success.

Jane Goodall's Reasons for Hope will launch at Science North's IMAX Theatre in May 2023 while The Sudbury Regreening Story is due to launch at Dynamic Earth in early 2024.



Tours and Presentations

March 21 – Dr. Peter Beckett gave a presentation at Cambrian College on Healing the Sudbury Landscape to 35 students from the College’s Environmental Monitoring and Impact Assessment Program and Environmental Technician Programs.

April 8 – Dr. Stephen Monet presented virtually as a guest lecturer at the Daniel’s Faculty - University of Toronto for the landscape ecology course to the Master of Landscape Architecture Program, second-year grad students.

May 12 – Dr. Peter Beckett provided the virtual talk *Abundance of Lichens and Mosses in the Restored Landscape around Base-Metal Smelters of Sudbury, Ontario, Canada* to 140 delegates at the International Planning for Closure Conference in Santiago, Chile.

June 14 – Dr. Peter Beckett presented to 110 delegates attending the 39th Annual Meeting of the American Society of Reclamation Sciences in Duluth, MN on *Abundance of Lichens and Mosses on the Restored Landscape in the Nickel-Copper City of Greater Sudbury, Ontario, Canada*.

June 25 – Dr. Peter Beckett and Dr. Graeme Spiers hosted a day long field trip for over 20 participants of the Jesuits of Canada ‘Reflections on Ecology Workshop’ held by the Sudbury Jesuit Community. More retreat details can be found on their [website](#).

July 7 – Dr. Peter Beckett, Dr. Stephen Monet, Dr. Graeme Spiers and Dr. David Pearson provided a contextual tour of greening history and efforts along the Kelly Lake Trail to the Honourable Steven Guilbeault, MP and Federal Minister of Environment and Climate Change.

August 16-21 – Dr. Peter Beckett and Dr. Graeme Spiers attended meetings and talks with representatives from the Democratic Republic of the Congo’s mining industry and government officials, along with City Economic Development staff, which focused on community and industry relationships, and government direction/guidance. As part of the information sharing exercise, on August 17, a private tour was provided to Fr. Jacques Nzumbu from Kinshasa, Democratic Republic of the Congo.

September 10 – A presentation and tour for 10 third year students of the Natural Environment Technologist Field Camp from Sault College was provided by Dr. Peter Beckett.

September 16 – Both Dr. Peter Beckett and Dr. Graeme Spiers participated in a presentation on the status of Regreening to 50 attendees at the Hannah Lake Bible Camp.

September 16 – Both Dr. Graeme Spiers and Dr. Peter Beckett were invited to present a talk entitled “The Sudbury Protocol - Forty-Five Years of Landscape Healing” to 50 guests at a special event at the Hannah Lake Bible Camp.

October 5 – Dr. Graeme Spiers gave an in-person talk to a class of 60 fourth year Environmental Science students at Trent University enrolled in the course ERSC 4530 Reclamation and Remediation of Sites.

October 10 – Dr. Peter Beckett led 70 participants on the Annual Minnow Lake Oak Forest and Restoration Walk.

October 20 – Dr. Peter Beckett led a tour at Kelly Lake Hill for 32 students of the Sir Sandford Fleming Restoration Program.

October 28 – During his attendance to the Annual Watershed Lecture at the Vale Living with Lakes Centre, Dr. Charles Driscoll, Professor of Civil and Environmental Engineering from Syracuse University, New York, USA enjoyed a private regreening tour provided by Dr. Peter Beckett and Dr. Graeme Spiers.

November 10 – Dr. Peter Beckett talked about the *Importance of Lichens and Mosses in Sudbury Restoration* to 65 participants of the Canadian Land Reclamation Association (CLRA) ARC2002 Conference held in Truro, Nova Scotia from November 8-10.

November 16-17 – Dr. Graeme Spiers addressed nearly 200 Engineers at an annual training program in Tacna, Peru. He gave two talks entitled *Developing A Peru-Canada Collaboration to Resolve Critical Environmental Questions, and Lessons Learned from The Experience of Sudbury, Ontario*. These talks were presented as part of the II Colloquium of Technological Innovation for Accreditation, organized by the Professional School of Mining Engineering at the Jorge Basadre Grohmann National University.

December 19 – On the day dedicated to global biodiversity challenges during COP15 Dr. John Gunn, Canada Research Chair in Stressed Aquatic Systems, Director of Living with Lakes Centre, along with Anastacia Chartrand, current Science Communications Graduate student, VP Advocacy of LU Graduate Students' Association (GSA) and Chair of the Environmental Sustainability Committee and Avery Morin, President of Students' General Association (SGA) shared lessons learned from the local environmental restoration story, communicating practical actions and a vision of hope. The presentation can be viewed at <https://youtu.be/mR0XCV2TUfE>

Various – Dr. Peter Beckett and Franco Mariotti conducted a series of seasonal public nature walks: winter March 20, spring May 7 and autumn October 15, in the Laurentian University Greenspace that included the outcomes of past regreening efforts in the Bethel Lake watershed.



Communication

Publications

Calendar 2022 – “The greening of our town”, published by the office of Viviane Lapointe MP Sudbury.

Digital Magazine – Winter 2021: “[Regreening the Moonscape: Greater Sudbury’s Remarkable Ecosystem Restoration](#)”, Ground Magazine, Issue 56, Ontario Association of Landscape Architects, pages 20-21.

Article – “[Ecosystem Recovery of the Sudbury Technogenic Barrens 30 Years Post-Restoration](#)”, ISSN 1064-2293, Eurasian Soil Science, March 2022. © Pleiades Publishing, Ltd., 2022., by Autumn Watkinson, Myra Juckers, Liana D’Andrea, Peter Beckett, and Graeme Spiers.

Web News

January 19, 2022 – “[How Sudbury Got Its Green Back](#)” by KED.

February 7, 2022 – “[A Breath of Fresh Air: Sudbury’s Regreening Story](#)” by Masuma Ali.

March 22, 2022 – “[Sudbury schools encouraged to participate in contest](#)”, by Star Staff, The Sudbury Star.

March 23, 2022 – “[City seeks nomination for Ugliest Schoolyard Contest](#)”, Sudbury.com Staff, Sudbury.com.

July 5, 2022 – “[Jane Goodall to attend planting of 10 millionth tree](#)” by Darren MacDonald, CTV News, Northern Ontario.

July 5, 2022 – “[Celebrate the Planting of Greater Sudbury’s 10 Millionth Tree](#)”, News and Public Notices, City of Greater Sudbury.

July 6, 2022 – “[Jane Goodall to help celebrate Sudbury’s 10-millionth tree](#)” by Tyler Clarke, Sudbury.com **July 6, 2022** – “Prime minister in Sudbury tomorrow for milestone tree planting - Sudbury News” by Sudbury.com Staff, Sudbury.com.

July 7, 2022 – “[10 millionth tree in Sudbury, Ont., planted with Jane Goodall pitching in](#)” CBC News by Angela Gemmill, CBC News.

July 7, 2022 – “[Marking an ‘amazing’ makeover](#)” by Mary Katherine Keown, the Sudbury Star.

July 7, 2022 – “[Celebrating Greater Sudbury’s Regreening Efforts with Dr. Jane Goodall](#)” News and Public Notices, City of Greater Sudbury.

July 7, 2022 – “[Trudeau joins Jane Goodall for planting of 10-millionth tree](#)”, Sudbury.com Staff, Sudbury.com.

July 7, 2022 – “[Anti-Trudeau hecklers disrupt regreening event](#)”, by Mia Jensen, The Sudbury Star.

July 7, 2022 – Video: “[City’s regreening a ‘reason for hope’, says Jane Goodall](#)”, By Tyler Clarke, Sudbury.com.

le 7 juillet 2022 – “[Le premier ministre Justin Trudeau en visite à Sudbury](#)”, ICI Nord do l’Ontario, Radio-Canada.

July 8, 2022 – “[Marking an ‘amazing’ makeover](#)”, by Mary Katherine Keown, the Sudbury Star.

September 9, 2022 – [“GREEN LIVING: Greener schoolyards and outdoor classrooms are key to better health for our kids - Sudbury News”](#) Green Living, Sudbury.com.

September 10, 2022 – [“Chelmsford Valley wins Ugliest Schoolyard Contest”](#), by Star Staff, The Sudbury Star.

September 21, 2022 – [“New sculpture unveiled at Laurentian University”](#) by Ian Campbell, CTV News, Northern Ontario.

September 21, 2022 – [“Helpers: Meet Sudbury ‘flower couple’ Linda and Wayne Hugli - Sudbury News”](#) by Vicki Gilhula, Sudbury.com.

September 26, 2022 – [“Technology helping plan the forests of the future”](#), by Lyndsay Aelick, CTV News, Northern Ontario.

December 2, 2022 – [“Laurentian professor and students to share Sudbury re-greening story at UN conference”](#), CBC News.

December 3, 2022 – [“Sudbury re-greening story to be shared at international conference”](#), Amanda Hicks, CTV News, Northern Ontario.

Le 5 décembre 2022 – [“Une délégation de Sudbury va parler de son reverdissement à la COP15”](#), ICI Nord de l’Ontario, Radio-Canada.

December 22, 2022 – [“Sudbury’s regreening story told at COP15 conference”](#), Staff, Northern Ontario Business.

December 22, 2022 – [“Sudbury’s regreening story told at COP15 conference”](#), Northern Ontario Business Staff, Sudbury.com.

December 23, 2022 – [“Laurentian delegates share Sudbury regreening story at COP15”](#), Sudbury.com Staff, Sudbury.com.

January 3, 2023 – [“LU students, prof share Sudbury regreening story at COP15”](#), by Sudbury Star Staff, The Sudbury Star.

Facebook Posts

September 6, 2022 – [“Winners of the 2022 Ugliest Schoolyard Contest”](#), City of Greater Sudbury.

September 12, 2022 – [“Redwood Acres Public School Ugliest School Yard post”](#), Redwood Acres Public School.

September 16, – [“Chelmsford Valley District Composite School Ugliest School Yard Recognition”](#), Chelmsford Valley District Composite School.

September 26, 2022 – [“Azilda Greenhouses Ugliest School Yard post”](#), Azilda Greenhouses.

Television Reports

September 26, 2022 – [“Technology helping plan the forests of the future”](#), with Lyndsay Aelick, CTV News, Northern Ontario.

Radio Interviews

July 8, 2022 – [“Sudbury plants in 10 millionth tree in the regreening effort”](#) with Angela Gemmill, CBC News interview with Stephen Monet (8:03 min).

Other Interviews

March 1, 2022 – Tina McCaffrey was interviewed by Marie-Ève Fontaine, playwright and co-founder of the Ottawa based production company 2359 (<https://www.facebook.com/2359prod>), as part of her research for her documentary theater project on contaminated mines in Canada. Later in May, Dr. Peter Beckett provided field direction for background regreening shots. The production is anticipated to take 3-5 years before release.

Week of May 30, 2022 – Michael Höft and his team from German State Television (Deutsche Welle) interviewed Dr. Peter Beckett for a regreening segment in a documentary entitled “The Copper Story”.

August 25, 2022 – Michael Rosen interviewed Dr. Peter Beckett for an article in the Ontario Professional Foresters Association (OPFA) Newsletter (September 2022) on Registered Professional Foresters (RPF) and the restoration of the Sudbury Forest.

September 26, 2022 – Dr. Peter Beckett was interviewed by Warren Scholte for a video on the history of Ontario, which included a mention of the Sudbury Regreening Story.





Chair

Dr. Peter Beckett,
Laurentian University

Co-Vice Chairs

John Negusanti, Citizen
Sarah Woods,
Conservation Sudbury

Members

Nathan Basiliko	Laurentian University
Katherine Benkovich	Sudbury Integrated Nickel Operations
Jennifer Braun	Blue Heron Environmental
Julie Coffin	Sudbury Integrated Nickel Operations
Tony Fasciano	Citizen
Vanessa Felix	Pioneer Construction
Enzo Floreani	Citizen
Jenny Fortier	Northern Wildflowers
Marc Hébert	Collège Boréal
Wayne Hugli	Sudbury Horticultural Society
Bill Lautenbach	Citizen
Sara Lehman	Wahnapiatae First Nation
Tim Lehman	Citizen
Derrick Luetchford	Ministry of Natural Resources and Forestry
Franco Mariotti	Citizen
Tina McCaffrey	City of Greater Sudbury, Regreening Program
Samantha McGarry	Sudbury Integrated Nickel Operations
Stephen Monet	City of Greater Sudbury, Environmental Planning Initiatives
Robert Paishegwon	Whitefish Lake First Nation
Mike Peters	Citizen
Quentin Smith	Vale
Graeme Spiers	Laurentian University





2022
Annual
Report

10 million
Regreening
Program

For further information, please contact:



Regreening Program
Strategic and Environmental
Planning
City of Greater Sudbury
P.O. Box 5000, Station A
200 Brady Street
Sudbury, ON P3A 5P3

Tel. 705-674-4455, ext. 4605
Fax. 705-673-2200

E-mail:
regreening@greatersudbury.ca

Website:
greatersudbury.ca/regreening

Accessible version available
upon request.

