

Regreening Program

Annual Report 2017

regreening
GREATER SUDBURY



2017 Partners

Regreening Program



Ugliest Schoolyard Contest

Corporate Sponsor:



A GLENCORE COMPANY

Azilda Greenhouses

Brown's Concrete Products Ltd.

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Greater Sudbury Regreening Program

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2017 Highlights

In 2017, the second year of the **5 YEAR PLAN 2016-2020** was implemented. Thanks to external funding, material and in-kind contributions from our many partners, 2017 was another successful year.

The Regreening Program created 31 temporary employment opportunities, limed 6.7 hectares of barren land in the Coniston and Garson areas and planted almost 80,000 tree seedlings and over 46,000 shrubs/understory trees throughout Greater Sudbury.

Regreening Component	2017	To Date (since 1978)
Tree Seedlings Planted	79,709	9,723,172
Shrub/Understory Tree Seedlings Planted	46,018	360,539
Area Limed	6.7 ha	3,471 ha
Area Fertilized	5.6 ha	3,246 ha
Area Seeded	5.6 ha	3,173 ha
Forest Floor Transplants	0.148 ha	1.83 ha
Program Cost	\$843,143	\$31,837,747
Temporary Employment Opportunities	31	4,746
Awards	–	14
Number of Schoolyards Regreened	2	43
Volunteer Tree Planters	24	11,662
Trees Planted by Volunteers	282	375,046
Trees Provided for Residential Plantings	1,772	429,023

The 13th annual “Ugliest Schoolyard Contest” hosted by VETAC continued again this year. The winners were Sudbury Secondary School and Princess Anne Public School both in Sudbury. In all, 15 local businesses, corporations, special interest groups as well as numerous private citizens provided funding, materials and offered services to complete the schoolyard Regreening projects. Corporate funding from Sudbury Integrated Nickel Operations, a Glencore Company (Sudbury INO), in the amount of \$20,000 enabled these schools to become greener, more engaging environments for students. Schoolyard transformations occurred from late August until the end of October.

The large-scale forest floor transplant project proceeded again in 2017 thanks to continued and new partnerships. KGHM allowed Program staff to access vegetation at its Podolsky Mine site north of Capreol as did a new private sponsor near the Fairbank turnoff. This year, 18 sites containing 162 plots received forest floor mats totaling an area of 0.148 ha.

The Biodiversity Research Assistant conducted additional plant community succession investigations. This large scale monitoring project will enable greater understanding of how plant communities are changing over time and how Regreening activities affect plant communities.

Tree Planting

Spring and fall planting activities resulted in 79,709 tree seedlings and 46,018 shrub/understory tree seedlings planted throughout Greater Sudbury. Since 1978, a total of 9,723,172 trees and 360,539 shrubs/understory trees have been planted by the Program.

Tree Canada provided funding for 22,781 trees and shrubs this year and tentree donated funds to have all 104,804 tree and understory tree seedlings planted. In addition, Vale donated almost 45,000 seedlings to the Program, mainly jack and red pine with some white spruce.

A total of seven species of deciduous understory trees, twenty-three shrub species and twelve tree canopy (conifer and deciduous) species were planted. Of these, Virginia virgin's bower (*Clematis virginiana*) was a new species added to the mix this year to increase plant diversity throughout the impact zone. Seeds for this species were collected locally by staff and grown by a nursery. The shrubs will be observed over the next few years to assess survival.

Vale aurally limed and seeded two blocks of barren land totaling 120 hectares located to the south of Alice Lake and adjacent to the twin stacks in Coniston in the fall of 2016. These areas were the main planting site for the crew this spring. Species planted included the typical first phase planting mix of jack pine, red pine, white pine, white spruce and green alder. The site was also supplemented with a couple of dryland species and several wetland species to increase the diversity.

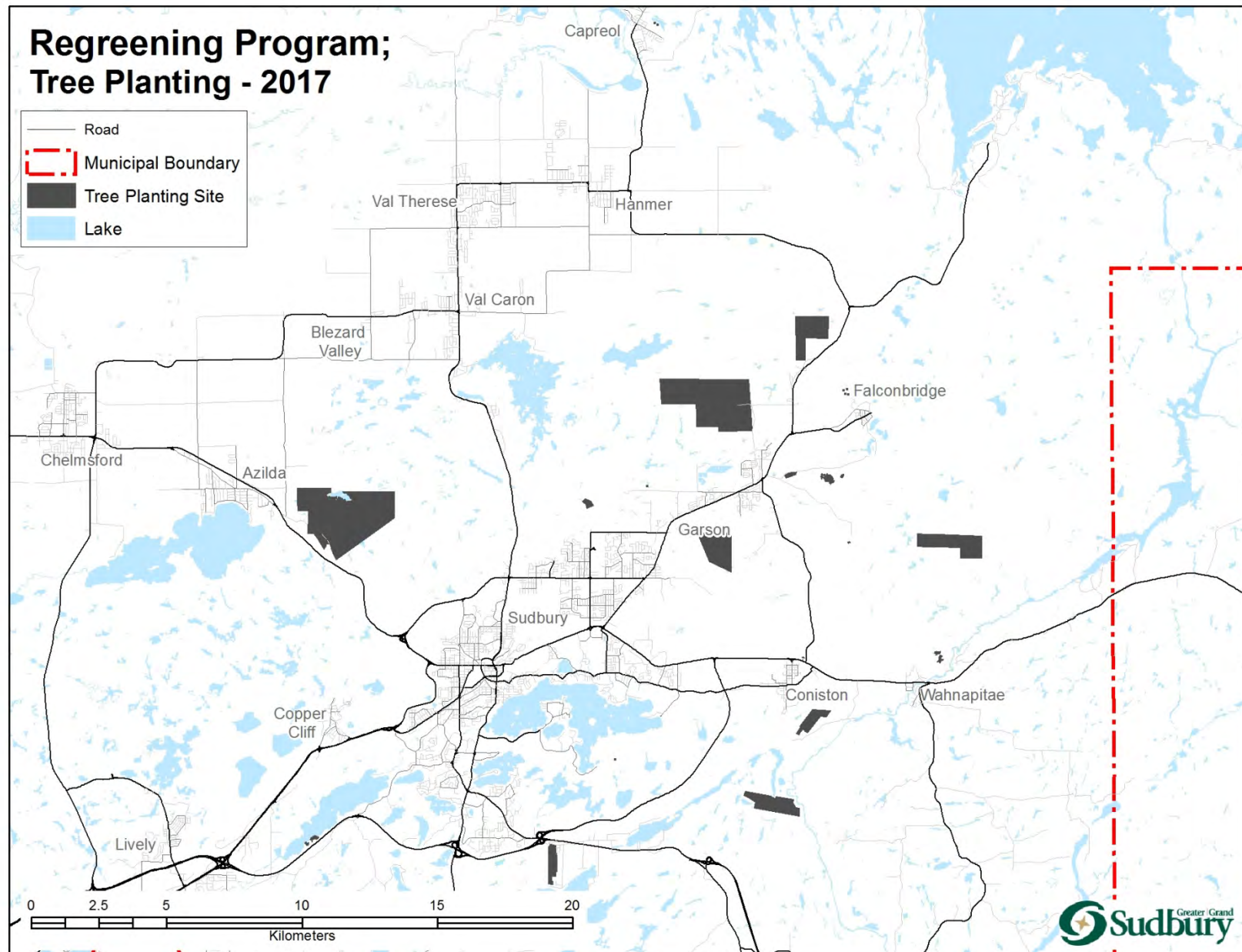
Planting sites were mainly selected from the **5 YEAR PLAN 2016-2020**. Other areas were also selected to accommodate the Tree Canada trees, the planting of species in transect plots, and supplemental planting at past manual liming sites and planting sites.

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

Crew planting in Coniston at the aerial lime site.



Map – Tree Planted Areas 2017



Survival & Quality Assessments

Tree Canada requires that funded plantations be evaluated for quality and survival. The quality assessor visited the planting crew on-site in the spring. Overall, he found the crew's quality was 98% for all species planted.

Survival assessments of past planting sites were conducted in September. Overall, tree survival rates ranged from 91% to 97% for 1 year, 2 year and 5 year old plantations except for bearberry which had an 82% survival rate in second year plots and Yellow Birch that had 79% survival in 5 year plots.

Volunteer Tree Plants

The Regreening Program is able to offer seedlings, planting equipment and guidance to any local group wanting to participate in the regreening effort. The volunteer program provides educational opportunity on environmental issues, information on the City's Regreening Program, tree planting experience as well as a sense of community pride and ownership of the natural environment.

This year, the Food Forest at Delki Dozzi Park received 10 serviceberry seedlings and a class of 22 Ecology students at LU planted 272 seedlings behind the school stadium. Shovels were provided for public planting events at Kivi Park and through Conservation Sudbury.

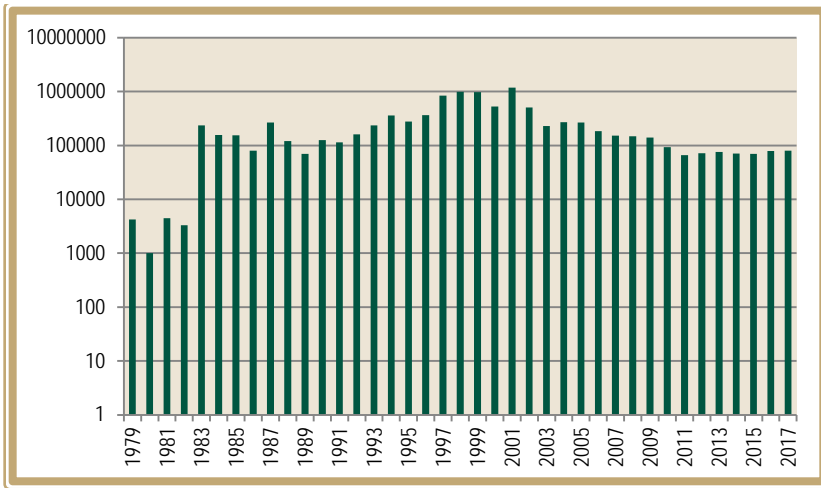
KGHM was provided with 36 Virginia virgin's bower to give to students attending a talk they provided on regreening in Greater Sudbury.



Second year assessment of red osier dogwood ranking in at 96% survival.

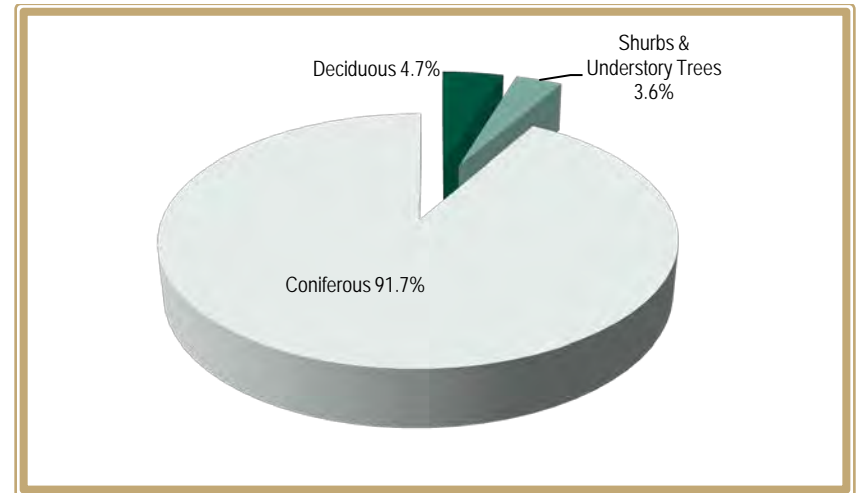
Number of Trees Planted 1979 to 2017

The bar graph below indicates the number of trees planted each year since 1979 for a grand total of 9,723,172 trees.



Percent of Species Planted 1979 to 2017

The pie graph below illustrates the percentage of each type of species planted since 1979 for a grand total of 10,083,711 plants.

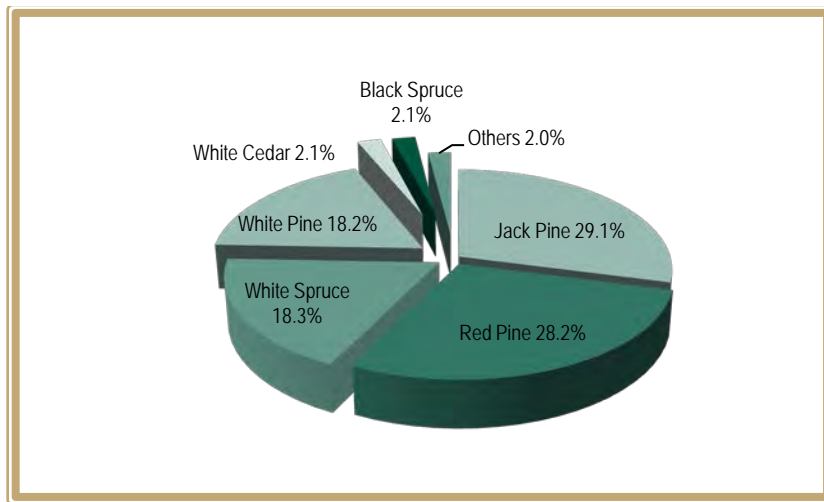


Planting crew getting directions at the Alice Lake aerial lime site.



Percent Coniferous Species Planted 1979 to 2017

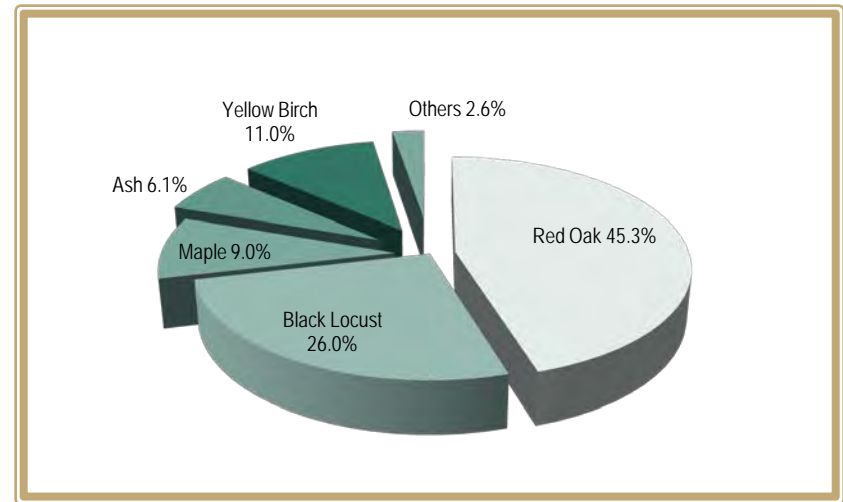
The pie graph below illustrates the percentage of each coniferous tree species planted since 1979 for a total of 9,250,491 trees.



Others Include: balsam fir 0.2%, tamarack 1.3%, Norway spruce 0.2%, larch 0.2%, hemlock 0.1%, and Austrian pine <0.0%.

Percent Deciduous Species Planted 1979 to 2017

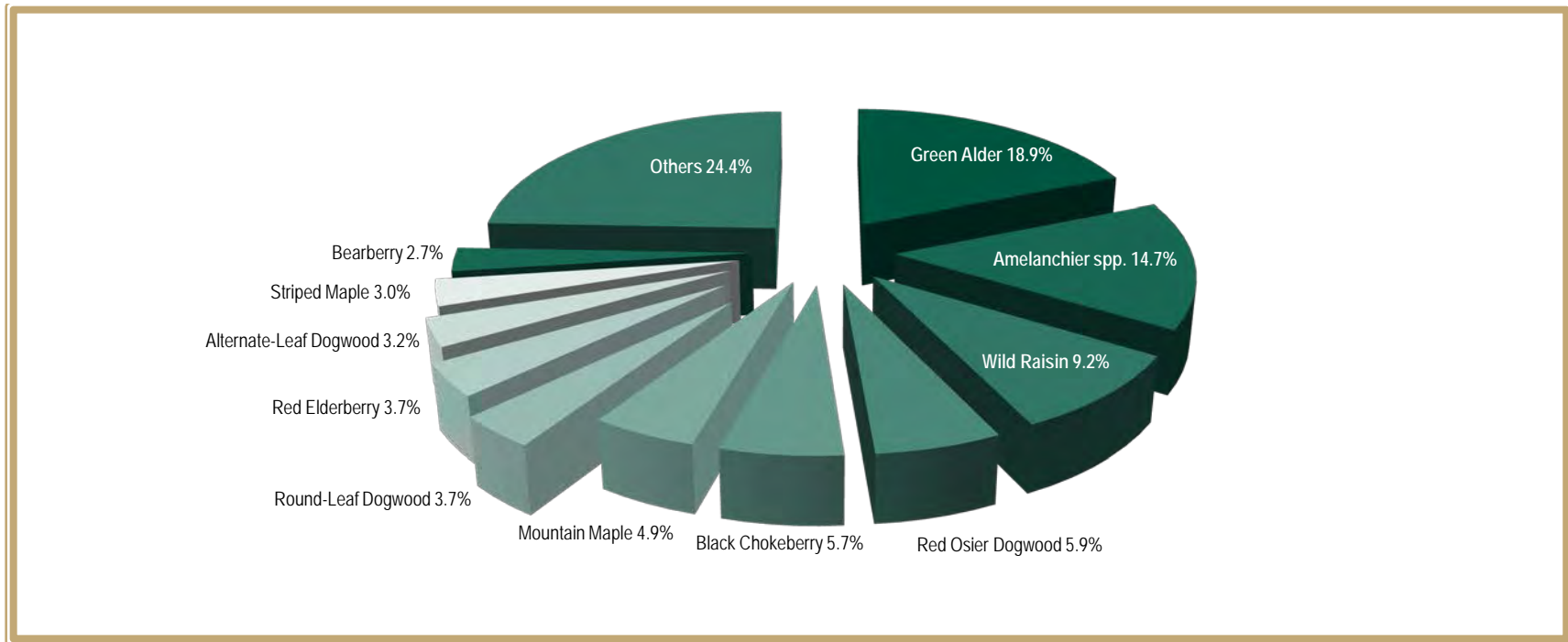
The pie graph below illustrates the percentage of each deciduous tree species planted since 1979 for a total of 472,681 trees.



Others Include: Russian olive 1.1%, bur oak 0.8%, ironwood 0.3%, American beech 0.1%, bitternut hickory 0.1%, white oak 0.1% and basswood 0.1%.

Percent Shrubs and Understory Trees Planted 1979 to 2017

The pie graph below illustrates the percentage of each type of shrub or understory tree species planted since 1979 for a total of 360,539 plants.



Others include: common elderberry 2.4%, staghorn sumac 2.3%, caragana/Siberian pea shrub 2.1%, mountain-holly 2.0%, bush-honeysuckle 1.7%, winterberry holly 1.4%, smooth wild rose 1.2%, American mountain-ash 1.2%, hardhack 1.2%, highbush cranberry 1.0%, swamp rose 1.0%, common juniper 0.9%, showy mountain-ash 0.5%, buffalo berry 0.5%, white meadowsweet 0.5%, mugho pine 0.5%, nannyberry 0.4%, ninebark 0.4%, prickly wild rose 0.4%, choke cherry 0.3%, snowberry 0.3%, broad-leaved meadowsweet 0.2%, hobblebush 0.2%, buttonbush 0.2%, pin cherry 0.2%, Canada yew 0.2%, black chokeberry 'Viking' 0.2%, wild black currant 0.2%, flowering raspberry 0.1%, sweet gale 0.1%, wintergreen <0.1%, red chokeberry <0.0%, American hazel <0.0%, sandcherry <0.0%, and Canada plum <0.0%.

Seed Collecting

Almost 20 kg of seeds/berries were collected by staff / crew / volunteers this year from various species and shipped to the nursery to grow stock for the coming years. About 300 cuttings of Canada yew were also collected in February. New collection sites were located this year which have been added to an in-house database to improve future seed collection projects. Numerous sites are required for each species so over-harvesting or depleting seed from a single source is avoided. See the table below for species and quantity of uncleaned seeds/berries collected in grams.

Species	Uncleaned Seed Weight (in grams)
Green Alder	5,000
Red Elderberry	4,860
Black Chokeberry	4,383
Round Leaved Dogwood	1,434
Alternate Leaved Dogwood	1,300
Mountain-holly	1,042
Smooth Wild Rose	994
Highbush Cranberry	591
Yellow Birch	200
Virginia virgin's bower	53

The crew also collected approximately 1 kg of uncleaned poverty oat grass seed, thanks to K. J. Beamish Construction Co. Ltd. in Hanmer for allowing the crews access their site. Seeds for these native grasses are not readily commercially

available so finding a local source and collecting manually is the only option at this time.

MNRF Stewardship Rangers collecting poverty oat grass.



Crushed Limestone, Fertilizer and Seed

The liming activity this year focused on two areas of barren land; one along Garson-Coniston Road and a second in Coniston. A total of 6.7 hectares of barren land were manually limed using a crushed dolomitic limestone. Fertilizer and seed consisting of agricultural and native species was applied to the Garson-Coniston site and to approximately half of the Coniston site in early September.

The seed mix contained:

- 40% fall rye (*Secale cereale*)
- 10% Canada wildrye (*Elymus canadensis*)
- 10% little bluestem (*Schizachyrium scoparium*)
- 30% slender wheatgrass (*Elymus trachycaulus*)
- 10% alsike clover (*Trifolium hybridum*)

Approximately 1 kg of uncleaned poverty oat grass seed collected locally by the crew weeks in advance was spread in one area measuring roughly 4 x 4 m in the Coniston Site.

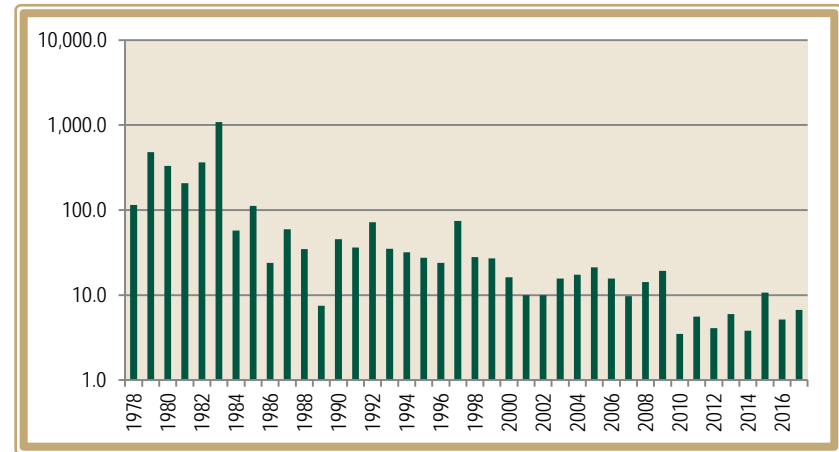
Refer to the following page for a map of the locations of liming activities.

To date, 3,471 hectares of barren land have been treated with crushed limestone by the City's Regreening Program.

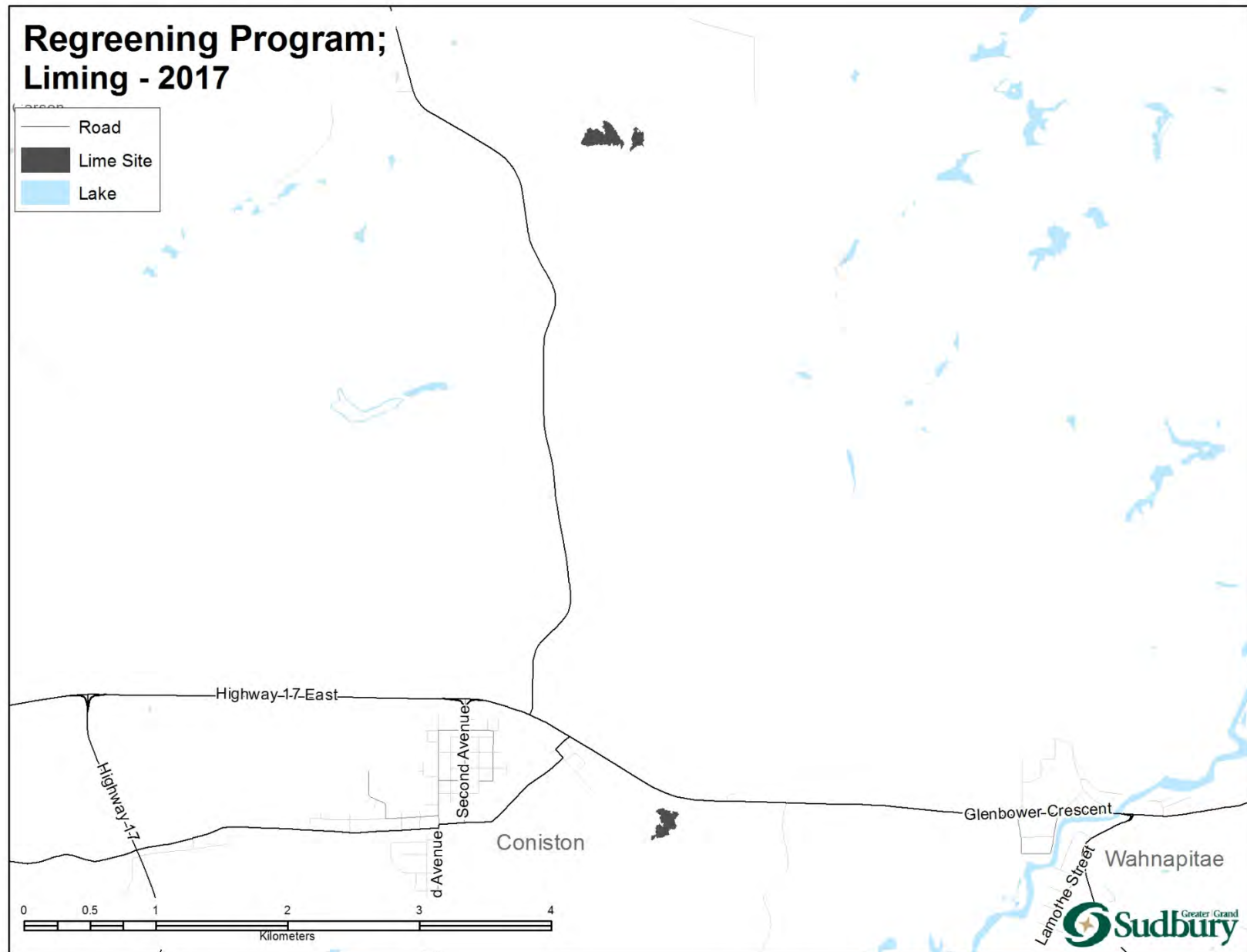
Crew spreading lime on barren land along Garson-Coniston Road.

Area Limed 1978 to 2017

The bar graph below indicates the area in hectares per year that were limed by the municipal Regreening Program since 1978 with a grand total of 3,471 ha limed to date.



Map – Manual Liming Site 2017



Vale is committed to following the recommendations set out in the **5 YEAR PLAN 2016-2020** and as such, aerially limed and seeded barren land south west of Alice Lake. The total area covered measures approximately 121 ha and will be the main focus site for tree planting activities in the spring of 2018.

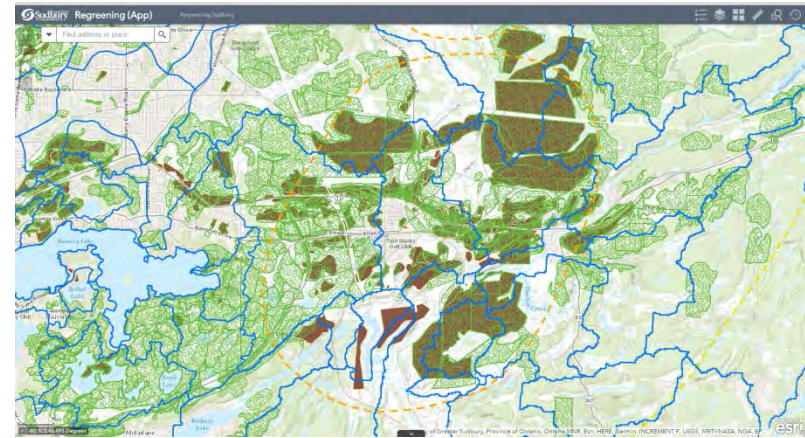
The seed mixture used consisted of half native species and half agricultural species, which included:

- 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*)

Regreening App

Since 2015, with the assistance of Sudbury INO funding, a mapping exercise was conducted to update all Regreening Program mapping for tree planting and liming activities. This assignment was completed in 2016 and the data have been uploaded using ESRI software. In early 2017, the interactive map became available to the public through the City's website. It can be found at www.greatersudbury.ca/maps.

In this format, the general public is able to access up-to-date and historical tree planting and liming data. This will also be a useful tool for staff at the City and the VETAC partners during the planning stages of regreening activities.



Screen shot of Regreening App.

Completion Criteria

The concept of completion criteria for Greater Sudbury's ecological recovery is still being explored. These criteria will assist VETAC in gauging when sufficient regreening activities have been undertaken in a particular area. A field trip of VETAC's Operations/Biodiversity sub-committee this past fall gave participants a chance to test a template developed by ecology students at LU. Additional meetings and workshops are planned for 2018 to allow completion criteria to be developed and endorsed by a broad representation of stakeholders.

Forest Floor Transplants

The practice of transplanting forest floor plants has occurred yearly since 2010 as a mechanism of re-introducing species, improving habitat, creating a seed bank and increasing the diversity of past reclamation sites. Continued partnership with KGHM allowed for the ongoing forest floor transplants in 2017. From June to August, vegetation was harvested from the Podolsky Mine site north of Capreol.

A private landowner provided access to a site off Hwy 17W near the Fairbank turnoff and City land off McCharles Lake Road were also used as smaller donor sites. By utilizing all three sites, a greater variety of species were represented in the mats recovered.

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

Criteria for selecting receptor sites for the understory transplants included sufficient canopy cover, low understory species diversity, sufficient soil depth and organic layer (>5cm) and large enough areas to allow the species to spread. Plots were established measuring approximately 4m by 4m.

In 2017, 4603 trays of plant material were transplanted covering an area of approximately 0.148 ha. Of that, 330 trays

went into exposed sites and the remaining 4273 trays went into understory sites. There were 18 sites in all, 162 plots and 58 species re-introduced to the regreening sites.

Long-term monitoring of previous sites has been ongoing and results are showing that 59 species are spreading out of the original plots, making the edges diffuse. New species have emerged from the seed bank and planted species are increasing in ground cover within the plots with 78 species found to be producing flowers/fruit/seed.

The most common species found in past plots has been bunchberry (*Cornus canadensis*), gold thread (*Coptis trifolia*), blue-beaded lily (*Clintonia borealis*), starflower (*Trientalis borealis*), twinflower (*Linnaea borealis*) and ground pine (*Lycopodium dendroideum*).

Over the 7 years of this initiative, a total of 155 sites have received understory transplants covering a total area of approximately 1.67 ha. To date, 25 sites received exposed transplants covering an area of 0.161 ha. The grand total of 1.83 ha of forest floor is comparable to moving over two Canadian football fields of plant material into the City's impacted areas.

Biodiversity Inventory

Plant Community Change

In 1978, Brian Amiro, a researcher from Laurentian University, conducted field work for a study of the plant communities in Greater Sudbury and the surrounding area (1978 MSc thesis). The main purpose of his Masters study was to provide a base for future vegetation studies in terms of the successional pathways of plant communities in areas impacted by industry and development. A total of 142 sites were examined and importance values were determined from quantitative vegetation data for each species encountered in three different layers (i.e. tree, shrub and herb strata). Based on his findings from the tree stratum analyses, he identified nine major community types that reflected the dominant tree species present.

Andrea Sinclair performed a follow-up study in 1993 in which she re-examined 46 of Amiro's original sites and also added 22 new sites (1996 MSc thesis). Sinclair only identified six main community types and these communities, similar to Amiro, reflect the dominant tree species present. She found that red maples (*Acer rubrum*) were far less abundant across the plant communities. In addition, changes were observed in the tree layer due to planting of conifer seedlings and the vegetation within the herb layer had changed over time due to revegetation efforts (i.e., seeding).

Beginning in 2012, the Regreening Program began conducting re-assessments of the same sites that Amiro studied in 1978. This year 25 sites were sampled, bringing the total sites sampled to 118 of the original 142. No other sites will be

sampled as they are either inaccessible or disturbed through development. These re-assessments seek to answer the following questions:

- 1) Are plant communities changing over time and how?
- 2) Does site location in relation to the three smelter impact zones affect plant species present?
- 3) Are re-greening activities affecting plant communities, and if so, how?

A very large data set has been compiled and importance values have been calculated but the overall analysis is not yet complete to compare vegetation composition between years, between impact zones and regreening activities. A thorough statistical analysis will be undertaken in 2018.



Biodiversity Research Assistant assessing vegetation plot.

Regreening Education Intern

To help celebrate the 40th anniversary of Regreening in 2018, members of VETAC expressed the importance of reaching out to the younger generations that are no longer growing up in an environment as impacted as their parents did. By sharing the regreening story VETAC can ensure it is not forgotten and mistakes are not repeated.

VETAC partnered with Conservation Sudbury to seek funding for a Regreening Education Intern who would visit schools and deliver a talk to students about the history of Sudbury's past and the successes of the Regreening Program. The Intern began in August and gathered all background information and formulated two presentations, one for grade 6 and the other for grade 11 students. Those grade levels were chosen for their direct link to the Ontario Curriculum. The presentations were modified to accommodate other grade levels as required. In the spring of 2018, some schools will be offered a tree planting activity as a follow-up to the presentation and to help keep the momentum going.

VETAC also partnered with the Sudbury Horticultural Society to seek a grant through the Sudbury Community Foundation for the purchase of supplies and materials needed for the tree planting component and resource materials for classroom use.

In August, the Intern joined the Regreening crew to experience firsthand the intense manual labour involved in regreening Greater Sudbury. The Intern participated in liming activities and vegetation mat transplanting.

To date, the Regreening Education Intern has visited 14 schools and provided 22 presentations to approximately 31 classes involving 700 students. The presentations have been delivered from grade 4 through to grade 11 students with the most popular group being grade 6 for elementary and grade 9 for high schools.

The Intern was also available to give a presentation at the Sudbury Horticultural Society and Master Gardeners Christmas Luncheon and for a Path-Finders (Girl Guides) group.

Currently, the Intern is working to complete a lesson plan focusing on biodiversity and ecosystems in Greater Sudbury for grade 6. This plan will be made available to all those teachers whose classes have been visited and will be visited in 2018.



Regreening Education Intern showing a tree "cookie".

Ugliest Schoolyard Contest

The regreening work continued at local schools again this year as a result of VETAC's 13th annual Ugliest Schoolyard Contest. Thanks to the generous grant of \$20,000 from Sudbury INO and numerous sponsors providing material, supplies, services and financial support, two schools received assistance in transforming their schoolyards. The grand prize winner was **Sudbury Secondary School** and the runner-up was **Princess Anne Public School**, both in Sudbury.

In addition to the Sudbury INO funding, schools also received a voucher for the purchase of concrete materials from Brown's Concrete Supplies and topsoil donated by Vale. Other in-kind and/or financial donations from Azilda Greenhouses, Dominion Sod Farm, Fisher Wavy, Futurescape Landscaping Supplies, Irrigation North, Jetty's Landscape Supplies, Leger Urban Design, Northern Wildflowers, Southview Greenhouse Growers, Sudbury Horticultural Society and Sudbury Master Gardeners ensured the projects were a great success.

*The Canadian Biodiversity Institute
and Earth Day Ottawa
initiated the
Ugliest Schoolyard Contest
in 1998 in Ottawa.*

Winner Projects

Sudbury Secondary School

Sudbury Secondary School was selected as the grand prize winner this year and Southview Greenhouse Growers worked with the school on this project on August 26th and 27th.

Three linden trees were planted in raised planters created with large concrete stones next to the soccer field to provide both shade and outdoor seating. Three serviceberry trees were planted to provide additional shade as well as spring and fall colour. Four large concrete stones were added to provide outdoor seating under those trees. Shrubs were planted behind the stones.

A small amphitheatre was created with three rows of tiered seating for outdoor presentations. Two linden trees were planted behind the amphitheatre to provide shade. And finally, garden beds were created and planted under the overhang near the entrance to the building.

Teachers and students from the school worked on this project under the leadership of teacher Lorrie Leger. They spread topsoil, planted perennials and shrubs, laid sod and spread mulch. The school board provided funding for the purchase of the stones for the amphitheatre.

On October 12th, an Open House event was held by the school and a recognition station was set up in the library where a PowerPoint presentation scrolled through photographs of the makeover. Attendees were offered a guided tour of the new schoolyard and afterwards appreciation certificates were distributed to those that had offered support to the project.

Project [photos](#) are available on the [website](#) as well as a [video](#) of the schoolyard transformation.



Large linden tree planted behind the stone amphitheatre at Sudbury Secondary School.

Princess Anne Public School

Princess Anne Public School was selected as the runner-up prize winner. Azilda Greenhouses worked with the school on this project on August 23rd and 24th.

Five linden trees were planted in raised planters created with large concrete stones in several locations to provide both shade and seating. Three of those plantings were grouped to create an outdoor classroom space.

A garden bed was created for an Aboriginal Healing Garden. Another garden bed was created for an edible garden. While this work was being done, the school board worked on trimming the existing trees and dealing with the drainage issues in the schoolyard.

Plants for the gardens and plantings under the new trees were funded by the Sudbury Horticultural Society, Sudbury Master Gardeners and the Rainbow District School Board.

On September 12th, volunteers from the Horticultural Society and Master Gardeners worked with students and teachers at the school to plant the donated shrubs and perennials. The Healing Garden was planted with cedar shrubs, wild bergamot, coneflowers, sweet grass, and yarrow. The edible garden was planted with serviceberry, white currants, haskaps, raspberries, cherry/plums, gooseberries, grapes and rhubarb. In the raised planters students planted wild strawberries, lamium, and sedum.

Project [photos](#) and a [video](#) of the schoolyard transformation are available on the [website](#).



Students planting perennials around a tree in a stone planter at Princess Anne Public School.

Sponsors

Generous funding from Sudbury INO and numerous other donors (see page 2 for list) enabled VETAC to provide greatly improved environments for the students and teachers at these two schools.

Media

Wayne Hugli and Tina McCaffrey were interviewed on April 7th by Jan Lakes of CBC on the Ugliest Schoolyard Contest for a Province-wide show that aired on Easter Monday.

A communication strategy was implemented to promote the Contest focusing on Social Media. On June 1st the City issued a [News Release](#) announcing the winning schools for the year.

On March 20, Tina McCaffrey was interviewed by Andrew White from KFM radio and Nick Liard from 92.7 Rock and KiSS 105.3 regarding the Ugliest Schoolyard contest 2017.

An advertisement appeared in the Northern Life on Thursday, October 5th thanking all the sponsors of the project.

Labour

Program staff included one foreperson, four crew leaders, fifteen workers and six summer students involved in regular regreening activities. The Biodiversity Research Assistant along with one additional summer student were mainly engaged in data collection in the field.

In total 31 temporary positions were created in 2017. To date, 4,746 temporary positions have been created.

The table below outlines the temporary positions created and the number of weeks worked, with a total of 31 positions created in 2017.

Position Title	# Positions	# Weeks	Cost to City	Activity
Foreperson	1	31	100%	Supervision
Crew Leader	4	30	100%	Supervision
Biodiversity Research Assistant	3	7	100%	Field data collection and analysis
Biodiversity Research Assistant	1	31	100%	Field data collection and analysis, seed collection
Worker	15	25	100%	Tree planting, liming, transplanting, fertilizing, seeding, seed collection
Summer Student	6	17	55%	Tree planting, liming, transplanting, seed collection
Summer Student	1	17	100%	Assist in field data collection, tree planting, liming, transplanting, seed collection

Volunteer Placements

A volunteer opportunity was provided for the Ministry of Natural Resources and Forestry (MNR) Ontario Stewardship Rangers Program. From July 17 to 20, 4 high school students and their team leader from Windy Lake Provincial Park worked alongside the Regreening Crew digging up and transplanting vegetation mats as well as participating in liming activities. From July 24 to 27, a second group was offered the same experience including some seed collection. Students learned a great deal about their natural environment and the steps taken to restore damaged lands.

Ministry of Natural Resources and Forestry Ontario Stewardship Rangers.



Partners

The success of the Regreening Program depends heavily on the support of its many partners. Long time support from the two major mining companies, Vale and Sudbury INO, through in-kind and financial assistance has grown substantially since the release of the Sudbury Soils Study in 2009.

Tree Canada has been a partner since 1997 contributing over 3.8 million trees to the Program. The Sudbury earthdancers have contributed almost \$40,000 since 1999. The Ontario Ministry of Transportation (MTO) and KGHM provided access to some of their properties for Regreening crews to salvage forest floor plants.

Collège Boréal has been conducting survival assessments and quality control assessments, provides storage and care of seedlings prior to planting and are participating in the creation of a local seed bank of native trees and shrubs. Laurentian University has provided support to the Regreening Program's Biodiversity Research Assistants in terms of expertise and use of facilities.

Conservation Sudbury continues to allow long-term vegetation monitoring plots to be established in the Lake Laurentian Conservation Area and occasionally is able to provide financial assistance towards the purchase of trees.

tentree has contributed towards wages to have over 200,000 trees planted to date.

It is the financial and in-kind support of these partners that ensures the program continues to function effectively.

Funding

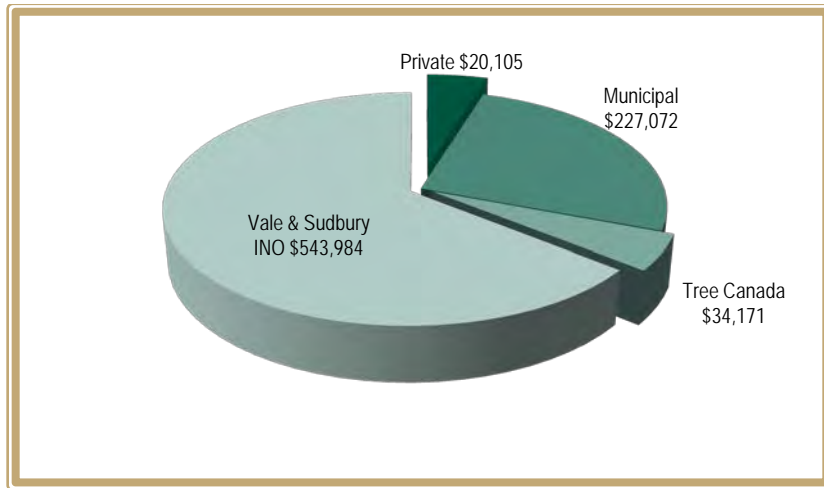
The Regreening Program relies on donations to operate the yearly Program. Many successful partnerships have been developed over time and new opportunities are always being investigated.

The table below outlines the program contributors and the dollar amount associated with their contributions in 2017 for a total of \$843,143.

Program Contributor	Description	Source	Amount
Employment & Service Development Canada	Wage subsidies for 6 summer students over a 16 week period	Federal	\$17,801
tentree	Financial support to have 104,804 seedlings planted	Private	\$10,480
Vale	Financial contribution	Mining Co.	\$250,000
Sudbury INO	Financial contribution	Mining Co.	\$265,000
Sudbury earthdancers	Financial contribution	Private	\$3,975
Sudbury Community Foundation	Financial contribution	Private	\$4,800
Tree Canada	Funding to purchase 22,781 seedlings	Private	\$34,171
Vale	Donation of 44,969 pine seedlings	Mining Co.	\$8,994
Sudbury INO	Financial contribution for Ugliest Schoolyard Contest	Mining Co.	\$20,000
Sudbury Horticultural Society	Financial contribution for Ugliest Schoolyard Contest	Private	\$600
Sudbury Master Gardeners	Financial contribution for Ugliest Schoolyard Contest	Private	\$250
Subtotal	Sum of external funding sources	Various	\$616,071
City of Greater Sudbury	Financial contribution	Municipal	\$227,072
Grand Total	Sum of all funding sources	Various	\$843,143

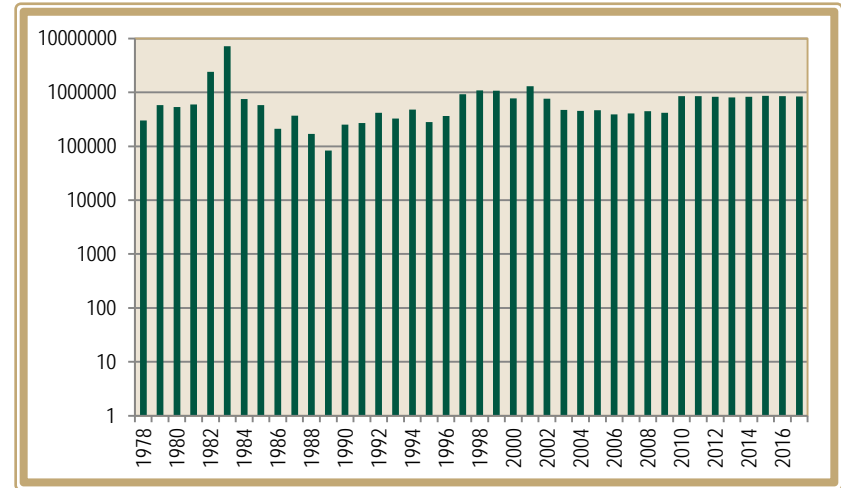
Funding Contributions by Source 2017

The graph below illustrates 2017 funding contributors by source.



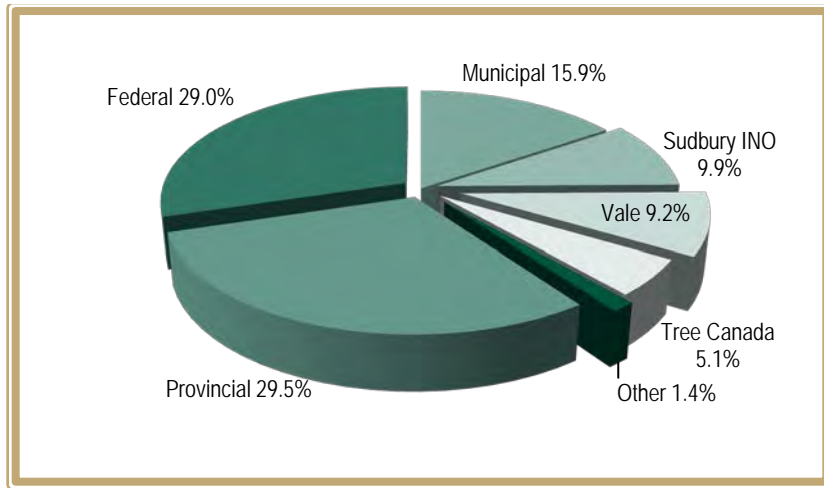
Yearly Program Costs 1978 to 2017

The bar graph below indicates yearly program costs from 1978 to 2017 with a grand total of \$31,837,747.



Percent Funding Contributions by Source 1978 to 2017

The graph below illustrates funding contributions in percentages by source from 1978 to 2017.



Since 1978, the City's contribution to the Program has averaged almost 16% of the total costs with almost 85% coming from external sources. To date, the Program costs exceed \$31 million.

Events

Annual Tree Giveaway

The annual tree giveaway was held on May 27 at the 7th annual Garden Festival. VETAC members and staff distributed 550 black chokeberry (*Aronia melanocarpa*) shrubs and 936

native clematis (*Clematis virginiana*) plants. Information on the Regreening Program was made available, along with A Gift That Grows program and Conservation Sudbury's 50 Million Tree Program which provides funding assistance to eligible landowners. A VETAC member / LU professor provided pH measurements at another booth. Thirty people brought in soil samples to be tested and there were many discussions about soils with the public throughout the day.

Call of the Forest Film Screening

VETAC worked with KGHM to host a screening of the film "[Call of the Forest – The Forgotten Wisdom of Trees](#)" on Tuesday, September 26, at 7:00 p.m. at the Science North IMAX Theatre. KGHM sponsored the film which was offered free of charge to the public to encourage everyone to attend.

Diana Beresford-Kroeger, the author of the film, was in attendance and spoke before the film. There was opportunity to purchase her books and get them signed before and after the event.

Green Leaf Challenge

All trees planted in 2017 were registered on the [Green Leaf Challenge](#) website. This was an Ontario Government and Forests Ontario initiative to celebrate Canada's 150th birthday by helping to plant 3 million trees across the province.

Communications

Media

- April 10, 2017 – S. Monet interviewed by phone by Sophie Houle-Drapeau of Radio-Canada regarding the status of the City's Regreening Program.
- June 5, 2017 – S. Monet interviewed in the field by Sophie Houle-Drapeau of Radio-Canada regarding the status of the City's Regreening Program.

Presentations

- February 3 – Peter Beckett made a presentation to 45 Cambrian College students in the Environmental Monitoring & Impact Assessment and Environmental Technicians Program.
- March 17 – Wayne and Linda Hugli shared the schoolyard regreening work that has been done through the Ugliest Schoolyard Contest at Canada Blooms in Toronto. In particular, they highlighted how the Master Gardeners and Horticultural Society members work with VETAC to regreen the schoolyards.
- April 30 – Cory Laurin and Michelle Lawrence spoke at the Sudbury Horticultural Society meeting focusing on the work that research assistants have undertaken for VETAC.
- July 19 – T. McCaffrey provided a tour of the Jane Goodall Reclamation Trail to 6 students attending upgrading classes at Collège Boréal along with their teacher Nick Bédard.
- September 10 – T. McCaffrey presented a Regreening Program talk to about 25 members of the French River Horticultural Society in Noelville.

- September 14 – T. McCaffrey, T. Menard and N. Lalonde hosted a VETAC booth at the Glencore Open House held at Levack Public School. Over 400 students and residents participated in the event.
- September 27 – T. McCaffrey provided a guided tour of the Jane Goodall Reclamation Trail to 16 students attending LU's School of Education as part of an environmental ecology class.
- October 17 – S. Monet presented at the World Design Summit in Montreal on the City's regreening efforts to date.
- Peter Beckett donated a copy of *Healing the Landscape* to the Governor General's Office in the fall.

Conferences

- Peter Beckett was an invited plenary presenter at the 2nd International Symposium on Land Reclamation and Ecological Restoration (LRER 2017) held October 20-23 in Beijing, China. He provided a talk to over 650 conference attendees entitled '*Lessons learned from a Lifetime of Healing and Creating Novel Functional Ecosystems on an Impacted Smelter Landscape*'. Member of the organizing committee, Peter was also chair of three conference sessions. He led a Round Table discussion on International Co-operation in Land Reclamation and Ecological Restoration. As an invited participant in an International Group of 10 reclamation scientists, Peter attended a 5 day tour and discussion to 3 Chinese Universities offering degrees in Land Reclamation and visited headquarters of several coal companies to review progress in land reclamation activities (Xuzhou, Huainan and Yangquan). Peter was appointed as Honorary Research Fellow in the International Centre of Land

Reclamation and Ecological Restoration for Mining Areas at China University of Mining and Technology, Beijing.

- From November 12-16, Peter Beckett was invited to give a poster presentation on '*The Other 3 Rs: Remediation, Rehabilitation, Restoration – When Do You Get a Passing Grade?*' at The Society of Environmental Toxicology and Chemistry (SETAC) 38th Annual Conference in Minneapolis, Minnesota, United States.

Tours

Rainbow Routes held tours of the Coniston section of the Trans Canada Trail on March 1st and Delki Dozzi Park on April 1st. Both tours resulted in much discussion on the Regreening efforts.

On Friday, March 3rd, Sarah Woods and Peter Beckett conducted a tour of Daisy Lake for four Restoration et conservation écologique students from the School of the Environment at LU. They had discussions on watersheds, the regreening story and the park system.

On July 9th, Peter Beckett and Graeme Spiers provided a field presentation and subsequent tour of the Jane Goodall Reclamation Trail to 25 participants of the Grade 12 Earth and Space Science class from the Canadian Ecology Centre.

Fifteen members of the Camborne School of Mines, University of Exeter, Cornwall, United Kingdom, were given a tour of the Jane Goodall Reclamation Trail by Peter Beckett as part of the Mining Professional Program International Tour on July 26th.

On August 22nd Peter Beckett lead a tour at the Kelly Lake Hill area to 45 teachers as part of the Canadian Ecology Centre's Teachers Resources and Mining Education Tour.

At the end of August, Peter Beckett and Graeme Spiers gave a presentation and tour to 12 students enrolled in Ontario Universities Field Biology Program – Restoration Ecology Course. They toured Kelly Lake Hill and Dynamic Earth transplant plots with the Regreening Program crew on site.



Tour group at the Jane Goodall Reclamation Trail.

VETAC Members 2017

Chair

Dr. Peter Beckett, Laurentian University

Co-Vice Chairs

John Negusanti, Citizen

Sarah Woods, Junction Creek Stewardship Committee/Conservation Sudbury

Members

Nathan Bisiliko	Laurentian University
Katherine Benkovich	Sudbury INO
Tony Fasciano	Citizen
Vanessa Felix	KGHM
Enzo Floreani	Sudbury Master Gardener
Jim Found	Ontario Soil and Crop Improvement Association-Sudbury District
Marc Hebert	Collège Boréal
Wayne Hugli	Sudbury Horticultural Society
Jim Ilnitski	Citizen
Carl Jorgensen	Conservation Sudbury (NDCA)
Bill Lautenbach	Citizen
Tim Lehman	MNRF
Serena Maki	Blue Heron Environmental
Franco Mariotti	Citizen
Tina McCaffrey	CGS, Regreening Program
Samantha McGarry	Sudbury INO
Stephen Monet	CGS, Environmental Planning Initiatives
Mike Peters	Citizen
Cheryl Recollet	Wahnapitae First Nation
Quentin Smith	Vale
Dr. Graeme Spiers	Laurentian University
Ben van Drunen	Hollandia Land & Environmental Solutions

For further information please contact:

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