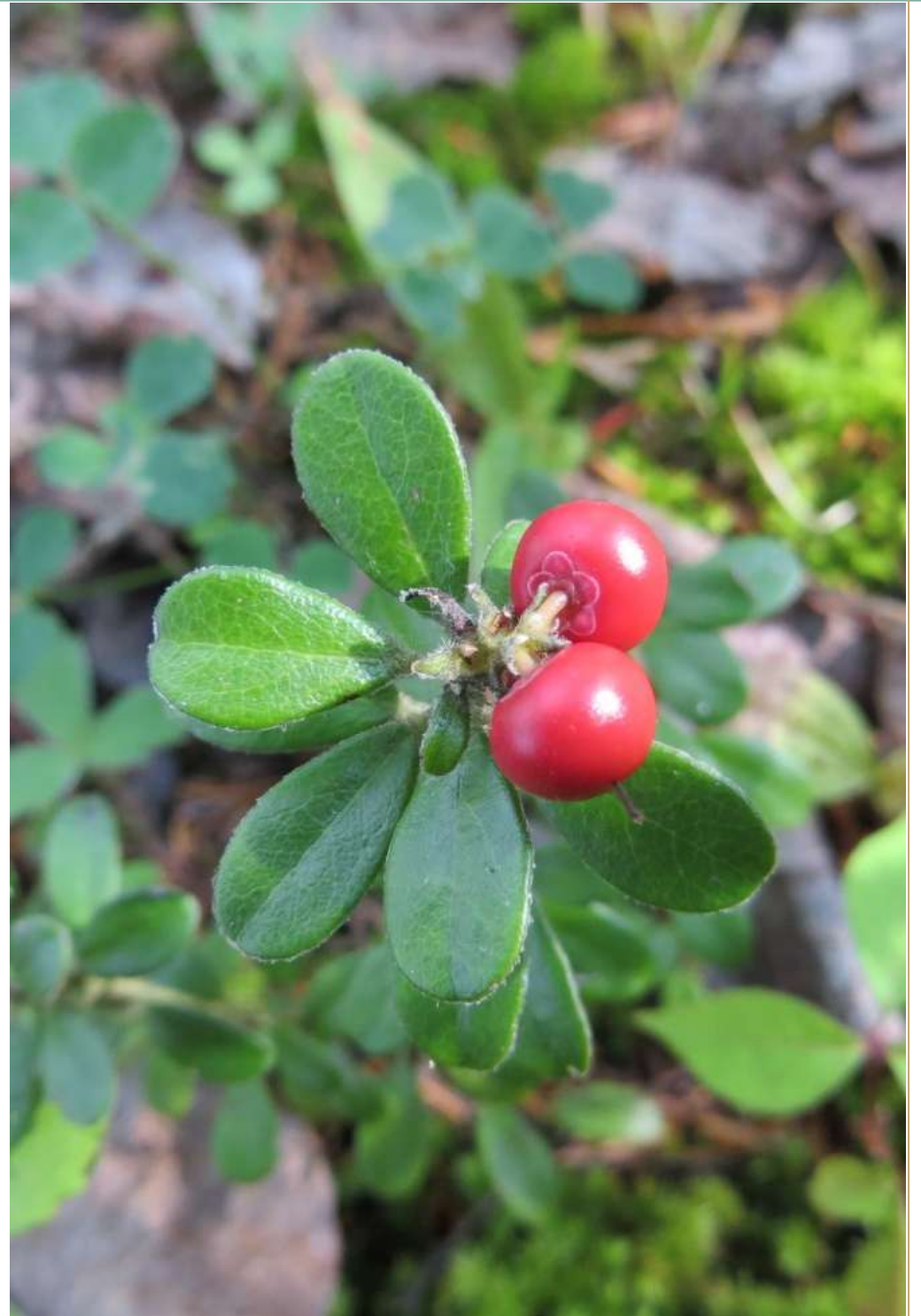


Regreening Program

Annual Report 2015

regreening
GREATER SUDBURY



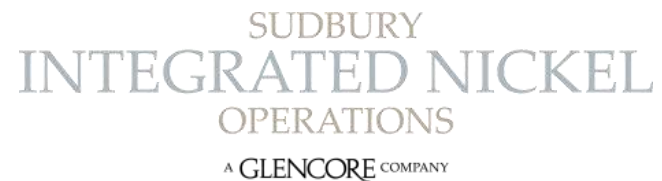
2015 Partners

Regreening Program



Ugliest Schoolyard Contest

Corporate Sponsor:



Azilda Greenhouses

Brown's Concrete Products Ltd.

Canadian Tire on Regent Street

Futurescape Landscaping

Greater Sudbury Land Reclamation Crew

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Southview Greenhouse Growers

Sudbury Horticultural Society

Sudbury Master Gardeners

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2015 Highlights

This was the fifth and final year in the implementation of the **Biodiversity Action Plan** through the **5 Year Plan 2011-2015**.

In 2015, the Regreening Program created 33 temporary employment opportunities, limed 10.7 hectares of barren land in the Garson area and planted almost 70,000 tree seedlings and over 77,000 shrubs/understory trees throughout Greater Sudbury. External funding, material and in-kind contributions enabled the implementation of the fifth and final year of the **5 Year Plan 2011-2015**. The table below outlines the various Regreening components followed by the 2015 achievement and the accumulated total since the Program began in 1978.

Regreening Component	2015	To Date (since 1978)
Tree Planting	69,826	9,564,751
Shrub Planting	77,486	282,120
Area Limed	10.7 ha	3,460 ha
Area Fertilized	8.7 ha	3,236 ha
Area Seeded	8.7 ha	3,164 ha
Forest Floor Transplants	0.16 ha	1.44 ha
Program Cost	\$855,698	\$30,139,442
Temporary Employment Opportunities	33	4,683
Awards	–	14
Number of Schoolyards Regreened	3	39
Volunteer Tree Planters	35	11,097
Trees Planted by Volunteers	1,630	367,530
Trees Provided for Residential Plantings	760	426,251

VETAC's Urban Landscape sub-committee continued with the 11th annual "Ugliest Schoolyard Contest". The winners included Cyril Varney Public, Churchill Public and Ép Jean-Éthier-Blais, all in the New Sudbury area. In all, 11 local businesses, corporations, special interest groups as well as numerous private citizens provided funding, materials and offered services to complete the schoolyard Regreening project. Corporate funding from Sudbury Integrated Nickel Operations, a Glencore Company (Sudbury INO), in the amount of \$50,000 has 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 2015 thanks to continued partnership with KGHM International who allowed Program staff to access vegetation at its Podolsky Mine site north of Capreol. This year, 9 sites containing 96 plots received understory forest floor mats totaling an area of 0.16 ha.

Field Interns conducted additional plant community succession investigations. The Flora of Greater Sudbury Project was also continued in collaboration with the Laurentian University Herbarium.

Tree Planting

Spring and fall planting activities resulted in 69,826 tree seedlings and 77,486 shrub/understory trees planted throughout Greater Sudbury. Since 1978, a total of 9,564,751 trees and 282,120 shrub/understory trees have been planted by the Program.

Tree Canada provided funding for 32,164 trees and shrubs this year and tentree donated funds to have 50,000 seedlings planted.

A total of eight species of deciduous understory trees, seventeen shrub species and eleven tree canopy (conifer and deciduous) species were planted. Of these, one new species, snowberry (*Symphoricarpos albus*), was added to the mix this year to increase plant diversity throughout Greater Sudbury. Seeds for this species were collected on Manitoulin Island and grown by a nursery. Snowberry prefers open rocky areas with a neutral pH and was planted at a past manual liming site. It will be observed over the next few years to assess its suitability in the Regreening Program mixture.

Vale aerially limed and seeded two locations totaling 273 hectares of barren land located north of Coniston and south of the Coniston Hydro Dam in the fall of 2014. This was 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.

Working from the **5 Year Plan 2011-2015**, other planting sites included the Kettle Lakes, Penny Lane, Finni Road, Lasalle/Savannah swamp, O'Neil Drive, Lake Laurentian

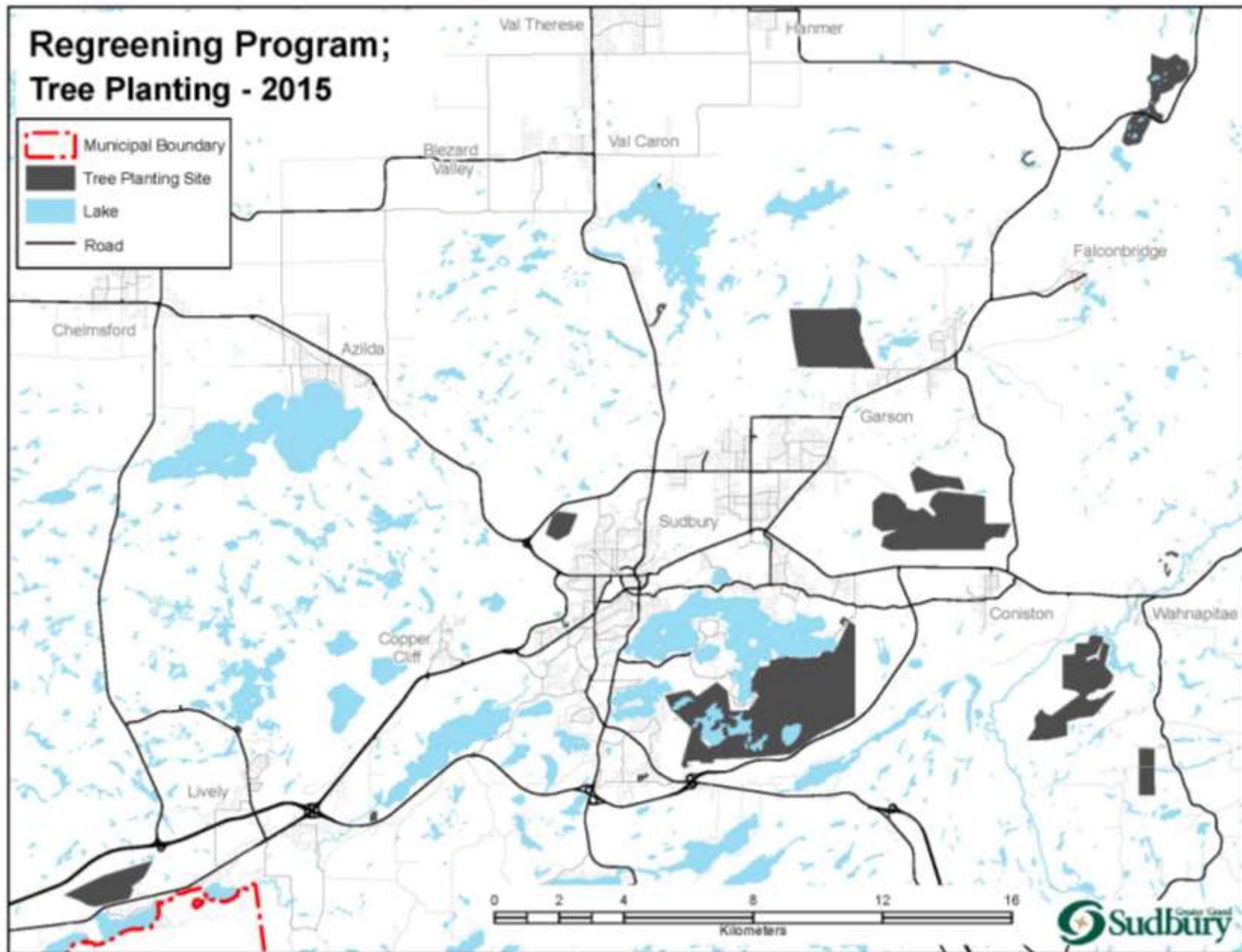
Conservation Area (LLCA), Walden Ski Club and Frood Road. Other sites included City owned properties associated with parks.

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



Regreening Crew planting seedlings.

Map – Tree Planted Areas 2015



Edible Berry Project

This year was a continuation of a project that was initiated to introduce trees and shrubs that produce edible berries into unmanaged (i.e. non-manicured) areas of city parks. The main purpose of this project is to provide a source of edible berries for the general public to forage, promote awareness of native edibles and enhance plant and animal biodiversity in urban areas.

Eight parks were selected for planting including: Pond Hollow, Moonlight Baseball Field, Meatbird Park, Kalmo Beach, Fielding Park, Delki Dozzi Park, Blueberry Hill/Carmichael Arena, and Twin Forks Playground. Three edible berry producing species were planted including: showy mountain-ash (*Sorbus decora*), American mountain-ash (*Sorbus americana*) and red-twigged serviceberry (*Amelanchier sanguinea*). In total, 3,630 trees and shrubs were planted.

This project is planned to continue into the coming years and additional native edible species will be added to the list as available.

Survival & Quality Assessments

Collège Boréal partnered with us to provide Tree Canada with survival assessments of past planting sites. Assessments were conducted in September. Overall, tree survival rates are in the 90th percentile range for 1 year, 2 year and 5 year old plantations.

Tree Canada also now requires that funded plantations be evaluated by a quality assessor to ensure the trees are planted at locations specified and they are planted up to

industry standards. The quality assessor visited the planting crew on-site both in the spring and in the fall. Overall, he found the crew to have a 97% accuracy rate for all species planted.



5th year survival assessment of tamarack. Photo: Collège Boréal.

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, six volunteer groups involving 35 individuals planted over 1,500 tree seedlings throughout Greater Sudbury. The following is a list of groups that participated in tree planting activities this year:

- CGS Parks Department
- OLG Slots
- Continental Currency Exchange
- Silver Lake Stewardship Group
- BioSki Club
- Stantec

The Regreening Program also assisted Conservation Sudbury, formally known as Nickel District Conservation Authority (NDCA), with their annual Community Planting Weekend on June 6 by ordering and delivering seedlings and lending planting bags and shovels for the event. This event was a partnership that included Forests Ontario and CAA North and East and Conservation Sudbury.

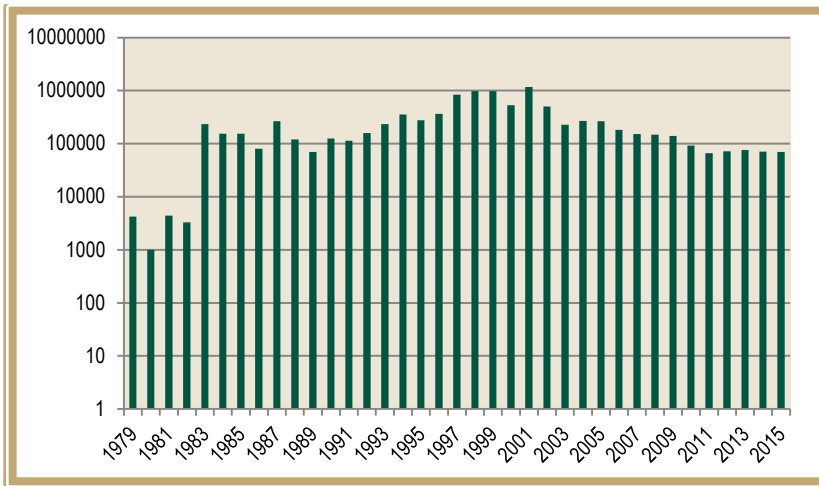
Stantec's Sudbury Office holds an annual Community Day Challenge to engage their employees in worthwhile community projects. This year, participating Stantec employees planted 360 red-twigged serviceberry seedlings at Twin Forks Park in New Sudbury on September 15th as part of the Regreening Program's new Edible Berry Project.



Volunteer group preparing to plant with some final instructions.

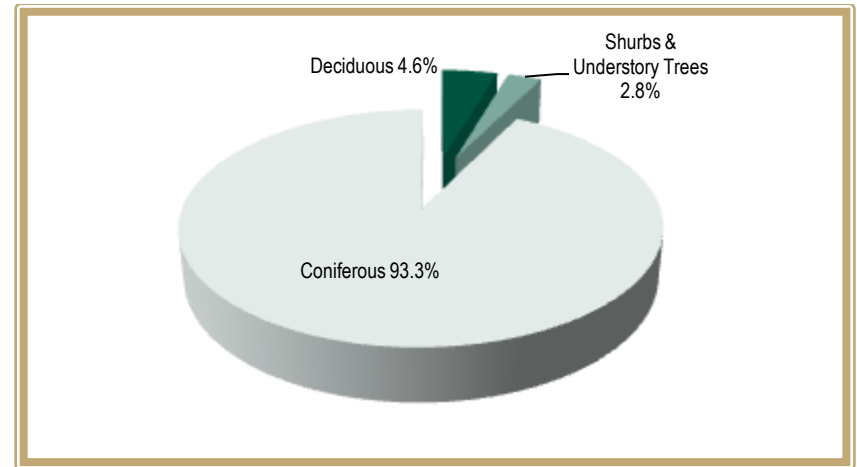
Number of Trees Planted 1979 to 2015

The bar graph below indicates the number of trees planted each year since 1979 for a grand total of 9,564,751 trees.



Percent of Species Planted 1979 to 2015

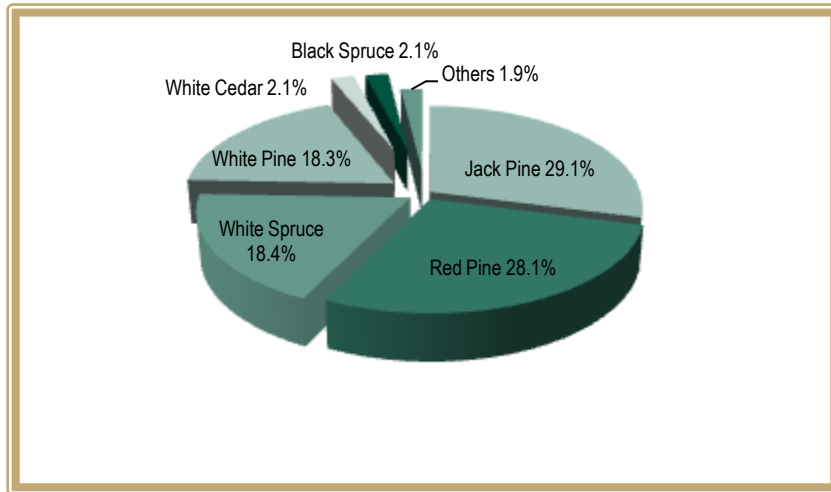
The pie graph below illustrates the percentage of each type of species planted since 1979 for a grand total of 9,846,871 plants.



Regreening Crew placing flagging tape on selected seedlings so they can be identified later in the field.

Percent Coniferous Species Planted 1979 to 2015

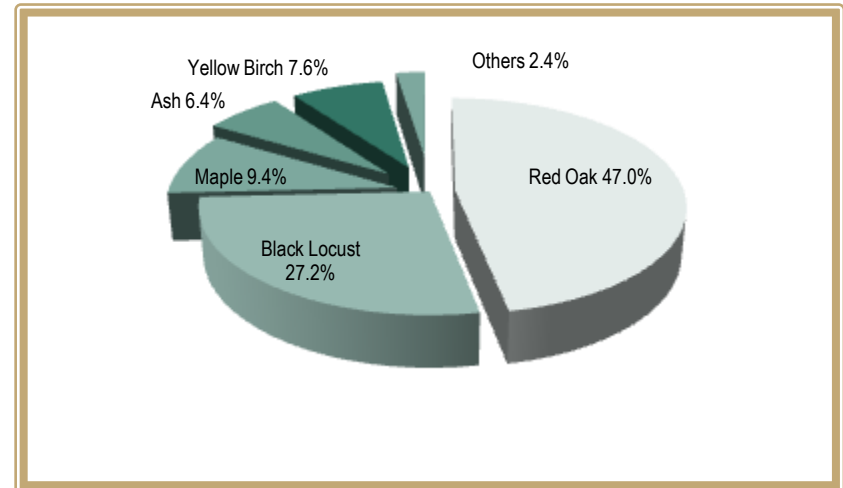
The pie graph below illustrates the percentage of each coniferous tree planted since 1979 for a total of 9,113,958 trees.



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 2015

The pie graph below illustrates the percentage of each deciduous tree planted since 1979 for a total of 450,793 trees.



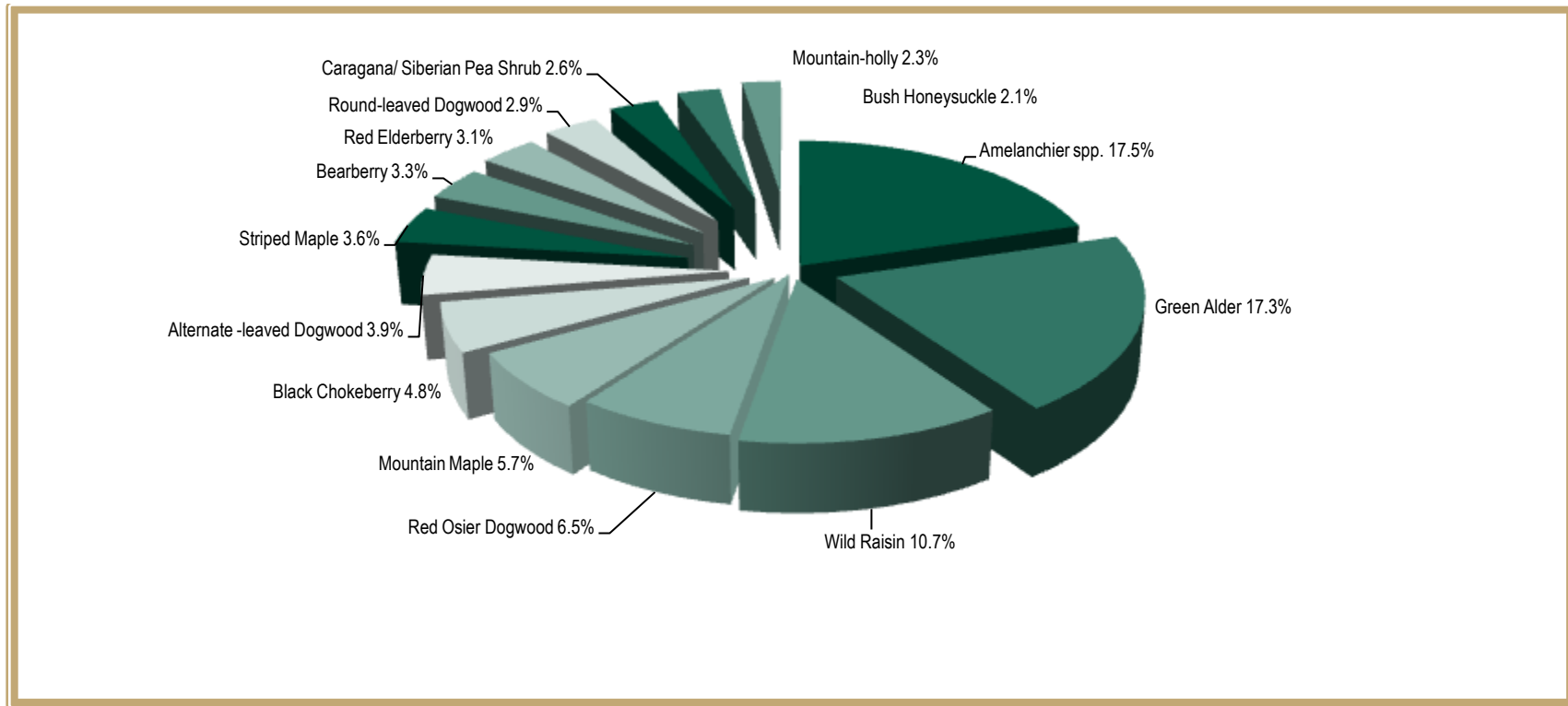
Others Include: Russian olive 1.1%, bur oak 0.5%, ironwood 0.3%, American beech 0.2%, bitternut hickory 0.1%, white oak 0.1% and basswood 0.1%.



A small sample of the 30+ different species planted in 2015.

Percent Shrubs and Understory Trees Planted 1979 to 2015

The pie graph below illustrates the percentage of each type of shrub or understory tree planted since 1979 for a total of 282,120 plants.



Others include: American mountain-ash 1.4%, highbush cranberry 1.3%, staghorn sumac 1.2%, common juniper 1.2%, winterberry holly 1.1%, common elderberry 0.8%, swamp rose 0.8%, showy mountain-ash 0.7%, mugho pine 0.6%, nannyberry 0.5%, buffalo berry 0.5%, hardhack 0.5%, prickly wild rose 0.4%, ninebark 0.4%, narrow-leaved meadow-sweet 0.3%, hobblebush 0.3%, pin cherry 0.3%, Canada yew 0.3%, black chokeberry 'Viking' 0.3%, smooth wild rose 0.2%, flowering raspberry 0.2%, snowberry 0.2%, buttonbush 0.1%, sweet gale 0.1%, broad-leaved meadow-sweet 0.1%, wintergreen 0.1%, choke cherry 0.1%, purple-fruited chokeberry <0.0%, American hazel <0.0%, sandcherry <0.0% and Canada plum <0.0%.

Seed Collecting

Staff collected seeds/berries from eleven species this year including bristly sarsaparilla (*Aralia hispida*), bearberry (*Arctostaphylos uva-ursi*), mountain maple (*Acer spicatum*), alternate-leaved dogwood (*Cornus alternifolia*), snowberry (*Symphoricarpos albus*), hobblebush (*Viburnum alnifolium*), wild black currant (*Ribes americanum*), black chokeberry (*Aronia melanocarpa*), wild raisin (*Viburnum cassinoides*), highbush cranberry (*Viburnum trilobum*), and green alder (*Alnus viridis* ssp. *crispa*). New collection sites were located this year and additional areas will be scouted in the future to prevent over-harvesting or depleting seed from a single source. All collection sites have been recorded in a database to improve future seed collection projects.

Seeds/berries were shipped to the propagator to grow for future regreening efforts.



Crew collecting seeds/berries.

Crushed Limestone, Fertilizer and Seed

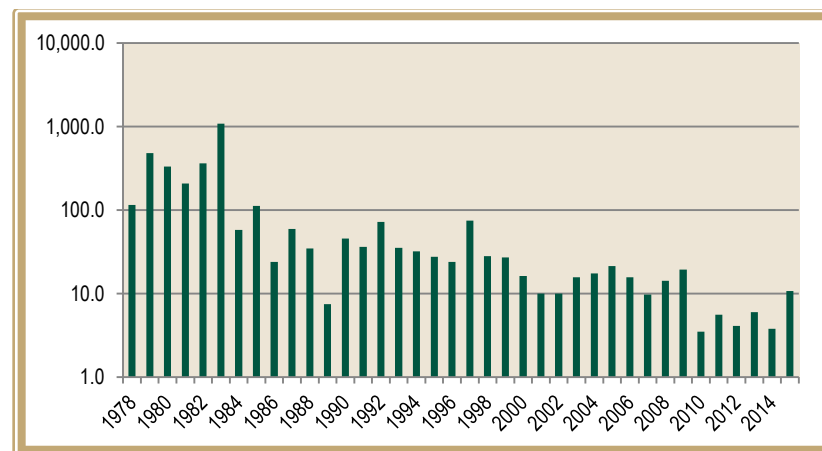
The liming activity this year focused on an area of barren land located in Garson near the old dump site. In total, 10.7 hectares of barren land were manually limed using crushed dolomitic limestone. Fertilizer and seed (90% fall rye and 10% alsike clover) was applied to approximately 8.7 ha of land.

Refer to the following page for lime site location.

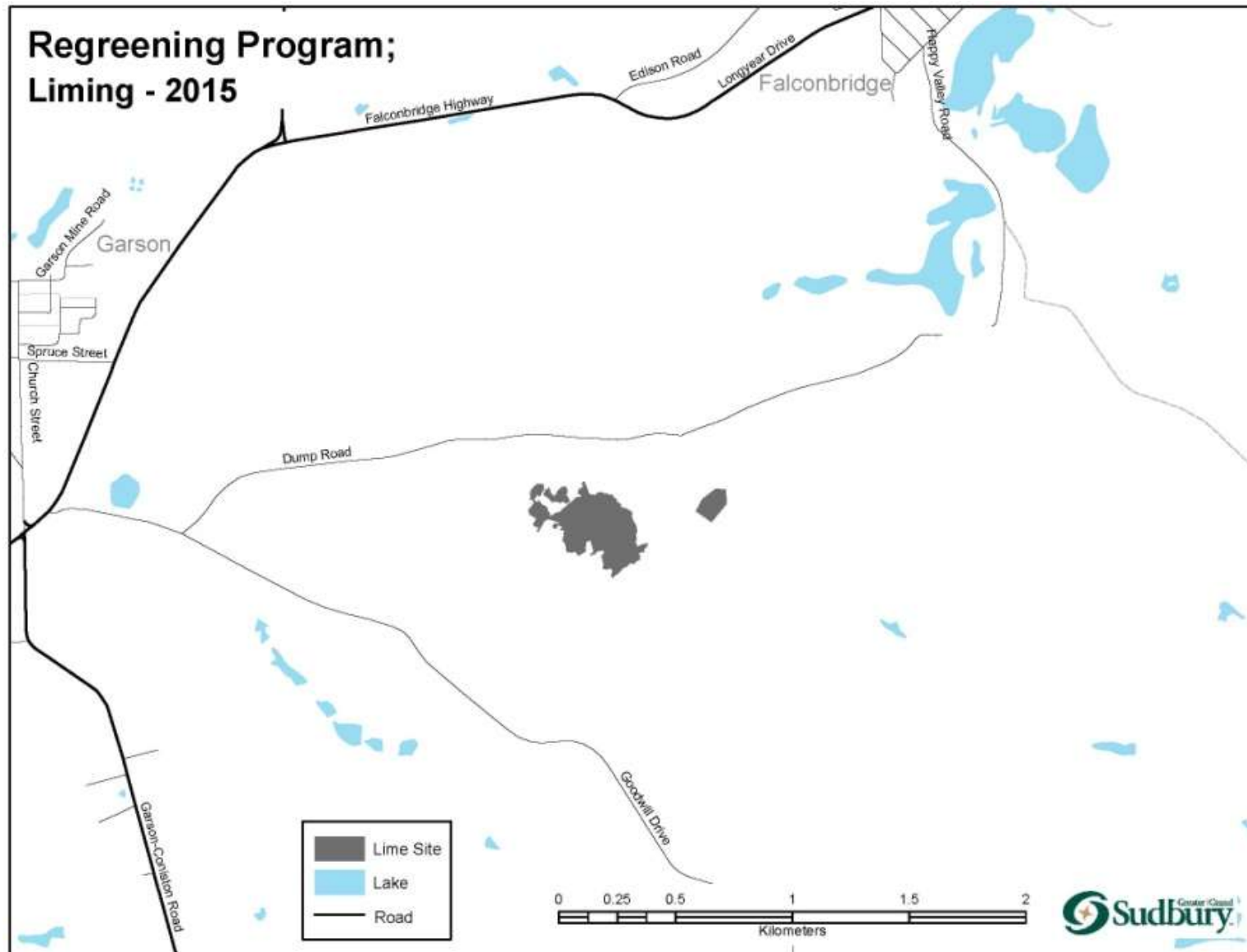
To date, 3,460 hectares of barren land have been treated with crushed limestone by the City's Regreening Program.

Area Limed 1978 to 2015

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 3,460 ha limed to date.



Map – Manual Liming Site 2015



Vale is committed to following the recommendations set out in the **5 Year Plan 2011-2015** and again aerial seeded barren land to the east of Alice Lake. The area covered measured just over 120 ha.

A seed mixture, half of which is composed of native species, was selected once again this year and consists of:

- 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*)



Grasses in the aerial seed mixture growing in the spring.

Forest Floor Transplants

The purpose of the forest floor transplants exercise is to re-introduce species, improve habitat and seed bank and increase the diversity of past reclamation sites.

Continued partnership with KGHM International allowed for the ongoing forest floor transplants in 2015. From June to October vegetation was harvested from the Podolsky Mine site north of Capreol.

As in the past, Regreening crews dug up 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 reclamation (receptor) sites in Greater Sudbury for transplanting. The focus this year was understory sites, for shade tolerant species.



Trays of vegetation dug from donor site ready for transplant.

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 2015, approximately 0.16 ha of understory material was transplanted into 96 plots, using 4,442 trays of plant material. Of the approximately 33 different species re-introduced, six new species were transplanted this year: bearded shorthusk (*Brachyelytrum erectum*), creeping snowberry (*Gaultheria hispidula*), running wolf's claw (*Lycopodium clavatum*), wood sorrel (*Oxalis acetosella*), Canada yew (*Taxus canadensis*), and eastern hemlock (*Tsuga canadensis*).

Nine sites located mainly within the barren and semi-barren zones received the transplants. Over the 5 years of this initiative a total of 121 sites have received understory transplants covering a total area of approximately 1.29 ha. Although there were no exposed transplants this year, to date 19 sites received exposed transplants covering an area of 0.15 ha. The grand total of 1.44 ha of forest mat transplants is comparable to moving almost two Canadian football fields of plant material into the City's impacted areas.

Biodiversity Inventory

Plant Community Succession

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. 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.



Plant community succession based on responses to reduction of smelter emissions is underway.

Andrea Sinclair performed a follow-up study 15 years later (1996) in which she re-examined 46 of Amiro's original sites and also added 22 new sites. 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 land reclamation program began conducting re-assessments of the same sites that Amiro studied in 1978. This year 33 sites were sampled, bringing the total sites sampled to 64. These re-assessments seek to answer the following questions:

- 1) Are plant communities changing over time, if so, 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?

Overall, there have been significant differences between;

- 1978 and 2015
- impact zones (barren, semi-barren and non-impacted)
- the interaction between years and impact zone
- the strata (tree, shrub, and herb)
- the three Regreening activities (lime, seed, planting)

The barren zone has displayed an overall increase in importance across all strata. The tree and shrub strata show

large increases in white birch and trembling aspen and smaller increases in red maple and red oak. The planted pine species are surviving and re-generating. In the herb stratum there has been a decrease in early successional tickle grass (*Agrostis scabra*), large increases in herb diversity and the recovery of non-vascular species.



Field Interns measuring out a plot in the herb layer.

The semi-barren zone has displayed an overall increase in importance across all strata. Tree and shrub strata are dominated by white birch, red maple and red oak while the planted pine species are surviving and re-generating. The herb stratum is showing decreases in early successional species

and increases in others with the appearance of several non-vascular species.

The non-impacted zone has displayed an overall increase in importance across all strata with most change occurring in non-vascular species and the appearance of several sensitive moss and lichen species. This analysis has demonstrated that the non-impacted zone may have been impacted by pollution in 1970s, which is a reminder that non-impacted areas should really be categorized as less impacted as opposed to non-impacted.

This inventory will continue until most of Amiro's original sites have been re-assessed at which time a full analysis can be made.

A Flora of Greater Sudbury

A herbarium is an archival collection of plants that have been pressed, dried, mounted, and labeled. Herbarium specimens serve as a reference to verify identification of plant species and are a permanent, historical record of where a particular species has been found.

Working collaboratively with Dr. Peter Ryser and Dr. Sabah Nasserulla of the Laurentian University (LU) Biology Department, three Regreening Field Interns worked at the LU Herbarium cataloguing new and verifying existing herbarium specimens collected within the City of Greater Sudbury.

This work will update the records at the LU Herbarium to include plants collected by Field Interns over the past few years and serve as a Flora of Greater Sudbury database. This will assist in tracking vegetation changes over time. Once

finalized, the information collected will be added to the Northern Ontario Plant Database.

This year, Field Interns collected 292 different species of which 57 were new species. Of these, 86 specimens were mounted and added to the Herbarium.

To date, 684 species and 4,080 specimens are catalogued in the Flora of Greater Sudbury collection.



Field Interns identified, mounted and recorded hundreds of plant specimens that will be used to create the Flora of Greater Sudbury.

Ugliest Schoolyard Contest

The Canadian Biodiversity Institute and Earth Day Ottawa initiated the Ugliest Schoolyard Contest in 1998 in Ottawa. VETAC's eleventh annual version of this Contest was another overwhelming success thanks to the tireless efforts of Mr. Wayne Hugli, Co-chair of VETAC's Urban Landscape Subcommittee and the generous support of numerous sponsors. Sudbury Integrated Nickel Operations, a Glencore Company (Sudbury INO), provided the major cash donation in the amount of \$50,000 to assist this contest again in 2015.

In addition to the Sudbury INO funding, all schools received a voucher for the purchase of concrete materials from Brown's Concrete Products, and topsoil donated by Vale.

The three winning schools selected by VETAC were **Cyril Vaney and Churchill Public Schools and École publique Jean-Éthier-Blais**, all located in the New Sudbury area. Preliminary plans were made with each school prior to the end of the school year.

Winner Projects

All three projects began with the planting of seven large linden, silver maple, autumn blaze maple and/or serviceberry trees in large raised planters created with concrete rosetta stones provided by Brown's Concrete Products, or smaller concrete stones provided by Jetty's Landscaping Supplies. Each of those planters was filled with garden mix that was donated by Vale. Azilda Greenhouses and Southview Greenhouse Growers were contracted to do the site preparation and planting. Thanks to the staff from those two garden centres the three schools now have shade and outdoor seating for

their students. Cedar mulch was spread by the students in each of the planters when they returned to school in September.



7 large trees were planted at each School.

Through donations from Canadian Tire on Regent Street, the Sudbury Horticultural Society, and Sudbury Master Gardeners, additional smaller trees, shrubs and perennials were also added to all three schoolyards and planted and mulched by the students. Tree guards were added to protect the smaller trees until they become established.

Each year volunteers from the Sudbury Horticultural Society and Sudbury Master Gardeners work with the students and teachers at one school to supplement the work done through the contest. This year, they assisted with the creation of an

aboriginal healing garden and berry patch at Cyril Varney Public School. In September, every student and teacher at the school worked with these volunteers. The younger students planted sage, bergamot, echinacea, and sweet grass in the healing garden and mulched it to help prevent weed growth and hold moisture. The older students planted two crab apple trees, as well as chokeberry, currant, haskap, grape, and raspberry plants. They also planted additional perennials and shrubs in the existing gardens and planters at the school and mulched them with cedar mulch.



Volunteers assisting the students with planting a healing garden.



Students planting the berry patch under the direction of Master Gardeners.

Sponsors

Generous funding from Sudbury INO and the additional donations received for this project enabled VETAC to provide greatly improved environments for the students and teachers at these schools.

Since the inception of the contest, thirty-nine schools have been provided support for their Regreening projects and VETAC looks forward to assisting more schools in the future. Generous financial support and donations from local businesses and organizations in our City will ensure the continuation of this Contest well into the future.



*Volunteers from the Sudbury Horticultural Society and
Sudbury Master Gardeners.*

Media

A communication strategy was implemented to promote the Contest. Information was posted on Facebook and Twitter, and announcements were made on CTV Broadcasting and

Closed Captioning. The Sudbury Star and Northern Life printed announcements with details on how to apply for funding. On June 8, the City issued a [News Release](#) announcing the winning schools for the year.

Other media attention included:

- March 9 – The Sudbury Star ‘Ugly schoolyards’ pg. A3.
- March 9 – Northern Life ‘City seeks ugliest schoolyard’
- May 20 – The Sudbury Star photo caption ‘École secondaire Hanmer developing community garden’
- June 8 – Tina McCaffrey interviewed by Olivia Stefanovich, CBC News Sudbury, about the Ugliest Schoolyard Contest.
- June 9 – CBC News posted on-line ‘Sudbury’s ugliest schoolyard contest won by 3 schools’.
- July 2 – Northern Life posted on-line ‘Congratulations, you’re ugly! Schoolyards get makeovers’
- August 1 – ‘Greening Schoolyards’ by Kai Wood Mah in Greening Schoolyards Spaces for Learning School Planning & Management. 5 pgs.
- September 12 – The Sudbury Star photo caption ‘Making it green’.

- Sept. 16 – The Sudbury Star 'In Pictures' features the Sudbury Horticultural Society members who assisted the Regreening of Cyril Varney PS.
- Sept. 21 – The Sudbury Star 'In Pictures' 'Schoolyard face-lift', by Ron Hodgkinson, Principal Cyril Varney, pg. A6.
- Newspaper ads were published in the Northern Life on October 8 and Le Voyageur on October 14 thanking all sponsors of the contest.

Presentations

- November 29 – Tina McCaffrey presented a brief overview of VETAC, the Regreening Program and work with the Ugliest Schoolyard Contest to the Sudbury Horticultural Society. Those members who volunteered with the Ugliest Schoolyard over the years were presented with an appreciation gift.



Ugliest Schoolyard Contest

The City of Greater Sudbury gratefully acknowledges the support of the following organizations and businesses in the schoolyard makeovers at École publique Jean-Éthier-Blais, Cyril Varney Public School and Churchill Public School:

- Azilda Greenhouses
- Brown's Concrete Products Limited
- Canadian Tire on Regent Street
- Futurescape Landscaping
- Greater Sudbury Land Reclamation Crew
- Jetty's Landscape Supplies
- Sudbury Horticultural Society
- Sudbury Master Gardeners
- Southview Greenhouse Growers
- Vale

Special thanks to our major corporate sponsor,

**SUDBURY
INTEGRATED NICKEL
OPERATIONS**
• GLENORAIR •

To view the results of the schoolyard regreening effort, visit www.greatersudbury.ca/VETAC

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Sudbury**
www.greatersudbury.ca

Labour

Program staff included one foreperson, four crew leader, five field intern and fifteen worker positions. There were a total of six summer students involved in regular reclamation activities as well. Student positions were partially funded by YMCA Summer Job Service for a period of 10 weeks.

In total 33 temporary positions were created in 2015. To date, 4,653 temporary positions have been created.

The table below outlines the temporary positions created and the number of weeks worked, with a total of 33 positions created in 2015.

Program	Positions	Weeks	Cost to City	Activity
CGS Temporary Staff	26	32	100%	Foreperson (1)
		30		Crew Leader (4)
		9		Field Intern (2)
		31		Field Intern (1)
		23		Field Interns (2)
		12		Field Intern (1)
		25		Workers (15)
	1	25	0%	Cartography/ GIS Technician
CGS Summer Students	6	17	89%	Tree planting, liming, transplanting
Total Positions	33			

Volunteer Placements

Working with the City's GIS mapping staff a list was compiled of GIS activities that required attention for the Regreening Program. A volunteer placement for a Collège Boréal student was created to update the files. The placement ran from March 2 to April 17 (7 weeks) and the student completed the task of updating Regreening Program mapping projects.

A volunteer opportunity was provided for 7 high school students and their 2 supervisors through the Ministry of Natural Resources and Forestry (MNR) Ontario Stewardship Rangers Program. The team worked alongside the Regreening Crew digging up vegetation mats and transplanting them as well as participating in liming activities. They participated for a one week period from July 13 to 16 and again on August 6.



MNR Ontario Stewardship Rangers assisted with forest floor mat transplants.

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 3.7 million trees to the Program. The Sudbury earthdancers have contributed over \$30,000 in cash since 1999. The Ontario Ministry of Transportation (MTO) and KGHM International have 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 on trees sponsored by Tree Canada 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 Field Interns 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.

The YMCA has been offering partial financial support of student wages. tentree is a new sponsor this year whose contribution went towards wages to have 50,000 trees planted.



Tree planters. Photo: tentree.

Funding

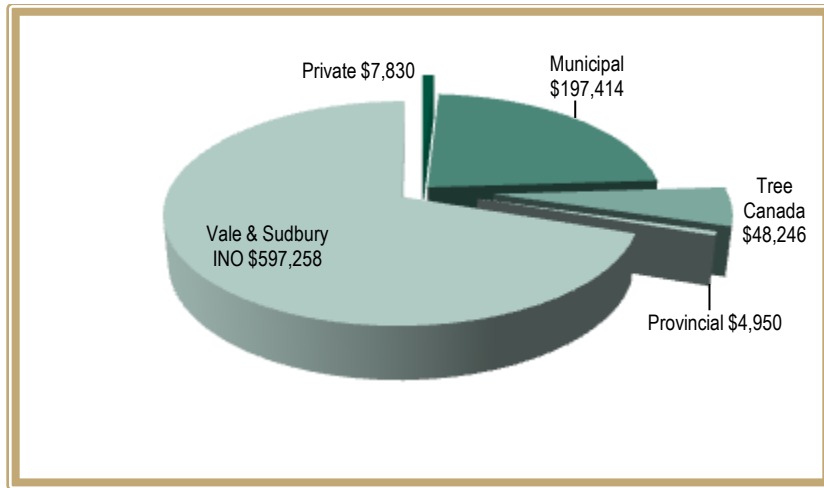
The Regreening Program relies on donations to operate the yearly Program. Many successful partnerships have been developed over time and new opportunities are always being investigated.

The table below outlines the program contributors and the dollar amount associated with their contributions in 2015.

Program Contributors	Weeks	Number	Source	Amount
Labour				
YMCA - SJS	10	6	Provincial	\$4,950
Sudbury INO	25	1	Mining Co.	\$32,258
tentree		To have 50,000 seedlings planted	Private	\$5,000
Cash				
Vale			Mining Co.	\$250,000
Sudbury INO			Mining Co.	\$265,000
Sudbury earthdancers			Private	\$1,980
Materials				
Tree Canada		32,164 seedlings	Private	\$48,246
Ugliest Schoolyard Contest (Does not include material, equipment and other in-kind donations provided by other sponsors)				
Sudbury INO		Cash Contribution	Mining Co.	\$50,000
Sudbury Horticultural Society		Cash Contribution	Private	\$600
Sudbury Master Gardeners		Cash Contribution	Private	\$250
Sub Total				\$658,284
City of Greater Sudbury				\$197,414
Grand Total				\$855,698

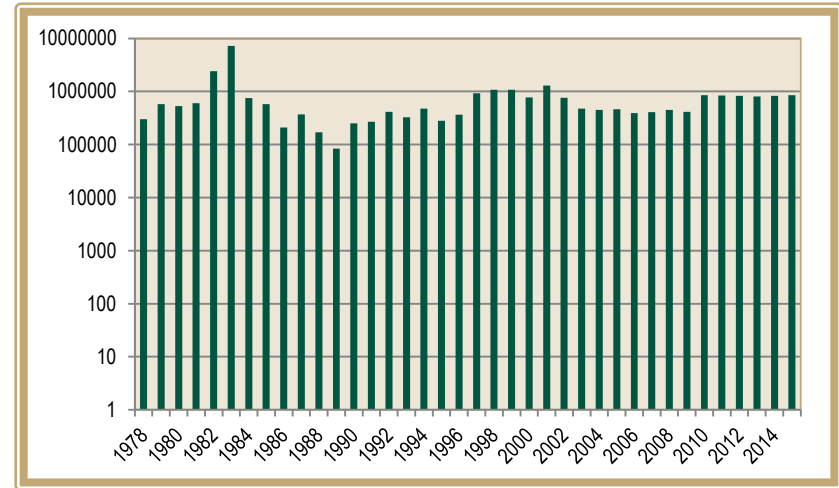
Funding Contributions by Source 2015

The graph below illustrates 2015 funding contributors by source.



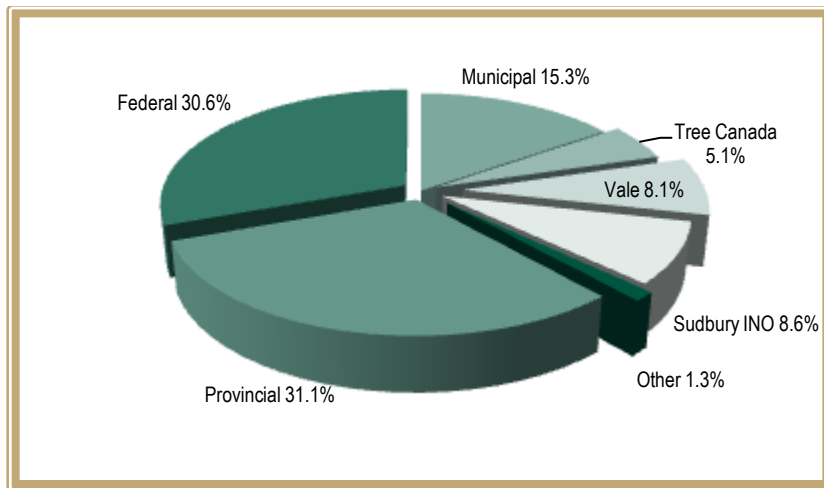
Yearly Program Costs 1978 to 2015

The bar graph below indicates yearly program costs from 1978 to 2015 with a grand total of \$30,139,442.



Percent Funding Contributions by Source 1978 to 2015

The graph below illustrates funding contributions in percentages by source from 1978 to 2015.



Since 1978, the City's contribution to the Program has averaged 15% of the total costs with 85% coming from external sources. To date, the Program costs exceed \$30 million.

Events

Earth Day

Two Crew Leaders and VETAC Chair Peter Beckett staffed a booth at the Earth Day Festival on April 25 to promote EarthCare initiatives and provided information on Regreening and Biodiversity.

Annual Tree Giveaway

The Tree Giveaway was held on May 30 at the YMCA as part of the Horticultural Society's Annual Garden Festival. Over 700 seedlings were distributed to residents consisting of high-bush cranberry (*Viburnum trilobum*) and showy mountain-ash (*Sorbus decora*). Both these species produce edible berries and were selected as part of the edible berries project.

Grand Opening Immaculate Conception

The Sudbury Star posted a picture and caption entitled "Happy to have a green schoolyard" on June 12 regarding the grand opening of the new schoolyard at Immaculate Conception Catholic Elementary School on June 9. This school was the 2014 winner of the Ugliest Schoolyard Contest. Staff attended the event and assisted with the ribbon cutting ceremony.

Sudbury INO Open House

On October 15, Sudbury INO hosted an Open House to students and the general public at Levack Public School. The Regreening Program, EarthCare Sudbury and Lake Water Quality Program hosted a booth to pass along environmental messaging to visitors. In total, 228 visitors attended the Open House and many positive comments were received.

Communications

Communicating the successes of local regreening efforts continues yearly, to both local audiences and groups abroad. Media coverage was widespread with positive comments on initiatives associated with the Program and VETAC. Presentations, tours and field trips were also provided to a wide range of audiences.

GeoTours Northern Ontario

Geoscientist from Natural Resources Canada's (NRC) Geological Survey of Canada, Ontario Geological Survey, Dynamic Earth and Laurentian University created [GeoTours Northern Ontario](#). This initiative shares information on Ontario's rich geology and inspires visits. The tour can be viewed on-line, printed or saved to a tablet for a field visit. Peter Beckett and Tina McCaffrey provided the coordinators with detailed information on the Jane Goodall Reclamation Trail which is part of the GeoTour experience.

Classroom Connection

In October, staff received a request to supply a Regreening photo to Nelson Education for their upcoming textbook entitled *Our Environment*.

Biodiversity

The following campaigns aimed to raise awareness about 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.

Postcard Campaign

A postcard campaign was launched this year featuring a local "species of the month" that has benefited from the Regreening Program's activities since 1978.

The postcards featured a different species each month, and were made available to the public at Citizen Service Centres and Libraries throughout the year. Bookmarks were released quarterly featuring species from the previous three months.

Residents were able to share the message of local ecological recovery abroad by sending postcards throughout the world.

Stephen Monet was interviewed by Markus Schwabe (CBC Radio) on the Species of the Month campaign from January until September as part of a monthly contest to guess the next species of the month on the Morning North program. Contest winners were awarded with a copy of *Healing the Landscape*.

Newspaper articles pertaining to the species of the month campaign include:

- January 27 – Northern Life 'Species of the month: City launches wildlife postcard campaign' pg. 7.
- February 23 – Northern Life '50 shades of raven; it's mating season' by Chris Bloome -The Birdman.
- June 29 – The Sudbury Star posted on-line 'Sudbury's tough pink flower' by Mary Katherine Keown.

Habitat Posters Campaign

Posters of four habitat types (barren, forest, wetland and shoreline) were developed for distribution as printed posters and more engaging, on-line interactive posters. Three of the posters are displayed on the website with the fourth being available early next year. Paper copies are to be distributed to local schools in 2016.

Presentations/Tours

- November 2014 – Peter Beckett was the keynote speaker for the Canadian Institute of Mining, Metallurgy & Petroleum event held at Dynamic Earth where he shared a history of Regreening in the Sudbury area. The talk was enthusiastically received and much was communicated about the event in early 2015.
- February – Peter Beckett provided a talk to Cambrian College – Environmental Technology & Impact Assessment Program/Environmental Monitors Program.
- March – Peter Beckett provided a talk to Government of Canada, Pacific Alliance Tour – Sudbury Section.
- April 9 – Tina McCaffrey made a presentation on the Regreening Program and Biodiversity Initiatives to the grade 10 Science class at Confederation High School.
- June 22 – Tina McCaffrey and Stephen Monet made presentations at the 6th Mining and the Environment International Conference at Laurentian University.

Peter Beckett and Graeme Spiers were Co-Chairs of the event and provided tours to attendees.

- July – Peter Beckett was the plenary speaker via teleconference at the Life of Mine International Conference, University of Queensland, Australia.
- July – Peter Beckett and Graeme Spiers were invited plenary speakers at the Enviroanalysis Conference 2015 in Banff, AB.
- July 22 – Tina McCaffrey provided a tour of the Jane Goodall Reclamation trail for 2 judges from the Provincial Communities in Bloom competition. In attendance was Jason Marcon from the Coniston CAN.
- August – Jennifer Babin-Fenske gave hands-on biodiversity presentations at the Carol, Algonquin, Coniston and Lo-ellen Playgrounds and the Laurentian Child and Family Centre.
- August – Peter Beckett provided a talk via teleconference at the Renewable Energy & Sustainable Environment International Conference, held at the Dr. Mahalingam College of Engineering and Technology (MCET), Pollachi, Tamil Nadu, India.
- September 3 – Tina McCaffrey provided a tour of the Jane Goodall Reclamation Trail to three senior professionals from Bengaluru, India who were visiting the Sudbury area for three days. They were

accompanied by Narasim Katary, former Director of Long Range Planning, Region of Sudbury.

- September 11 – Stephen Monet presented the Regreening story at the 2015 Rotary District 7010 Conference at Science North (265 delegates).
- September – Peter Beckett provided a tour to students of Sault College's Natural Resources & Outdoor Studies Program.
- September 18 – Tina McCaffrey presented the history of Regreening and move towards biodiversity to Grade 11 students at Confederation High School in Val Caron.
- October – Peter Beckett and Graeme Spiers provided a talk and tour for Laurentian University's Restoration Ecology Class and then again for Sir Sandford Fleming/Trent University's Restoration Ecology Program.
- October – Peter Beckett provided a talk via teleconference at the Beijing International Symposium on Land Reclamation and Ecological Restoration LRER 2015
- November – Peter Beckett provided a talk at the Society of Ecological Restoration's meeting on Novel Ecosystems in Waterloo, Ontario.
- November – Peter Beckett and Graeme Spiers provided a talk to the Association of Professional Geologists of Ontario in Sudbury.

Radio

- October 26 – Tina McCaffrey interviewed by Andrew White from KFM radio in North Bay regarding the new partnership with tentree. KFM shares news between Sudbury and North Bay.

Newspapers

- Summer 2015 – Green Living, Northern Life 'Citizens invest in their community, planting together, growing together' pg. 6, 'Would you like to be a citizen scientist?' pg. 9 and 'A beautiful thing' by Bill Bradley pg. 21.
- July 23 – The Sudbury Star on-line "'Bloom' Judges visit Coniston".

Other

- January 14 – Northern Ontario Business 'Sudbury reaches halfway mark in reclamation efforts' by Lindsay Kelly.
- February 18 – Tina McCaffrey and Stephen Monet video interviewed for Laurentian University MOOC (Massive Open Online Course) on ecological recovery.
- April 22 – The Magazine for Clean Capitalism Corporate Knights posted on-line 'Jane Goodall, Robert Bateman commiserate about a planet in despair' by Tyler Hamilton.

- June 11 – Northern Ontario Business posted on-line ‘Sudbury world renowned for its remediation program’ by Jonathan Migneault.
- Sept. 1 – ‘From barren rock to lush forest’ by Norm Tollinsky, Sudbury Mining Solutions Journal Volume 12 Number 3. Front cover and page 25. Stephen Monet was interviewed about the City’s Regreening Program and biodiversity initiatives.
- Fall 2015 Edition – OHA Trillium, ‘Sudbury Horticultural Society Supports Greater Sudbury’s Wild Berry Initiative’ by Wayne Hugli. Pg. 26.

VETAC Members 2015

Chair

Dr. Peter Beckett, Laurentian University

Co-Vice Chairs

Lisa Lanteigne, Vale

Sarah Woods, Junction Creek Stewardship Committee

Members

Katherine Benkovich	Sudbury INO
Tony Fasciano	Citizen
Enzo Floreani	Master Gardener
Jim Found	Ontario Soil and Crop Improvement Association-Sudbury District
Marc Hebert	Collège Boréal
Wayne Hugli	Horticultural Society
Jim Ilitski	Citizen
Carl Jorgensen	Conservation Sudbury (NDCA)
Bill Lautenbach	Citizen
Tim Lehman	MNRF
Franco Mariotti	Citizen
Tina McCaffrey	CGS, Regreening Program
Samantha McGarry	Sudbury INO
Stephen Monet	CGS, Environmental Planning
John Negusanti	Citizen
Mike Peters	Citizen
Dr. Madhi Ramadoss	MOECC
Paul Sajatovic	Citizen
Dr. Graeme Spiers	Laurentian University
Ben van Drunen	Hollandia Land & Environmental Solutions



2015 planting crew. Photo: tentree.

For further information please contact:

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Website: www.greatersudbury.ca/regreening

Accessible version available upon request.