

The Deogrades Property

280 North Muskoka River Road, Muskoka River

Planting plan created by The District Municipality of Muskoka

Survey Date: 07/31/2020

Funded by •





Schedule A:

Plants & Property

Land Characteristics

This planting plan is designed based on the land characteristics identified during the day of the site visit. Plants are chosen according to the soil and light conditions on your property. The number of plants chosen for each planting compartment takes into account the square metre area of the space, as well as the amount of current vegetation cover. **Your property is part of ecoZone: 4b**

Land Characteristics by Compartment

	Length	Width	Area	pH	Soil	Moisture	Light	Height
A	9m	4m	36m ²	acidic	sandy, loamy	moist	full sun	max 1.5m
B	2.5m	13.6m	34m ²	acidic	sandy, loamy	normal, moist	full sun, partial sun	
C	3m	17.7m	53.1m ²	acidic	sandy, loamy	normal, moist	full sun, partial sun	
	14.5m	11.77m	123.1m ²					

Plant Selection Summary

The following shrubs and trees are chosen for their suitability and survivability given the current soil and light conditions in each compartment on your property, as well as preferable features.

Plant Species	A	B	C	Potted	Bareroot	Wildflower
Sweet Gale	2			2		
Narrow Leaved Meadowsweet	6	5	3	14		
Leather Leaf	1			1		
Buttonbush	1			1		
Tamarack	1			1		
White Pine	1		1	2		
Labrador Tea	6		3	9		
Red Osier Dogwood	1	1	1	3		
Bush Honeysuckle	1	6		7		
Blue Vervain	5					5
Winterberry Holly		5		5		
White Spruce		1		1		
Silky Dogwood		2	2	4		
Pussy Willow		1	1	2		
Ninebark		1		1		
Black Chokeberry		2	2	4		
Black Cherry			1	1		
Gray Dogwood			1	1		
Witch Hazel			1	1		
Subtotal	25	24	16	60	0	5
Totals		65				

Plant Information

The following table summarizes key information about each plant selected for your property.



Sweet Gale

Height: 1-2m

Sweet Gale is a medium-sized shrub which grows into a thick bush about 1-2 m tall. This species produces 1-8 cm long, oblong-lanceolate leaves which are finely toothed at the tip and are spirally arranged. When bruised, these leaves give off a pleasant aroma. Male and female catkins are produced on separate plants. The seeds are dispersed from the female plants via water, as they float on two corky bracts. This shrub also provides a good food source for bird species that eat the seeds including Grouse, Chickadees, and Bluebirds. Mammal species like Beavers and White-Tailed Deer also browse on the twigs and leaves of this plant.



Narrow Leaved Meadowsweet

Height: 1-2m

The Narrow Leaved Meadowsweet is an erect, deciduous shrub, which grows in the shape of a mound to a height of 1-2m. This species develops numerous branches and branchlets, giving it a sparse appearance. Leaves produced are simple and narrow with sharply toothed borders growing alternately along the branches. These bright, light green leaves appear crowded, as they grow close together on the stocks and branches. During the fall, leaves turn a yellow-red or yellow-orange colour. Small white to light pink flower clusters appear in the spring growing in a dense, narrow pyramid at the terminal ends of the branches. During late summer to early fall, these flowers produce smooth, papery seed pods.



Leather Leaf

Height: 1 m

The Leather Leaf is a dwarf, evergreen shrub that grows about 1 m in height and produces leathery leaves, hence the common name. This shrub has numerous, erect, thin branches arising from the plant base or main stalk. Leaves produced are alternately arranged, elliptic shaped, 4 cm long, green on the top, with a light green to yellow underside. The bottom of the leaves also have white or brownish scales, which give off an aromatic fragrance. This shrub retains its leaves all year, during the winter the leaves turn a reddish-brown colour. Tiny, white, bell-shaped flowers appear in clusters at the branch tips from May to early June. Fruit capsules of the Leather Leaf are 2.5 mm long, five-chambered, spherical-shaped, and are produced from its flowering bodies during the fall. These chambers open during the winter to release the seeds.



Buttonbush

Height: 2 m

Buttonbush is a small to medium-sized deciduous shrub species which typically grows about 2 m in height. This plant may also be known by the common name Button Willow. Twigs are slender to stout and dark red-brown in colour with white speckling. The leaves are bright green coloured, shiny, ovate shaped, oppositely arranged, and have entire margins. The flowers are tiny, tubular, white, fragrant, and appear densely on distinctive, spherical clusters in June. These flowers turn into a dense cluster of seeds, which remain on the plant throughout the winter. The flowers are beneficial for pollinator species, including hummingbirds and butterflies. This is a hardy, adaptable species and an excellent choice for planting on wet shoreline sites.



Tamarack

Height: 20 m

Tamarack is a small to medium sized, deciduous coniferous tree species that grows up to 20 m tall. This plant may also be known by the common name American Larch. The bark is scaly and reddish brown coloured. The needles are delicate, 2-4 cm long, blueish-green coloured, grow in clusters of 15 to 25, and change golden yellow in the fall. This tree provides food and habitat for wildlife species, including birds and mammals. Tamarack is a fast-growing, long lived species that can live up to 150 years and is found across all of Canada. The wood from this tree is decay-resistant and has been used to make railway ties, posts, and crates. Tamarack is considered unique because it is the only conifer species to drop its needles in the fall.



White Pine

Height: 30m

The White Pine is Ontario's provincial tree. This species is the largest northeastern conifer with soft and light needles, which typically grows 30m in height. The needles are bundled into groups of 5 and are spirally spread around the twigs. White Pine bark is smooth and grey-green when young, becoming dark grey and deeply furrowed upon maturation. This tree produces yellow-green seed cones which are long, cylindrical, and covered in 50-80 scales. Unfortunately, this species is susceptible to White Pine Blister Rust and attacks by the White Pine Weevil. White Pine is a hardy tree which can tolerate a wide range of soil conditions, from sphagnum bogs to dry sandy and rocky ridges.



Labrador Tea

Height: 1 m

Labrador Tea is a hardy, small evergreen shrub which can grow up to 1 m and can be found in every province and territory of Canada. This slow growing plant produces woolly branches with alternately arranged leaves. The leaves are recognizable by their deep green colour, wrinkly curved tops, smooth edges, and hairy, rust coloured underside. The Labrador Tea produces fragrant and showy white flowers, which grow in a large flattened cluster at the terminal ends of the branches. This shrub attracts pollinator species, such as bees and butterflies, but is slightly poisonous to mammals. Labrador Tea was collected by indigenous people to brew a tea, which is rich in vitamin C.



Red Osier Dogwood

Height: 1.5-4m

The Red Osier Dogwood is a medium-sized, deciduous shrub native throughout Northern and Western North America which typically grows to 1.5-4m. This species is multi-stemmed with numerous erect and ascending bright red branches that create a loose and spreading form. Leaves produced are simple, two-toned with a dark green upper side and light green underside. They are arranged opposite each other along the branches. During the fall, the foliage turns a brilliant red to dark purple. Clusters of small, creamy white flowers form on the terminal ends of the branches between June and July. The Red Osier Dogwood produces blueish-white fruiting bodies during late summer, which may persist throughout the winter. This shrub's berries provide an important winter food source for numerous species, from large deer to small wintering birds.



Bush Honeysuckle

Height: 1m

The Bush Honeysuckle is a small, hardy, deciduous shrub that rarely grows taller than 1 m in height. The leaves are simple, oppositely arranged, ovate shaped, and have finely toothed margins. During the spring and summer, the leaves are dark green in colour, then in the fall they take on a variety of colours ranging from a deep purple to light yellow. The flowers are small, showy, yellow to orange colored, trumpet shaped, appear in clusters on the tips of branches, and bloom between June and July. The flowers are beneficial to pollinator species, including hummingbirds and butterflies. The roots of the Bush Honeysuckle are fibrous, giving it the ability to form thickets and making it an ideal shrub to plant for erosion control.



Blue Vervain

Height: 1.5 m

Blue Vervain is a perennial wildflower species that grows about 1.5 m in height. It has a slender, upright form with reddish-green coloured, rough-haired stems. Its leaves are oppositely arranged, lance-shaped, and on short petioles with large serrations along the edge. Occasionally, there are two lobes present at the base of the leaves. The flowers are showy, blueish purple coloured, have five petals, appear on dense spikes at the top of flowering stems, and bloom between July and September. The flowers bloom first at the bottom of the spike, travelling upwards and blooming in bands. This plant spreads well and can form small colonies. The flowers are beneficial to pollinator species, like bees and butterflies. The seeds are also beneficial to wildlife species, like birds and small mammals.



Winterberry Holly

Height: 3 m

Winterberry is a deciduous shrub species that typically grows about 3 m in height. The leaves are dark green coloured, alternately arranged, and have toothed margins. The flowers are small, greenish white coloured, not showy, and bloom between June and July. The fruits are attractive, bright red berries, which are not edible, only grow on female plants nearby male plants, and persist throughout the winter, hence the name. This plant spreads well and can form small colonies. The roots can be useful for controlling erosion and stabilizing shorelines. The berries are highly beneficial to wildlife species, like birds and small mammals, throughout the winter.



White Spruce

Height: 20m

The White Spruce is a hardy, coniferous tree species that grows up to 20 m in height. This species has a relatively uniform form with bark that is loose, scaly, and grayish brown. The needles are about 2 cm long and blueish green in color. The cones are 5-7 cm long, cigar-shaped, and have smooth margin scales. The bark of White Spruce is smooth and light grey when young, turning dark grey and scaly upon maturation. This tree is important for providing food and shelter to wildlife species including deer, porcupines, birds, and small rodents. White spruce is a long lived tree species, and usually lives 250-350 years old. However, individuals have been seen that have lived up to 1000 years old.



Silky Dogwood

Height: 2-4m

The Silky Dogwood is a large, deciduous shrub species native to Eastern North America that reaches a height of 2-4m. This species produces a rounded shape due to its numerous upright branches stemming from a central, multi-stemmed base. Branches which grow touching the ground can develop their own root system, often creating thickets. During the spring and summer, branches are a shiny, light green colour and change to a red colour during the fall and winter. This species produces simple, lance-shaped leaves arranged oppositely along the branches. During the spring and summer, the foliage is a deep green colour and turns dark red-purple during the fall prior to dropping. Small, yellow-white flowers bloom during mid-June, maturing into bright blue berries in September. This species of Dogwood grows best alongside Willow when being planted to mitigate erosion and stabilize shorelines.



Pussy Willow

Height: 6m

The Pussy Willow is a fast growing, deciduous shrub or small tree found reaching heights of 6m, and is from British Columbia to Newfoundland. This species grows from shoots extending from the base of the trunk, creating a multi-stemmed, tall, round bush. The Pussy Willow is an ideal species for bank stabilization and erosion control due to its large, fibrous root system and love of water. This species branches extend from the main shoots and are usually hairy and reddish-brown in colour. The main shoots of Pussy Willow are smooth and greyish-brown, becoming scaly with age. It produces simple, narrow, lance-shaped leaves alternately arranged along the branch. The Pussy Willow yields purple-brown fuzzy catkins which will form long-beaked and finely haired capsules during May and June.



Ninebark

Height: 2-3m

The Common Ninebark is a very hardy, large (2-3m in height), deciduous shrub naturally occurring within riparian zones. This species is often planted as an ornamental shrub for its exfoliating bark which reveals reddish-light brown inner bark. This shrub is multi-stemmed with numerous horizontal and ascending branches creating a full, round shape. The Common Ninebark produces dull green, ovate to round shaped leaves with three to five lobes per leaf. During the fall the leaves turn brilliant yellow or dark purple. Between May and June, showy, bell-shaped flowers bloom in clusters on the terminal ends of the branches. During the summer, these flowers give way to small green or green-yellow berries which turn a bright red upon ripening.



Black Chokeberry

Height: 1-3m

The Black Chokeberry is a medium sized deciduous shrub that typically grows between 1-3m with edible fruit. This species requires full sun to partial shade and can tolerate soil conditions from loamy and moist to rocky and dry. Naturally, Black Chokeberry is found in wet wooded areas such as; swamps, along shorelines, and within forest understory. This species is multi-stemmed, and forms thickets from stems which arise from the roots. Leaves are simple, growing alternately along the branch turning a bold red to orange during the fall. During spring, clusters of showy, white flowers appear turning into dark purple berries by fall. This species is resistant to drought, insects, pollution, and disease. The Black Chokeberry is often cultivated as an ornamental plant and food product. Additionally, this species is useful for bank stabilization and erosion control applications.



Black Cherry

Height: 20-30m

The Black Cherry is a medium-sized deciduous tree typically 20-30m in height and can tolerate a wide variety of light, soil and moisture conditions. This species is native to North America. The Black Cherry is commonly found in mixed, broad-leaved forests. This cherry species produces a slender trunk and a narrow, irregular crown with arching branches and drooping tips. Leaves are simple and grow alternately along the branch. Small, white flower clusters appear in May and turn to reddish cherries during early summer and ripen by late August. These cherries provide a food source for songbirds and small mammals. Black Cherry Roots are shallow and wide-spreading.



Gray Dogwood

Height: 2-3m

The Gray Dogwood, also referred to as Northern Swamp Dogwood or Panicle Dogwood, is a medium-sized, deciduous shrub which typically grows 2-3m. This species is multi-stemmed, with a full, round form. The leaves are green and arranged alternately along the branches. During the fall, leaves turn a bright red to deep purple colour. Between May and June, showy clusters of small white flowers bloom. These flowers turn into white fleshy berries late in the summer. The reddish-pink stems hold the berries throughout the winter, creating an artful contrast to the gray bark and snowy scenery. The Gray Dogwood is tolerant of a variety of environmental conditions and its complex, fibrous root system make it an ideal plant to use for controlling erosion.



Witch Hazel

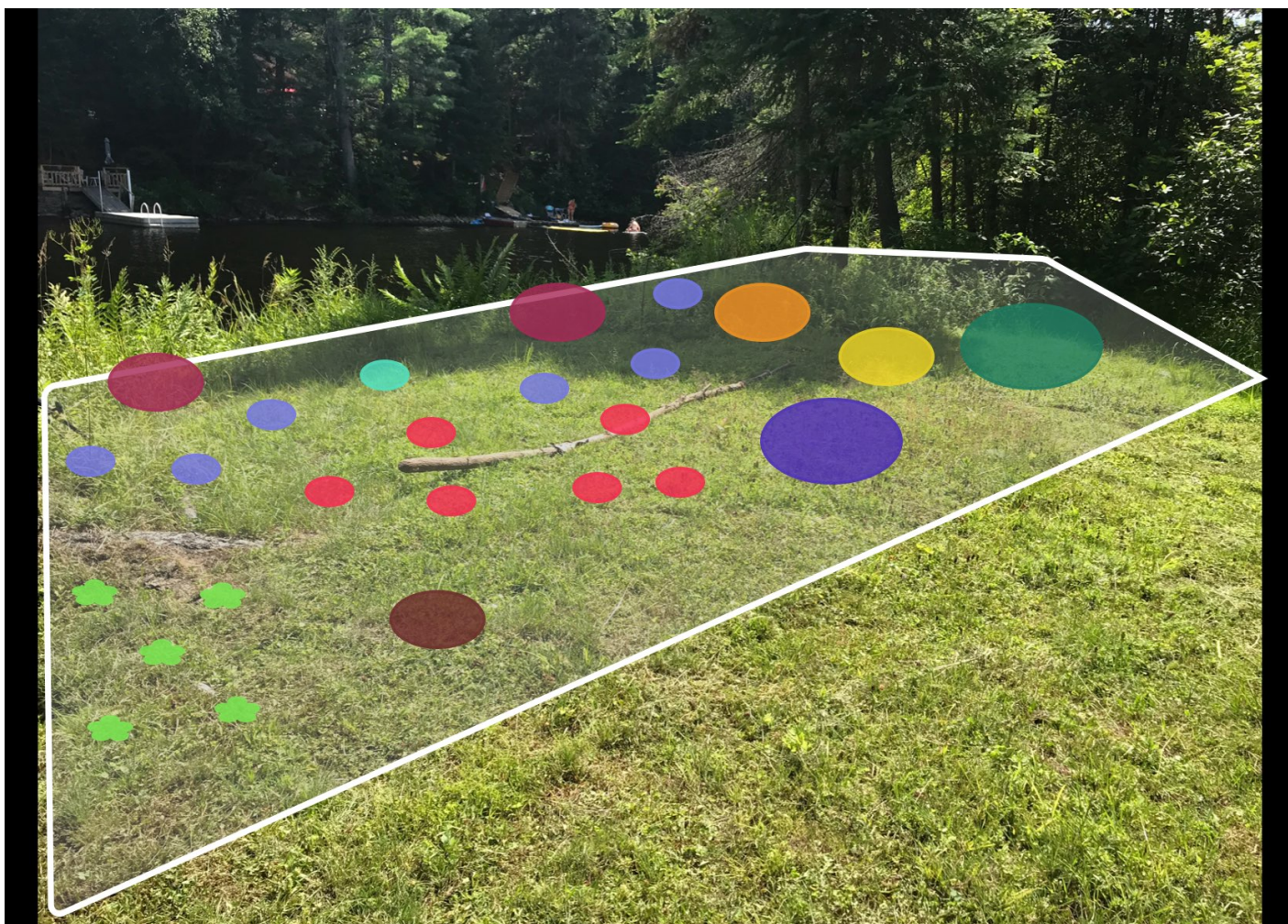
Height: 4-9m

The Witch Hazel is a deciduous understory shrub, with a broad and rounded crown which typically grows 5-9m. This species can sometimes take on the form of a tree. Witch Hazel is most recognizable for its 2 cm long, spidery, bright yellow flowers, which bloom during late fall. Leaves produced are alternate, simple, 6-15 cm in length, and obovately shaped. These leaves are dark green on top with paler undersides and turn yellow during the autumn. Witch Hazel leaves produce hairs on their principal veins, are asymmetrical at their base, scalloped, and sometimes coarsely toothed. In addition, the leaves contain 5-7 straight, parallel, ascending veins per side. The twigs are slender, zigzagged, tawny, and smooth when mature. Witch Hazel fruiting bodies are short, thick, light brown capsules that become woody upon maturation. This species is typically multi-stemmed with two or more trunks, which are crooked and 10-15 cm in diameter.

Compartment A

Naturalization Area

- ⚖️ PH: acidic
- 🌱 DEPTH: potted
- 💧 MOISTURE: moist
- 🌾 SOIL TYPE: sandy, loamy
- 📏 PLANT HEIGHT: max 1.5m
- ☀️ LIGHT CONDITIONS: full sun



Sweet Gale

2



Leather Leaf

1



Tamarack

1



Narrow Leaved Meadowsweet

6



Buttonbush

1



White Pine

1



Labrador Tea

6



Red Osier Dogwood

1



Bush Honeysuckle

1



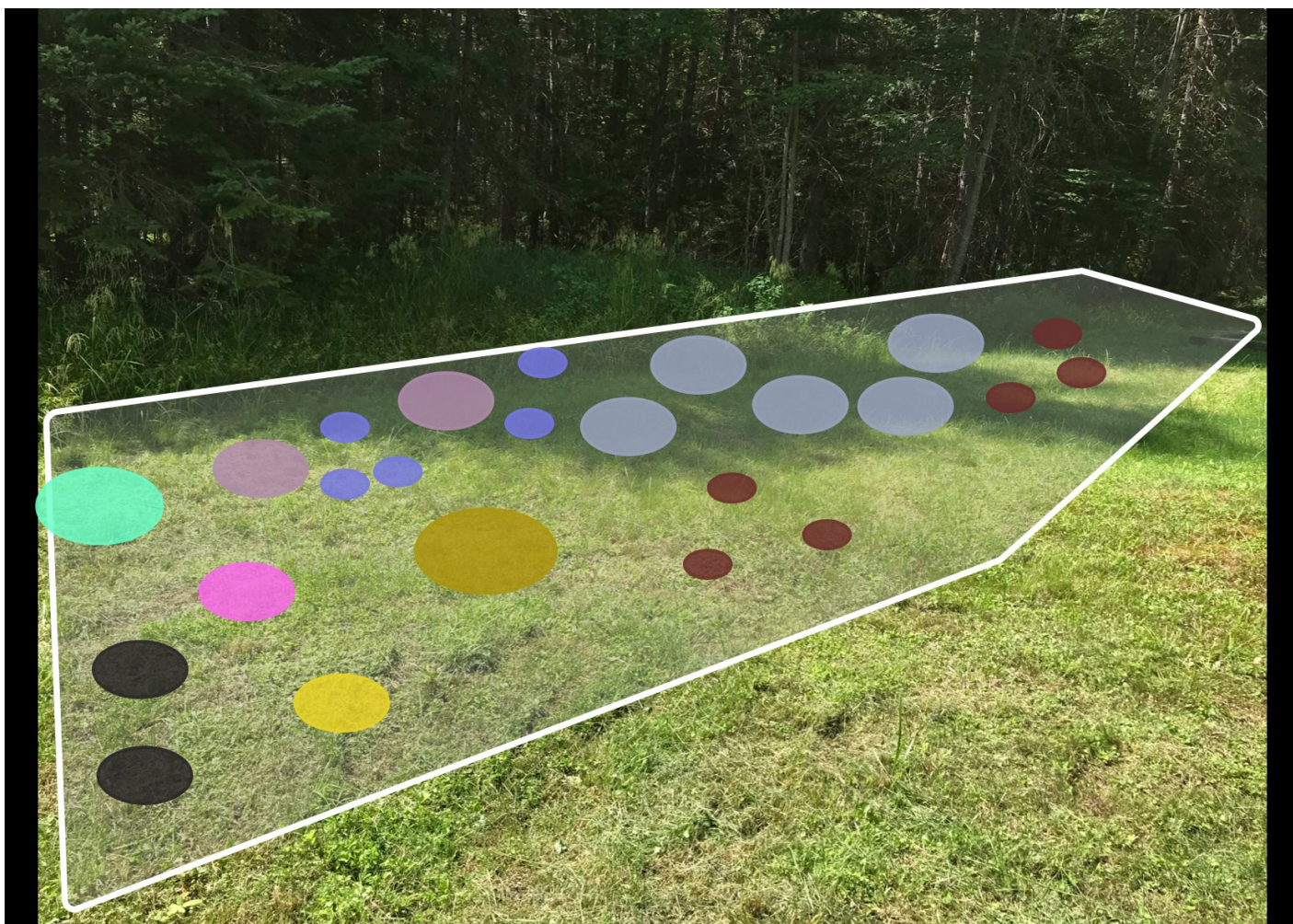
Blue Vervain

5

Compartment B

Naturalization Area

- ⚖️ PH: acidic
- 🌱 DEPTH: potted
- 💧 MOISTURE: normal, moist
- 🌾 SOIL TYPE: sandy, loamy
- ☀️ LIGHT CONDITIONS: full sun, partial sun



🔵 Narrow Leaved Meadowsweet
5

🟡 Red Osier Dogwood
1

🟤 Bush Honeysuckle
6

🟠 Winterberry Holly
5

🟢 White Spruce
1

🟣 Silky Dogwood
2

🟡 Pussy Willow

🟠 Ninebark



1

1



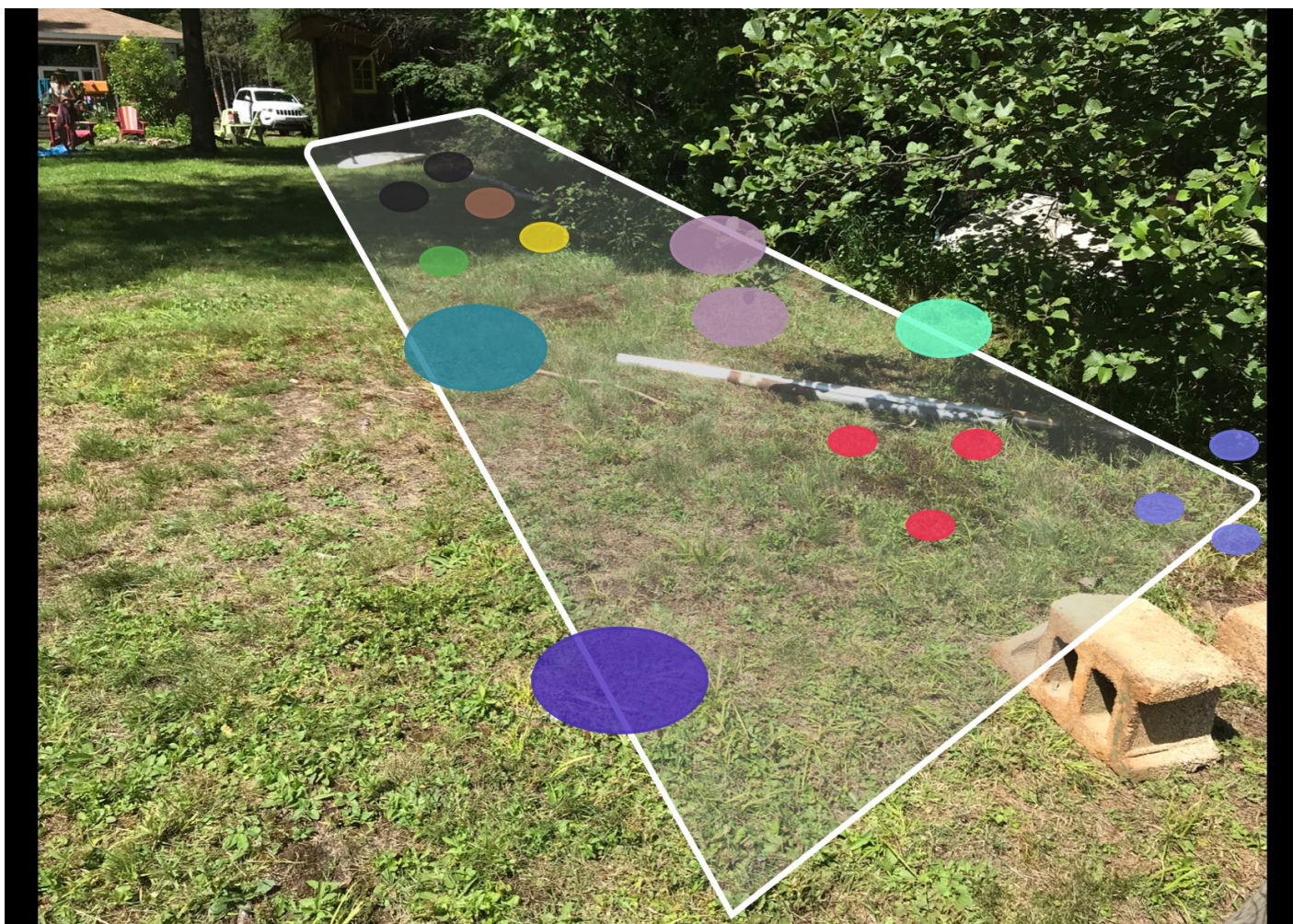
Black Chokeberry

2

Compartment C

Naturalization Area

- ⚖️ PH: acidic
- 🌱 DEPTH: potted
- 💧 MOISTURE: normal, moist
- 🌀 SOIL TYPE: sandy, loamy
- ☀️ LIGHT CONDITIONS: full sun, partial sun



3 Narrow Leaved Meadowsweet

3 Labrador Tea

2 Silky Dogwood

Black Chokeberry

1 White Pine

1 Red Osier Dogwood

1 Pussy Willow

Black Cherry



2

1



Gray Dogwood



Witch Hazel

1

1



Schedule B

Financial Summary

Project by: The District Municipality of Muskoka

Shoreline Re-Naturalization Starter Kit includes: free site visit, customized re-naturalization planting plan for your shoreline property, native plants including free bare root (small) and potted (large) plants and wildflowers, coconut fibre pads to deter grass from growing around new plantings, tree guards for all deciduous trees, mulch for your wildflowers, Plant Care Guide with instructions on how to take care of your new plants, Habitat Creation Guide and a Wildflower Garden Guide.

Our planting plans are created onsite with you and provide detailed information and plans to re-naturalize your shoreline property. We take photos of areas for planting and overlay native plants that are well suited to your property based on site conditions such as soil type and sunlight availability.

We will work with you to create a plan that works for you including options for low growing plants in areas where views are important.

Item	Quantity	Cost/Item	Subtotal
Starter Kit fee			\$300
Free potted plants	20	\$0	\$0
Paid potted plants	40	12.00	480.00
Free bareroot plants	0	\$0	\$0
Free wildflowers	5	\$0	\$0
Total costs			780.00



Schedule C

Project Agreement

Stewardship Agreement

Please indicate your agreement to this proposed plan by signing the following Stewardship Agreement and submitting it, along with your financial contribution, to:

The District Municipality of Muskoka

70 Pine Street Bracebridge, Ontario P1L 1N3

Plant Availability

Please note that plant species may need to be changed based on plant stock availability at the time of ordering.

Project Completion

Upon receiving your signed stewardship agreement and financial contribution, a date will be booked for you to pick up your Natural Edge Kit. The District Municipality of Muskoka will supply all plants and materials. If you are paying for the planting to be completed for you, a date will be arranged for The District Municipality of Muskoka to plant your shoreline, bringing the plants and materials with them. If there are particular dates that you would prefer, we will do our best to accommodate your requests.

The Natural Edge Stewardship Agreement with The District Municipality of Muskoka

Agreement made this **6th** Day of the Month of **August** in the Year **2020**.

BETWEEN Mel Degrades 280 North Muskoka River Road
Ontario (*Hereinafter called the OWNERS*)

AND **The District Municipality of Muskoka** 70 Pine Street
Bracebridge, Ontario P1L 1N3 (*Hereinafter called DMM*)

WHEREAS the Owners and DMM have met and discussed plans for shoreline naturalization on the specified area(s) in Schedule A existing on the Owners' land;

WHEREAS the Owners indicate approval of the project as proposed; and

WHEREAS the project is, or will be for the benefit of the Owners and others;

NOW THEREFORE THE PARTIES AGREE AS FOLLOWS:

1. This Agreement shall be in effect for a period of 5 years, commencing with the date of this Agreement.
2. The Owners and DMM agree that the areas where the work is to be performed is as described in Schedule A.
3. The Owners agree to pick up their Natural Edge Starter Kit from DMM's office and plant their shoreline within two days of receipt. The Owners will provide "after" photos of the work completed to be used for reporting purposes. If the Owners wish to have the planting completed for them, then DMM or it's contractors, employees and agents will complete the planting at cost, as indicated in Schedule B.
4. If the planting is to be completed by DMM, then the Owners grant DMM, its contractors, employees and agents, the right to enter the property to perform the work agreed upon as outlined in Schedule A. In addition, DMM, its contractors, employees and agents may inspect the work performed for the purposes of monitoring the project and survival assessment, with prior agreement with Owners for date and time of inspection.
5. The Owners agree to contribute the "Landowner contribution" and pay the costs indicated in Schedule B.
6. In instances where the Owners are to pay DMM for work to be performed (outlined in Schedule A), the Owners agree to provide payments to DMM prior to the commencement of that operation. Failure of payment shall constitute a breach of this Agreement and the Owners agree that this Agreement will be terminated and thereupon the Owners agree to pay DMM the estimated costs of the operations of the project completed to date, if any.
7. The Owners agree, if necessary, to perform a reasonable amount of maintenance, which is described in the Native Plant Care Guide, available at naturaledge.watersheds.ca.
8. If a contractor is required to perform the work outlined in Schedule A, then the contractor carrying out the work on the land described will be required to take out and furnish evidence of a comprehensive policy of public liability and property damage coverage. The contractor and their workers will be required to be in good standing with the Workplace Safety and Insurance Board (WSIB) prior to performing the work.
9. The Owners agree not to remove, destroy or alter the project without prior consultation and approval of DMM. Pruning and trimming planted nursery stock, or adding replacement native nursery stock is exempt.
10. The Owners agree not to mow the planted area.
11. The Owners do acknowledge that DMM, its contractors, employees and agents, having performed said works, are not under further obligation with respect to survival of nursery stock, inspection, or maintenance.
12. The Owners, in the absence of negligence, hereby remise, release and forever discharge DMM, its contractors, employees and agents from all claims and demands for injuries, including death, loss, damages and costs in any way related to or connected with installation and maintenance of the work described or resulting from any deleterious effects of the work to the land or to the lands and buildings thereon retained by the Owners.

IN WITNESS WHEREOF the parties have agreed to the contents of this plan; SIGNED:

The District Municipality of Muskoka

Mel Degrades

Representative Signature:

Owner Signature:





About this program

About The District Municipality of Muskoka

The District of Muskoka is an upper-tier municipality that has monitored water quality in Muskoka area lakes since 1980. Since 2002, the Muskoka Water Strategy has provided integrated and strategic initiatives for the protection of Muskoka's water resources. The purpose of the strategy is to guide and minimize the impact of human activities on water resources; ensure human and environmental health; and preserve the quality of life in Muskoka.

This program was created by Watersheds Canada

We believe that every person has the right to access clean and healthy lakes and rivers in Canada. At Watersheds Canada, we work to keep these precious places naturally clean and healthy for people and wildlife to continue using for years to come. We love working with others to meet the needs of local communities, whether you're a concerned citizen, a landowner, a lake association looking for help, or a coalition of groups interested in activating your local community.