Sharp

511 Barcovan Beach Road, Carrying Place, Lake Ontario

Planting plan created by Watersheds Canada

Survey Date: 10/07/2019

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.

Land Characteristics by Compartment

	Length	Width	Area	pH	Soil	Moisture	Light	Height
A	13m	3m	39m^2	normal	sandy	dry, normal	partial sun, shade	any
B	15m	2m	30m^2	normal	sandy	dry, normal	full sun	max 2m
C	7m	3m	21m^2	normal	sandy	dry, normal	shade	any
	35m	2.67m	90m^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
Witch Hazel	3		5	8		
Chokecherry	3			3		
Sugar Maple	1			1		
Black Chokeberry	10	10			20	
Canadian Serviceberry	10				10	
Ninebark	15		5		20	
Virginia Creeper		5		5		
Fragrant Sumac		15			15	
Lance-Leaf Coreopsis		3				3
New England Aster		5				5
White Pine			1	1		
Bush Honeysuckle			5	5		
Fly Honeysuckle			5	5		
Black Walnut			2	2		
Subtotal	42	38	23	30	65	8
Totals		103				

Plant Information

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

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.

Chokecherry

Height: 6-9 m

The Chokecherry is a large deciduous shrub or small tree which grows between 6 and 9 m tall and is a member of the Rose family. It produces a twisted or crooked trunk as well as a narrow, oval to round crown composed of many slender branches. Leaves are alternately arranged, simple, have a deep green upper surface, and light matte green undersides with tufts of hair at the vein axils. During the fall, foliage turns a vibrant deep red to fire yellow or orange. Between May and June, small showy white flowers grow in cylindrical clusters on the terminal ends of branches. By mid-August, flowers turn into shiny deep red or black cherries, which hang in elongated clusters. The fruit is ripe by September and provides a food source for birds and small mammals. The Chokecherry is often found as pure stands forming thickets, or mixed with other early succession shrub and tree species. This fast-growing plant can quickly invade logged land, abandoned farms, and exposed shorelines. The fibrous and wide-spreading root system of this shrub make it an ideal plant for erosion control and bank stabilization. This species possesses the ability to withstand moderate flooding and drought.

Sugar Maple

Height: 12-35m

Canada's national tree, the Sugar Maple, is the famous maple syrup producer. This species has the most well-known leaf shape as it is at the centre of the Canadian flag. Leaves produced are arranged opposite to each other and have five lobes or sometimes three with few, irregular teeth. The leaf, is an easy way to differentiate between maple species. The best way to identify a Sugar Maple from a Red or Silver Maple is to look at the notches between the lobes. A Sugar Maple will have a "U" shaped notch, similar to the curve that is made when you make an "L" with your thumb and forefinger. A Red Maple will have a "V" shaped notch, similar to when you separate two of your fingers. Silver Maples have very deep, narrow notches. A common sight around maple trees is the presence of seed keys. Sugar Maple seeds are dispersed by wind, therefore the seeds are encased by a winged capsule, hanging off the tree by a long, slender stalk, usually in groups of two. This species bark is smooth and grey, becoming dark grey and separated into long, vertical ridges which are usually curled outward along one side. Sugar Maples prefer deep, moist, well-drained soils and are often found amongst Yellow Birch, Red Oak, Red Maple, Basswood, and Eastern Hemlock. Sugar Maples produce a hard lumber used for making furniture, cabinets, flooring, and plywood.

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.

Canadian Serviceberry

Height: 3-5 m

The Canadian Serviceberry is a multi-stemmed shrub or small tree which grows from 3-5 m in a dense round form. This plant may also be known by the common names: Juneberry, Shadblow, or Shadbush. Early in the spring, prior to leaf development, clusters of fragrant, showy white flowers bloom along the branches. By July, these flowers give way to the fruiting bodies. The fruits are initially small, green berries, which grow to the size of blueberries and turn a deep purple-blue upon maturation during the fall. Leaves produced are finely toothed and spear-shaped. Throughout the summer, leaves are dark green and turn a dramatic orange-red during the fall.

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.

Virginia Creeper

Height: 15 m

The Virginia Creeper is a deciduous, woody vine species which can grow up to 15 m if near a tall structure or tree. The leaves are palmately compound with five ovate shaped leaflets. These leaves are largely toothed and turn bright red and orange during the fall. Despite having inconspicuous flowers, this species produces incredible dark blue berries, which are beneficial to birds and small mammals. This vine can grow 2-3 m per growing season, thus pruning and maintenance may be required. Virginia Creeper may sometimes be confused with Poison Ivy as younger plants will only have three leaflets instead of five. This plant can grow aggressively so should be planted where it has plenty of space to spread. Some shoreline landowners choose to plant this around rip rap/loose stone retaining walls for a more natural appearance. The root system is beneficial for quickly controlling erosion.

Fragrant Sumac

Height: 1-2m

The Fragrant Sumac is a medium-sized deciduous shrub within the Cashew family. This species grows between 1-2 meters in height, is multi-stemmed, and produces a round, dense crown composed of erect and spreading branches. Between March and April, small yellow flower clusters bloom on the terminal ends of the branches prior to leaf development. Fruit development begins during late summer. Small, red, hairy berries are produced and can remain on the plant throughout the winter. Male catkins develop on the plant in September. Fragrant Sumac leaves are simple and arranged alternately along the branch. Leaves produced are simple and trifoliate with a large center lobe, appearing similar to Poison Ivy. During the spring and summer, the leaves are light green to green-yellow in colour turning a bright yellow to red or dark purple in autumn. Crushed leaves and stems of the Fragrant Sumac produce a fragrant citrus aroma, hence the common name. The aroma of this shrub is attractive to butterfly species, making it the perfect addition to any butterfly garden. The roots of the Fragrant Sumac are shallow, fibrous, and spread rapidly, making it an ideal choice for stabilizing shorelines and mitigating erosion on steep slopes. Unlike other Sumac species, Fragrant Sumac is significantly less aggressive and easily maintained.

Lance-Leaf Coreopsis

Height: 45-90 cm

Lance-Leaf Coreopsis is a hardy, perennial wildflower species that grows between 45-90 cm tall. The leaves are mostly basal, medium green, narrow and lance shaped, slightly hairy, oppositely arranged, and have entire margins. The flowers are showy, bright yellow with a dark yellow center, daisy like, have 8 toothed rays, appear solitary at the tip of a flowering stem, and bloom between May and July. The flowers are beneficial to pollinator species, like bees and butterflies. The Lance-Leaf Coreopsis is hardy, easy to grow, and spreads quickly so can be valuable for re-vegetating disturbed sites.

New England Aster

Height: 2m

New England Aster is a showy perennial wildflower with an average height of about 120 cm but can grow up to 2 m tall. It has a central stem with branching in the upper half covered in fine white hairs. Its leaves clasp these stems as they have no petioles. The basal leaves are spatula-shaped, while the stem leaves are alternate and lance-shaped. The leaves are also covered in soft white hairs. Its showy flowers are clustered at the ends of the central stem and surrounding branches. Each flower is composed of 30+ deep purple ray florets surrounding numerous golden disk florets. These plants excel in moist soils with lots of sun. It is often found along lake shorelines, forest edges, in wet meadows, or in marshes/swamps. New England Aster reproduces and spreads using both achenes, which are dispersed by wind and a rhizomatous root system, allowing this plant to colonize open areas. It is also known to easily colonize recently disturbed areas so could be considered for difficult sites that are hard to grow on. This wildflower species attracts lots of pollinators such as bees and butterflies but rarely attracts wildlife, such as wild turkey, deer, and rabbit.

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.

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.

Fly Honeysuckle

Height: 1-2m

The Fly Honeysuckle is a medium-sized deciduous shrub that typically grows between 1-2m, and is naturally found throughout Ontario, Quebec, and Eastern Canada. This perennial shrub is multi-stemmed with thin, woody branches and can be grown so that it resembles a vine species. The Fly Honeysuckle's leaves are light green, simple, and oppositely arranged. Leaves are oval in shape and hairless, except at the margins where fine hairs are visible. This species produces flowers which are bell-shaped, white to yellow in colour, drooping in pairs of two, and bloom during late spring. Flowers give rise to large red-orange berries during late summer, which are a favorite to many songbird species.

Black Walnut

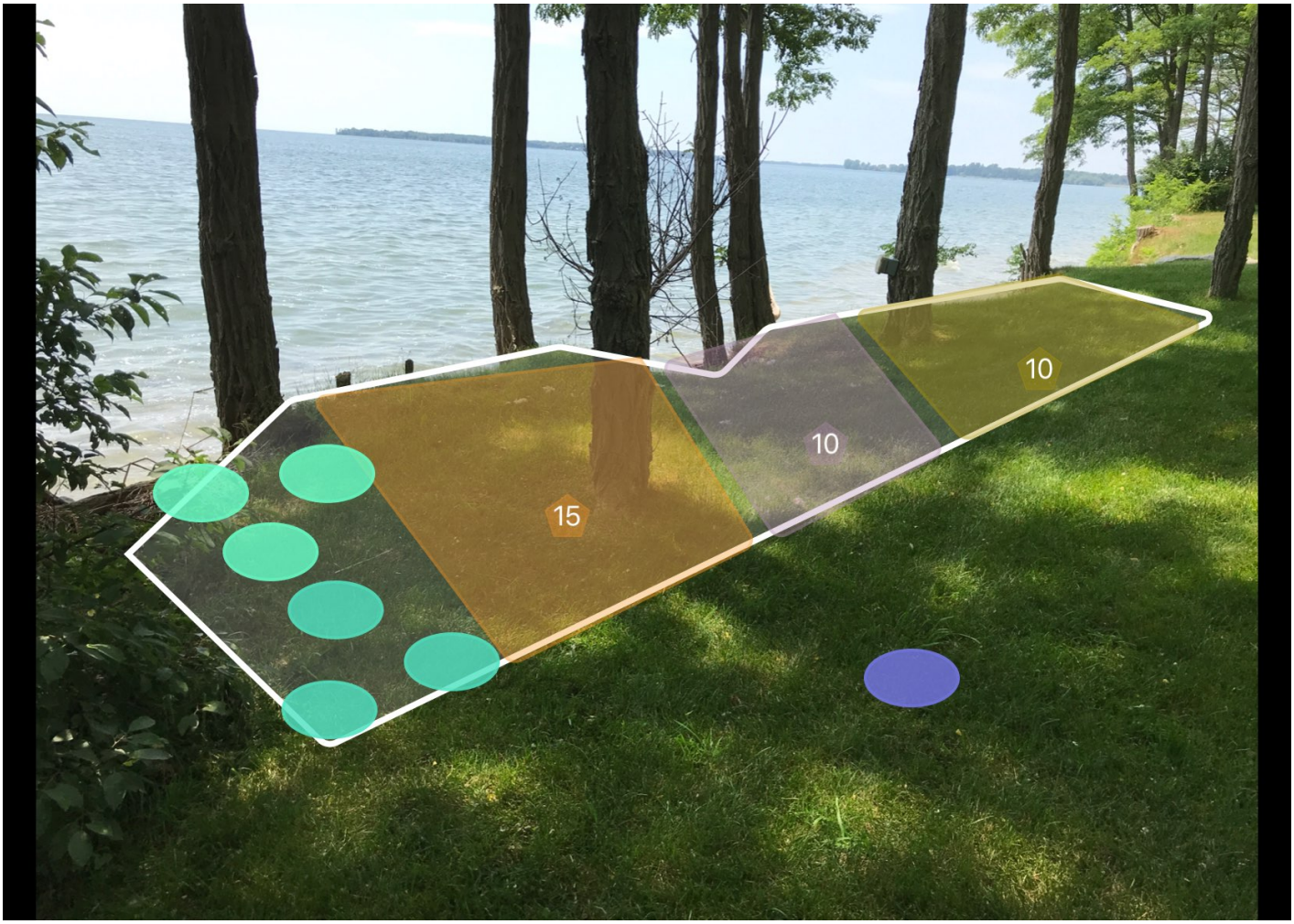
Height: 25-38m

The Black Walnut is a large deciduous tree species, reaching heights of 25-38m. It has a low, wide-spreading round crown composed of stout branches on a short trunk. This species produces a deep root system supported by lateral spreading secondary roots. It is an excellent tree for shoreline rehabilitation and erosion control. The chemical compound juglone is secreted from its roots and decaying leaves, which prevents many other plant species from establishing within the spread of its root system. The Black Walnut is naturally found along riparian zones of lakes and rivers within Southern Ontario. This species produces compound leaves which turn yellowish-green during autumn. Tiny, green, walnut-like flowers appear during the spring, turning into walnuts during the summer. Then in the fall, the walnuts ripen and drop. The Black Walnut is valued for its woodworking potential due to its attractive grain and pliability.

Compartment A

Naturalization Area

- PH: normal
- DEPTH: potted, bareroot
- MOISTURE: dry, normal
- SOIL TYPE: sandy
- PLANT HEIGHT: any
- LIGHT CONDITIONS: partial sun, shade

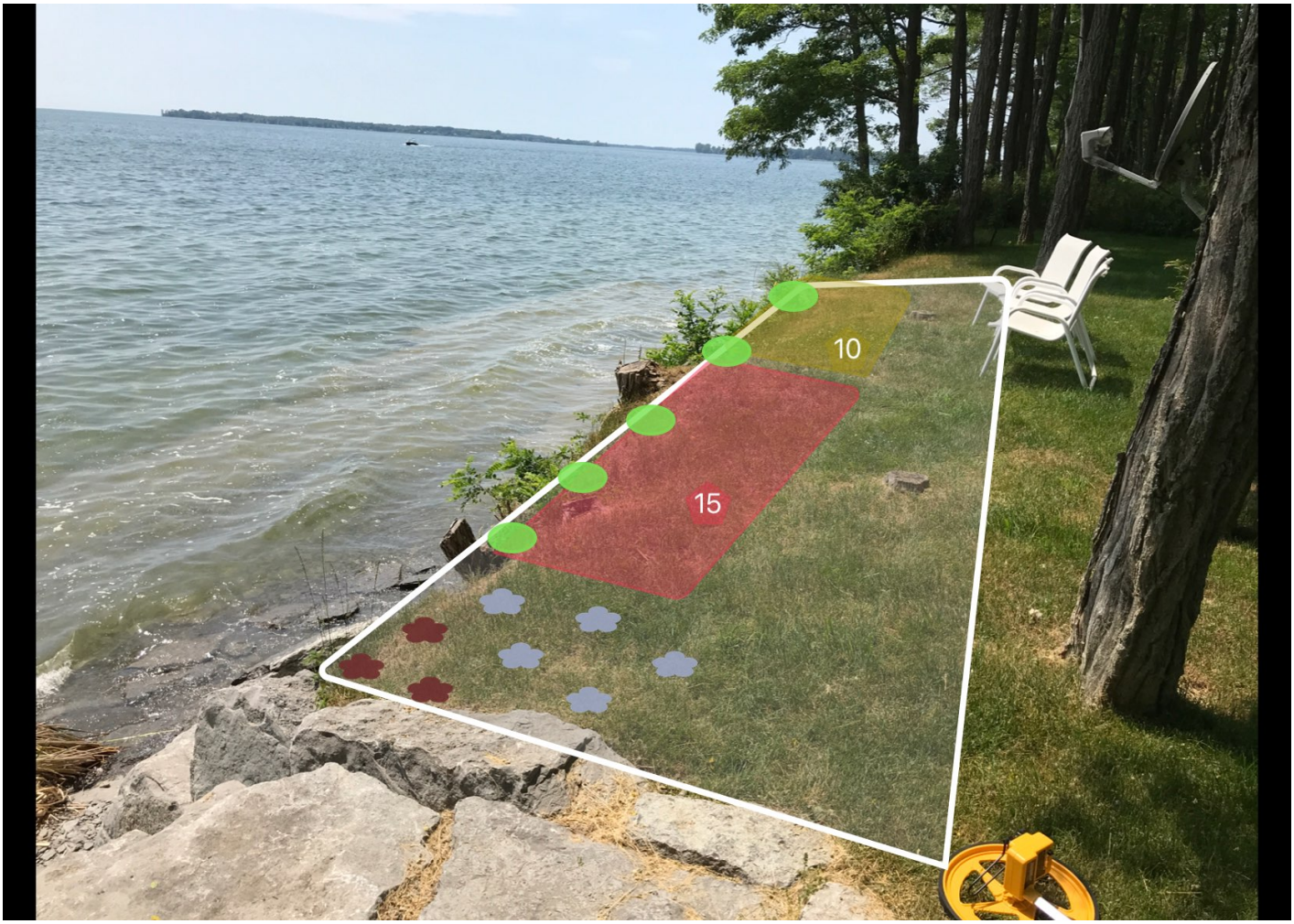


- Witch Hazel — 3
- Chokecherry — 3
- Sugar Maple — 1
- Black Chokeberry — 10
- Canadian Serviceberry — 10
- Ninebark — 15

Compartment B

Naturalization Area

- PH: normal
- DEPTH: potted, bareroot
- MOISTURE: dry, normal
- SOIL TYPE: sandy
- PLANT HEIGHT: max 2m
- LIGHT CONDITIONS: full sun



Black Chokeberry
10

Fragrant Sumac
15

New England Aster
5

Virginia Creeper
5

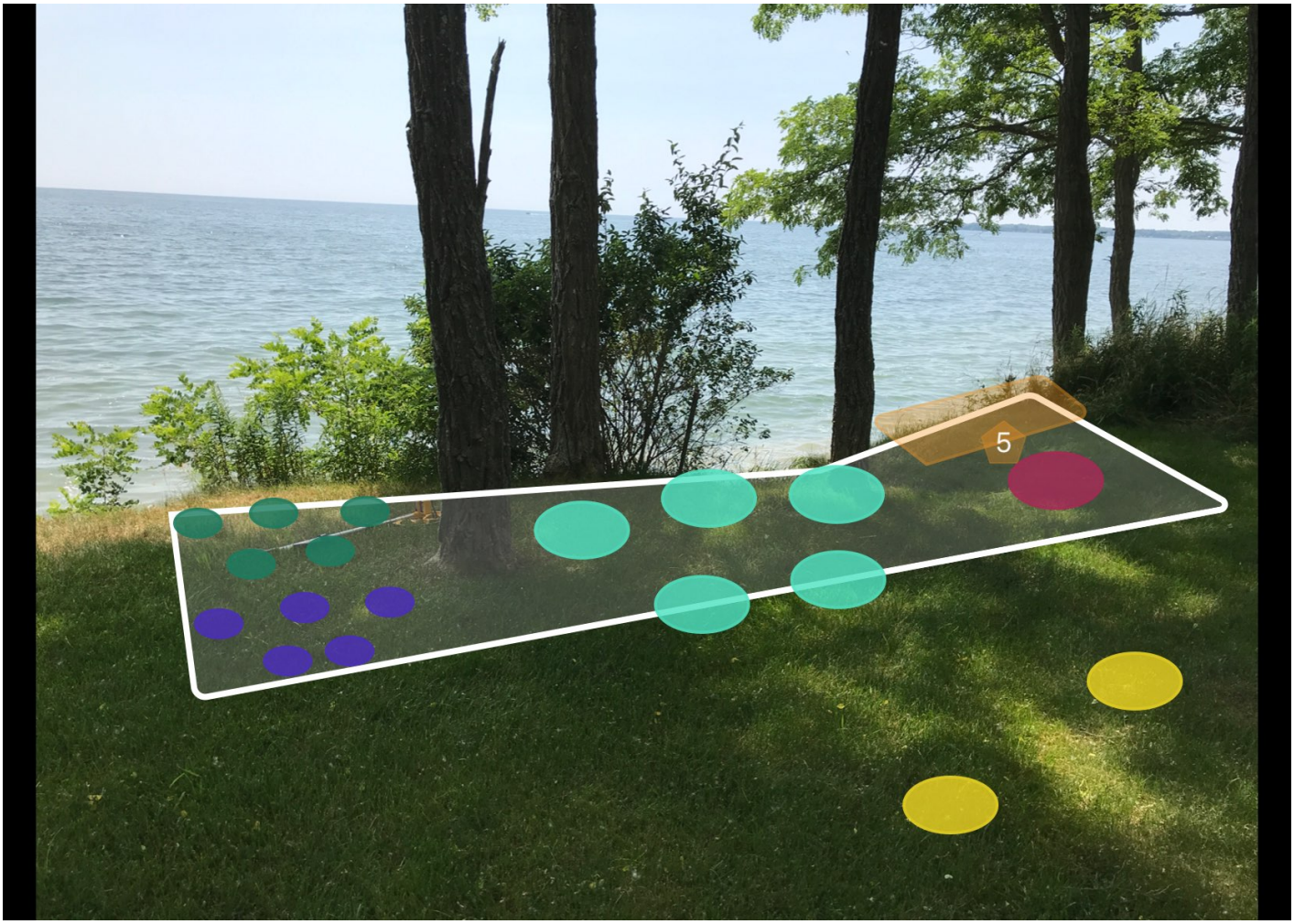
Lance-Leaf Coreopsis
3

Compartment C

Naturalization Area

Walnut represents Butternut

- PH: normal
- DEPTH: potted, bareroot
- MOISTURE: dry, normal
- SOIL TYPE: sandy
- PLANT HEIGHT: any
- LIGHT CONDITIONS: shade



Witch Hazel
5

Ninebark
5

White Pine
1

Bush Honeysuckle
5

Fly Honeysuckle
5

Black Walnut
2

Schedule B

Financial Summary

Project by: Watersheds Canada

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			$0
Free potted plants	15	$0	$0
Paid potted plants	15	13.00	195.00
Free bareroot plants	25	$0	$0
Paid bareroot plants	40	2.25	90.00
Free wildflowers	8	$0	$0
Total costs			285.00

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:

Watersheds Canada
115-40 Sunset Blvd. Perth ON K7H 2Y4

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. Watersheds Canada will supply all plants and materials. If you are paying for the planting to be completed for you, a date will be arranged for Watersheds Canada 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 Watersheds Canada

Agreement made this _____ Day of the Month of _____ in the Year _____.

BETWEEN John Sharp 511 Barcovan Beach Road, Carrying Place Ontario *(Hereinafter called the OWNERS)* AND **Watersheds Canada** 115-40 Sunset Blvd. Perth ON K7H 2Y4 *(Hereinafter called WC)*

WHEREAS the Owners and WC 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 WC 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 WC'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 WC 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 WC, then the Owners grant WC, its contractors, employees and agents, the right to enter the property to perform the work agreed upon as outlined in Schedule A. In addition, WC, 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 WC for work to be performed (outlined in Schedule A), the Owners agree to provide payments to WC 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 WC 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 WC. 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 WC, 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 WC, 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:

Watersheds Canada

Representative Signature:

John Sharp

Owner Signature:

About this program

About Watersheds Canada

Watersheds Canada is a non-profit organization and registered Canadian charity committed to working with landowners, communities, and organizations to protect lakes and rivers through developing effective, transferable, and long-term solutions.

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.

115- 40 Sunset Blvd • Perth, Ontario • K7H 2Y4 • 613-264-1244 •
info@watersheds.ca