

Helping to Protect our Lakes: Registering Site Plan Conditions on Title



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LAKE ASSOCIATION**

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UPPER RIDEAU LAKE

- On Rideau system, about half-way between Ottawa and Kingston on Canal
- Medium-sized lake for Eastern Ontario
- some 350+ properties



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WATER QUALITY ON THE UPPER RIDEAU

- Poor – high levels of phosphates, due to flooded areas since 1830s, and legacy human activity (septic and sewage treatment plant) since



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SITE PLAN CONDITIONS?

- Simply put, water front development is effectively “permanent”
- Development, particularly within 30m from water, is subject to approval by Council (Planning Committee)
- Development is usually approved with specific accompanying “conditions” to support the lake, e.g., shoreline plantings



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THE CHALLENGES IF CONDITIONS ARE NOT REGISTERED ON TITLE

- If property changes hands, new owner(s) may not know – or care - about conditions attached to developments preceding their ownership
- Development stays, but conditions attached to it, risk becoming transitory
- In effect, the original land use decisions by Council were at risk of not being respected as properties changed hands



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THE MOVEMENT TO ADVOCATE FOR REGISTRATION ON TITLE

- Several long-term – committed – lake(s) residents noticed over time that shoreline protections on specific properties were being lost as owners changed
- Lake Association(s) did, too



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THE COUNCIL DECISION

- Some debate about who pays for registration – property owner
- Other concerns expressed about cost of enforcement
- Majority (not unanimous) support for registering site plan conditions on title for waterfront development



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Site Plan Control at Rideau Lakes

Follow-Up & Support Program

& Shoreline Buffer Planting Guide



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Brittany Mulhern, Manager of Development Services

Context



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2019: Various Lake Associations and concerned residents appealed to Council regarding concerns about the Site Plan Control process and enforcement of agreements

- Council directed staff to provide options and consult with the conservation authorities

Outcomes:

- Revised Site Plan Control By-Law
- By-Law 2019-62
 - **Site Plan Control Follow Up and Support Program & Vegetative Shoreline Buffer Policy**

Site Plan Control (under Section 41 of the Planning Act) at Rideau Lakes applies to all properties within 100m of the water with development over 30m² in size. Agreements typically include conditions that implement good waterfront management practices as part of the development plan of a property.

Follow-Up & Support Program

Site Plan Control Follow Up and Support Program: refers to the Township's annual program to audit the compliance of a previous years' waterfront Site Plans where a Site Plan Agreement has been entered into with the Township.

Program Goal: to provide education and resources to property owners about importance of shoreline vegetation and to seek "environmental net gains" to shoreline properties, as well as ensuring compliance with a legal agreement with the municipality.

What kind of items are reviewed in terms of compliance?



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SITE PLAN FOLLOW UP & REVIEW FORM

Site Plan Control Application:	
Current Owner(s):	
Assessment Roll Number:	
Civic Address:	
Date of Inspection:	Click or tap to enter a date.
Time Taken:	Choose an item.
Type of Inspection:	Site Visit Photo review
Related Building Permits:	Details:
Number of contemporary photos reviewed:	
New photos to be included	- Shoreline - Dwelling to shoreline - Shoreline to dwelling - Buildings on site

Are all proposed buildings/structures in the Site Plan application constructed?	Yes	No	
If 'No', what are the remaining structures left to be built:			
Do the structures match the most recent Site Plan approval?	Not at all	Similar	Exactly the same
Explanation for "Not at all" or "Similar" (i.e. buildings exist not noted on site plan, existing buildings different size than noted on site plan):			
Building Official Follow Up Recommended?	Y	N	
Date followed up with Building Official:			

Is the access to the property as described in the Site Plan Control application?	Not at all	Similar	Exactly the same
Explanation for "Not at all" or "Similar" (i.e. bigger driveway, more hardscaping, different access point):			
Nature of water access (boat facilities, type of dock):	Choose an item.	Choose an item.	
Number of water access points:	1	2	3+

SITE DETAILS

STRUCTURAL

FUNCTIONAL

FUNCTIONAL

ENVIRONMENTAL

Does the water access match the most recent Site Plan approval?	Not at all	Similar	Exactly the same	
Explanation for "Not at all" or "Similar" (i.e. marine facilities exist that are not noted on site plan, marine facility in different location than noted on site plan)				
Have any utilities changed (Well, Septic, Hydro) since the Site Plan approval?	Choose an item.			
Is there any significant landscaping not noted on the Site Plan (i.e. retaining walls, stone patios, firepits)?				
Any changes in vegetation from the site plan/photos?	Yes	No		
Explanation for 'Yes' (i.e. are changes positive or negative, has vegetation been added or removed)				
Number of large plants along shoreline buffer (i.e. trees, shrubs, bushes, etc.)	0-9	10-29	30+	
Type of vegetation on site:	Bare soil	Grass/small plants	Shrubs	Trees
Have the owners "encouraged the development of a shoreline naturalization buffer within 15m of the water"?	Yes	Somewhat	No	
Explanation for "Yes" (i.e. more vegetation than original site plan, adding of soil fencing or geotextiles, etc.)				
Was a copy of the "Shoreline Buffer Planting Guide" given to the residents?	Yes	No		
If 'No' Why not? (i.e. site was up to date with the guide, residents already had one, etc)				
Recommendations:				

2020 Pilot Program Results

- Review of 2016 Site Plan Agreements
 - 36 Properties Reviewed
 - Outcome:
 - 100% maintained or improved” their shorelines’ vegetated state from 2016
 - 76% improved their shorelines
 - Through naturalization to a point which can be considered naturalized, this is done by allowing local vegetation to grow, and remain undisturbed.
 - 68% had a fully naturalized shoreline which represents an ideal shoreline condition that the Shoreline Buffer Planting Plan (SBPP) is trying to achieve.



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2021 Results

- Review of 2017 Site Plan Agreements
- 46 Properties Reviewed
 - 100% have maintained or improved shoreline's vegetated state
 - 76% have naturalized shorelines
 - 6.5% have started to naturalize their shoreline
 - 11% have maintained shoreline but have not naturalized
 - 6.5% have small naturalized shoreline area and have been encouraged to expand the area



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Naturalization Categories

Compares shorelines from the original agreement stage to follow up review stage

- Property A
 - Shoreline buffer encouraged and maintained (no staff concerns)



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PROPERTY A - Photo 1 - 2017 shoreline



PROPERTY A - Photo 2 – 2021 Shoreline (Maintained shoreline - naturalized)

Naturalization Categories

- Property B
 - Naturalized shoreline not yet implemented. Staff encourage planting buffer



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PROPERTY B - Photo 3 – Shoreline erosion with no buffer



PROPERTY B - Photo 4 – Hardened but not naturalized shoreline

Naturalization Categories

- Property C
 - Unnatural shoreline transitioning into natural shoreline through human intervention (not yet naturalized)



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PROPERTY C - Photo 5 – 2021 Early stages of shoreline naturalization

Naturalization Categories

- Property D
 - Small buffer planted, however shoreline not considered naturalized overall



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PROPERTY D - Photo 6 –2021 buffer along the shoreline which was created with the help of RVCA. Owners are encouraged to maintain and expand this small buffer, but are considered compliant.

Naturalization Categories

- Property E
 - Shoreline not naturalized and strongly encouraged to do so



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PROPERTY E – Photo 7 – 2017 Shoreline – Not naturalized



PROPERTY E – Photo 8 – 2021 Shoreline – Not naturalized or compliant.

Shoreline Buffer Planting Guide

Shoreline Buffer Planting Guide: refers to the Township developed 'handbook' that was created in coordination with the Cataraqui Region Conservation Authority, Rideau Valley Conservation Authority and Watersheds Canada to assist property owners with developing a vegetative shoreline buffer.

Vegetative Shoreline Buffer: refers to the area along the land directly adjacent to a waterbody of a property that is rich in native plants, trees and shrubs. It is not highly landscaped or manicured. Areas between plants are allowed to grow up with native grasses and wildflowers and natural succession is allowed. Typically, this is a “no mow” area with little to no maintenance.

<https://www.rideaulakes.ca/component/edocman/shoreline-planting-guide/viewdocument/238?Itemid=0>



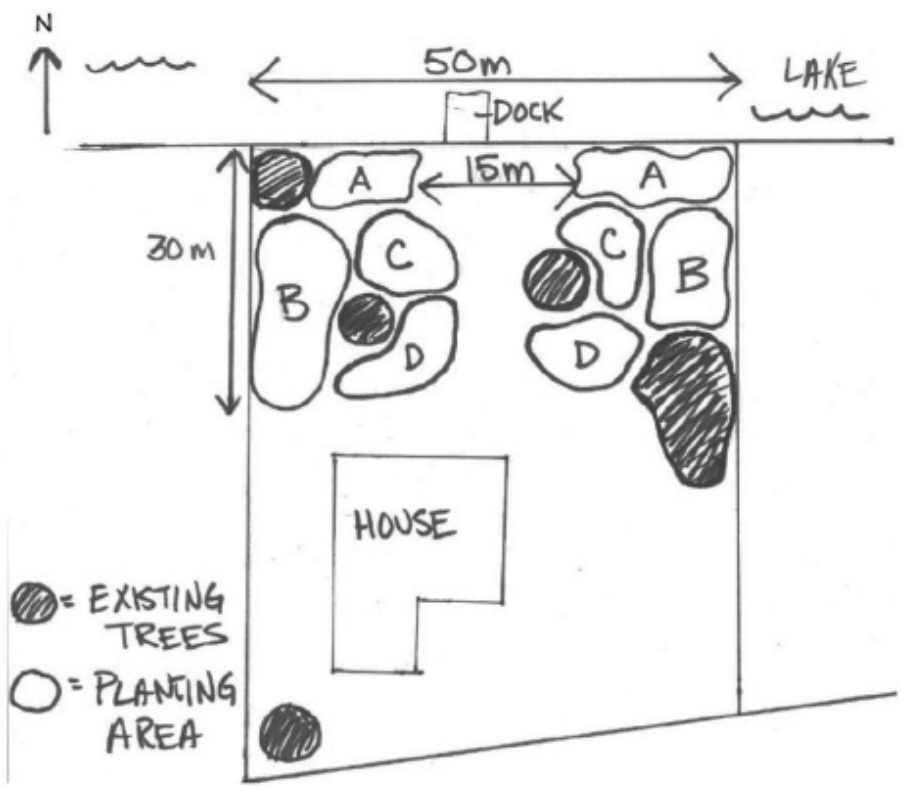
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Example Planting Plan

Shoreline Buffer Planting Plan

Property Location: 77 Cottage Road, Rideau Lakes TWP. Planting Plan Prepared By: Landowner

MAP OF PLANTING AREA (Include property sketch, planting locations, dimensions, etc.)



Compartment/Species	Plant Size	Number of Plants
A- Compartment A- Sweet Gale	Bareroot Seedling	50
A- Swamp Rose	2- Gallon Pot	12
A- Blue Flag Iris	4" Plug	12
B- Highbush Cranberry	Bareroot Seedling	20
B- Black Elderberry	2- Gallon Pot	3
C- White Birch	2- Gallon Pot	3
C- Wild Geranium	4" Plug	16
D- Northern Bush Honeysuckle	1- Gallon Pot	18
D- Black Eyed Susan	4" Plug	15

Date planting will take place:

- May 2019

Plants to be installed by (i.e. landowner? Contractor?):

- Landowner

Site Preparation Plan:

- Existing weeds will be mowed prior to planting
- All storage items removed from planting areas
- Plants will be installed directly into existing conditions

Maintenance Plan:

- Plants will be watered as needed
- Area will be monitored for invasive plants and unwanted invasive plants and weeds will be removed
- Tree guards will be installed on trees
- Plants will be replaced as needed to reach 80% plant survival goal

Additional Details:

- Trees will be spaced at least 3 metres apart
- Shrubs and perennials will be planted in groups of like species



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SHORELINE BUFFER PLANTING GUIDE

WHAT IS A NATURAL SHORELINE BUFFER?

A natural shoreline buffer is rich in native plants, trees and shrubs. It is not highly landscaped or manicured. Areas between plants are allowed to grow up with native grasses and wildflowers and natural succession is allowed. Typically, this is a "no-mow" area with little to no maintenance. The result is a thriving, resilient shoreline that protects lakes, rivers, streams and their surrounding areas.

BENEFITS OF A NATURAL SHORELINE BUFFER

A natural shoreline buffer is one of the simplest and most cost-effective ways landowners can reduce their impact on lake/river health. Some of these benefits include:

- **Slows runoff and reduces pollutants**
Vegetation helps slow surface water runoff and filters contaminants like fertilizers, pesticides, sediments, excess nutrients, bacteria and other pollutants. Higher nutrient and contaminant loading in lakes can cause poor water quality resulting in loss of recreational use like fishing and swimming. Excess nutrients can also cause excessive weed growth and algae blooms. Some algae, like blue-green algae, is toxic to humans and animals.
- **Shoreline stabilization**
The roots of plants help to stabilize banks and hold soil in place. Once vegetation is lost, shorelines become vulnerable to erosion as soil is washed into the lake or river where it can destroy valuable fish spawning habitat. Land lost due to erosion cannot be reclaimed once lost as property boundaries are usually defined by the existing water levels.
- **Critical wildlife habitat**
The transition zone between water and land is called the "ribbon of life" as it supports up to 90% of all wildlife at some part of its lifecycle. Fish and wildlife depend on this highly productive transitional zone for food, shelter and safe travel corridors.



FIGURE 1- EXAMPLE OF NATURAL SHORELINE

NOT SURE WHAT TO PLANT?

When planting it is recommended to plant native shrubs as they are likely to survive and thrive, are lower growing (to maintain your waterfront view), have deep robust root systems to help hold/bind the soil and take up excess nutrients and are easier to manage than trees as the vegetation grows. Remember, if left alone the no-mow areas will regenerate a vegetative buffer!

The following species are basic and easy to find:

- Meadowsweet = more upland areas
- Red Osier Dogwood = dry and wetland areas
- Shrubby Willow = wetter sites
- Sweet Gale = along water's edge
- Virginia Creeper = steeper, rocky sites and retaining wall sites

NEED HELP?

The Township of Rideau Lakes is located within two different watersheds, which means that there are two Conservation Authorities: Rideau Valley Conservation Authority (RVCA) and Cataraqui Region Conservation Authority (CRCA).



Township of Rideau Lakes

Staff in the Development Services Department can advise which watershed you are in and provide information and guidance on your development application. Contact Brittany Mulhern at 613-928-2251 ext. 244 or bmulhern@rideaulakes.ca

If you would like assistance with species selection or planting in general at your property please use the following contacts:

Rideau Valley Conservation Authority (RVCA)

Landowner Stewardship Programs at 613-692-3571 ext. 1192 or meaghan.mcdonald@rvca.ca

RVCA has a Shoreline Naturalization Program that can provide you with technical guidance, project management, access to plants and financial assistance:
rvca.ca/stewardship-grants/shoreline-naturalization/shoreline-naturalization-program

Cataraqui Region Conservation Authority (CRCA)

Watersheds Canada is available to assist in the CRCA watershed with technical advice and assistance creating planting plans. **Watersheds Canada: 613-264-1244** or naturaledge@watersheds.ca. Visit <https://naturaledge.watersheds.ca/> for an online planting guide.

If you are looking to purchase nursery stock please contact the **CRCA** at the **Mac Johnson Wildlife Area** at 613-345-1990 or the **Lemoine Point Conservation Area** at 613-389-3651.

SHORELINE BUFFER REQUIREMENTS

Natural shoreline buffers are often required as a result of a development application. When development occurs in and around sensitive natural areas a negative impact on the lake or river is anticipated. One of the easiest ways to offset this impact is to establish a natural shoreline buffer along your waterfront. This environmental "net gain" allows landowners to complete their development project while ensuring environmental integrity is maintained.

Net environmental gain means an approach whereby selected negative impacts from previous development activities are compensated for or improved upon through redevelopment.

SUMMARY OF PLANTING PLAN REQUIREMENTS

There is no minimum standard for shoreline buffer plan requirements as every property is different. The scope of the development application, existing vegetation and onsite growing conditions must all be considered when designing your planting plan. When creating a natural shoreline buffer, the following should be considered:

- Development related buffer planting plans should include the entire 30-metre setback area unless otherwise specified. Exceptions to this rule may include redevelopment applications where 30 metre setbacks are not possible, shoreline alteration/erosion control projects, voluntary planting projects, etc.
- Generally, the planting area should include the entire shoreline except for 25% or 15 metres (whichever is less) that can be left open for access and views.
- Planting plans should use native species with a focus on "woody" plants like trees and shrubs. Native plants are preferred because they are better adapted to our local climate, require less maintenance and have higher wildlife value.
- Planting density: Shrubs should be placed approximately 1 metre apart. Trees should be spaced approximately 3 metres apart.
- Planting should occur in spring (April- May) or fall (September-October).
- Minimize site preparation and maintenance where possible. Avoid bringing in excess fill/soil/mulch and reseed areas of exposed soil as soon as possible to avoid erosion. If exposed soils cannot be protected with vegetation prior to winter months, erosion blankets should be installed in areas vulnerable to erosion during spring runoff. This is especially important on sloped areas around waterbodies.
- Plant survival rate should be at least 80%. Replacement planting should be done to meet this goal.
- **All plans must be clearly laid out and legible**
- At a minimum, your planting plan should include the following details:
 - **Map of your property** indicating where new plants will be located and what areas will be left open
 - **Dimensions** of all planting areas and setback areas
 - **Species list** including the species used, the number of plants, and the size of plant at time of planting
 - Any planned site preparation, maintenance, and schedule of planting



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Timing & Cost

- Recent years have hired a summer student / contract to complete the program letters and reviews with Manager oversight. 2022 (and future) Program will be completed by a new admin staff member as part of regular duties.
- Program usually begins in June and is finalized by end of September

Possible Expenses	Numbers	Results	2021 vs 2020
Letters	88 sent in Canada X \$0.92 9 Sent to U.S X \$1.30	\$92.66	+19 CDN letters, +2 US letters +\$22.22
Approximate Time spent by Staff	Total Reviews x46	66 hours (9.5 days)	-54.5 hours (-7.8 days)
Approximate Time spent by Manager of Development Services	General assistance and Follow Up	10 hours	-2 hours
Approximate Time spent by CBO	General assistance and Follow Up	0 hours (2 properties recommended follow ups which have not yet occurred)	Similar to last year once follow ups completed.
Average time taken per site visit (Route planning, travel time, pictures, comparing the site plan agreement, completing the review form manually and electronically, sharing the assessment as a hand written report, as well as the planting guide with the resident.	18 Site Visits	80 Minutes per residence	-15 minutes
Average time taken for a photo review (Including <i>multiple</i> emails, photo reviews, completing the review form electronically, comparing the site plan agreement, and sharing the results and planting guide with the resident electronically)	28 Photo Reviews	90 Minutes per residence	+40 minutes

Table 1 – This table is meant to highlight some of the costs incurred by the program, through direct costs such as letters and mailing, and time spent by staff. Indirect costs are not included.

Comments & Questions



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