

DEVELOPMENT PERMIT NO. DP001151

ROBERT TURGEON and JIA ZHANG Name of Owner(s) of Land (Permittee)

3532 STEPHENSON PT ROAD Civic Address

- 1. This development permit is issued subject to compliance with all of the bylaws of the municipality applicable thereto, except as specifically varied or supplemented by this permit.
- 2. This development permit applies to and only to those lands within the municipality described below, and any and all buildings, structures and other developments thereon:

Legal Description:

LOT 1, DISTRICT LOT 29, WELLINGTON DISTRICT, PLAN 3902

PID No. 000-090-841

3. The land described herein shall be developed strictly in accordance with the following terms and conditions and provisions of this permit and any plans and specifications hereto which shall form a part thereof.

Schedule A Location Plan

Schedule B Site Plan

Schedule C Vegetation Management Plan

Schedule D Tree Protection Plan

- a) If the landowner does not substantially start any construction with respect to which this permit was issued within two years after the date it was issued, the permit lapses.
- 4. This permit is not a building permit nor does it constitute approval of any signage. Separate applications must be made for a building permit and sign permit.

PERMIT TERMS

The "City of Nanaimo Zoning Bylaw 2011 No. 4500" is varied as follows:

1. Section 6.3.1.5 Location and Siting of Buildings and Structures to Watercourses – to reduce the minimum watercourse setback from 7.5m to 0.8m as measured from the top of bank above the unnamed creek.

CONDITIONS OF PERMIT

- 1. The subject property is developed in accordance with the proposed Site Plan prepared by Charles O. Smythies & Associates, dated 2020-JUN-02, as shown on Schedule B.
- 2. The subject property is developed and maintained in substantial compliance with the Vegetation Management Plan prepared by AquaTerra Environmental Ltd., dated 2020-MAR-04, as shown on Schedule C.
- 3. Security is to be submitted prior to building permit issuance and held for three years from the date of completion, to ensure the lot is developed in accordance with the proposed Vegetation Management Plan.
- 4. Temporary construction fencing identifying the 15m setback to the sea is to be in place prior to any construction activity.
- 5. A Section 219 Covenant is to be registered on title prior to Building Permit issuance to protect the trees in the northwest portion of the subject property identified in the Tree Protection Plan, provided by Vancouver Island Tree Service Ltd., received 2021-MAY-17, as shown on Schedule D.

AUTHORIZING RESOLUTION PASSED BY COUNCIL THE **7TH** DAY OF **JUNE**, **2021**.

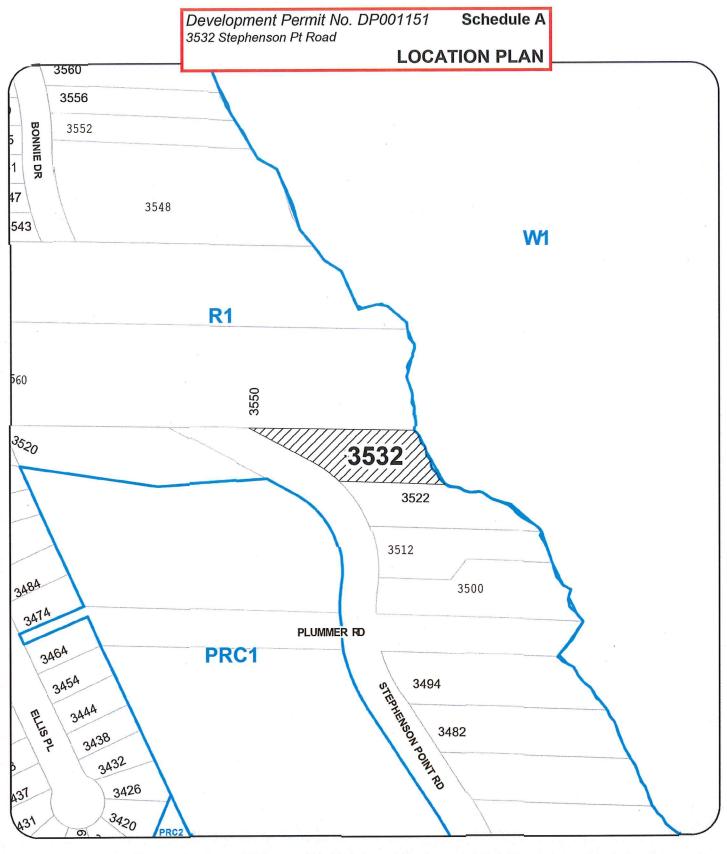
Corporate Officer

Quine 11, 2021

Date

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Prospero attachment: DP001151



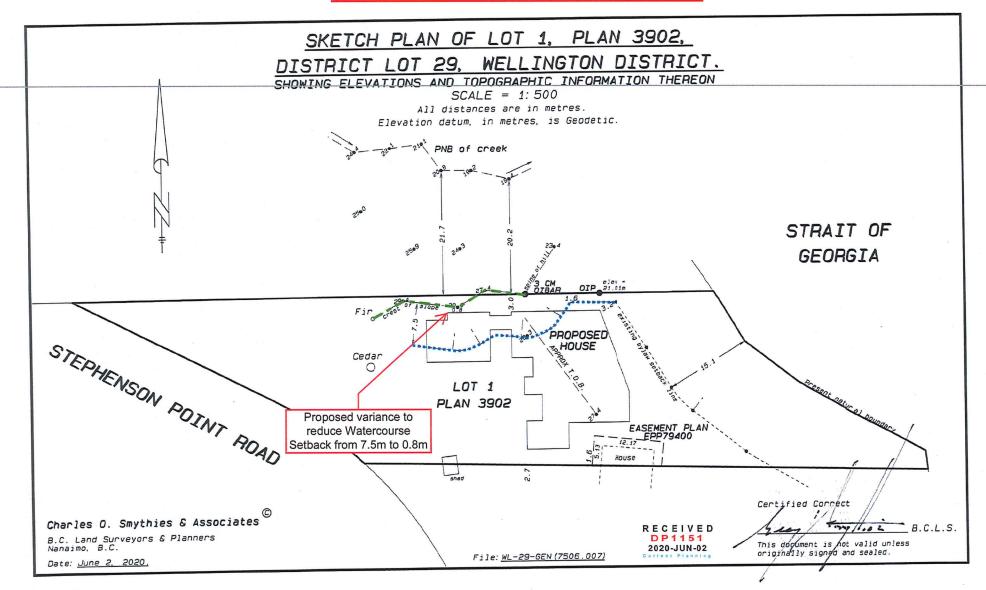


DEVELOPMENT PERMIT APPLICATION NO. DP001151

LOCATION PLAN

Subject Property

Civic: 3532 STEPHENSON PT ROAD Legal: LOT 1, DISTRICT LOT 29 WELLINGTON DISTRICT, PLAN 3902



Key:

= = = Top of Bank

---- = Watercourse Setback

VEGETATION MANAGEMENT PLAN

3532 Stephenson Point Road City of Nanaimo

To: Rob Turgeon 1870 Dufferin Crescent Nanaimo BC V9S 1H1

CC: City of Nanaimo

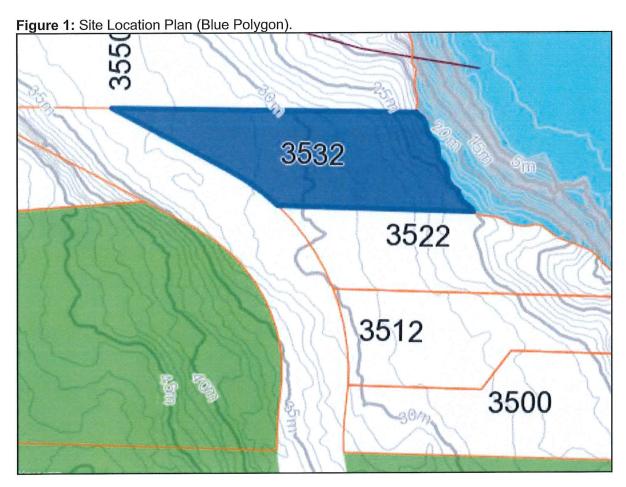


Date: 04 March 2020

1. Overview

This Vegetation Management Plan (the 'plan') was completed at the request of City of Nanaimo (the 'city') for 3532 Stephenson Point Road (**Figure 1**) per their letter dated 24 October 2019 (File DP001151). AquaTerra had previously completed and issued an Environmental Assessment (EA) for the site; however, the city specifically requested:

- 1) A Vegetation Management plan to address habitat compensation (Section 2); and
- 2) Invasive Species Management (Section 2.1).



R E C E I V E D D P 1 1 5 1

2. VEGETATION MANAGEMENT PLAN

The EA prepared by AquaTerra, and per the city letter, habitat compensation should be implemented to offset the 150 m² lost setback area. The city expressed concern that planting density would typically be 1 plant be 1 m², or denser; however, the provision of 6 trees and 17 shrubs only equated to 1 plant per 0.12 m². Therefore, based on the comments provided by the city, and in accordance with the BC Landscape Standards per the BC Society of Landscape Architects (BCSLA), AquaTerra has supplemented the habitat compensation design and invasive species management provisions (herein, referred to as the 'Vegetation Management Plan'), increasing planting density to 1 plant per 1 m².

TREES

- 10 Western Redcedar (*Thuja plicata*) (2 gallon pots)
- 10 Bigleaf Maple (Acer macrophyllum) (2 gallon pots)

SHRUBS AND HERBACEOUS

- 40 Salal (Gaultheria shallon) (2 gallon pots)
- 40 Dull Oregon-grape (Mahonia nervosa) (2 gallon pots)
- 20 Salmonberry (Rubus spectabilis) (1 gallon pots)
- 30 Swordfern (*Polystichum munitum*) (1 gallon pots)

TOTAL NUMBER OF PLANTS: 150.

A detailed, prescriptive planting plan is provided per Attachment I.

The cost of these trees/shrubs is approximately \$10.00 (1 gallon) and \$20.00 (2-gallon) + delivery (\$200.00). Estimated cost for 1 cubic yard of top-soil is \$100.00 (delivered). Estimated time for planting is approximately 2 days + time for invasive species management (1 day).

A general best management practice is to monitor the newly planted trees/shrubs and to maintain regular watering practices as well as invasive species management on a semi-annual basis for 3 years, until such time that plants are established. An additional measure to improve plant health and survival is to include some new top-soil blend with bone meal to provide nutrients for rooting establishment.



3 of 8

Landscaping of the area within the area is encouraged per the latest version of the BCSLA. A summary of applicable measures per the standards are provided below:

- 1. Import top-soil, if required, to achieve a minimum rooting depth of 0.6 m for trees and 0.3 m for shrubs
- 2. All tree/shrub species should be of guaranteed nursery stock.
- 3. Trees are to comprise at least 15% of the total planting prescription.
- 4. The botanical name should be used when ordering stock to ensure that the desired native species is being purchased. Each specimen should be tagged with the botanical name and the tag should be left attached after planting.
- 5. Stock planted during the fall (Sept. Oct.) and spring (March April) have the greatest likelihood of surviving. Regular watering may be required until the plants are established.
- 6. Additional advice on proper planting procedures should be obtained from the nursery supplying the stock.
- 7. Planting on a given area being enhanced must be successful to an 80% take. If more than 20% die over one year, replanting is required.
- 8. A minimum of 50% of trees and shrubs planted should be fruit-bearing species.

2.1 Invasive Species Management

Invasive vegetation is present throughout the site sporadically, including adjacent sites, being most prevalent in the shrub layer and ravine. Invasive vegetation should be removed from the vegetation management (habitat compensation) area, per the recommended removal methods prescribed in the following sections, and maintained twice a year for 3 years, until planted vegetation becomes well established.

2.1.1 Himalayan Blackberry

Himalayan Blackberry was initially brought over from Europe as a result of their large, delicious berries. These species results in dense thickets that often outcompete native vegetation and reduce biological diversity. In addition to reducing the plant diversity, these species also serve to limit utilization by aquatic and terrestrial wildlife, serving as a barrier to movement. Certain bird species, such as Dark-eyed Junco (Junco hyemalis), Black-capped Chickadee (Poecile atricapillus) and Yellow-breasted Chat (Icteria virens; provincially red-listed and federally



'threatened'), do utilize invasive blackberry species, as they provide some forage opportunities and protection; however, the impacts relating to barrier movement and loss of habitat diversity outweigh the perceived benefits.

<u>Dispersal Capabilities:</u> Invasive blackberry species spread by seed and vegetatively by rooting at the stem tips as well as sprouting from root buds. Birds and omnivorous mammals, such as raccoons, bears, and coyotes can consume berries and disperse seeds.

<u>Preferred Control Method:</u> The primary management goal is to control and manage the spread of Himalayan



Blackberry into adjoining, intact habitats within the Musqueam IR#3 lands. Maintenance to prevent additional encroachment into Musqueam IR#3 lands includes persistent cultivation (tillage), fine mulching and hand removal (including roots when possible) to limit spread. Due to the fact that mechanical control can stimulate strong regrowth, removal efforts should be followed up with regular hand digging and trimming to manage the spread.

<u>Removal Timing:</u> Removal can proceed at any time of year, but is anticipated to be more effective during the flowering and early fruiting periods. Removal should not occur when fruits are at or nearing maturity, as it may increase the potential of spread during removal and disposal efforts. Removal and follow-up maintenance should occur a minimum of 2–3 times per year, for 2–3 years following initial removal.

<u>Disposal:</u> If plants are cut, all plant material must be collected in bags or tarps and incinerated or bagged and deeply buried at a landfill. Care should be taken to ensure that plant parts are not distributed during transport.



2.1.2 Spurge Laurel

Spurge Laurel is an evergreen shrub that was imported from Britain for ornamental use in North American gardens. Spurge Laurel is similar in appearance to Pacific Rhododendron, however it grows rapidly and outcompetes native species. In addition, the bark, berries and sap are poisonous to people and it is classified as a poisonous plant with the Canadian poisonous plant information system (Invasive Species of BC, 2014). In contrast to



most invasive species, Spurge Laurel is able to establish without any ground disturbance. It is commonly found along roadsides and in moist forested lowland areas. Its rapid growth and adaptability to varying light condition allows it to quickly colonize new areas where it alters the soil chemistry displacing native species.

Dispersal Capabilities: Birds and rodents spread the seeds contained within the berries.

<u>Preferred Control Method:</u> Due to its toxic nature, gloves should be worn when removing Spurge Laurel. Small plants may be pulled by hand while large plants may require digging for root removal. After removal the area should be reassess bi-annually to monitor for regrowth.

2.1.3 English Ivy

English Ivy is a perennial evergreen vine native to Europe and Asia that is widely cultivated in North America. It is often planted for groundcover and frequently invades nearby natural and urban areas. English Ivy grows rapidly and is able to grow year-round in a wide variety of light conditions, but does best in shaded areas. It quickly outcompetes native plants and forms a dense monoculture that prevents natural seedling succession and can damage or kill trees and shrubs.



Dispersal Capabilities: English Ivy spreads vigorously by vegetative growth and by production of

small black seed containing fruits that are consumed and spread by birds (Swearingen et al. 2010).

<u>Preferred Control Method:</u> English Ivy can be pulled and cut by hand and then left to dry. Mowing is also a viable control option, as is covering the affected areas with thick poly and/or tarps. When climbing trees it should be removed from breast height to



the ground and then treated with a herbicide on the cut portions. Ivy that is above breast height in a tree should not be pulled down as it may dislodge large tree branches. After English Ivy removal, native shrubs should be replanted and the area should be reassessed to monitor for re-growth. Additional removal efforts will likely be required as re-growth from roots is common.

2.1.4 English Holly

English Holly is native to western and southern Europe, northwest Africa and southwest Asia. It was originally imported for ornamental use in North American gardens and is widely used for decorations during the Christmas season. English Holly is very adaptable and rapidly grows in

well-drained soils in the shade or sun to heights of up to 10 m tall (Invasive Species Council of BC, 2014). Its broad evergreen leaves, rapid growth and overall size, shade out other native plants allowing it to form dense thickets over time. In addition, the roots of English Holly out-compete native species for nutrients and water (Klinkenberg, 2014)



Dispersal Capabilities: The bright red

berries of English Holly are attractive to birds and widely dispersed.



<u>Preferred Control Method:</u> Small English Holly shrubs can be pulled when the ground is moist. Large trees should be cut at the base of the trunk and herbicide may be applied. Management areas should be re-assessed annual to monitor for re-growth (Sea to Sky Invasive Species Council, 2009).

3. CLOSURE

We trust this provides the necessary information regarding RAR compliance. Should you have any questions, please feel free to contact the undersigned.

Respectfully submitted,



Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL Principal, AquaTerra Environmental Ltd.

Attachment(s):

Attachment I - Detailed Restoration Planting Plan

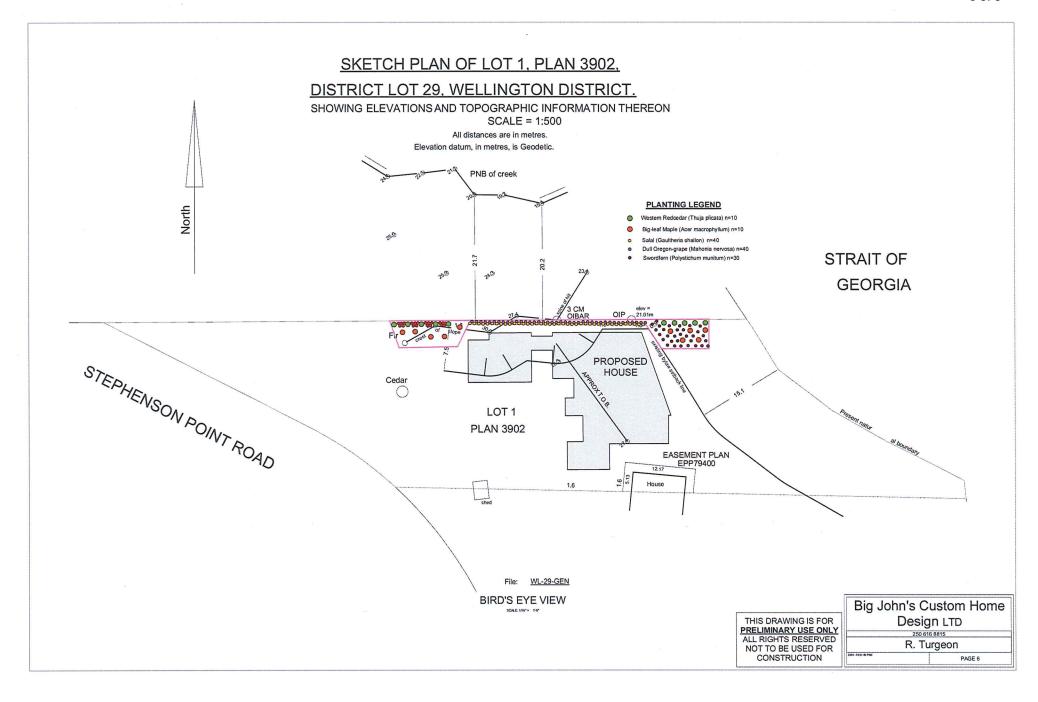


Figure 1: Survey of all trees corresponding with inventory table. Tree protective fencing is also shown on map.

Development Permit No. DP001151 Schedule D 3532 Stephenson Pt Road TREE PROTECTION PLAN SKETCH PLAN OF LOT 1, PLAN 3902, DISTRICT LOT 29, WELLINGTON DISTRICT. SHOWING ELEVATIONS AND TOPOGRAPHIC INFORMATION THEREON SCALE = 1:500 All distances are in metres. Elevation datum, in metres, is Geodetic. PNB of creek Western Redector (Thuje bildste) n=10 Bio-estitiscie (Aper matrophy lumi: n+10 Sele (Gauther a she (on) in-40 Cuil Gregor-grape (Manonia nervosa) n+40 STRAIT OF Sworofern (Poyst shum muntum) re30 **GEORGIA** STEPHENSON POINT ROAD PROPOSED HOUSE 30 EASEMENT PLAN EPP79400 -ouse TREE INVENTORY Tree protection fending RECEIVED DP1151 Tree to be removed 2021-MAY-17 File: WL-29-GEN BIRD'S EYE VIEW Big John's Custom Home Proposed Covenant Area THIS DRAWING IS FOR Design LTD PRELIMINARY USE ONLY
ALL RIGHTS RESERVED
NOT TO BE USED FOR 230 616 3815 R. Turgeon CONSTRUCTION