



DEVELOPMENT PERMIT NO. DP000901

MR. BLAIR DUECK

Name of Owner(s) of Land (Permittee)

178 WESTWOOD 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 building structures and other developments thereon:

Legal Description:

LOT 1, SECTION 12, RANGE 7, MOUNTAIN DISTRICT, PLAN EPP40845

PID No. 029-343-321

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 and Aquatic Setback Information

Schedule C RAR Executive Summary

Schedule D Riparian Restoration Works

- a) If the applicant does not substantially commence the development permitted by this permit within two years of the date of this permit, the permit shall lapse.

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.
5. The City of Nanaimo "ZONING BYLAW 2011 NO. 4500" is varied as follows:

Location and Siting of Buildings and Structures to Watercourses
- Sections 6.3.1.1 and 6.3.1.5

- The required watercourse setback is 15.0m from Darrough Creek.
The proposed watercourse setback is 10m, a variance of 5.0m.

Fence Height - Section 6.10.2

- The maximum permitted fence height in a front yard is 1.2m. The proposed fence height is 1.8m, a variance of 0.6m.

AUTHORIZING RESOLUTION PASSED BY COUNCIL
THE 29TH DAY OF SEPTEMBER, 2014.



Corporate Officer



Date

GN/lb

Prospero attachment: DP000901

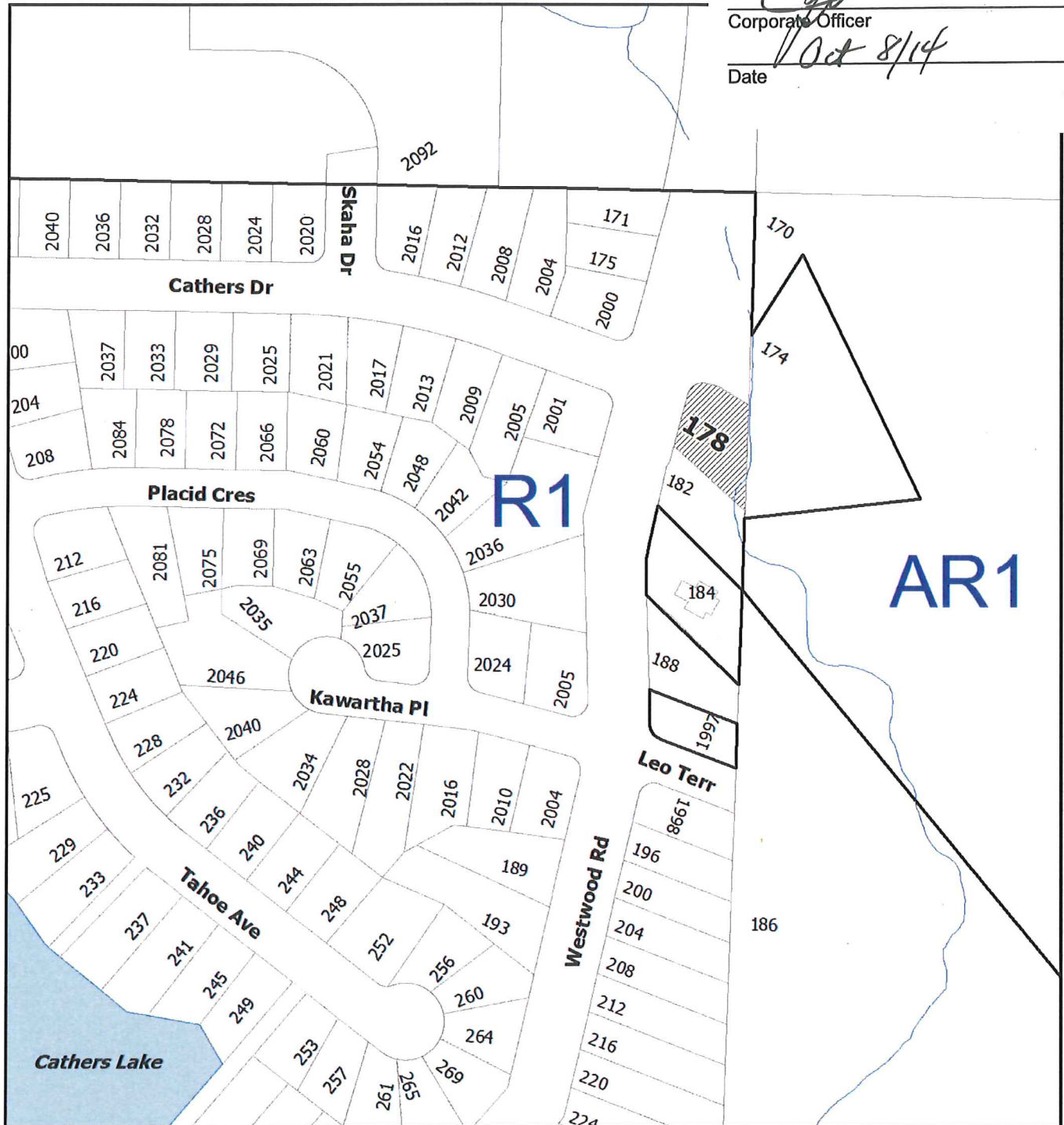
This is Schedule A referred to in the
Development Permit.

SCHEDULE A

Corporate Officer

Date

Oct 8/14



DEVELOPMENT PERMIT NO. DP000901

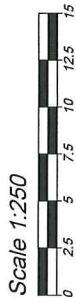
LOCATION PLAN



**Subject
Property**

Civic: 178 Westwood Road
Lot 1, Section 12, Range 7,
Mountain District, Plan EPP40845

*SITE PLAN SHOWING PROPOSED RIPARIAN SETBACK ON:
LOT 1, SECTION 12, RANGE 7, MOUNTAIN DISTRICT, PLAN
EPP40845.*



PARCEL DIMENSIONS SHOWN HEREON ARE DERIVED FROM LAND
TITLE OFFICE RECORDS.

SETBACKS ARE DERIVED FROM FIELD SURVEY IN COOPERATION WITH ADAM CAMPTON, BIOLOGIST, AND COMPLETED ON AUGUST 21, 2014.

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM MONUMENT
90H9817. MONUMENT ELEV = 65.882.

THIS PARCEL MAY BE SUBJECT TO THE NON-FINANCIAL CHARGES AS SHOWN ON THE CURRENT CERTIFICATE OF TITLE AND MAY AFFECT THE PROPERTY:

THE SIGNATORY ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR ANY DAMAGES THAT MAY BE SUFFERED BY A THIRD PARTY AS A RESULT OF ANY DECISIONS MADE, OR ACTIONS TAKEN BASED ON THIS DOCUMENT.

THE CIVIC ADDRESS OF THE PROPERTY IS:
178 WESTWOOD ROAD.

ALL RIGHTS RESERVED. NO PERSON MAY COPY, REPRODUCE, TRANSMIT OR ALTER THIS DOCUMENT IN WHOLE OR IN PART WITHOUT THE CONSENT OF THE SIGNATORY.

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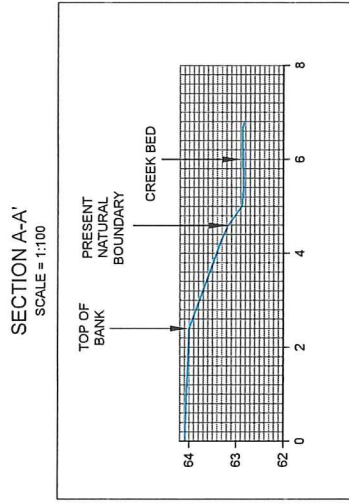
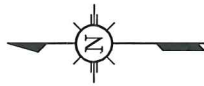
LEGEND:

- DENOTES LEGAL POST FOUND.
 ● DENOTES MAPLE TREE.

THIS PLAN LIES WITHIN THE THE CITY OF NANAIMO.

Harbour City Land Surveying Ltd.
1825 LATIMER ROAD
NANAIMO BC V9S 5H2
PHONE: 250-758-4180

DRAWING: 10088-RAR-SETBACKS-REV-1.DWG
LAYOUT: 1



This is Schedule ~~B~~ referred to in the Development Permit.

Corporate Officer

Date _____

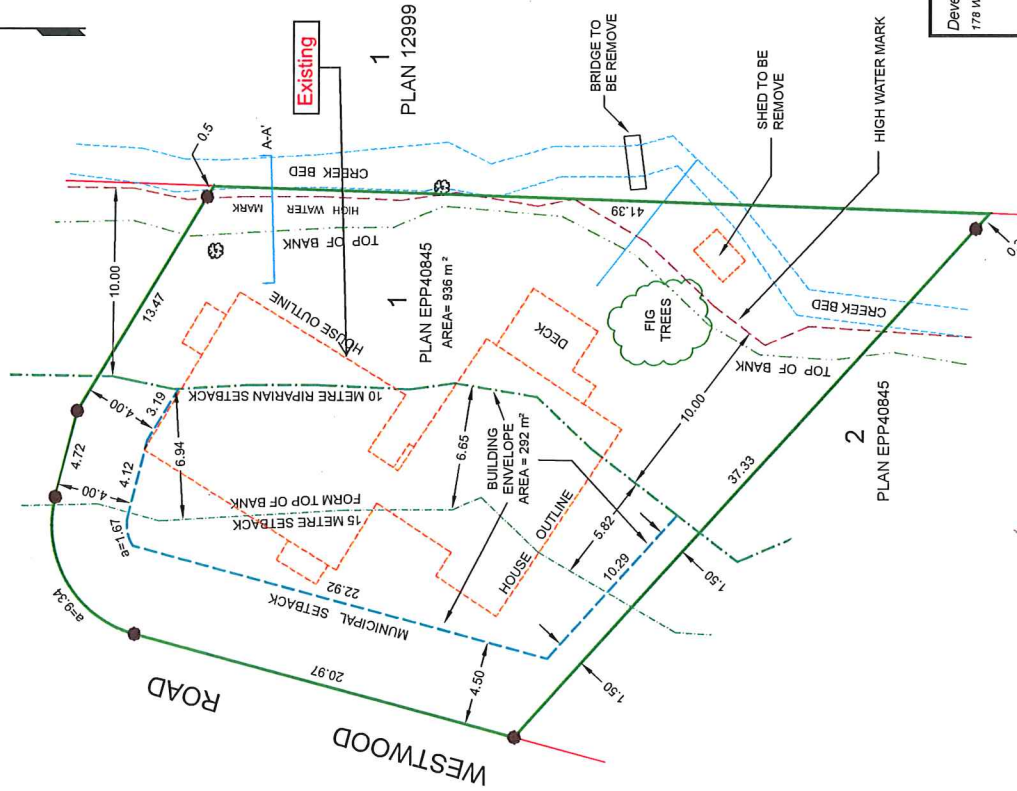
THIS DOCUMENT SHOWS THE RELATIVE LOCATION OF THE SURVEYED STRUCTURES AND FEATURES WITH RESPECT TO THE BOUNDARIES OF THE PARCEL DESCRIBED HEREON. THIS DOCUMENT SHALL NOT BE USED TO DEFINE PROPERTY LINES OR PROPERTY CORNERS.

THIS SITE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE MANUAL OF STANDARD PRACTICE AND IT IS CERTIFIED CORRECT AS OF THE 17TH DAY OF SEPTEMBER, 2014.

Development Permit DP000901
178 Westwood Road

Schedule B

Site Plan and Aquatic Setback Information



RAR Executive Summary



208A - 2520 Bowen Road
Nanaimo, BC V9T 3L3
P: (250) 751-9070 • F: (250) 751-9068

September 2, 2014

EDI Job Number: 14-N-0572

Blair Dueck
Dueck General Contracting
3 4515 Uplands Dr
Nanaimo, BC V9T 6M8

This is Schedule C referred to in the
Development Permit.

Corporate Officer

Date

Oct 8/14

Re: Executive Summary for watercourse setback variance at 178 Westwood Road, Nanaimo

EDI Environmental Dynamics Inc. (EDI) was retained to review the subject property (178 Westwood Road) and provide an opinion on whether seeking a watercourse setback variance for future development of the site was feasible. Through an assessment of the site, it was determined that seeking a setback variance was both feasible and ecologically appropriate. The following is an executive summary as required by City of Nanaimo for the proposed variance request.

Executive Summary

The proposed variance request is needed to accommodate demolition of a dilapidated house and construction of a new home on a lot that is substantially constrained by the 15 m watercourse setback from Darrough Creek that is specified by Zoning Bylaw No. 4000.

Within the subject property, the watercourse and its riparian area have been moderately disturbed by historic residential development and use. The proposed development has a minimal potential to negatively impact Darrough Creek and its riparian area from construction related impacts, which can easily be mitigated as described in Section 4 of the Detailed Riparian Areas Regulation (RAR) Assessment Report prepared for this development. The proposed development will not require the loss of additional riparian vegetation. The new house would be located further from the creek than the existing house: outside of the riparian setback required by the RAR (10 m from the high water mark).

With the exception of installing a stormwater drain from the rock pit to the left bank (west bank) of the stream, all activities planned within the RAR setback are associated with riparian enhancement and restoration, the only provincial or federal agency review that is needed to support the proposed enhancements is submission of the finalized RAR Assessment Report to the online RAR Notification System. For the installation of the stormwater discharge, a Section 9 Notification under the BC Water Act is not required as per the Users' Guide to Working in and Around Water: "perimeter drain discharges include



proposed new discharges from independent single-lot, single family residential properties only, and do not require notification".

The proposed development represents an opportunity to substantially improve the ecological features, functions and conditions within the subject property. The RAR setback area will be substantially enhanced and restored by the following proposed activities:

- Removal of existing house that is partially within the RAR setback.
- Retention of existing native and non-invasive vegetation within the SPEA (trees, shrubs and herbaceous plants).
- Removal of garbage, debris, shed and footbridge.
- Removal of invasive species (Daphne laurel, holly, Himalayan blackberry).
- Planting native riparian species (trees and shrubs) throughout the RAR setback.

The existing, functional riparian area between the old house and the stream is narrow (~5 m) and is limited to a few areas that are naturally vegetated. The goal of the proposed restoration activities is to create a functional riparian ecosystem within the 10 m RAR setback. As such, there will be a substantial net gain of riparian habitat associated with the proposed development.

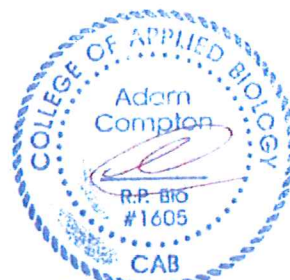
As described in Section 5 of the RAR Assessment Report, environmental monitoring will be conducted during demolition, construction and riparian restoration activities on an as-needed basis. Follow up monitoring will be completed for two years following riparian planting to ensure that the goals and objectives of the restoration plan are achieved. All environmental monitoring shall be provided by a Qualified Environmental Professional from EDI.

Please let me know if you have any questions regarding this executive summary.

Yours truly,

EDI ENVIRONMENTAL DYNAMICS INC.

Adam Compton, R.P. Bio.
Project Manager/Senior Biologist



*Original signed &
sealed Sep 2/14*

Riparian Restoration Works



208A - 2520 Bowen Road
Nanaimo, BC V9T 3L3
P: (250) 751-9070 • F: (250) 751-9068

September 2, 2014

EDI Job Number: 14-N-0572

Blair Dueck
Dueck General Contracting
3 4515 Uplands Dr
Nanaimo, BC V9T 6M8

This is Schedule D referred to in the
Development Permit.

Corporate Officer

Date

Re: Proposed riparian restoration works at 178 Westwood Road, Nanaimo

EDI Environmental Dynamics Inc. (EDI) has been retained to review the subject property (178 Westwood Road) and provide a riparian restoration plan associated with proposed redevelopment of the property. This plan shall be reviewed and approved by City of Nanaimo staff prior to implementation.

Proposed Riparian Restoration Works

Riparian restoration includes the following activities associated with demolition of an existing house, construction of a new house and enhancing the existing riparian area:

1. Removal of existing house that is partially within the RAR setback.
2. Retention of existing native and non-invasive vegetation within the SPEA (trees, shrubs and herbaceous plants).
3. Removal of garbage, debris, shed and footbridge.
4. Removal of invasive species (Daphne laurel, holly, Himalayan blackberry).
5. Planting native riparian species (trees and shrubs).

The focus of this plan is to describe the specific details associated with items 4 and 5 above.

Prepare the Site for Planting

The following site preparation activities shall be done prior to planting:

- Remove existing house and foundation, garbage, debris, shed and footbridge.
- Remove invasive species throughout the 10 m riparian setback on the west side of the creek:
 - All Himalayan blackberry, Daphne laurel and holly shall be removed using hand tools. Care shall be taken during laurel removal as its sap can be irritating to humans.





- Stems and roots must be pulled out by hand and removed from the soil. Shovels may need to be used to loosen soil around roots to ensure that all roots are removed.
- All parts of blackberry can produce a new plant; therefore, all parts of removed blackberry and other invasive plants must be bagged and disposed of at the local landfill.
- Existing fig tree clump can be left as it is not an invasive species and is not harming the features, functions and conditions of the riparian area.
- Where subsurface structures have been removed (concrete slab beneath shed and house foundations), soil shall be brought up to grade and topsoil shall be placed. At least 10 cm of topsoil shall be placed as the surface layer.
- Immediately following placement of topsoil, seed all exposed soil areas throughout the 10 m riparian setback with a reclamation seed mix and cover with a 2 to 3 cm layer of straw mulch.

Riparian Planting

1) Plant native trees and shrubs throughout the RAR setback area.

- Only areas that are not already vegetated with native species shall be revegetated. For example, riparian planting is not necessary within 0.75 m of native shrubs along the stream bank or within the two moderate sized patches of coltsfoot (*Petasites frigidus var. palmatus*) present near the middle of the property. Planting of native trees is not required within 3 m of the trunk of existing trees.
- All trees to be planted shall be at least 1 Gallon pot size.
- All shrubs to be planted shall be at least 4" pot size.
- All trees to be planted at an average spacing interval of 3.0 m.
- All shrubs to be planted at an average spacing interval of 0.75 m.
- The number of trees and shrubs required to meet the spacing requirements listed above shall be determined prior to ordering the plants.
- All trees and shrubs to be planted with a teabag style fertilizer pouch.
- All trees and shrubs that are edible by deer shall be sprayed with repellent prior to planting.
- All trees and shrubs to be planted such that the level of the soil from the pot is approximately 2 cm below the adjacent soil elevation. Soil excavated to create a hole for each plant shall then be used to cover the soil from the pot (to prevent soil from the pot from drying out or becoming oversaturated).



- All trees and shrubs to be planted by November 15, 2014.

Plant Species

At least 3 species of trees and 4 species of shrubs shall be used from the list of appropriate species provided in Table 1.

Table 1. Appropriate tree and shrub species to be planted.

Trees	Shrubs and ferns
bigleaf maple (<i>Acer macrophyllum</i>)	beaked hazelnut (<i>Corylus cornuta</i>)
Indian plum (<i>Oemleria cerasiformis</i>)	ocean spray (<i>Holodiscus discolor</i>)
Pacific dogwood (<i>Cornus nuttallii</i>)	red flowering currant (<i>Ribes sanguineum</i> var. <i>sanguineum</i>)
Douglas fir (<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>)	red huckleberry (<i>Vaccinium parvifolium</i>)
Pacific crabapple* (<i>Malus fusca</i>)	Saskatoonberry (<i>Amelanchier alnifolia</i>)
bitter cherry (<i>Prunus emarginata</i>)	tall Oregon grape (<i>Mahonia aquifolium</i>)
choke cherry (<i>Prunus virginiana</i>)	snowberry (<i>Symphoricarpos albus</i>)
western redcedar (<i>Thuja plicata</i>)	thimbleberry (<i>Rubus parviflorus</i>)
shore pine (<i>Pinus contorta</i> var. <i>contorta</i>)	red elderberry* (<i>Sambucus racemosa</i> var. <i>arborescens</i>)
	Nootka Rose (<i>Rosa nutkana</i>)
	salmonberry* (<i>Rubus spectabilis</i>)
	high bush cranberry (<i>Viburnum edule</i>)
	salal (<i>Gaultheria shallon</i>)
	red osier dogwood* (<i>Cornus stolonifera</i>)
	twinberry* (<i>Lonicera involucrata</i>)
	sword fern (<i>Polystichum munitum</i>)

* Species is appropriate for area below High Water Mark in which shed is currently located.

Notes:

Site selection will be important to ensure that soil moisture and sunlight conditions are suitable for the species planted in a given area.

Some substitutions may need to be made based on stock availability.



Maintenance and Inspection

- 1) Install irrigation system so that site will be adequately watered during the first two growing seasons (June to September).
- 2) Implement annual monitoring and maintenance to ensure survival targets are met and invasive species colonization is controlled.
 - A two year maintenance and inspection period is considered to be appropriate. Monitoring may be extended if survival targets are not achieved after the first two years.
 - Each spring (2015 and 2016), invasive plants shall be removed by the owner following the guidance provided in Attachment 1 for non-chemical control of invasive plants.
 - EDI shall inspect the site annually in the fall for 2 years (ending fall of 2017). Each inspection shall include:
 - i) An estimate of percent survival of trees and percent survival of shrubs.
 - ii) An estimate of percent area coverage of invasive plants.
 - iii) EDI shall provide a brief summary report with a list of recommendations to the owner following each site inspection. The report shall also be sent to the City of Nanaimo for their records. The report shall include general observations, overall health and growth of plants (poor, fair, moderate, good etc.), number and species of replacement plants needed, where replacement plants are needed, areas in which invasive species removal is needed and watering needs. The summary shall list when each of the recommendations should be completed.
 - iv) The owner shall then follow the recommendations made in each annual report.
 - v) Provided that the results of the second annual inspection are favorable, the final post-development report shall be submitted to the City of Nanaimo to complete the restoration requirements for this project.

The target survival rate of trees and shrubs shall be 80%. When less than 80% survival is observed in a given year, replacement planting shall be recommended to bring the areas back up to at least 90% survival. After two years, the site shall be considered to be successfully restored if:

- At least 80% of trees and 80% of shrubs are established and healthy.
- No invasive plants are present.

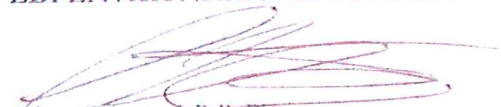
Re: Proposed riparian restoration works at 178 Westwood Road, Nanaimo
September 2, 2014



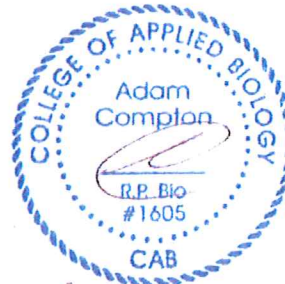
Please let me know if you have any questions regarding this letter.

Yours truly,

EDI ENVIRONMENTAL DYNAMICS INC.


Adam Compton, R.P. Bio.
Project Manager/Senior Biologist

Attachments: Invasive Plant Removal Methods



*Original signed &
sealed Sep 2 / 14*