

# City of Nanaimo

## REPORT TO COUNCIL

DATE OF MEETING: 2014-SEP-29

AUTHORED BY: GARY NOBLE, DEVELOPMENT APPROVALS PLANNER

RE: DEVELOPMENT PERMIT NO. DP897 – 3000 KEIGHLEY ROAD

**STAFF RECOMMENDATION:**

That Council issue Development Permit No. DP897 at 3000 Keighley Road to reduce the watercourse setback to 3.69m, in order to permit a house renovation and foundation replacement, and the associated riparian vegetation replacement and restoration.

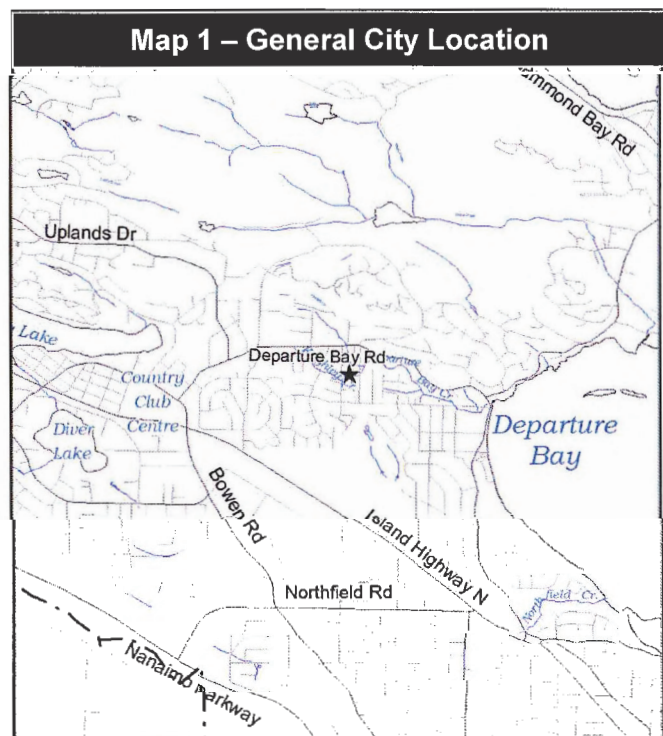
**PURPOSE:**

The purpose of this report is to seek Council authorization to issue a development permit in order to allow for renovation of a single family dwelling, including replacement of the existing foundation, within the watercourse setback area.

**BACKGROUND:**

A development permit application was received from MR. BUDDY ROOZENBURG. Staff support the application and the proposed variance.

The Design Advisory Panel did not review the application as a form and character assessment is not a requirement of this application.



*Subject Property*

Zoning	R1 – Single Dwelling Residential
Location	The subject property is located at the end of the north portion of Keighley Road
Total Area	1713m <sup>2</sup>
Official Community Plan (OCP)	Map 1 – Future Land Use Plan – Neighbourhood Map 3 – Development Permit Area DPA No. 1 – Watercourses

- Council
- Committee.....
- Open Meeting
- In-Camera Meeting

Meeting Date: 2014 Sep 29

## DISCUSSION

### *Proposed Development*

The applicant is proposing to replace the foundation and renovate the existing 100+ year old single family dwelling located 3.69m from the top of bank. A copy of the proposed site plan is attached as Schedule A.

An Executive Summary has been prepared by AQUAPARIAN ENVIRONMENTAL CONSULTANTS LTD. (Ms. Sarah Bonar R.P. Bio) highlighting the riparian restoration plan and demonstrating retention and maintenance of riparian habitat. The Executive Summary demonstrates an approximately 300m<sup>2</sup> of additional riparian vegetation over existing conditions. A copy of the Executive Summary is attached as Schedule B. Ms. Bonar has also submitted a Vegetation Management Plan identifying appropriate plantings - including the number, size, area, and maintenance requirements. A copy of the Vegetation Management Plan is attached as Schedule C.

### *Required Variance*

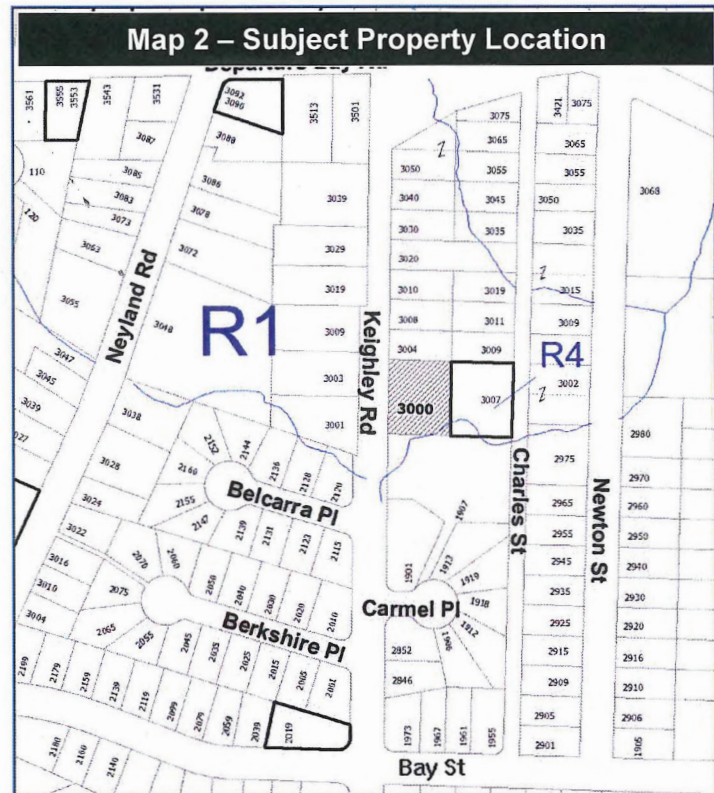
- *Watercourse Setback*

The required watercourse setback is 15.0m. The proposed watercourse setback is 3.69m, a proposed variance of 11.31m.


Respectfully submitted,



B. Anderson  
MANAGER  
PLANNING & DESIGN SECTION

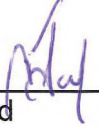


Concurrence by:



---

D. Lindsay  
DIRECTOR  
COMMUNITY DEVELOPMENT



---

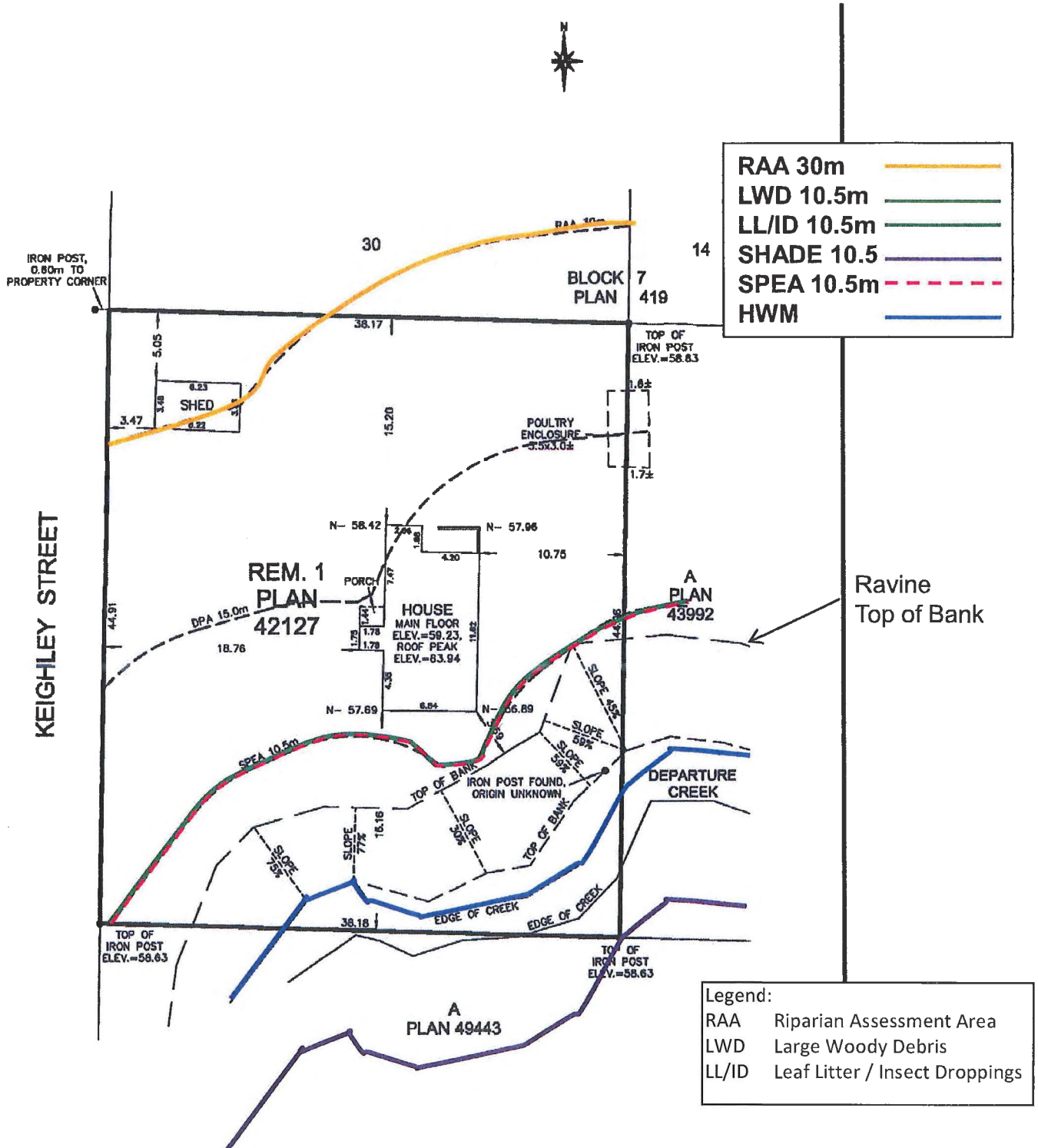
T. Seward  
ACTING GENERAL MANAGER  
COMMUNITY DEVELOPMENT &  
PROTECTIVE SERVICES

CITY MANAGER COMMENT:

I concur with the staff recommendation.

GN/jc/lb

\\Tempestdocs\PROSPERO\PLANNING\DEVPERMIT\DP000897\COUNCIL REPORT DP897.DOCX





August 26, 2014

Buddy Roozenburg  
3000 Keighley Road,  
Nanaimo BC

Via Email: [buddy@tectonica.ca](mailto:buddy@tectonica.ca)

RE: **3000 KEIGHLEY ROAD  
EXECUTIVE SUMMARY**



## 1.0 INTRODUCTION

Aquaparian Environmental Consulting Ltd. (Aquaparian) was retained by Buddy Roozenburg to provide environmental services in association with a foundation replacement at 3000 Keighley Road in Nanaimo BC.

The subject parcel is located on the north bank of Departure Creek and is the remaining portion of the original farm which once included the surrounding neighbourhood. The house is approximately 100 years old and as such requires extensive renovation including the complete replacement of the foundation.

The DPA for Departure Creek extends 15m from the top of ravine bank. The existing cleared yard extends to within 2-3m of the top of ravine bank and has been that way for decades. Results of a Riparian Areas Assessment determined the Streamside Protection and Enhancement Area (SPEA) is 10.5m extending from the high water mark; approximately 2m beyond the top of ravine bank. Under the RAR existing development and land use is "grandfathered". 100% of the SPEA is vegetated but has a number of invasive species including English ivy, bamboo, spurge laurel and holly. Due to the cedar canopy, typical native understory species options are limited.

As required by the City of Nanaimo watercourse setback variance procedure, riparian restoration is needed to meet the "no net loss" of riparian habitat. The following plan has been designed to meet that requirement.

**2.0 RESTORATION CALCUALTION**

A calculation of the DPA impacted by the existing development and proposed foundation replacement is as follows:

**Table 1. Estimated Riparian Restoration Requirement:**

Existing Area Description	Area Estimate m <sup>2</sup>
DPA area within the parcel minus the house	~1000m <sup>2</sup>
Existing intact riparian vegetation area with ~ 15% invasive species coverage	~675m <sup>2</sup> (100m <sup>2</sup> invasive)
Existing lawn in DPA	~300m <sup>2</sup>
Area to be enhanced &/or restored	300m <sup>2</sup>

\*estimates have been derived from aerial photo interpretation.

**Table 2. Restoration Recommended:**

Restoration Area Description	Area Estimate m <sup>2</sup>	Treatment
Existing riparian vegetation area	100m <sup>2</sup>	Remove invasive species and add 25 sword fern.
Additional riparian planting on lawn area	200m <sup>2</sup>	Plant 6.5m x 30m from top of bank within riparian area.
<b>Total enhanced / restored area:</b>	<b>300m<sup>2</sup></b>	

Following restoration, there will be approximately 300m<sup>2</sup> additional riparian vegetation over existing conditions.

Sincerely,

**AQUAPARIAN ENVIRONMENTAL CONSULTING LTD.**

ORIGINAL SIGNED

\_\_\_\_\_  
Sarah Bonar, B.Sc., R.P.Bio.  
Principal



503 COMOX ROAD, NANAIMO, BC V9R 3J2  
SARAH BONAR 250-714-8446 CHRIS ZAMORA 250-714-8864

Vegetation Management Plan



August 19, 2014

Buddy Roozenburg  
3000 Keighley Road,  
Nanaimo BC

Via Email: [buddy@tectonica.ca](mailto:buddy@tectonica.ca)

RE: 3000 KEIGHLEY ROAD  
VEGETATION MANAGEMENT PLAN

### 1.0 INTRODUCTION

Aquaparian Environmental Consulting Ltd. (Aquaparian) was retained by Buddy Roozenburg to provide environmental services in association with a foundation replacement at 3000 Keighley Road in Nanaimo BC. The subject parcel is located on the north bank of Departure Creek and is the remaining portion of the original farm which once included the surrounding neighbourhood.

The house is approximately 100 years old and as such requires extensive renovation including the replacement of the foundation. The majority of the house lies within the watercourse Development Permit Area (DPA) for Departure Creek; the existing cleared yard extends within 2-3m of the top of ravine bank and has been that way for decades.

A Riparian Areas Assessment was completed for the parcel resulting in a Streamside Protection and Enhancement Area (SPEA) of 10.5m from the high water mark. The house is not inside the SPEA. 100% of the calculated SPEA is forested with mature western red cedar but has a number of invasive species including English ivy, bamboo, spurge laurel and holly. Due to the dense, cedar canopy, native understory species options are limited for this area. The forest floor of such areas is typically barren with sparse sword fern where light penetration allows.

As required by the City of Nanaimo watercourse setback variance procedure, riparian restoration is needed to meet the "no net loss" of riparian habitat in the DPA. The following plan has been designed to meet that requirement.

## 2.0 RESTORATION CALCULATION

Tables 1 and 2 below identify the area of the existing development impact within the DPA and an estimate of the area to be restored or enhanced to meet the “no net loss” policy for the foundation replacement Development Permit application and watercourse setback variance.

**Table 1. Estimated Riparian Restoration Requirement:**

Existing DPA Area Description	Area Estimate m <sup>2</sup>
DPA area within the parcel minus the house	~1000m <sup>2</sup>
Existing intact riparian vegetation with ~ 15% invasive species coverage	675m <sup>2</sup> (~100m <sup>2</sup> invasive sp)
Existing lawn in DPA	300m <sup>2</sup>
<b>Area to be enhanced and / or restored</b>	<b>300m<sup>2</sup></b>

**Table 2. Restoration Recommended:**

Restoration Area Description	Area Estimate m <sup>2</sup>	Treatment
<b>Area A)</b> Existing riparian vegetation area	100m <sup>2</sup>	Remove invasive species and add 25 sword fern
<b>Area B)</b> Additional riparian planting on lawn area	200m <sup>2</sup>	Plant 5m x 40m from top of bank within riparian area.
<b>Total enhanced / restored area:</b>	<b>300m<sup>2</sup></b>	

## 3.0 PLANTING PLAN

Aquaparian recommends the following species to be planted:

Common Name	Botanical Name	Number	Size	Cost	Total	Area
Sword fern	<i>Polystichum munitum</i>	25	1 Gal	\$4.75	\$118.75	A
Indian plum	<i>Oemlaria cerasiformis</i>	10	1 Gal	\$4.75	\$47.50	B
Snowberry	<i>Symphoricarpos albus</i>	20	1 Gal	\$4.75	\$95.00	B
Salal	<i>Gaultheria shallon</i>	125	9cm	\$2.25	\$281.25	B
Oregon grape	<i>Mahonia nervosa</i>	25	1 Gal	\$5.50	\$137.50	B
Saskatoon berry	<i>Amelanchier alnifolia</i>	20	1 Gal	\$4.75	\$95.00	B
<b>Total</b>		<b>225</b>			<b>\$775.00</b>	B

\*Estimated wholesale cost from Streamside Native Plants on-line price list. Price does not include delivery, tax or installation.

- For the area within the existing forested ravine, groundcover options are limited due to the dense western red cedar canopy. Aquaparian recommends planting 25 sword fern in place of the spurge laurel in the hopes of limiting its re-growth.



503 COMOX ROAD, NANAIMO, BC V9R 3J2  
SARAH BONAR 250-714-8446 CHRIS ZAMORA 250-714-8864



- The remaining species are to be planted within Area B - the 200m<sup>2</sup> area starting at the edge of the existing riparian vegetation. The grass sod should be removed to prepare the planting area. A planting plan has been included as Figure 1.
- Shrub density should be 1/m<sup>2</sup> and plant placement should mimic a natural growth pattern i.e. clusters of same species.
- Install the plants in the early fall or spring with a handful of bone meal in each hole. Water as necessary through the first two dry seasons until the plants are well established. Organic mulch should be spread over the bare soil to retain water and keep weeds / grass down.
- Plants are to be maintained for two years with replanting as necessary with the end goal of allowing the plants to grow and in-fill the new riparian area.
- Removal of invasive species is likely to require annual maintenance as new shoots grow every spring from the existing seed bank or remaining rhizomes. Particular care should be observed removing the spurge laurel as it is a poisonous plant and the sap can cause severe skin irritation. The berries are poisonous and may be ingested by small children with fatal consequences. (Appendix A - WorksafeBC fact sheet).

### 3.0 BOND CALCULATION

Aquaparian assumes the actual planting and invasive removal will be completed by the landowners; however, the City requires a Bond estimate. The Bond is intended as assurance that the restoration will be carried out and would be used by the City to install the plantings if it is not. Upon successful completion the bond will be released.

Aquaparian estimates the labour effort to remove the invasive species, prepare the planting area and install the plants will take approximately 50 person hours. For the purposes of a Bond calculation, a rough labour estimate to complete the above planting based on \$20/hr is \$1000.00.

Therefore, the cost of plants, delivery, mulch, bone meal, labour is estimated to be:

<b>Plants</b>	<b>\$775</b>
<b>Mulch/bone meal</b>	<b>\$200</b>
<b>Labour</b>	<b><u>\$1000</u></b>
	<b>\$1975 plus applicable taxes</b>

\*\*actual cost will vary based on plant source, delivery fee, labour cost etc.



503 COMOX ROAD, NANAIMO, BC V9R 3J2  
SARAH BONAR 250-714-8446 CHRIS ZAMORA 250-714-8864

#### 4.0 PLANT SOURCES

##### **Streamside Native Plants**

Division of Viking Marine/Outdoors Ltd

7455 Island Highway West

Bowser, British Columbia V0R 1G0

Phone/Fax: 250-757-9999

Toll Free: 877-570-3138

[http://members.shaw.ca/nativeplants/streamside\\_home.html](http://members.shaw.ca/nativeplants/streamside_home.html)

E-mail: [Richard@streamsidenativeplants.com](mailto:Richard@streamsidenativeplants.com)

The nursery is located at 7455 Island Highway West (Highway 19A) Bowser B.C.

##### **Nanaimo & Area Land Trust**

3145 Frost Road, Cassidy BC

*The Natural Abundance*

Native Plant Nursery's

Open 10 am - 4 pm Wednesdays & 11 am - 3 pm Saturdays

For more information please call:

250-714-1990 or 250-668-7670.

#### 5.0 CLOSURE

Aquaparian trusts this meets your requirements to meet the City of Nanaimo's "no net loss" policy for Development Permits with a watercourse setback variance. If you require further information please contact the undersigned.

Sincerely,

**AQUAPARIAN ENVIRONMENTAL CONSULTING LTD.**

ORIGINAL SIGNED

---

Sarah Bonar, B.Sc., R.P.Bio.  
Principal



503 COMOX ROAD, NANAIMO, BC V9R 3J2  
SARAH BONAR 250-714-8446 CHRIS ZAMORA 250-714-8864