

REGIONAL DISTRICT OF NANAIMO
AGRICULTURAL ADVISORY COMMITTEE
FRIDAY, MAY 23, 2014
2:00 PM

(Board Chambers)

A G E N D A

PAGES

CALL TO ORDER

MINUTES

2-5 Minutes of the Agricultural Advisory Committee meeting held March 28, 2014.

ALC APPLICATIONS

6-69 ALR Application No. PL2014-027 – Maz-Can – Fern Road – 2729 Parker Road, Electoral Area 'E'.

BUSINESS ARISING FROM THE MINUTES

70 Farm Classification Letter to BCAA.

Dogs Harassing Livestock Update (Verbal).

AAP Implementation Update (Verbal).

REPORTS

NEW BUSINESS

ADJOURNMENT

Distribution: D. Johnstone (Chair), H. Houle, J. Fell, C. Springford, K. Reid, R. Thompson, C. Watson, M. Ryn, K. Wilson, J. McLeod, R. Wahlgren, W. Haddow, P. Thorkelsson , G.Garbutt, J.Holm, P. Thompson, T. Armet, L. Rowett, G. Keller, N. Hewitt

REGIONAL DISTRICT OF NANAIMO
MINUTES OF THE AGRICULTURAL ADVISORY COMMITTEE
MEETING HELD ON FRIDAY, MARCH 28, 2014 AT 2:00 PM
IN THE RDN BOARD CHAMBERS

Present:

Director D. Johnstone	Chairperson
Director J. Fell	Electoral Area F
K. Wilson	Representative (South)
M. Ryn	Representative (South)
C. Watson	Representative (North)
R. Thompson	Representative (North)
C. Springford	Regional Agricultural Organization
J. McLeod	Regional Agricultural Organization
K. Reid	Regional Aquaculture Organization

Also in Attendance:

P. Thompson	A/ Gen. Manager of Strategic and Community Development
J. Holm	Manager of Current Planning
L. Rowett	Senior Planner
G. Keller	Senior Planner
N. Hewitt	Recording Secretary

Regrets:

Director H. Houle	Electoral Area B
W. Haddow	Regional Agrologist, Ministry of Agriculture

CALL TO ORDER

Chairperson Johnstone called the meeting to order at 2:00 p.m.

MINUTES

MOVED Director Fell, SECONDED K. Reid, that the minutes of the regular Agricultural Advisory Committee meeting held January 24, 2014 be adopted.

CARRIED

DELEGATION

Laurie Gourlay, Vancouver Island & Coast Conservation Society, re 'Buy Island' Campaign and Other Initiatives to Promote Local Agriculture.

Mr. Gourlay provided a verbal overview of the Buy Island campaign in order to promote local agriculture.

ALC APPLICATIONS

AAC & Area Director Comments on ALR Applications.

Jeremy Holm provided a verbal overview of the amended Board Policy (B1.8) for providing Area Director and AAC comments in addition to the Board standing resolutions for ALR applications (exclusion, subdivision, non-farm use) to the Agricultural Land Commission.

Colin Springford entered the meeting at 2:32 p.m.

Mayta Ryn left the meeting citing a conflict of interest with the following item at 2:35pm.

ALR Application No. PL2014-010 – Carifelle – 2455 Holden Corso Road & 1617 Rugg Road, Electoral Area 'A'.

The applicant, Ken Carifelle, spoke in favor of the application.

MOVED J. Fell, SECONDED K. Reid, that Application No. PL2014-010 for subdivision in the ALR be forwarded to the Agricultural Land Commission with a recommendation to approve the application.

CARRIED

Mayta Ryn returned to the meeting at 2:40 p.m.

ALR Application No. PL2014-013 – Paravicini – 531, 533, and 539 Parker Road West, Electoral Area 'G'.

MOVED J. McLeod, SECONDED C. Springford, that Application No. PL2014-013 for exclusion from the ALR be forwarded to the Agricultural Land Commission with a recommendation to deny the application.

CARRIED

BUSINESS ARISING FROM THE MINUTES

Agricultural Fair (February 7th & 8th) - J. McLeod.

Joanne McLeod provided a verbal overview of the Agricultural Fair she attended in Duncan.

Delegation Agreement for Oil and Gas Uses in the Agricultural Land Reserve Peace River Regional District and Northern Rockies Regional Municipality (June 2013).

Paul Thompson advised that this Agreement does not apply to the Regional District of Nanaimo.

Farm Classification Letter to BCAA.

Paul Thompson provided a brief update on the Farm Classification Letter to the British Columbia Assessment Authority. Staff require more direction from the Committee on the content of the letter.

MOVED J. Fell, SECONDED M. Ryn, that the Committee requests that staff draft a letter to the British Columbia Assessment Authority supporting the expansion of the list of considerations for value-added and agri-tourism criteria for farm classification.

CARRIED

Dogs Harassing Livestock Update.

Jeremy Holm provided an update on the Board's three motions:

That the Bylaw and Policy Review project in the 2014-2016 Agricultural Area Plan (AAP) Implementation Action Plan include consideration of options to minimize the impact of trespass by at-large dogs on farms with livestock.

That staff be directed to investigate and bring back a report on amending Regional District of Nanaimo animal control bylaws to include provisions for classifying and regulating nuisance to livestock dogs and the compensation to parties as result of the actions of dangerous or nuisance dogs.

That the Board of Directors of the Regional District of Nanaimo send a letter to the Minister of Agriculture asking that the Livestock Act be amended so as to better protect livestock from nuisance dogs.

The motions were received by the Board on February 25, 2014. Staff will draft a letter to the Ministry of Agriculture. Bylaw Services will provide an update on possible amendments to Regional District of Nanaimo Animal Control Bylaws at the next Agricultural Advisory Committee meeting.

Agricultural Land Use Inventory / Agricultural Water Demand Model Project Update.

Lainya Rowett provided a verbal update of the data from the land use inventory and water demand model. Staff has asked that the Ministry of Agriculture provide a final report on the land use inventory.

CORRESPONDENCE

BC Food Systems Network, Kathleen Gibson, re Potential Concerns Regarding Changes to ALR.

MOVED J. Fell, SECONDED K. Reid, that the correspondence be received from BC Food Systems Network relating to the potential concerns regarding changes to the ALR.

CARRIED

March 2014 Update from ALC.

MOVED J. Fell, SECONDED K. Reid, that the correspondence be received from the ALC.

CARRIED

REPORTS

Agricultural Area Plan Implementation Projects Update:

Greg Keller provided a verbal overview of the Bylaw and Policy Review Project.

Lainya Rowett provided a verbal overview of the Agricultural Promotion and Economic Development Project.

NEW BUSINESS

Ocean Acidification.

Keith Reid provided a brief update on the rising acidity in the Georgia Strait and how the changing PH levels are affecting shellfish.

Next AAC Meeting.

Staff will coordinate scheduling of the next meeting to be held on either Friday May 2, 9 or 23, 2014.

ADJOURNMENT

MOVED K. Reid, SECONDED J.Fell, that this meeting be adjourned.

CARRIED

Time: 3:46 pm

CHAIRPERSON

TO: Agricultural Advisory Committee (AAC) **DATE:** May 13, 2014

FROM: Angela Buick
Planner **FILE:** PL2014-027

SUBJECT: Request for Comments on an Application for Subdivision in the ALR
Lot 3, District Lot 67, Nanoose District, Plan 29941
2729 Parker Road – Electoral Area ‘E’

APPLICATION BACKGROUND:

The subject property is approximately 2.56 ha in area and is contained entirely within the Agricultural Land Reserve (ALR). The parcel is bound by non-ALR residential parcels to the north and east, Parker Road East to the south, and residential lots within the ALR to the west. The property currently contains one dwelling unit

The applicants are proposing to subdivide the subject property pursuant to Section 99(1) (h) of the Land Title Act into two Lots: REM Lot 3 (2.09 ha in size) which will contain the existing house and Lot A (0.47 ha in size). If subdivision is successful, Proposed Lot A (encompassing the southeast corner property with access off Parker Road East) is intended to be transferred to the Regional District of Nanaimo (RDN) in order for the RDN to gain property ownership and rights to the existing well for the purposes of providing additional water supply to Nanoose Bay Peninsula Water Service Area. AAC Members were provided an opportunity to attend the site at a site visit held April 14, 2014. (See attachment 10 for applicant’s submission).

BOARD POLICY AND PROCESS:

As you are aware, recent amendments to Board Policy B1.8 – Review of Provincial Agricultural Land Reserve Applications provides opportunity for the AAC to review and provide comments on ALR applications for exclusion, subdivision and non-farm use on lands within the ALR. As per Board Policy B1.8, the applicable standing Board resolution is included for the ALC’s information as part of the attached Local Government Report. A copy of this report, including comments from the Area Director, is included for your review and comment. Following this review, a copy of the Local Government Report, including comments from the Area Director and the AAC, will be forwarded to the ALC for consideration.



Report Writer

Local Government Report
Under the Agricultural Land Reserve
Use, Subdivision and Procedure Regulation

Information supplied by:

Regional District of Nanaimo

Local Government

In respect of the application of:

Helen Sims of Fern Road Consulting Ltd on
behalf of Maz-Can Investments Ltd. Inc. No. A0070861

Name of Applicant

RDN. File No.	PL2014-027
Fee Receipt No.	2014-5718
Fee Amount	\$600.00
Mapsheet.	92F.030.3.1
Legal Address:	Lot 3, Dist. Lot 67, Nanoose Dist., PI 29941
Civic Address:	2729 Parker Road East

PLANS and BYLAWS (*Attach relevant sections of bylaws*)

Community Plan or Rural Land Use Bylaw name and designation:

["Nanoose Bay Official Community Plan Bylaw No. 1400, 2005"](#) Land Use Designation: ['Resource Lands within ALR'](#)

Zoning Bylaw name and designation:

["Regional District of Nanaimo Land Use and Subdivision Bylaw No. 500, 1987"](#)
Zoning: [Rural 5 \(RU5\)](#)

Minimum Lot Size:

[Subdivision District 'D': 2.0 ha min lot size; serviced or unserviced](#)

Uses permitted &
Maximum Density:

[Rural 5 Permitted Uses: Agriculture, Aquaculture, Home Based Business, Produce Stand,
Residential Use, Silviculture](#)
[Rural 5 Maximum Density: on parcels 2.0 ha or less: 1 Dwelling Unit
on parcels greater than 2.0 ha: 2 dwelling units](#)

Are amendments to Plans or Bylaws required for the proposal to proceed?

Plan Yes No

Bylaw Yes No

Is authorization under Sec. 25 (3) or 30 (4) of the Agricultural Land Commission Act required?

Yes (*If yes, please attach resolution or documentation*)

No

COMMENTS and RECOMMENDATIONS (*Include copies of resolutions*)

Board or Council:

[Standing Board resolution as per Policy B1.8: As outlined in the Regional Growth Strategy, the Regional District of Nanaimo fully supports the mandate of the Agricultural Land Commission \(ALC\) and the preservation of land within the Agricultural Land Reserve \(ALR\) for agricultural use. The Regional District encourages the ALC to only consider subdivision where in the opinion of the ALC the proposal will not negatively impact the agricultural use of the land or adjacent ALR lands.](#)

Electoral Area Director:

[Director G. Holme does not have any comments](#)

Advisory Planning Commission:

[n/a](#)

Agriculture Advisory Committee:

Planning Staff:

[Angela Buick, Planner](#) Phone: (250) 390-6510 Email: abuick@rdn.bc.ca

Background

The subject property can be legally described as Lot 3, District Lot 67, Nanoose District, Plan 29941 and the civic address is 2729 Parker Road East (see Attachment 1 and 2). The property is approximately 2.56 ha in area and is contained entirely within the ALR. The parcel is bound by non-ALR residential parcels to the north and east, Parker Road East to the south, and residential lots within the ALR to the west. The property currently contains one dwelling unit

The applicants are proposing to subdivide the subject property pursuant to Section 99(1) (h) of the Land Title Act into two Lots: REM Lot 3 (2.09 ha in size)(see Attachment 9) which will contain the existing house and Lot A (0.47 ha in size). If subdivision is successful, Proposed Lot A (encompassing the southeast corner property with access off Parker Road East) is intended to be transferred to the RDN in order for the RDN to gain property ownership and rights to the existing well for the purposes of providing additional water supply to Nanoose Bay Peninsula Water Service Area water supply.

Land Use

Pursuant to the “Regional District of Nanaimo Land Use and Subdivision Bylaw No. 500, 1987”, the parcel is zoned Rural 5 (RU5) (see Attachment 3) and is within Subdivision District ‘D’ (2.0 ha minimum parcel size). Notwithstanding the minimum parcel size requirements, Part 4.9 of the Subdivision Regulations, exempt a parcel used solely for unattended public utility use from the requirement of a minimum parcel size.

The RU5 zone permits agriculture, aquaculture, home based business, produce stand, residential use and silviculture as uses and allows 2 dwelling units on parcels greater than 2.0 ha in area.

Official Community Plan Designation

The subject property is designated as ‘Resource Lands within the ALR’ pursuant to the Regional District of Nanaimo “Nanoose Bay Official Community Plan Bylaw No. 1400, 2005” (see Attachment 5). Please review Policy 12 that applies to lands within the ALR.

Development Permit Areas

The parcel is currently designated within the Farm Land Protection and Watercourse Protection Development Permit Areas. A development permit may be required prior to any subdivision or alteration of the land.

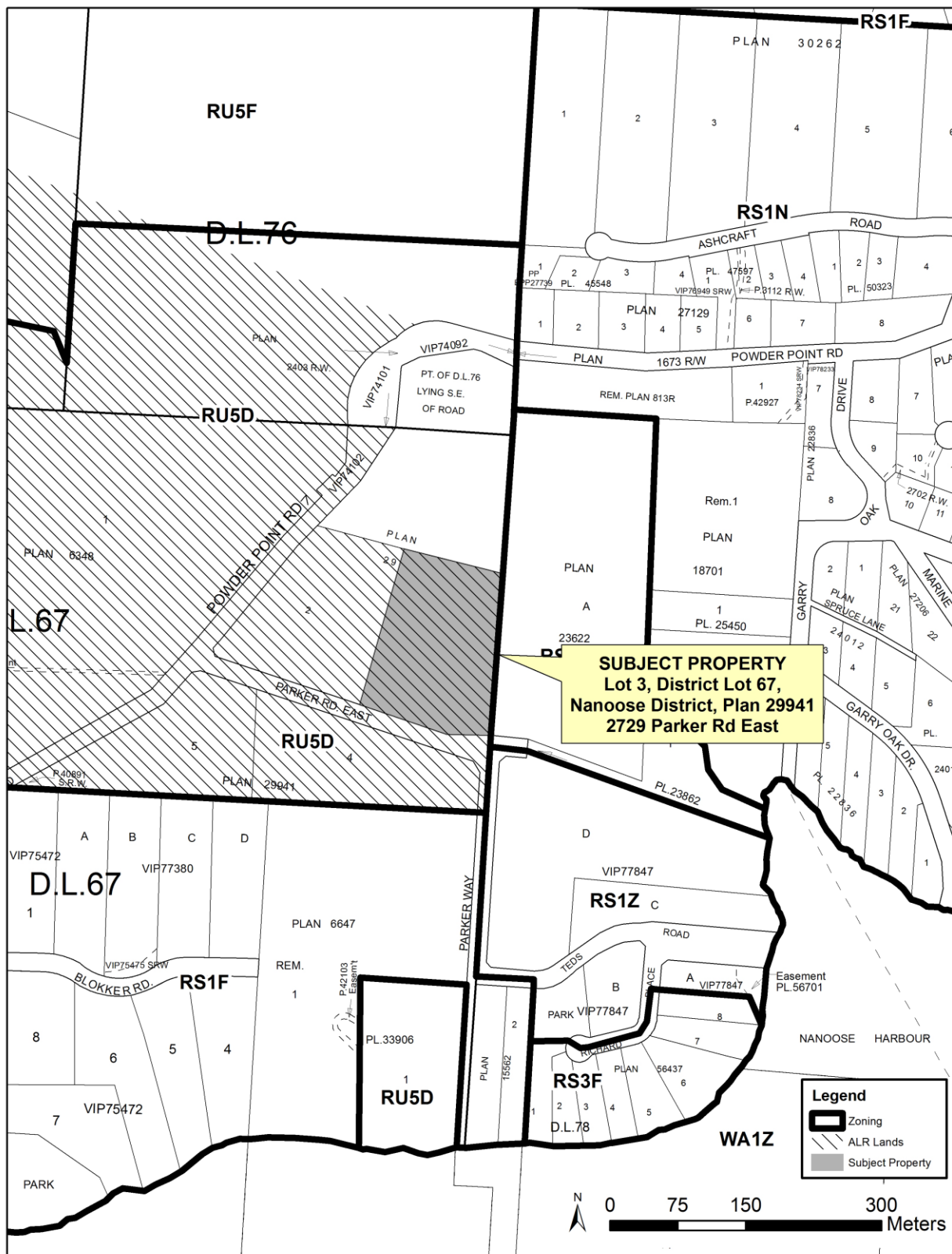
Regional Growth Strategy

The subject property is designated ‘Resource Lands and Open Spaces’ pursuant to the “Regional District of Nanaimo Regional Growth Strategy Bylaw No. 1615, 2011” (RGS) (Attachment 4 and 6). Further to this, the Regional Growth Strategy encourages enhance economic resiliency and food security by protecting and preserving the agricultural land base through the ALR (Attachment 7 and 8).

Angela Buick, Planner

Report Writer

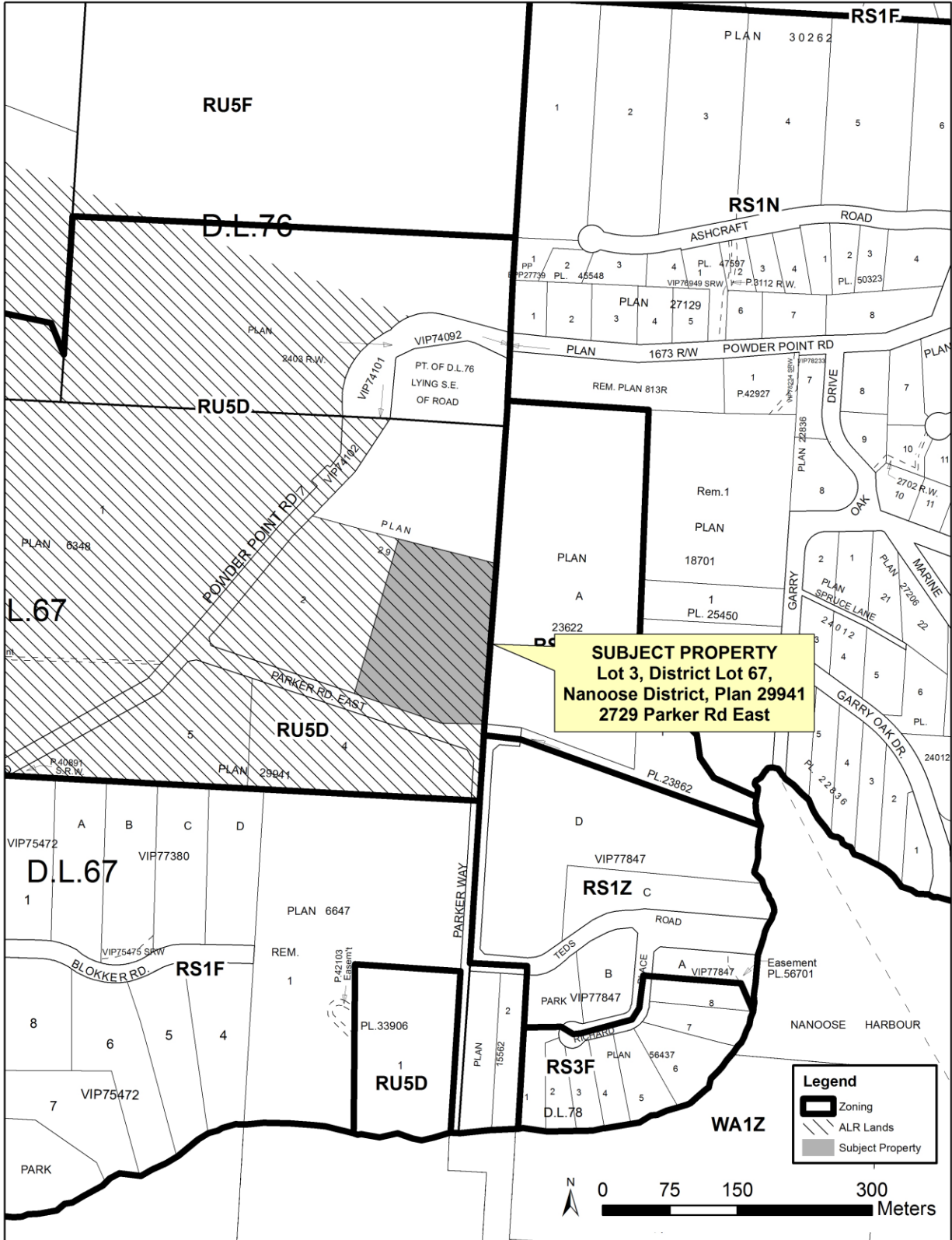
**Attachment 1
Subject Property Map**



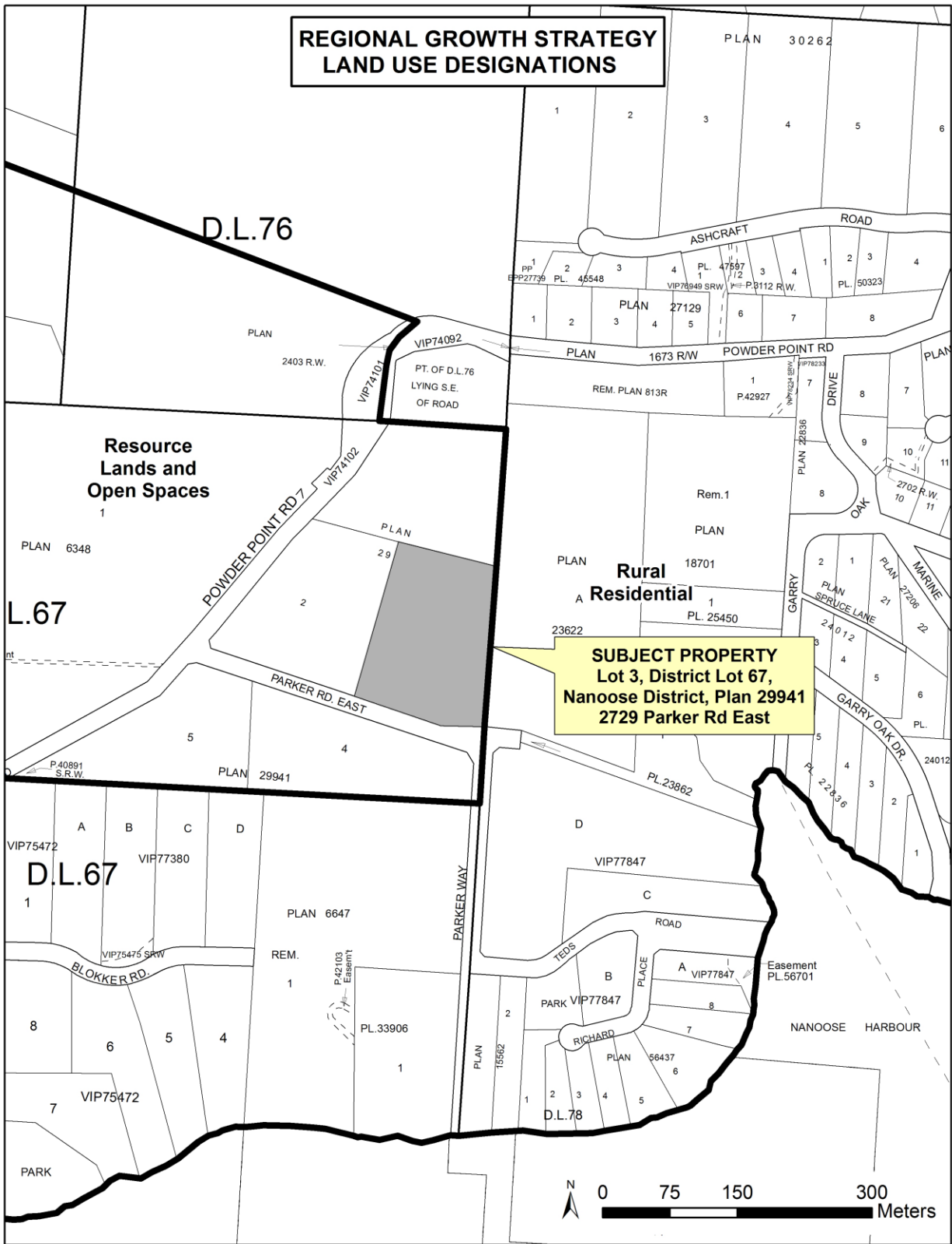
Attachment 2
2012 Aerial Photo



**Attachment 3
Rural 5 (RU5) Zone**



**Attachment 4
Regional Growth Strategy Land Use Designations**



Attachment 5
Official Community Plan 'Rural Resource' Land Use Designation
(Page 1 of 5)

receiving waters, including channel stability and flow maintenance.

3.4 RESOURCE LANDS

The Resource Lands designation applies to lands that are valued for their agricultural use, forestry use, natural resource extraction capability, yet also valued for their environmental attributes, as these lands provide habitat for indigenous species on Vancouver Island.

This land use designation includes all those lands within the Agricultural Land Reserve (ALR) and lands that were in the former provincially designated Forest Land Reserve (FLR). It also includes lands with known and active resource uses that may or may not be in the ALR or FLR, and other large holdings including large recreational holdings and those used for federal or provincial purposes.

Agriculture is a permitted use in a large proportion of the Nanoose Bay Plan Area. It represents a primary and secondary source of income for some Nanoose Bay residents. Land management practices, which preserve agricultural land and the sustainable production of food, are supported and encouraged in this OCP.

Forestry is a dominant component of the Nanoose Bay economy. In addition to its economic value, residents appreciate the recreational opportunities, ecological and wildlife values afforded by the forested landscape.

In recognition of their value to the community, residents have expressed a desire to protect forestry lands and related activities. Also supported are sustainable and environmentally sound harvesting and logging practices and the restriction of intensive processing activities in proximity to established or future residential development.

Forest lands are predominantly managed through private forestry interests or through the Crown Provincial Forest.

Lands within this designation are part of the Nanaimo coal bearing formations while other areas, particularly south of the Island Highway, have very good potential for aggregates such as sand and gravel. Management of mineral resources falls principally within the jurisdiction of the province. Where stated, policies relate to matters beyond the jurisdiction of the Regional District, they are intended to serve only as broad objectives to help guide senior governments in their decision-making process.

Objectives:

1. *Support* and maintain the long-term viability of the natural resource land base and protect it from activities and land uses that may diminish its resource value or potential.
2. *Protect* the agricultural land resources for present and future food production.
3. *Recognize* and *protect* agricultural operations on ALR lands.
4. *Encourage* sustainable and environmentally sound farming practices, which protect surface water, groundwater and soil quality.
5. *Recognize* and *protect* the groundwater needs of agriculture.
6. *Support* silviculture activities on productive forestry land.
7. *Protect* the forest land resources for harvesting and reproduction.
8. *Recognize* and *protect* the needs and activities of forestry operations when considering non-forestry operations on adjacent land.

Attachment 5
Official Community Plan 'Rural Resource' Land Use Designation
(Page 2 of 5)

Nanoose Bay Official Community Plan Bylaw No. 1400, 2005

9. *Support* the public's use of forest lands for recreational enjoyment and education.
10. *Protect* lands with aggregate or mineral resources from development that would render the resource unviable or inaccessible.
11. *Seek* methods of minimizing conflicts between extraction activities and adjacent land uses.
12. *Minimize* the impact of extraction activities on the natural environment.
13. *Support* provincial requirements for site rehabilitation and reclamation of mined landscapes for future productive use and for environmental and aesthetic considerations.
14. *Minimize* the impact of resource operations and activities on the natural environment and on neighbouring land uses and development.
15. *Protect* sensitive ecosystems and features on Resource Lands.

Policies:

1. Resource Lands are designated on Map No. 2.
2. Lands designated Resource Lands that are forest and/or crown lands or large recreational holdings shall have a minimum parcel size of 50.0 hectares. All other Resource Lands shall have a minimum parcel size of 8.0 hectares. However, this is not intended to prevent parcel averaging as set out in the applicable zoning bylaw.
3. Notwithstanding Policy No. 2 (above), lands designated as Resource Lands and entirely within the provincial Agricultural Land Reserve shall have a minimum parcel size of 8.0 hectares. The provision of community water and sewer services to lands within this

designation is not supported by this OCP.

4. Permitted uses on Resource Lands shall be compatible with existing agricultural and resource uses.
5. It is acknowledged that the Department of National Defence operates facilities within this designation that are provided with community water and sewer services.
6. The Agricultural Land Commission's (ALC) mandate of preserving and encouraging agricultural production shall be supported.
7. The retention of large land holdings within the ALR shall be encouraged to maintain the option and feasibility of farm use.
8. The locations and construction of new roads, utility or communication rights-of-way shall be sited to avoid the ALR wherever possible. Where agricultural land is required, these rights-of-way should be sited in a manner that will cause minimal impact on agricultural operations. Alignments should be established in consultation with affected local landowners.
9. In order to reduce conflicts between agricultural uses and non-agricultural uses a Farm Land Protection Development Permit Area has been established on lands adjacent to lands within the Agricultural Land Reserve.
10. Measures which buffer new development adjacent to land within the ALR shall be encouraged to reduce the potential for land use conflicts. These measures may include restrictive covenants to protect naturally established buffers, dedication of park land where in compliance with the parks policy strategy of the Plan, or the use of landscaping and/or fencing in

Attachment 5
Official Community Plan 'Rural Resource' Land Use Designation
(Page 3 of 4)

Nanoose Bay Official Community Plan Bylaw No. 1400, 2005

- accordance with the ALC's "Landscape Buffer Specifications" along property lines.
11. The regulation of intensive agricultural operations on non-ALR land within the Plan Area shall be supported in order to recognize the potential that these operations have to generate significant impacts on the natural environment and surrounding lands and development.
 12. Where land is within the ALR and is proposed for subdivision or non-farm use, including the placement of a second dwelling, approval must first be obtained from the Agricultural Land Commission, except where additional dwellings are necessary for farm purposes subject to the *Agricultural Land Commission Act*. All subdivision and non-farm uses within the ALR shall comply with the agricultural objectives and policies within this section of the Plan.
 13. Where land is removed from the ALR, the Resource Lands within the ALR designation shall remain.
 14. The issuance of temporary use permits for the manufacture of asphalt products and/or gravel extraction on parcels may be considered provided that:
 - a) the asphalt is produced in a portable asphalt batch plant;
 - b) parcels are in excess of 8.0 hectares in area;
 - c) any watercourses are protected from the manufacturing or gravel extraction activity;
 - d) approval is obtained from the province for an industrial access permit and a Waste Management approval pursuant to the *Waste Management Act*;
 - e) a separation distance created by a natural vegetative buffer or berm of 100 metres in width is maintained between the asphalt batch plant operation and any dwelling unit not located on the subject property;
 - f) where gravel removal and processing are required in conjunction with the manufacture of asphalt products, all requirements for the Approval of Work System and Reclamation Permit under the *Mines Act* including provisions for rehabilitation of the site after completion, are satisfied;
 - g) primary processing is a permitted use on the parcel; and
 - h) where land is within the Agricultural Land Reserve, notice has been given to the ALC of the intent to remove gravel or process soil in accordance with the *Agricultural Land Commission Act* and the ALC has granted approval.
 15. For Resource Lands not within the ALR, the issuance of temporary use permits for soil composting operations on parcels may be considered provided that:
 - a) parcels are in excess of 8.0 hectares in area;
 - b) surface water is protected from all composting activities;
 - c) ground-water will not be negatively impacted by all composting activities;
 - d) approval is obtained from the ALC where required;
 - e) approval is obtained from the province for an industrial access permit and a Waste Management approval pursuant to the *Waste Management Act*;
 - f) a separation distance created by a natural vegetative buffer or berm of 100 metres in width is maintained between the composting operation

Attachment 5
Official Community Plan 'Rural Resource' Land Use Designation
(Page 4 of 4)

Nanoose Bay Official Community Plan Bylaw No. 1400, 2005

- g) and any dwelling not located on the subject parcel;
 - h) the daily period of composting activities is limited to normal daylight hours to minimize noise impacts, including heavy truck traffic, on surrounding lands;
 - i) all aspects of the composting operation must be completed in its entirety within two calendar years of the date of issuance of a temporary use permit;
 - j) primary processing is a permitted use on the parcel;
 - k) the use does not produce odours detectable from adjacent parcels;
 - l) the uses comply with the provincial *Organic Matter Recycling Regulations* and any RDN Waste Stream Licensing Bylaw.
16. The processing of aggregate resources shall generally be limited to areas where such operations would have a limited impact on residential development, other land uses and the natural environment, and where permitted by the Land Use and Subdivision Bylaw.
17. The province shall be encouraged to provide due consideration to the RDN's response to referrals on potential mining operations, and to possible impacts on neighbouring land and the natural environment prior to approving new mining operations or re-establishing a derelict pit. Particular attention should be focused on assessing the potential impacts of resource removal on the quantity or quality of surface and groundwater, residential development and other land uses, traffic volumes and traffic dynamics. The province is encouraged to make this information available to the Regional District and surrounding landowners for comment prior to a decision.

3.5 TOURIST COMMERCIAL LANDS

Land within the Tourist Commercial Lands designation is currently used for a variety of resort, condominium, commercial and industrial uses. Coastal uses are oriented toward ocean and marine related tourist activities. The inland commercial uses have historically been oriented toward the highway as opposed to the current strategy to locate commercial uses within Village and Neighbourhood Centres.

In most cases, the Tourist Commercial Lands have more intensive land uses than found on surrounding lands and therefore present the possibility of creating land use conflicts.

The Nanoose Bay Official Community Plan recognizes the importance of commercial and industrial uses and tourism to the economy consistent with the Regional Growth Strategy. Existing resort condominium developments are recognized as an important part of Nanoose Bay's economy. It is also recognized that these developments must be compatible in character with surrounding residential areas. Over the long term, it is anticipated that these resort condominium developments may be developed to the extent permitted by their current zoning and the existing level of services. The provision of an increased level of community water and sewer servicing to facilitate increased development potential for lands currently zoned for resort condominium development is not supported in this OCP.

Existing inland commercial activities away from the coast or outside the centres are intended to evolve into less intensive tourist commercial uses primarily serving the tourism market or travelling public rather than providing local convenience services. It is anticipated that, over time, these inland commercial and industrial uses will become

Attachment 5
Official Community Plan 'Rural Resource' Land Use Designation
(Page 4 of 4)

Nanoose Bay Official Community Plan Bylaw No. 1400, 2005

more consistent in character with the coastal commercial uses with a focus on tourism.

Objectives:

1. *Provide* goods and services for the local population and tourists.
2. *Minimize* the impact of commercial development on rural integrity and the natural environment.
3. *Direct* commercial development to Village Centres and Neighbourhood Centres.
4. *Encourage* new development or redevelopment of existing commercially zoned lands to be sensitive to the natural environment.
5. *Support* the development of recreational uses that maintain and enhance rural integrity.
6. *Support* the continued operation of existing resort condominium/hotel developments.
7. *Minimize* the impact of resort condominium/hotel development on surrounding residential areas.
8. *Encourage* resort condominium/hotel developments to be sensitive to the natural environment.

Policies:

1. Tourist Commercial Lands are designated on Map No. 2.
2. Community water and community sewer services shall not be provided to facilitate more intensive uses of Tourist Commercial Land than otherwise permitted.
3. The permitted uses of Tourist Commercial Lands shall be recreation and tourist facilities and uses accessory to these uses that draw on the

surrounding environment for their character and use.

4. Where lands are used for commercial or industrial uses at the time of adoption of the community plan as a bylaw, these uses may remain.
5. Development or redevelopment of land designated Tourist Commercial Lands may require the issuance of a Development Permit.

3.6 INDUSTRIAL LANDS

One parcel within the Plan Area is designated as Industrial Lands. Generally, industrial lands have a long history of intensive land uses and were established primarily because of their proximity to existing natural resources extraction activities.

The Regional Growth Strategy recognizes the necessity of industry to the economy of the Regional District of Nanaimo and industrial areas are designated in the RGS. New industrial growth is to be directed to these regionally significant industrial areas to reduce potential land use conflicts and enhance the operating efficiency of industrial uses. It is not anticipated that industrial land uses outside of the regionally significant areas would expand in scale or land base.

Objectives:

1. *Minimize* the impact of industrial land uses on the rural character of the community.
2. *Limit* further industrial development.
3. *Minimize* any negative impact on the safe operation of the highway.
4. *Minimize* the potential for damaging impacts on the natural environment.

Section III
Page 9

Attachment 6 Regional Growth Strategy 'Resource Lands and Open Space' Land Used Designation

Resource Lands and Open Space

The Resource Lands and Open Space land use designation includes:

- Land that is primarily intended for resource uses such as agriculture, forestry, aggregate and other resource development; and
- Land that has been designated for long-term open space uses.

This designation includes:

- Land in the Agriculture Land Reserve;
- Crown land;
- Land designated for resource management or resource use purposes, including forestry, in official community plans;
- Recognized ecologically sensitive conservation areas;
- Provincial parks;
- Regional parks;
- Large community parks;
- Cemeteries;
- Existing public facilities outside of areas planned for mixed-use centre development;

50

- Destination Resorts; and
- Golf courses.

Resource activities on land in this designation should be encouraged to operate in ways that do not harm the functioning of natural ecosystems. Land use control, and resource management of lands in this designation is shared between landowners, local, provincial and sometimes federal government. Much of the forest land is privately owned. Forest companies, farmers, shellfish aquaculture (and associated research facilities) and aggregate resource development companies are recognized to have the right to operate on land within this designation in compliance with local, provincial and federal government regulations.

No new parcels that are smaller than the size supported by the official community plan in effect at the date of the adoption of this *Regional Growth Strategy* may be created on land in this designation.

Attachment 7
Regional Growth Strategy Goal 7 – Enhance Economic Resiliency - Agriculture

Agriculture

- 7.14 Recognize the importance of agriculture to the region’s economy. To this end, the RDN and member municipalities agree to:
- Support the management of the Agriculture Land Reserve (ALR) by the provincial government;
 - Encourage the provincial government to protect the agricultural land base through the ALR;
 - Support the agricultural use of ALR lands within designated Urban Areas or Rural Village Areas except in instances where urban land uses have already been established at the time of the adoption of this RGS;
 - Recognize that all ALR lands will be subject to the regulations of the Agricultural Land Commission;

36

REGIONAL GROWTH STRATEGY

Shaping Our Future

- Support the preparation of a study of agriculture in the region for the purpose of identifying the issues and needs (both immediate and future) of the agricultural sector;
- Encourage and support value-added agricultural industries; and
- Enhance opportunities for agricultural activity on lands not in the ALR.

Attachment 8
Regional Growth Strategy Goal 8 – Food Security
(Page 1 of 4)

Goal 8 - Food Security - Protect and enhance the capacity of the region to produce and process food.

Most of the food we eat comes from other parts of the world. A study conducted by the Region of Waterloo Public Health in Ontario (M. Xuereb, 2005) found that *'Imports of 58 commonly eaten foods travel an average of 4,497 km to Waterloo Region'*. Although there are currently no regionally specific studies estimating the distance food travels to reach our plates, it is safe to estimate that many of the foods we regularly consume travel on average at least 2,400 km to reach us (a widely quoted figure for North America, based on research conducted in Iowa by R. Pirog, et al 2001).

37

Attachment 8
Regional Growth Strategy Goal 8 – Food Security
(Page 2 of 4)

Despite ongoing debate about the environmental benefits of 'buying local' food versus making dietary changes (C. Weber and H. Scott Matthews, 2008), it is clear that our dependence on imported foods means that our access to food is vulnerable to the effects of weather and political events that may occur thousands of kilometers away. As well, world energy prices play a large role in the cost of food production and distribution. Greater food security means that more food is grown locally and therefore is not as susceptible to events occurring outside the region.

Local food production generates numerous economic, environmental and social benefits. Agriculture employs almost 3,000 people and generates a flow of income into the region. Local sources of food help reduce the region's carbon footprint by reducing transportation-related GHG emissions. In addition, the nutritional content of locally produced food is often greater than imported food – providing a healthier choice of food for residents.

The '5 A's' of food security:

- *Available – sufficient supply*
- *Accessible – efficient distribution*
- *Adequate – nutritionally adequate and safe*
- *Acceptable – produced under acceptable conditions (e.g. culturally and ecologically sustainable)*
- *Agency – tools are in place to improve food security*

(J. Oswald, 2009)

Ensuring the long-term viability of farming and agricultural activity in the region requires a coordinated effort on the part of local, provincial and federal authorities. In addition to the provisions of Policy 5.4, the RDN and member municipalities can undertake a number of actions to support and enhance the viability of food production in the region as set out in the following policies (See Map 5 – Agricultural Lands).

Protecting the agricultural land base is a key requirement for enhancing food security. The Agricultural Land Reserve (ALR) established by the Province in 1973 has largely been effective in reducing the loss of agricultural lands. Since 1974 the percentage of land protected under the ALR in the RDN has decreased approximately 12%, from 10.10% of the total land base to approximately 8.85% (www.alc.gov.bc.ca/alr/stats).

The majority of ALR lands in the RDN are located in rural Electoral Areas, with smaller portions located within the boundaries of municipalities. This RGS recognizes and supports the jurisdiction of the ALC over all ALR lands and strongly supports the retention and use of all ALR lands for agriculture. The RDN will continue to endorse the Agricultural Land Commission's efforts in preserving agricultural lands. Other actions that would enhance food security in the region include:

- Supporting improved access to sustainable water supplies for irrigation;
- Encouraging best water management practices in agriculture;
- Providing drainage infrastructure for flood-prone lands that do not include environmentally sensitive areas;

Attachment 8
Regional Growth Strategy Goal 8 – Food Security
(Page 3 of 4)

- Improving infrastructure to provide agricultural services and processing; and improving access to markets.

Policies

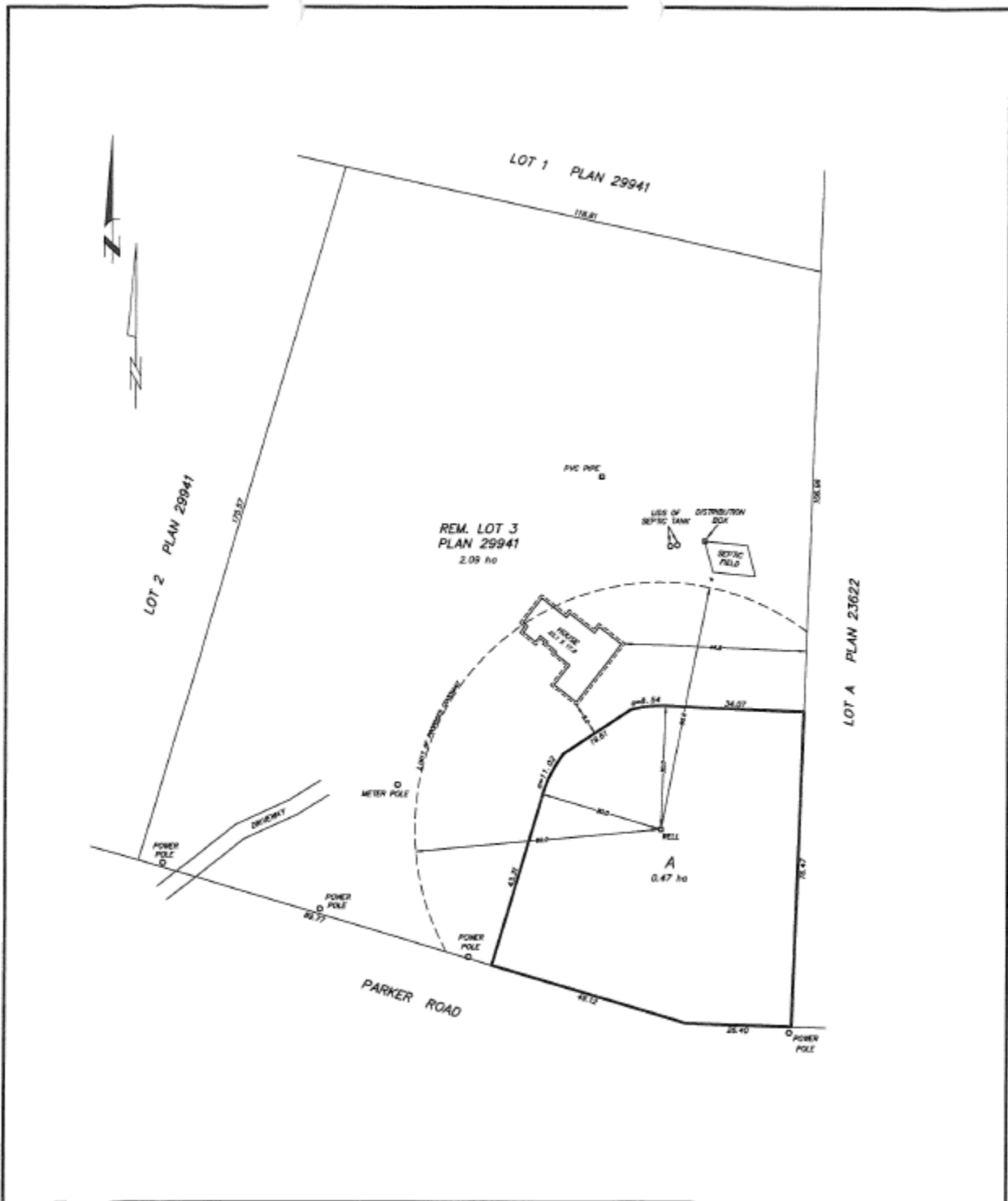
The RDN and member municipalities agree to:

- 8.1 Encourage and support the Agricultural Land Commission in retaining lands within the ALR for agricultural purposes.
- 8.2 Discourage the subdivision of agricultural lands.
- 8.3 Include provisions in their official community plans and zoning bylaws to allow for complementary land uses and activities that support the on-going viability of farming operations.
- 8.4 Establish agriculture as the priority use on land in the ALR.
- 8.5 Minimize the potential impact non-farm land uses may have on farming operations and include policies in their official community plans and zoning bylaws that reduce the opportunity for land use conflicts to occur.
- 8.6 Encourage and support agricultural activity on lands that are not within the ALR. This may include small-scale home-based agricultural businesses.
- 8.7 Recognize the importance of value-added agricultural uses and complementary land use activities for the economic viability of farms. To support complementary farm uses, official community plans should consider:
 - The provision of appropriately located agricultural support services and infrastructure;
 - Reducing impediments to agricultural processing and related land uses;
 - Allowing compatible complementary land use activities (e.g., agri-tourism);
 - Allowing farmers' markets and other outlets that sell local produce to locate in all parts of the community.
- 8.8 Encourage urban agriculture initiatives and support activities and programs that increase awareness of local food production within the region.
- 8.9 Support the appropriate use of water resources for irrigation of agricultural lands.
- 8.10 Support the provision of drainage infrastructure to flood-prone lands that do not lie within environmentally sensitive areas.
- 8.11 Work in collaboration with federal and provincial agencies, adjacent regional districts, and agricultural organizations to improve access to markets for agricultural products.

Attachment 8
Regional Growth Strategy Goal 8 – Food Security
(Page 4 of 4)

- 8.12 Support partnerships and collaborate with non-profit groups to enhance the economic viability of farms.
- 8.13 Support farms that produce organic agricultural products and use sustainable farming practices.
- 8.14 Support the production, processing, distribution and sale of locally grown produce (including shellfish).

**Attachment 9
Plan of Proposed Subdivision**



**PROPOSED SUBDIVISION PLAN OF PART
OF LOT 3, DISTRICT LOT 67,
NANOOSE DISTRICT, PLAN 29941.**
SCALE 1:600

LEGEND
All distances are in metres and decimals thereof.
All distances along curves are arc distances.
All dimensions and areas are subject to final survey.
ha. Denotes hectares

No.	DATE	REVISION
1	2012/12/13	Septic Field added per Waterworks Practitioner Site Plan
2	2013/01/08	Location of septic field amended
2	2013/03/06	Location of septic field amended

SIMS ASSOCIATES
LAND SURVEYING LTD.
223 FERN ROAD W.
QUALICUM BEACH, B.C. V5K 1S4
PHONE: 250-752-9121
FAX: 250-752-9241
FILE NUMBER: 09-253-P
DRAWING NUMBER: 09-253-P5.dwg
DATE: 2013/03/08

Attachment 10

Applicants Submission

APPLICATION BY LAND OWNER



NOTE: The information required by this form and the documents you provide with it are collected to process your application under the Agricultural Land Commission Act and regulation. This information will be available for review by any member of the public. If you have any questions about the collection or use of this information, contact the Agricultural Land Commission and ask for the staff member who will be handling your application.

TYPE OF APPLICATION (Check appropriate box)

- | | |
|---|---|
| <input type="checkbox"/> EXCLUSION
under Sec. 30(1) of the Agricultural Land Commission Act | <input checked="" type="checkbox"/> SUBDIVISION in the ALR
under Sec. 21(2) of the Agricultural Land Commission Act |
| <input type="checkbox"/> INCLUSION
under Sec. 17(3) of the Agricultural Land Commission Act | <input type="checkbox"/> Non-farm USE in the ALR
under Sec. 20(3) of the Agricultural Land Commission Act |

APPLICANT

Registered Owner: Maz-Can Investments Ltd.		Agent: Fern Road Consulting Ltd.	
Address: 168 Oakside Circle SW		Address: Box 405	
Calgary, AB		Qualicum Beach, B.C.	
	Postal Code T2V 4H2		Postal Code V9K 1S9
Tel. (home)	(work)	Tel. 250-752-9121	
Fax		Fax 250-752-9241	
E-mail		E-mail hsims@simssurvey.ca	

LOCAL GOVERNMENT JURISDICTION (Indicate name of Regional District or Municipality)

Regional District of Nanaimo

LAND UNDER APPLICATION (Show land on plan or sketch)

Title Number	Size of Each Parcel (Ha.)	Date of Purchase	
		Month	Year
FB233307	2.56	Nov	2008

OWNERSHIP OR INTERESTS IN OTHER LANDS WITHIN THIS COMMUNITY

(Show information on plan or sketch)

If you have interests in other lands within this community complete the following:

Title Number(s): FB80571 and FB80572

PROPOSAL (Please describe and show on plan or sketch)

Please see attached letter and plans

CURRENT USE OF LAND (Show information on plan or sketch)

List all existing uses on the parcel(s) and describe all buildings

There is a dwelling and a well.

USES ON ADJACENT LOTS (Show information on plan or sketch)

North Rural Residential

East Residential

South ALR/Rural Residential

West ALR/Rural Residential

DECLARATION

I/we consent to the use of the information provided in the application and all supporting documents to process the application in accordance with the *Agricultural Land Commission Act* and regulation. Furthermore, I/we declare that the information provided in the application and all the supporting documents are, to the best of my/our knowledge, true and correct. I/we understand that the Agricultural Land Commission will take the steps necessary to confirm the accuracy of the information and documents provided.

25 March/14 [Signature] Helen MacPhail Gray
Date Signature of Owner or Agent Print Name

Date Signature of Owner or Agent Print Name

Date Signature of Owner or Agent Print Name

Please ensure the following documents are enclosed with your application:

- Application fee payable to the Local Government
- Certificate of Title or Title Search Print
- Agent authorization (if using agent)
- Map or sketch showing proposal & adjacent uses
- Proof of Notice of Application *(See instructions)
- Photographs (optional)

Fern Road Consulting Ltd.



Our File: 09-253-S
Your File: 5500-22-NBP-01

PL2014-027

2014-03-24

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC
V9T 6N2

Attention: Jeremy Holm

Dear Jeremy:

**RE: Creation of a 0.47 ha lot under Section 99 (1)(h) of the Land Title Act
For the purpose of transferring a well to the RDN**

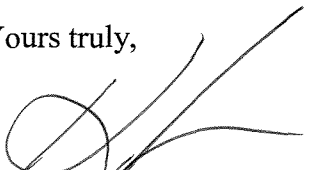
Enclosed please find our client's cheque in the amount of \$600.00 and an application to the Agricultural Land Commission. We would ask that you forward this package, in its entirety and in the same order as submitted, to the Land Commission

For your convenience, we are enclosing a copy of the complete application for RDN records.

We have also enclosed a prepared courier waybill and would appreciate it if you would use this to send the package to the ALC.

Thank you for your assistance.

Yours truly,



Helen MacPhail Sims
HMS:gc
Enclosures

P.O. Box 405, Qualicum Beach, BC, V9K 1S9
Tel: (250) 752-9121 Fax: (250) 752-9241
e-mail: hsims@simssurvey.ca lrann@simssurvey.ca

RDN COPY OF

Agricultural Land Commission

Submission Package

Fern Road Consulting Ltd.

Our File: 09-253-R

2014-03-24

Agricultural Land Commission
133-4940 Canada Way
Burnaby, B.C.
V5G 4K6

Attention: Liz Sutton

Dear Liz:

**RE: Creation of a 0.47 ha lot under Section 99(1)(h) of the Land Title Act
for the purpose of transferring a well to the RDN**

On behalf of our client, Maz-Can Investments Ltd., we are submitting an application for subdivision within the ALR to facilitate the transfer of a well located on the property to the Regional District of Nanaimo (RDN) and its subsequent connection to the existing water distribution infrastructure providing community water to the Nanoose Bay Peninsula Water Service Area.

LOCATION

The subject property (Lot 3, Plan 29941, District Lot 67, Nanoose District) is located on Parker Road, off Powder Point Road in Nanoose Bay, within Electoral Area E of the Nanaimo Regional District. The property is 2.56 ha in size and has a dwelling, septic disposal field and a well.

BACKGROUND

In 2007, our client, Maz-Can Investments Ltd., purchased a development property on the north side of Nanoose Peninsula (Lot 5, Plan VIP69734, District Lot 131, Nanoose District, and Lot 1, Plan 14212, District Lot 78, Nanoose District, except those parts in Plans 28203 and 29052). The Ministry of Transportation and Infrastructure (MOTI) had issued a Preliminary Layout Approval (PLA) for the development in 2006. The development consists of 12 strata lots and 4 fee-simple lots. Vancouver Island Health Authority (VIHA) has issued a permit to construct the septic facility and RDN has issued a Development permit. However, Maz-Can has not been able to complete the development because the RDN water supply is at capacity and they cannot provide water connections for the proposed houses.

... 2

P.O. Box 405, Qualicum Beach, BC, V9K 1S9
Tel: (250) 752-9121 Fax: (250) 752-9241
e-mail: hsims@simssurvey.ca lrann@simssurvey.ca

In 2008, Maz-Can purchased the subject property on Parker Road because the previous owner had drilled a well and had the required pump tests and water analysis completed with the intent of adding the well to the RDN system. However, the final design was not completed. After purchasing, Maz-Can commissioned Lowen Hydrogeology Consulting Ltd. to test the well and prepare a well report for Vancouver Island Health Authority (VIHA) for source approval. This involved extensive pump tests, water analysis and consultation with both RDN and VIHA.

The well was pumped again in September 2010 (RDN requires pump tests to be completed in September only). The Lowen report was completed in November 2010. Park City Engineering was commissioned to design the waterline from the well to the water main on Powder Pont Road and applied to VIHA for source approval. Source approval was granted in May 2011 and has been renewed.

Maz-Can did not immediately continue with connecting the well to RDN community water because the demand for housing in the Nanoose area had diminished. In 2013 Maz-Can entered into an agreement with the RDN on transferring ownership of the water to them. Maz-Can will go to tender with the construction plans in the next month and expect to have the waterline completed by the end of the summer.

PROPOSAL

As a condition of connecting and transferring this well to the RDN's system, the RDN wants to own the land around the well. This entire parcel is 2.56 ha and the RDN wants to own and, therefore, control the land within a 30 metre radius around the well, which is a small lot of 0.47 ha. The parcel has adequate area and will still meet the RDN minimum parcel size of 2 ha after the subdivision.

The proposed subdivision is to create a 0.47 ha. lot under Section 99(1)(h) of the Land Title Act and transfer it to the RDN. We feel this subdivision should be allowed because

- 1) it will not diminish the agricultural capacity of the property as the proposed well lot is very small and is located in the southeastern corner of the parcel;
- 2) transferring this well and water will benefit the community as the RDN water system is at capacity and they cannot add additional users without an additional source of water;
- 3) adding this well to the RDN system will allow Maz-Can's other development to proceed. This development has the potential to create 20 single family homes. Construction of a single family home creates approximately two people/years of work so this development could potentially add 40 people/years of work to the area.

... 3

Accordingly, we request permission to subdivide a 0.47 ha lot and transfer it to RDN.

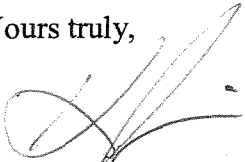
ENCLOSURES

In support of this application, we are enclosing:

- Client's cheque for \$600
- Application form
- Title search
- Letter of authorization
- Aerial photo
- Plan showing proposed subdivision
- ALR constituent Map #16 showing location of well property (marked in yellow) and development property (marked in green)
- Lowen Report
- Source approval and renewals from VIHA

Thank you for your consideration. If you have any questions or require additional information, please do not hesitate to contact our office.

Yours truly,



Helen MacPhail Sims
HMS:gc

Enclosures

TITLE SEARCH PRINT

2014-02-05, 13:58:58

Requestor: PE22461

Folio/File Reference:

****CURRENT INFORMATION ONLY - NO CANCELLED INFORMATION SHOWN****

Land Title District VICTORIA
Land Title Office VICTORIA

Title Number FB233307
From Title Number CA234115

Application Received 2008-11-28

Application Entered 2008-12-04

Registered Owner in Fee Simple
Registered Owner/Mailing Address: MAZ-CAN INVESTMENTS LTD, INC.NO. A0070861
168 OAKSIDE CIRCLE SW
CALGARY, AB
T2V 4H2

Taxation Authority PORT ALBERNI ASSESSMENT AREA

Description of Land
Parcel Identifier: 001-305-263
Legal Description:
LOT 3, DISTRICT LOT 67, NANOOSE DISTRICT, PLAN 29941

Legal Notations
THIS CERTIFICATE OF TITLE MAY BE AFFECTED BY THE AGRICULTURAL LAND COMMISSION ACT; SEE AGRICULTURAL LAND RESERVE PLAN NO. 5, DEPOSITED 26.07.1974, R.E.HOOPER, REGISTRAR, PER:B

Charges, Liens and Interests
Nature: EXCEPTIONS AND RESERVATIONS
Registration Number: M76300
Registered Owner: ESQUIMALT AND NANAIMO RAILWAY COMPANY
Remarks: A.F.B. 9.693.7434A 123794G DD 15089
SECTION 172(3)
FOR ACTUAL DATE AND TIME OF REGISTRATION SEE ORIGINAL GRANT FROM E & N RAILWAY COMPANY

TITLE SEARCH PRINT

2014-02-05, 13:58:58

Requestor: PE22461

Folio/File Reference:

Nature: MORTGAGE
Registration Number: CA2038560
Registration Date and Time: 2011-06-01 11:59
Registered Owner: CANADIAN WESTERN BANK
Remarks: INTER ALIA

Nature: ASSIGNMENT OF RENTS
Registration Number: CA2038561
Registration Date and Time: 2011-06-01 11:59
Registered Owner: CANADIAN WESTERN BANK
Remarks: INTER ALIA

Nature: CLAIM OF BUILDERS LIEN
Registration Number: FB469056
Registration Date and Time: 2013-06-10 14:33
Registered Owner: KALICUM DRILLING LTD.

Duplicate Indefeasible Title NONE OUTSTANDING

Transfers NONE

Pending Applications NONE

TO WHOM IT MAY CONCERN:

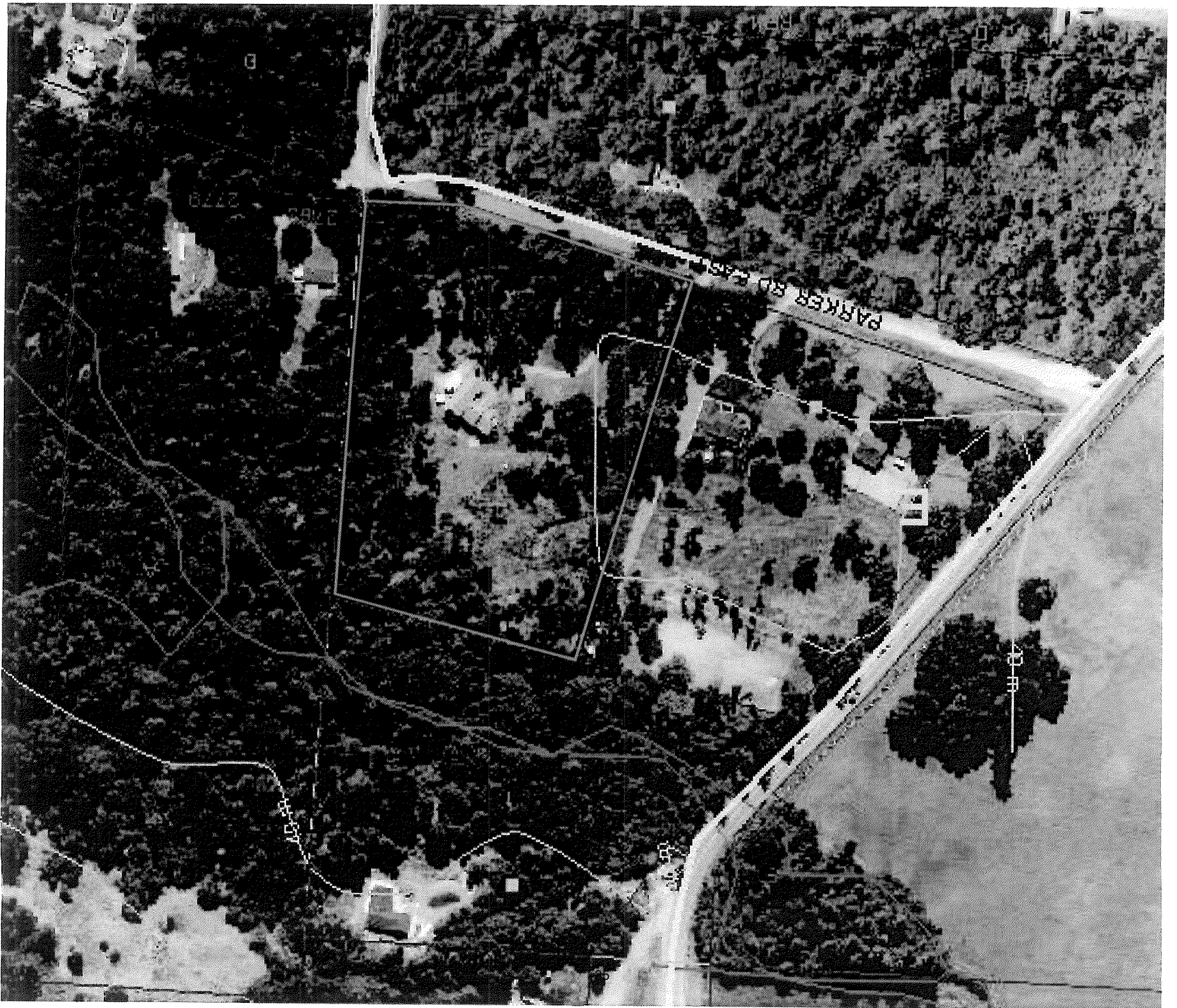
Re: Lot 3, Plan 29941, District Lot 67, Nanoose District

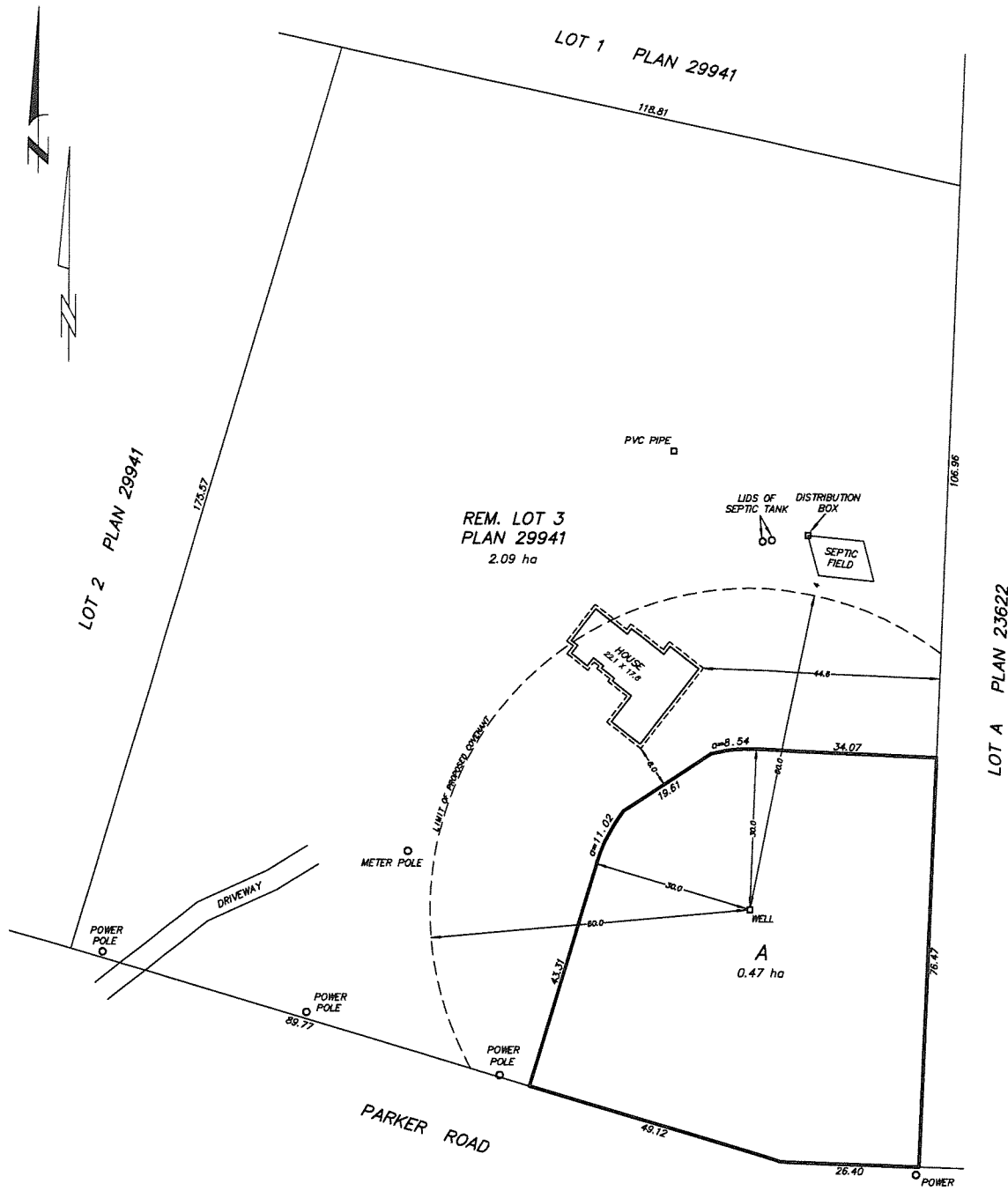
This letter is to authorize Sims Associates and Fern Road Consulting Ltd. as agents for the registered owner of the above lot in matters pertaining to the Agricultural Land Commission Application.



Maz-Can Investments Ltd.

Dated: March 19/2014





**PROPOSED SUBDIVISION PLAN OF PART
OF LOT 3, DISTRICT LOT 67,
NANOOSE DISTRICT, PLAN 29941.**

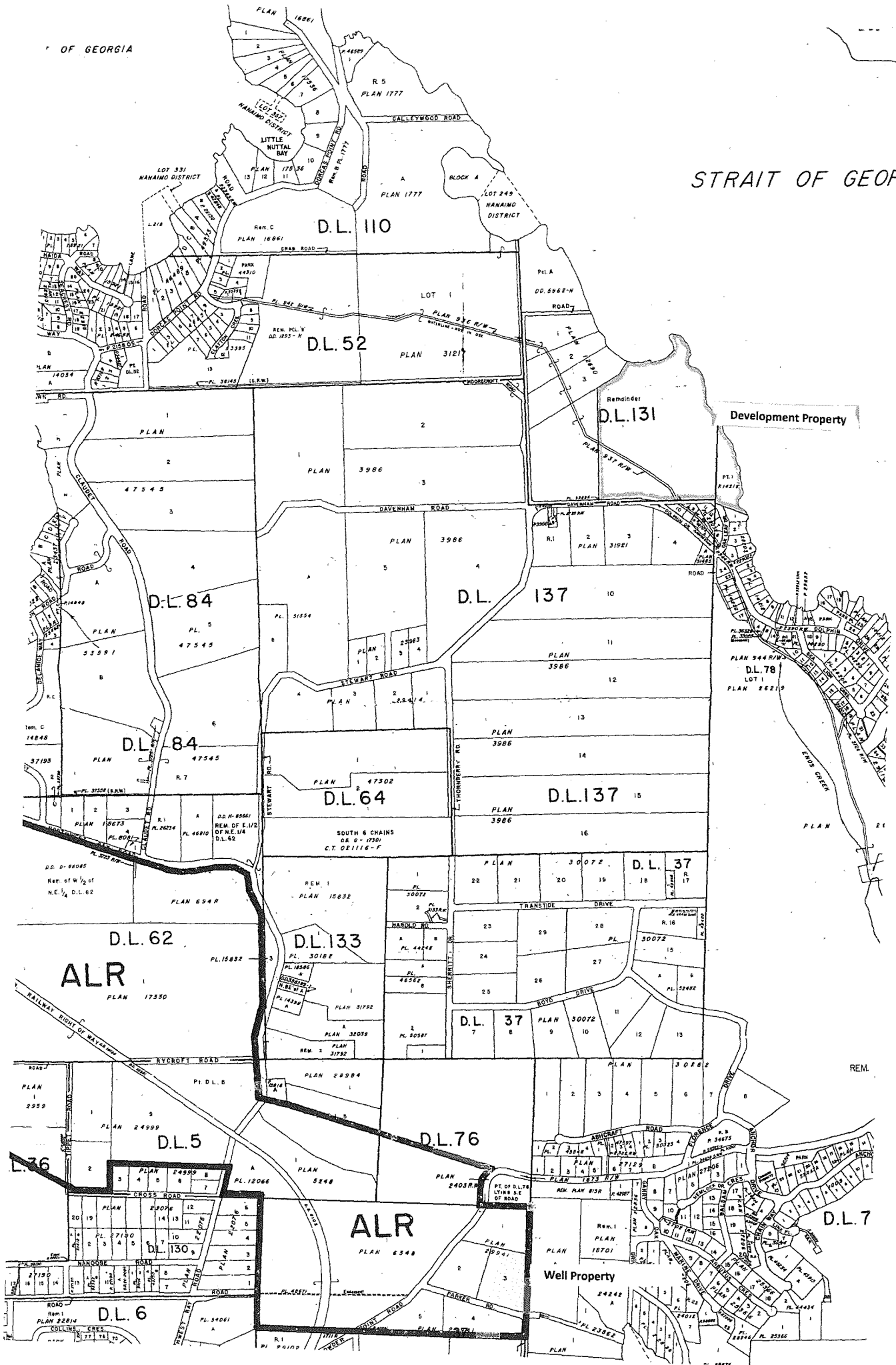
SCALE 1:600

LEGEND

All distances are in metres and decimals thereof.
All distances along curves are arc distances.
All dimensions and areas are subject to final survey.
ha. Denotes hectares

No.	DATE	REVISION
1	2012/12/13	Septic Field added per Wastewater Practitioner Site Plan
2	2013/01/08	Location of septic field amended
2	2013/03/08	Location of septic field amended

SIMS ASSOCIATES
 LAND SURVEYING LTD.
 223 FERN ROAD W.
 QUALICUM BEACH, B.C. V9K 1S4
 PHONE: 250-752-9121
 FAX: 250-752-9241
 FILE NUMBER: 09-253-R
 DRAWING NUMBER: 09-253 P5.dwg
 DATE: 2013/03/08



Inter-Can Investments Ltd.

**Well Report for VIHA
Water Source Approval**

2729 Parker Road; Well 15613

File No. 09-29
Date: November 2009



LOWEN HYDROGEOLOGY CONSULTING LTD.
4030 Zinnia Road, Victoria, BC Canada V8Z-4W3 Phone: 250 595-0624, Fax: 250 595-0634

SUMMARY

A groundwater source has been developed within the Nanaimo Regional District (RDN) at 2729 Parker Road in Nanoose, BC. Following development of this well source a groundwater assessment was carried out (Lowen, 2006) and expanded on within. This assessment included a review of all available water well records, observation well records, groundwater modeling studies, water quality data, precipitation data, aerial photographs, previous hydrogeological reports, topographic maps, soil and geology maps, aquifer mapping, site inspections and meetings with local drilling contractors.

A 203 mm (8-inch) diameter production well was completed within material described as *faulted* basalt bedrock in 2005 by Kalicum Drilling Ltd. The subject well record indicates basalt bedrock begins at 35.0 m or 115.0 ft. A 92 hour pumping test was conducted by Kalicum Drilling Ltd. between August 2nd and 10th, 2006 indicating an estimated long-term yield of 6.56 L/s or 120,000 lgpd.

Based on the parameters analyzed, well water quality is considered excellent. The groundwater is slightly alkaline, moderately hard with moderate mineralization and is a sodium-bicarbonate type groundwater. All parameters analyzed were within the Guidelines for Canadian Drinking Water Quality (2006). Offsets to the well for buildings, sewage fields or other contaminant sources can be maintained to RDN and VIHA standards.

The well meets all requirements to be approved as a drinking water source within the Nanaimo Regional District.

TABLE OF CONTENTS

SUMMARYi

1.0 INTRODUCTION 1

2.0 PHYSICAL SETTING 1

 2.1 Climate 1

 2.2 Topography and Surface Water Drainage 1

 2.3 Vegetation and Soil Type 1

3.0 HYDROGEOLOGY 3

4.0 SURFICIAL GEOLOGY 3

5.0 BEDROCK GEOLOGY 3

6.0 WELL CONSTRUCTION 3

7.0 PUMPING TEST DISCUSSION 4

8.0 WATER QUALITY DISCUSSION..... 5

9.0 CONCLUSIONS 7

10.0 RECOMMENDATIONS 7

CLOSURE / DISCLAIMER 9

REFERENCES

FIGURES

Figure 1 - Location Plan 2

TABLES

Table 1 - Water Quality Summary 6

APPENDICES

Appendix A - Well Logs

Appendix B - Well Water Level Data and Graphs

Appendix C - Water Quality Analyses

Appendix D - Well Protection Plan

INTER-CAN INVESTMENTS LTD.
WELL REPORT FOR VIHA WATER SOURCE APPROVAL
2729 PARKER ROAD - WELL 15613

1.0 INTRODUCTION

In 2006, Lowen Hydrogeology Consulting (LHC) was hired by the previous well owner to carry out a well water supply assessment (Lowen, 2006). This assessment indicated that the well area was underlain by a productive fractured bedrock aquifer. The subject well site has been shown in Figure 1. This report has been produced to facilitate Water Source Approval from VIHA and approval by the RDN to include this well in the local water supply infrastructure.

2.0 PHYSICAL SETTING

2.1 Climate

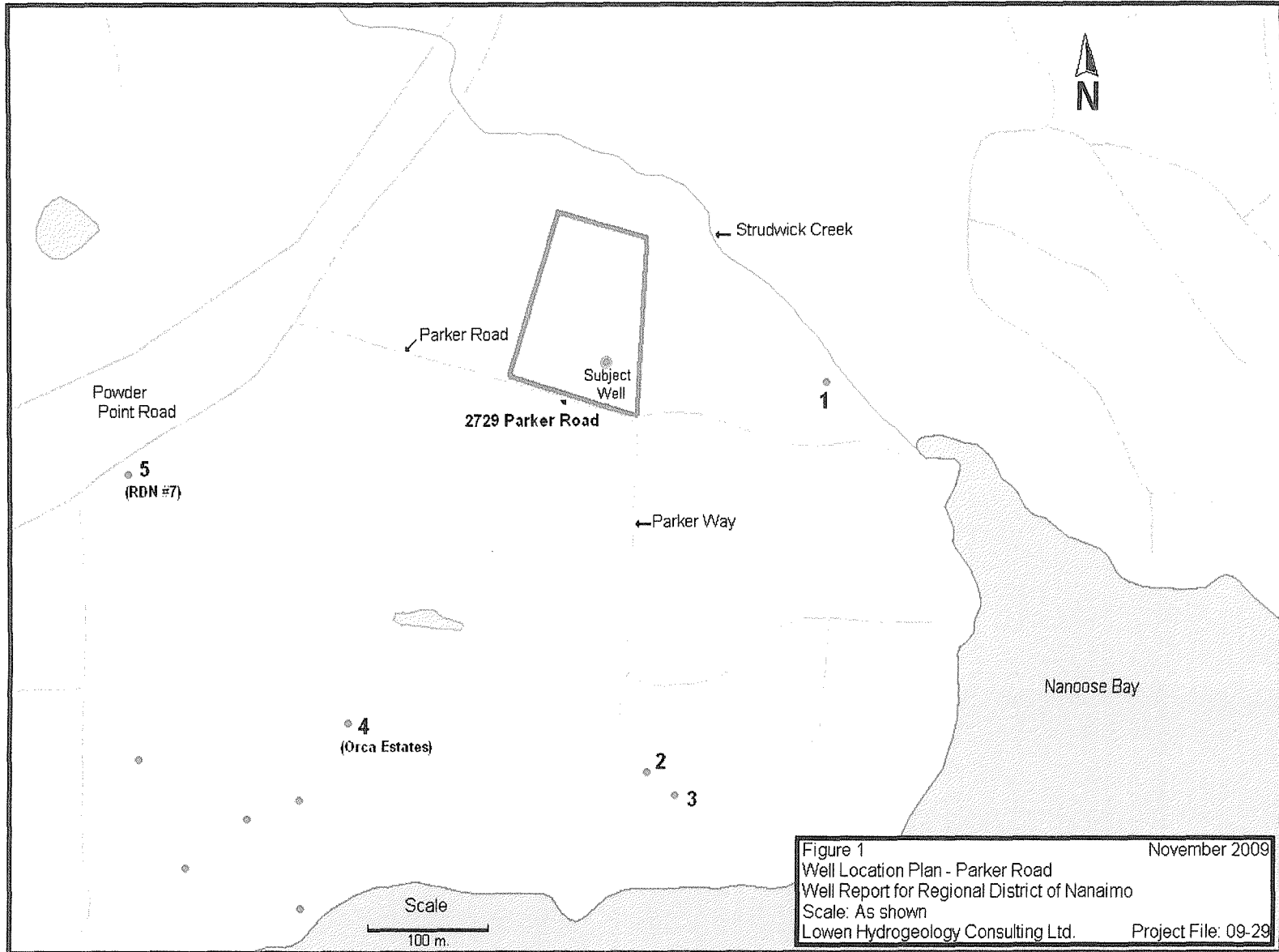
The Nanoose Peninsula is within the West Coast Temperature Zone with an average annual precipitation in Nanaimo of 1159 mm of which 1078 mm falls as rain and 81 mm falls as snow. The rainy season is generally between November and December where precipitation averages greater than 170 mm per month. Between July and August, precipitation is typically less than 30 mm per month. The coldest months are typically between November and February where daytime highs are 6 to 9 degrees C and lows between 0 and 2 degrees C. Between June and September, daytime temperatures are typically in the mid. 20 degrees C.

2.2. Topography and Surface Water Drainage

The subject property has been logged and undulates gently. The majority of surface water likely flows away from the subject well to the south toward Parker Road and beyond. As the subject property undulates slightly, some surface water would also flow locally towards the north.

2.3. Vegetation and Soil Type

The vegetation is comprised mainly of wild grass and lightly treed 2nd and 3rd growth fir trees with the occasional cedar tree. The vegetation to the south towards Parker Road is heavily treed with the occasional older mature fir tree. The soil is moderately well to imperfectly drained and the type appears to be the Puntedge soils. They have developed on medium to fine-textured marine materials underlain by clay or glacial till (Day, et.al, 1959).



LHC

3.0 HYDROGEOLOGY

Locally groundwater is found both in the unconsolidated deposits of glacial-fluvial sand and gravel deposits overlying bedrock and the fractured or faulted bedrock. The inferred direction of groundwater flow (locally) is likely from the north towards the south.

4.0 SURFICIAL GEOLOGY

Several episodes of erosion and deposition have produced a complex mixture of unconsolidated deposits within the subject area. Surficial deposits and the water well records suggest that the area was covered by glacial ice at least twice in the past. The presence of silt and clay suggest that the area was once submerged under the ocean. Extensive deposits of sand (probably glacial outwash) and glacial till overlie the faulted bedrock.

5.0 BEDROCK GEOLOGY

Bedrock outcrops are not evident on the subject property however they are evident at higher elevation along Claudet Road and adjacent to Northwest Bay Road. The bedrock is volcanic identified as Buttle Lake Group - Nanoose Complex. This rock unit is comprised of epiclastic, pyroclastic and volcanic rocks including volcanic sandstone, turbidites, tuffs and pillow basalts (Yorath et. al. 1985). The subject well is described by the driller as completed within highly fractured or faulted basalt bedrock. This is an igneous volcanic bedrock. The dominant factor governing groundwater availability in the bedrock is secondary porosity due to the structurally controlled fracturing. Primary or intergranular porosity is generally of minor importance. There are apparently two fault systems (Muller and Jeletsky, 1970) on the Nanoose Peninsula. Major faults can play an important hydrogeologic role.

6.0 WELL CONSTRUCTION

The subject well was constructed and developed in March 2005 by Kalicum Drilling Ltd. The well capacity at the time of construction was estimated by the driller at 100+ USgpm. All construction details have been included on the well record (Appendix A). The well record does not indicate that a sanitary surface seal was installed at the well head. Sanitary seals are now required on all wells (BC Reg. 91, 2009) and one must be installed on the subject well.

7.0 PUMPING TEST DISCUSSION

The pumping test was carried out as follows. The static water level (prior to pumping) was recorded. Pumping at a rate of 74.6 USgpm (4.7 L/s) began at 9:30 AM on August 2, 2006 and continued for 3.7 days (88.6 hours). The water level drawdown was 37.87 m. and essentially stable from 3105 minutes to the end of pumping at 5315 minutes of the pumping period. After pumping water level recovery readings were recorded up till August 10, 2006.

The well was pumped at varying rates from 74.6 to 131.8 USgpm and water level drawdown was stable while pumping at 118.0 USgpm in the latter part of the test. Also the observation well (Orca Subdivision well) showed no significant effect from the pumping. Well water level measurements are attached in Appendix A.

The pumping test data indicates a high capacity well with good recharge. The well was pumped at a sufficiently high rate to prove the ultimate capacity. The average pumping rate was 111 USgpm.

The well had a start water level of 41.31 m. dropping to 79.19 m. by the end of the pumping period. A drawdown graph is attached (Appendix A). The drawdown curve is typical for confined bedrock aquifer with good transmissivity, 103 m²/d. Drawdown at the end of the test was 37.88 m. with 47.08 m. of available drawdown (distance from static water level to main water bearing fracture). Using the standard formula for calculating well yield we obtain a yield of 104 USgpm calculated as follows:

$$\text{Yield} = 0.7 \times \text{specific capacity (100 days)} \times \text{available drawdown}$$

$$\text{Yield} = 0.7 \times 0.965 \times 154.46$$

$$\text{Yield} = \underline{104 \text{ USgpm}}$$

$$\text{Or } \underline{6.56 \text{ L/s}}$$

$$\text{Or } \underline{120,000 \text{ lgpd}}$$

The water level recovery for the well is very good and this is indicative of good transmissivity and good recharge. The well water level recovered 94 percent in the fourth day after pumping stopped even though the well was in use to service one house. A recovery graph is attached (Appendix A). The recovery is very good for higher producing bedrock well in the summer dry season.

8.0 WATER QUALITY DISCUSSION

A water quality analysis is attached in Appendix B. The water is fresh with moderate mineralization and Hardness. All parameters tested meet the Guidelines for Canadian Drinking Water Quality (April 2004). Overall the water quality is very good and suitable for drinking water purposes. See Table 1 following which provides laboratory water quality results.

Table 1 - Water Quality Results Summary

Nanaimo Regional District - 2729 Parker Road / Nanoose				August 2006			
Laboratory Testing Results - Well Water - Cantest Laboratories							
Parameter Tested	Units	Well ID Plate #15613	Maximum Concentrations GCDWQ*	Parameter Tested	Units	Well ID Plate #15613	Maximum Concentrations GCDWQ*
Bacteria:				Metals:			
Fecal Coliform	Col. / 100 mL	<1	0	Aluminum	mg/L	0.016	-
Heterotrophic Plate Count	Col./1ml		500	Antimony	mg/L	<0.001	0.006
Iron-related	Col./1mL	25	-	Arsenic	mg/L	<0.001	0.010
Non-Coliform	Col. / 100 mL		200	Barium	mg/L	0.13	1
Sulphur-reducing	Col./1mL	<200	-	Beryllium	mg/L	<0.001	-
Total Coliform	Col. / 100mL	<1	0	Bismuth	mg/L	<0.001	-
General Quality:				Boron	mg/L	0.33	5
Alkalinity, total	mg/L	150	500	Cadmium	ug/L	<0.0002	0.005
Ammonia Nitrogen	mg/L	0.19	-	Calcium	mg/L	24.5	-
Carbonate Alk.	-	-	-	Chromium	mg/L	<0.001	0.05
Chloride (Diss.)	mg/L	7.18	<250 AO	Cobalt	mg/L	<0.001	-
Colour, True	CU	<5	<15 AO	Copper	mg/L	<0.001	1.0 AO
Conductivity	µs/cm	314	-	Iron	mg/L	0.16	0.3 AO
Fluoride (Diss.)	mg/L	1.19	1.5	Lead	mg/L	<0.001	0.01
Hardness, total	mg/L	85	-	Lithium	mg/L	0.040	-
Nitrate by UV NO ₃	mg/L	<0.04	10	Magnesium	mg/L	5.89	-
Nitrite N	mg/L	<0.002	3.2	Manganese	mg/L	0.013	0.05 AO
pH	pH units	7.8	6.5 to 8.5 AO	Mercury	ug/L	-	0.001
Saturation Index at 4.4 C	SI 4.4 C	-0.56	-	Molybdenum	mg/L	0.0025	-
Saturation Index at 60 C	SI 60 C	0.48	-	Nickel	mg/L	<0.001	-
Sulphate (Diss.)	mg/L	13.6	<500 AO	Phosphorus	mg/L	<0.15	-
Sulphide	mg/L	<0.05	0.05 AO	Potassium	mg/L	2.3	-
Total Dissolved Solids	mg/L	185	<500 AO	Selenium	mg/L	<0.001	0.01
Total Kjeldahl Nitrogen	mg/L	0.3	-	Silicon	mg/L	7.1	-
Total Organic Carbon	mg/L	<1	-	Silver	mg/L	<0.00025	-
Total Organic Nitrogen	mg/L	<0.2	-	Sodium	mg/L	35.4	<200 AO
Turbidity	NTU	1.09	5	Strontium	mg/L	0.48	-
				Tellurium	mg/L	<0.001	-
				Thallium	mg/L	<0.0001	-
				Thorium	mg/L	<0.0005	-
				Tin	mg/L	<0.001	-
				Titanium	mg/L	<0.001	-
				Uranium	mg/L	<0.0005	0.02
				Vanadium	mg/L	<0.001	-
				Zinc	mg/L	<0.005	<5 AO
				Zirconium	mg/L	<0.01	-

* Guidelines for Canadian Drinking Water Quality (2008)

< Below detection limit

A dash mark in this column indicates that no maximum concentration limit has been set.

Several of the concentrations noted are set as "Aesthetic Objectives" (AO) only and are not Health issues.

Note: Shaded boxes indicate maximum drinking water concentration is exceeded or result outside acceptable range.

9.0 CONCLUSIONS

1. The subject well can supply a maximum of 545,500 L/d (120,000 lgpd) and a maximum instantaneous pumping rate of 6.58 L/s (104 USgpm) is recommended.
2. The well water supply is protected from surface contamination by material described on the well record as glacial till between 17.4 and 35.0 m (57 and 115 ft.).
3. The water quality is considered *excellent* and meets Canadian Drinking Water Standards (2008) for all parameters tested.
4. The water quality and quantity should remain stable over the long term.
5. The large cavity around the wellhead needs to be filled in with impermeable material as soon as possible, leaving at least 0.3 m. or 1.0 ft. of casing stickup above the ground surface.
6. The ground around the well head must be sloped away from the well to prevent surface water from reaching the well casing.

10.0 RECOMMENDATIONS

1. A pump setting depth of 85.3 m. or 280 ft. from ground level is recommended for the production pump installation. Maximum pumping water level is estimated at 74.25 m. (245 ft.). Monitoring water levels after the well is commissioned is recommended so long-term water levels could be determined more accurately.
2. A pumping rate of 6.58 L/s should not be exceeded at any time. A 2 cm. inside diameter pipe should be installed along with the pump column so that water levels can be measured periodically (at least monthly) with an electric sounder. Alternately an automatic water level logger could be installed.

3. Pumped water volume should be monitored and recorded, a flow meter with a totalizer and once per week monitoring should be sufficient.
4. During the first year of operation, water samples should be collected in February, May, September and November. Recommended parameters for analyses are: TDS, turbidity, conductivity, pH, alkalinity, chloride, sodium, sulfate, fluoride, nitrate, iron, manganese, calcium, arsenic, total and fecal coliform and E. coli.
5. After the first year of operation, future water quality samples should be collected and analyzed on an annual basis for chemical and bacteriological analysis. Water samples should be collected during the late summer or early fall when demand is highest and water levels would be at or near seasonal lows. A full VIHA analysis should be done once per year.
6. The proper operation of the pump is required to assure the best performance of the well. The following recommendations should be followed during the pump installation and operation:
 - (i.) If a vertical turbine type pump is installed, it should be mounted on solid reinforced concrete pads and not directly on the well casing.
 - (ii.) The well head should be fitted with check valves on the discharge to prevent back-flushing.
 - (iii.) The pump should not be flashed on and off over a short period of time, nor should the well be back-flushed.
7. In the event of the construction of a pump house, provision should be made for the future maintenance of the well. It is recommended that the structures around the well be easily removable to allow a drilling rig to set up over the well for pump or well maintenance work. The immediate area around the pump house should be fenced to discourage vandalism.
8. Appropriate wellhead protection measures should be implemented. See Appendix D.

CLOSURE / DISCLAIMER

This report has been prepared in accordance with generally accepted groundwater engineering practices. The opinions expressed herein are considered valid at the time of writing. Changes in site conditions can occur, however, whether due to natural events or to human activities on these, or adjacent properties. In addition, changes in regulations, and standards may occur, whether they result from legislation or the broadening of knowledge. This report is therefore subject to review and revision as changed conditions are identified.

Well yields and water quality can vary over time due to climate change, recharge area modification, or earth movements (earthquakes and blasting). Water quality standards also evolve over time and future revisions of the standards may necessitate changes to the recommendations for water treatment or testing.

In formulating our analyses, conclusions and recommendations we have relied on information supplied by others; well drilling contractors, pumping test contractors and a certified water testing laboratory. The information provided by others is believed to be accurate but cannot be guaranteed. If the recommendations in this report are not implemented, we assume no responsibility for any adverse consequences that may result.

If you have any questions or require any further information, please contact the undersigned.

Yours truly,

LOWEN HYDROGEOLOGY CONSULTING LTD.

D. A. Lowen, P. Eng., P. Geo.

DAL / hmr

NewOffice/Projects/2009Projects /ParkerRoad09-29/Well15613Report.doc

REFERENCES

Day, J.H., Farstad, L. and D.G. Laird, 1959. *Soil Survey of Southeast Vancouver Island and Gulf Islands, British Columbia*. Report No. 6 of the British Columbia Soil Survey. Research Branch, Canada Department of Agriculture in co-operation with University of British Columbia and the British Columbia Department of Agriculture.

Livingston, E.; Lowen, D. *Water Source Assessment Study for Electoral Area E in the District of Nanaimo*, Report Submitted to RDN, May 2007.

Lowen, D (2006). Letter Report to 734088 BC Ltd. entitled: *Well Water Source Development, 2729 Parker Road, Nanoose, B.C.*

Yorath et. al. *Lithoprobe - Phase 1 - Southern Vancouver Island: Preliminary Analysis of Reflection Seismic Profiles and Surficial Geology Studies*, GSC Paper 85 - 1A, p. 543 - 554, 1985.

APPENDIX A

Well Logs





1

Detailed Well Record

<p>Well Tag Number: 33203</p> <p>Owner: JACK HARRIS</p> <p>Address:</p> <p>Area:</p> <p>WELL LOCATION: NANOOSE Land District District Lot: 78 Plan: 23862 Lot: 1 Township: Section: Range: Indian Reserve: Meridian: Block: Quarter: Island: BCGS Number (NAD 27): 092F030314 Well: 2</p> <p>Class of Well: Subclass of Well: Orientation of Well: Status of Well: New Well Use: Unknown Well Use Observation Well Number: Observation Well Status: Construction Method: Drilled Diameter: 0.0 inches Casing drive shoe: Well Depth: 120 feet Elevation: 0 feet (ASL) Final Casing Stick Up: inches Well Cap Type: Bedrock Depth: 24 feet Lithology Info Flag: File Info Flag: Sieve Info Flag: Screen Info Flag:</p> <p>Site Info Details: Other Info Flag: Other Info Details:</p>	<p>Construction Date: 1975-08-12 00:00:00.0</p> <p>Driller: Kalicum Drilling Well Identification Plate Number: Plate Attached By: Where Plate Attached:</p> <p>PRODUCTION DATA AT TIME OF DRILLING: Well Yield: 4 (Driller's Estimate) Gallons per Minute (U.S./Imperial) Development Method: Pump Test Info Flag: Artesian Flow: Artesian Pressure (ft): Static Level:</p> <p>WATER QUALITY: Character: Colour: Odour: Well Disinfected: N EMS ID: Water Chemistry Info Flag: Field Chemistry Info Flag: Site Info (SEAM):</p> <p>Water Utility: Water Supply System Name: Water Supply System Well Name:</p> <p>SURFACE SEAL: Flag: Material: Method: Depth (ft): Thickness (in):</p> <p>WELL CLOSURE INFORMATION: Reason For Closure: Method of Closure: Closure Sealant Material: Closure Backfill Material: Details of Closure:</p>			
Screen from	to feet	Type	Slot Size	
Casing from	to feet	Diameter	Material	Drive Shoe
GENERAL REMARKS:				
LITHOLOGY INFORMATION:				
From	0 to	4 Ft.	Topsoil	
From	4 to	24 Ft.	Hardpan	
From	24 to	120 Ft.	Bedrock (felspar and quartz)	



②

Detailed Well Record

<p>Well Tag Number: 41517</p> <p>Owner: H R BROWN</p> <p>Address: PARKER ROAD</p> <p>Area: NANOOSE</p> <p>WELL LOCATION: NANOOSE Land District District Lot: 78 Plan: 15562 Lot: 1 Township: Section: Range: Indian Reserve: Meridian: Block: Quarter: Island: ECGS Number (NAD 27): 092F030313 Well: 12</p> <p>Class of Well: Subclass of Well: Orientation of Well: Status of Well: New Well Use: Unknown Well Use Observation Well Number: Observation Well Status: Construction Method: Drilled Diameter: 6.0 inches Casing drive shoe: Well Depth: 141 feet Elevation: 0 feet (ASL) Final Casing Stick Up: inches Well Cap Type: Bedrock Depth: feet Lithology Info Flag: File Info Flag: Sieve Info Flag: Screen Info Flag:</p> <p>Site Info Details: Other Info Flag: Other Info Details:</p>	<p>Construction Date: 1979-01-01 00:00:00.0</p> <p>Driller: Fyfe's Well Drilling Well Identification Plate Number: Plate Attached By: Where Plate Attached:</p> <p>PRODUCTION DATA AT TIME OF DRILLING: Well Yield: 10 (Driller's Estimate) Gallons per Minute (U.S./Imperial) Development Method: Pump Test Info Flag: Artesian Flow: Artesian Pressure (ft): Static Level: 95 feet</p> <p>WATER QUALITY: Character: Colour: Odour: Well Disinfected: N EMS ID: Water Chemistry Info Flag: Field Chemistry Info Flag: Site Info (SEAM):</p> <p>Water Utility: Water Supply System Name: Water Supply System Well Name:</p> <p>SURFACE SEAL: Flag: Material: Method: Depth (ft): Thickness (in):</p> <p>WELL CLOSURE INFORMATION: Reason For Closure: Method of Closure: Closure Sealant Material: Closure Backfill Material: Details of Closure:</p>			
Screen from	to feet	Type	Slot Size	
Casing from	to feet	Diameter	Material	Drive Shoe
GENERAL REMARKS:				
LITHOLOGY INFORMATION:				
From	0 to	20 Ft.	Yellow clay boulder	
From	20 to	83 Ft.	Blue clay stones	
From	83 to	121 Ft.	Brown sand	
From	121 to	130 Ft.	Hard blue clay	
From	130 to	141 Ft.	Coarse sand and gravel	



3

Detailed Well Record

<p>Well Tag Number: 86868</p> <p>Owner: REIMER</p> <p>Address: 2768 TEDS ROAD</p> <p>Area: NANOOSE</p> <p>WELL LOCATION: NANOOSE Land District District Lot: 78 Plan: 15562 Lot: 2 Township: Section: Range: Indian Reserve: Meridian: Block: Quarter: Island: BCGS Number (NAD 27): 092P030313 Well: 21</p> <p>Class of Well: Water supply Subclass of Well: Domestic Orientation of Well: Vertical Status of Well: New Well Use: Private Domestic Observation Well Number: Observation Well Status: Construction Method: Diameter: 6 inches Casing drive shoe: Y Well Depth: 146 feet Elevation: feet (ASL) Final Casing Stick Up: 12 inches Well Cap Type: Bedrock Depth: feet Lithology Info Flag: Y File Info Flag: N Sieve Info Flag: N Screen Info Flag: Y</p> <p>Site Info Details: Other Info Flag: Other Info Details:</p>	<p>Construction Date: 1990-02-20 00:00:00.0</p> <p>Driller: Kalicum Drilling Well Identification Plate Number: Plate Attached By: Where Plate Attached:</p> <p>PRODUCTION DATA AT TIME OF DRILLING: Well Yield: 12 (Driller's Estimate) U.S. Gallons per Minute Development Method: Air lifting Pump Test Info Flag: N Artesian Flow: Artesian Pressure (ft): Static Level: 101 feet</p> <p>WATER QUALITY: Character: Colour: Odour: Well Disinfected: N EMS ID: Water Chemistry Info Flag: N Field Chemistry Info Flag: Site Info (SEAM): N</p> <p>Water Utility: N Water Supply System Name: Water Supply System Well Name:</p> <p>SURFACE SEAL: Flag: N Material: Method: Depth (ft): Thickness (in): Liner from To: feet</p> <p>WELL CLOSURE INFORMATION: Reason For Closure: Method of Closure: Closure Sealant Material: Closure Backfill Material: Details of Closure:</p>												
<table border="1"> <thead> <tr> <th>Screen from</th> <th>to feet</th> <th>Type</th> <th>Slot Size</th> </tr> </thead> <tbody> <tr> <td>139</td> <td>143</td> <td></td> <td>10</td> </tr> <tr> <td>143</td> <td>146</td> <td></td> <td>null</td> </tr> </tbody> </table>		Screen from	to feet	Type	Slot Size	139	143		10	143	146		null
Screen from	to feet	Type	Slot Size										
139	143		10										
143	146		null										
<table border="1"> <thead> <tr> <th>Casing from</th> <th>to feet</th> <th>Diameter</th> <th>Material</th> <th>Drive Shoe</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>139</td> <td>6</td> <td>Steel</td> <td>Y</td> </tr> </tbody> </table>		Casing from	to feet	Diameter	Material	Drive Shoe	0	139	6	Steel	Y		
Casing from	to feet	Diameter	Material	Drive Shoe									
0	139	6	Steel	Y									
<p>GENERAL REMARKS: MEASUREMENTS FROM TOP OF CASING. PITLESS UNIT WELDED. RECOMMENDED PUMP TYPE 1 HP. RECOMMENDED PUMPING RATE 12+ GPM.</p> <p>LITHOLOGY INFORMATION: From 0 to 3 Ft. TILL till From 3 to 12 Ft. SAND & GRAVEL From 12 to 45 Ft. HARDPAN hardpan From 45 to 80 Ft. CLAY blue clay From 80 to 100 Ft. HARDPAN hardpan From 100 to 134 Ft. CLAY blue clay From 134 to 146 Ft. SAND & GRAVEL</p>													

Driller: Kalicum Drilling Ltd.

Date Drilled: May 1993

Depth (feet)		Geologic Formation
From	To	
0	2	topsoil
2	19	brown clay with boulders
19	85	brown sand
85	117	fine sand, brown to 29.6 m. (97 ft.) and grey below to 35.7 m. (117 ft.); damp.
117	118	grey fine sand, tight
118	125	grey silty sand
125	136	blue sandy clay
136	138	grey, silty coarse sand
138	140	coarse gravel containing very silty grey sand
140	153	coarse clean gravel to 75 mm. (3/4") containing fine pea gravel and coarse sand
153	175	coarse clean sand containing a few fines and wood
175	187	grey, clean fine sand containing wood
187	208	dark grey sand clay containing shells
		Notes: Well completion depth: 179 ft. (54.6 m.)
		8" nominal screens: 140' to 179' (42.6 m. to 54.6 m.)
		Fractures
		Well ID Plate Number: N/A
		Water:
		Static Water Level: 28.37 m. (May 11, 1993)
		Total Est. Yield: 4.1 L/s
		Casing: 200 mm.
		Liner: No



	Bentonite Seal:	No
--	------------------------	----





5

Detailed Well Record

Well Tag Number: 75323	Construction Date: 1980-01-01 00:00:00.0			
Owner: NANAIMO R.D.	Driller: Drillwell Enterprises			
Address: 2624 POWDER POINT	Well Identification Plate Number:			
Area: NANOOSE BAY	Plate Attached By:			
WELL LOCATION:	Where Plate Attached:			
NANOOSE Land District	PRODUCTION DATA AT TIME OF DRILLING:			
District Lot: 67 Plan: 29941 Lot: 5	Well Yield: 96 (Driller's Estimate) U.S. Gallons per Minute			
Township: Section: Range:	Development Method:			
Indian Reserve: Meridian: Block:	Pump Test Info Flag: N			
Quarter:	Artesian Flow:			
Island: VANCOUVER ISLAND	Artesian Pressure (ft):			
BCGS Number (NAD 27): 092F030313 Well: 14	Static Level: 40 feet			
Class of Well: Water supply	WATER QUALITY:			
Subclass of Well: Domestic	Character:			
Orientation of Well:	Colour:			
Status of Well: Closure	Odour:			
Well Use: Community Water Supply	Well Disinfected: N			
Observation Well Number:	EMS ID:			
Observation Well Status:	Water Chemistry Info Flag: N			
Construction Method: Drilled	Field Chemistry Info Flag:			
Diameter: 6 inches	Site Info (SEAM): N			
Casing drive shoe:	Water Utility: N			
Well Depth: 285 feet	Water Supply System Name:			
Elevation: 0 feet (ASL)	Water Supply System Well Name:			
Final Casing Stick Up: inches	SURFACE SEAL:			
Well Cap Type: CAPPED	Flag: Y			
Bedrock Depth: feet	Material:			
Lithology Info Flag: Y	Method:			
File Info Flag: N	Depth (ft):			
Sieve Info Flag: N	Thickness (in):			
Screen Info Flag: Y	WELL CLOSURE INFORMATION:			
Site Info Details:	Reason For Closure: HOLES IN CASING/LOW YIELD/POOR QUALITY			
Other Info Flag:	Method of Closure: Poured			
Other Info Details:	Closure Sealant Material: BENTONITE			
	Closure Backfill Material: BENTONITE			
	Details of Closure: CASING LEFT IN PLACE - BENTONITE CHIPS FROM BOTTOM TO TOP			
Screen from	to feet	Type	Slot Size	
131	135		.03	
Casing from	to feet	Diameter	Material	Drive Shoe
GENERAL REMARKS:				
SOME INFO PROVIDED BY NANAIMO REG STAFF. OLD WELL PLATE I.D. NUMBER IS 404. FLOOD PROOFING AND WELLHEAD PROTECTION ADEQUATE.				
LITHOLOGY INFORMATION:				
From	0 to	20 Ft.	HARDPAN	
From	20 to	70 Ft.	FINE TO MED SAND	
From	70 to	82 Ft.	FINE SAND WATER BEARING	
From	82 to	93 Ft.	CLAY	
From	93 to	97 Ft.	SAND, CLAY INTERBEDS	
From	97 to	101 Ft.	CLAY	
From	101 to	140 Ft.	SAND AND GRAVEL, WATER BEARING	
From	140 to	155 Ft.	SILTY SAND AND PEBBLES	
From	155 to	220 Ft.	CLAY	
From	220 to	235 Ft.	CLAY AND SAND INTERBEDS	
From	235 to	285 Ft.	CLAY	



December 20, 2013

File: W-C, Nanaimo, Regional District of
(Nanoose Bay Peninsula Water Service Area (Parker Road Well))

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo BC V9T 6N2

Attention: Mike Donnelly

Dear Sir:

**Re: Replacement Permit Extension - Water Supply System Construction
Permit No. W-C-2217R
Completion of Parker Road Well, Well Tag No. 15613 – at 2729 Parker Road East
Lot 3 Plan 29941 DL 67 Nanoose Land District, Wellhead & Watermain Design**

This office is in receipt of the December 20, 2013 request from Helen MacPhail Sims of Sims and Associates and Fern Road Consulting Ltd., for an extension of **Water Supply System Construction Permit No. W-C-2217R**. The following is provided.

Water Supply System Construction Permit No. W-C-2217R was issued January 3, 2013 and is set to expire January 3, 2014. Permits and their terms and conditions specified in their letter of transmittal can be amended prior to their expiration date. Please amend the letter of transmittal for **Water Supply System Construction Permit No. W-C-2217R**, issued January 3, 2013 as follows:

Remove:

“This permit is valid for one year and is not transferable unless the transfer is approved by the Issuing Official or the Drinking Water Officer.”

And replace with:

“This permit is valid from January 3, 2013 to January 3, 2015 and is not transferable unless the transfer is approved by the Issuing Official or the Drinking Water Officer.”

All other terms and conditions of **Water Supply System Construction Permit No. W-C-2217R** issued January 3, 2013 remain in force and effect.

Please contact Public Health Engineering through the Vancouver Island Health Authority in Nanaimo, should there be any questions concerning the above.

Yours truly,

Original signed by

Murray M. Sexton, P. Eng.
Public Health Engineer

cc: Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo
Helen MacPhail Sims, Sims and Associates and Fern Road Consulting Ltd., Qualicum Beach



June 13, 2011

File: W-C, Nanaimo, Regional District of
(Nanoose Bay Peninsula Water Service Area (Parker Road Well))
Park City Eng Ref: 182-001

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo BC V9T 6N2

Attention: Wayne Moorman, P. Eng., Manager of Engineering

Dear Sir:

Re: Water Supply System Construction Permit No. W-C-2217
Completion of Parker Road Well, Well Tag No. 15613 – at 2729 Parker Road East
Lot 3 Plan 29941 DL 67Nanoose Land District
Wellhead & Watermain Design

Please find enclosed Water Supply System Construction Permit No. W-C-2217, issued under Section 7 of the Drinking Water Protection Act, authorizing construction of the proposed wellhead completion and a watermain extension along Parker Road to serve existing and future development in Nanoose Bay Peninsula Water Service Area.

Well #15613 was granted source approval (with conditions) on May 11, 2011 by Mr. Dwayne Stroh, Supervisor, Health Protection and Environmental Services, Vancouver Island Health Authority. The terms and conditions of his source approval remain in force and effect.

This permit is valid for one year and is not transferable unless the transfer is approved by the Issuing Official or the Drinking Water Officer. This permit is subject to the following terms:

Design Deviations: This permit applies exclusively to the works as approved. Any subsequent design modifications will require the submission of amended drawings to the Issuing Official or Drinking Water Officer and approval obtained before installation of the amended works.

Disinfection: It is the responsibility of the water distribution system owner (Regional District of Nanaimo) to ensure that, following the completion of construction, repair, or draining and refilling of any portion of the system affected, and prior to the delivery of water

.../2

Health Protection &
Environmental Services
3rd Floor 6475 Metral Drive
Nanaimo BC V9T 2L9

Public Health Engineering
Ph: (250) 755-6299
Fax: (250) 755-3372

to customers served by these works, all waterworks affected by this permit are disinfected in accordance with the appropriate American Water Works Association (AWWA) standard or equivalent.

Chlorinated water used for disinfection of all waterworks shall not be directly discharged into the environment without the permission of the Ministry of Environment, and/or Fisheries and Oceans Canada.

Sewers: It is the responsibility of the water distribution system owner (Regional District of Nanaimo) to ensure that mains under construction or repair are not contaminated by seepage or effluent from sewers or storm drains.

Notifications: It is a condition of this permit that the local Environmental Health Officer is:
a) notified upon completion of the permitted work; and,
b) supplied with the results of all bacteriological testing conducted as part of the disinfection protocol.

Please contact Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo office, 3rd Floor, 6475 Metral Drive, Nanaimo, B. C., V9T 2L9 at telephone 250-755-6215, facsimile 250-755-3372 with the above notification and the results of the bacteriological testing.

This document grants authorization under Section 7 of the Drinking Water Protection Act only, and does not constitute permission or consent under any other Act or authority.

Please contact Public Health Engineering through the Vancouver Island Health Authority in Nanaimo, should there be any questions concerning the above.

Yours truly,

Original signed by

Murray M. Sexton, P. Eng.
Public Health Engineer
Vancouver Island Health Authority

cc: Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo
V. Roberts, P. Eng., Park City Engineering Ltd., Parksville, BC
Adam Jillood, Maz-Can Investments Ltd.

Enclosure



Nanoose Bay Peninsula

Water Supply System Construction Permit NO. W-C-2217

To: Regional District of Nanaimo

This is to certify that drawings numbered 182-01-1 (Rev. 0), 182-01-2 (Rev. 0), 182-01-3 (Rev. 0), 182-01-4 (Rev. 0), 182-01-5 (Rev. 0), 182-01-6 (Rev. 0), 182-01-7 (Rev. 0) and 182-01-8 (Rev. 0) dated February 2010, prepared and submitted May 5, 2010 by V. Roberts, P. Eng. of Park City Engineering Ltd., portraying a proposed wellhead completion, pumphouse and controls, watermain extension comprising of approximately 385 metres of 100mm diameter PC235 PVC pipe and other related appurtenances to serve existing and future development in the Nanoose Bay Peninsula Water Service Area in the Regional District of Nanaimo, BC, and submitted in accordance with Section 7 of the Drinking Water Protection Act have been reviewed and proposed construction, alteration or extension may be commenced in accordance with the approved plans and the terms and conditions contained in the letter of transmittal.

This document certifies that the plans and specifications for the proposed works have been reviewed pursuant to the current "Guidelines for the Approval of Waterworks" issued by the Vancouver Island Health Authority and that the plans and specifications meet the protection requirements outlined in the Guidelines.

The standards of structural integrity and safety of the works have not been considered and are not the subject of this Permit. This document grants authorization under Section 7 of the Drinking Water Protection Act only, and does not constitute permission or consent under any other Act or authority.

Original dated June 13, 2011

Original signed by

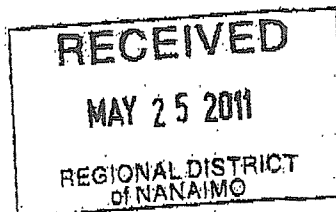
Date Issued

Murray M. Sexton, P. Eng.
Public Health Engineer

cc: Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo
V. Roberts, P. Eng., Park City Engineering Ltd., Parksville, BC
Adam Jillood, Maz-Can Investments Ltd.



May 11, 2011



Mr. Wayne Moorman, P. Eng.
Manager, Engineering Services
Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo BC V9T 6N2

Dear Mr. Moorman:

Re: Source Approval for the 300 Foot Well at 2729 Parker Road East
Well Tag #15613 - Lot 3, VIP 29941, DL 67 Nanoose Land District

I am approving the quality of water from 2729 Parker Road East (Well Tag #15613) for domestic water supply as an additional water source for the Nanoose Bay Peninsula Water Service Association under the following conditions:

1. Chlorine disinfection has not been proposed nor is it recommended. If chlorine treatment is considered then treatment for ammonia removal will be required.
2. In consultation with, and as approved by the local Environmental Health Officer, an ongoing monitoring program for the raw and treated water and a wellhead protection plan shall be developed for the groundwater source.
3. Routine scheduled sanitary surveys should be conducted to ensure human, commercial or industrial activities do not impact this well.
4. The well should be equipped with a data logger to monitor water levels, be monitored on an annual basis, and be protected through a wellhead protection plan.
5. There shall be no sewage disposal system within 30 meters horizontally from the well.
6. The Regional District of Nanaimo should own the property within a minimum radius of 30 meters of the well. A sanitary control easement should be in place if ownership cannot be obtained.
7. No (future) sewer or other sources of contamination shall be constructed within 30 meters of the well.
8. No (future) storm drain shall be constructed within 15 meters of the well.
9. A surface seal shall be provided for this well or if already in place confirmed by a qualified well driller or hydro-geologist.
10. The area around the wellhead shall be sloped away from the well, or during the construction of any future pump-house be sloped away from the well.
11. All users of the water are to be notified that the water is high in sodium and may not be suitable for those who are on a sodium reduced diet.

.../2

Health Protection Environmental Services

355 - 11th Street, Courtenay, B.C., V9N 1S4 • Telephone: 250-361-8518 • Fax: 250-331-8598

Our Vision: Healthy People, Healthy Island Communities, Seamless Service

Source Approval
RDN-2729 Parker Road E.
Well Tag #15613
May 11, 2011

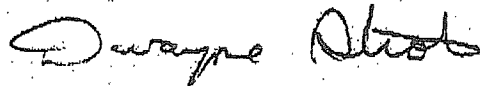
Page 2 of 2

This letter grants source approval and confirms that the water is acceptable for domestic supply. This letter is neither a construction permit nor an operating permit.

Please contact Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo Office, 3rd Floor-6475 Metral Drive, Nanaimo BC, telephone 250-755-6215, facsimile, 250-755-3372, with respect to the monitoring program, and the wellhead protection plan.

Please contact Public Health Engineering through the Vancouver Island Health Authority in Nanaimo 250-755-6299, should there be any questions concerning the above.

Yours truly,



Dwayne Stroh, C.P.H.I. (C)
Supervisor
Health Protection and Environmental Services

cc: Dr. Charmaine Enns, Medical Health Officer, Vancouver Island Health Authority
Doug Glenn, Senior Environmental Health Officer, Nanaimo
Anthony Griffin, District Environmental Health Officer, Nanaimo
Murray Sexton, Public Health Engineer, Nanaimo

DRS/kl



January 3, 2013

File: W-C, Nanaimo, Regional District of
(Nanoose Bay Peninsula Water Service Area (Parker Road Well)
Park City Eng Ref: 182-001

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo BC V9T 6N2

Attention: Wayne Moorman, P. Eng., Manager of Engineering

Dear Sir:

**Re: Replacement Permit -- Water Supply System Construction Permit No. W-C-2217R
Completion of Parker Road Well, Well Tag No. 15613 – at 2729 Parker Road East
Lot 3 Plan 29941 DL 67 Nanoose Land District
Wellhead & Watermain Design**

This office is in receipt of the December 11, 2012 request from Helen MacPhail Sims of Sims and Associates and Fern Road Consulting Ltd., for renewal of Water Supply System Construction Permit No. W-C-2217. The following is provided.

Water Supply System Construction Permit No. W-C-2217 was issued June 13, 2011 and expired June 13, 2012. Permits can be issued for longer than a year, or can be issued for a future construction window, but this is only done at the request of an applicant; if no request is made at the time of application the construction permit is valid for one year. A construction permit cannot be renewed, amended, or altered once it has expired. Once expired, a new construction permit must be obtained.

Please find enclosed replacement construction permit Water Supply System Construction Permit No. W-C-2217R, issued under Section 7 of the Drinking Water Protection Act, authorizing construction of the proposed wellhead completion and a watermain extension along Parker Road to serve existing and future development in Nanoose Bay Peninsula Water Service Area.

Well #15613 was granted source approval (with conditions) on May 11, 2011 by Mr. Dwayne Stroh, Supervisor, Health Protection and Environmental Services, Vancouver Island Health Authority. The terms and conditions of his source approval remain in force and effect.

.../2

Health Protection &
Environmental Services
3rd Floor 6475 Metral Drive
Nanaimo BC V9T 2L9

Public Health Engineering
Ph: (250) 755-6299
Fax: (250) 755-3372

This permit is issued with the understandings that the design drawings have not changed and that the original design engineer is still responsible for the design. If the design drawings have changed in a significant manner and/or the design engineer is no longer involved in this project, the Regional District of Nanaimo will have to apply for a new construction permit and submit a replacement design.

This permit is valid for one year and is not transferable unless the transfer is approved by the Issuing Official or the Drinking Water Officer. This permit is subject to the following terms:

Design Deviations: This permit applies exclusively to the works as approved. Any subsequent design modifications will require the submission of amended drawings to the Issuing Official or Drinking Water Officer and approval obtained before installation of the amended works.

Disinfection: It is the responsibility of the water distribution system owner (Regional District of Nanaimo) to ensure that, following the completion of construction, repair, or draining and refilling of any portion of the system affected, and prior to the delivery of water to customers served by these works, all waterworks affected by this permit are disinfected in accordance with the appropriate American Water Works Association (AWWA) standard or equivalent.

Chlorinated water used for disinfection of all waterworks shall not be directly discharged into the environment without the permission of the Ministry of Environment, and/or Fisheries and Oceans Canada.

Sewers: It is the responsibility of the water distribution system owner (Regional District of Nanaimo) to ensure that mains under construction or repair are not contaminated by seepage or effluent from sewers or storm drains.

Notifications: It is a condition of this permit that the local Environmental Health Officer is:
a) notified upon completion of the permitted work; and,
b) supplied with the results of all bacteriological testing conducted as part of the disinfection protocol.

Please contact Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo office, 3rd Floor, 6475 Metral Drive, Nanaimo, B. C., V9T 2L9 at telephone 250-755-6215, facsimile 250-755-3372 with the above notification and the results of the bacteriological testing.

.../3

This document grants authorization under Section 7 of the **Drinking Water Protection Act** only, and does not constitute permission or consent under any other Act or authority.

Please contact Public Health Engineering through the Vancouver Island Health Authority in Nanaimo, should there be any questions concerning the above.

Yours truly,

Original signed by

Murray M. Sexton, P. Eng.
Public Health Engineer

cc: Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo
Vaughan. Roberts, P. Eng., Park City Engineering Ltd., Parksville, BC
Helen MacPhail Sims, Sims and Associates and Fern Road Consulting Ltd., Qualicum Beach
Adam Jillood, Maz-Can Investments Ltd.

Enclosure



Nanoose Bay Peninsula

Water Supply System Construction Permit NO. W-C-2217-R (Replacement)

To: Regional District of Nanaimo

Parker Road Well

This is to certify that drawings numbered 182-01-1 (Rev. 0), 182-01-2 (Rev. 0), 182-01-3 (Rev. 0), 182-01-4 (Rev. 0), 182-01-5 (Rev. 0), 182-01-6 (Rev. 0), 182-01-7 (Rev. 0) and 182-01-8 (Rev. 0) dated February 2010, prepared and submitted May 5, 2010 by V. Roberts, P. Eng. of Park City Engineering Ltd., portraying a proposed wellhead completion, pumphouse and controls, watermain extension comprising of *approximately 385 metres of 100mm diameter PC235 PVC pipe and other related appurtenances* to serve existing and future development in the Nanoose Bay Peninsula Water Service Area in the Regional District of Nanaimo, BC, and submitted in accordance with Section 7 of the **Drinking Water Protection Act** have been reviewed and proposed construction, alteration or extension may be commenced in accordance with the approved plans and the terms and conditions contained in the letter of transmittal.

This document certifies that the plans and specifications for the proposed works have been reviewed pursuant to the current "Guidelines for the Approval of Waterworks" issued by the Vancouver Island Health Authority and that the plans and specifications meet the protection requirements outlined in the Guidelines.

*The standards of structural integrity and safety of the works have not been considered and are not the subject of this Permit. This document grants authorization under Section 7 of the **Drinking Water Protection Act** only, and does not constitute permission or consent under any other Act or authority.*

Original dated January 3, 2013

Original signed by

Date Issued

Murray M. Sexton, P. Eng.
Public Health Engineer

ec: Anthony Griffin, Environmental Health Officer, Vancouver Island Health Authority, Nanaimo
Vaughan. Roberts, P. Eng., Park City Engineering Ltd., Parksville, BC
Helen MacPhail Sims, Sims and Associates and Fern Road Consulting Ltd., Qualicum Beach
Adam Jillood, Maz-Can Investments Ltd.



May 2014

Honourable Coralee Oakes
Minister of Community, Sport and Cultural Development
PO BOX 9056
STN PROV GOVT
Victoria, BC V8W 9E2

Re: BC Assessment Authority - Qualifying Agricultural Uses

Dear Minister,

The Regional District of Nanaimo (RDN) respectfully requests that the provincial government revisit the decision on additions to the list of qualifying agricultural products. The threshold to qualify for farm status is too high for many small farms when they are only permitted to include raw farm products in the calculation of income. We contend that to truly support farming the list of qualifying agricultural uses needs to be expanded to include more value-added and agri-tourism products.

Since the Report of the Farm Panel Review came out in 2009 the RDN has completed an Agricultural Area Plan. Development of the Plan included a comprehensive consultation process in which we heard that the requirements related to income are too onerous for many small farmers. We were told by farmers that one way to address this issue is to expand the list of qualifying agricultural uses to include more value-added and agri-tourism products. The Plan includes advocating for this change as an action item. This is consistent with the recommendations from the Farm Assessment Review Panel which also recommended that more value-added and farming-related activities be included.

The RDN's Agricultural Advisory Committee (AAC) strongly agrees with this recommendation from the Agricultural Area Plan and has identified these changes to the regulation as an effective way to support farming in this region and elsewhere in BC. Like the Farm Assessment Review Panel, the RDN's AAC believes that making additions to the list of qualifying agricultural uses is a top priority. Should you want suggestions of value-added and agri-tourism products that should qualify we would be happy to provide you with a list.

We hope you will reconsider the recommendation of the Farm Assessment Review Panel and increase the number of value-added and agri-tourism products to the list of qualifying agricultural products. Thank you for your consideration. I look forward to your response.

Sincerely,

Joe Stanhope
Chair
Regional District of Nanaimo

cc Connie Fair, President & CEO, BC Assessment Authority

**Strategic & Community
Development**
6300 Hammond Bay Road
Nanaimo, BC
V9T 6N2

Ph: (250) 390-6510

Toll Free: 1-877-607-4111
Fax: (250) 390-7511
Email: planning@rdn.bc.ca

Web: www.rdn.bc.ca