

CITY OF LANGFORD
AGRICULTURAL ADVISORY COMMITTEE
Wednesday, June 10th, 2009 @ 5:30 p.m.
Council Chambers, 3rd Floor, 877 Goldstream Avenue

	<u>Page</u>
<u>AGENDA</u>	
1. <u>CALL TO ORDER</u>	
2. <u>APPROVAL OF THE AGENDA</u>	
3. <u>ADOPTION OF MINUTES</u>	
a) Agricultural Advisory Committee – March 30th, 2009	1
4. <u>REPORTS</u>	
a) 3398 Luxton Road	3
- Staff Report (File No. ALR-06-05)	
b) 3639 Happy Valley Road	13
- Staff Report (File No. ALR-09-01)	
5. <u>ADJOURNMENT</u>	

CITY OF LANGFORD
MINUTES OF THE AGRICULTURAL ADVISORY COMMITTEE
Monday, March 30th, 2009 @ 5:30 p.m.
Council Chambers, 3rd Floor, 877 Goldstream Avenue

PRESENT

N. Stewart (Chair), D. Rugg (Vice-Chair), Councillor Szpak, T. Atherton, B. French, S. Harvey, S. Horbal and G. Willing.

ATTENDING

City Planner, Matthew Baldwin.

1. CALL TO ORDER

The Chair called the meeting to order at 5:35 p.m.

2. APPROVAL OF THE AGENDA

MOVED BY: COUNCILLOR SZPAK

SECONDED: B. FRENCH

That the Agricultural Advisory Committee approve the Agenda as presented.

CARRIED.

3. APPROVAL OF THE MINUTES

a) Agricultural Advisory Committee – January 5th, 2009

MOVED BY: B. FRENCH

SECONDED: G. WILLING

That the Minutes of the January 5th, 2009 Agricultural Advisory Committee meeting be adopted as presented.

CARRIED.

MOVED BY: COUNCILLOR SZPAK

SECONDED: S. HARVEY

That the Agricultural Advisory Committee amend its recommendation of January 5th, 2009 with regard to 3622 Happy Valley to stipulate that the ALR application be set aside until bylaw enforcement issues with respect to that property are resolved.

CARRIED.

4. **REPORTS**

- a) **3398 Luxton Road**
- **Staff Report (File No. ALR-06-05)**

MOVED BY: D. RUGG
SECONDED: S. HARVEY

That the Agricultural Advisory Committee ask the applicant to work with staff and provide further information on the net benefit to agriculture, as it relates to this proposal, prior to giving this ALR application for 3398 Luxton Road further consideration.

CARRIED.

- b) **3639 Happy Valley Road**
- **Staff Report (File No. ALR-09-01)**

MOVED BY: D. RUGG
SECONDED: S. HARVEY

That the Agricultural Advisory Committee:

1. Reconsider the application for 3639 Happy Valley Road at the next meeting of the Committee to allow the applicant time to provide additional information on the agrology of the subject property; and
2. That the Agriculture Advisory Committee meet again in 4-5 weeks to discuss the net benefit to agriculture and the ALR applications for 3398 Luxton Road and 3639 Happy Valley Road.

CARRIED.

5. **ADJOURNMENT**

The Chair adjourned the meeting at 7:35 p.m.

CHAIR

CERTIFIED CORRECT
Clerk-Administrator



Staff Report
 to
Agricultural Advisory Committee

SCANNED

Date: May 26th, 2009
File: ALR-06-05
Subject: *Application to Exclude the Property at 3398 Luxton Road from the Agricultural Land Reserve.*

PURPOSE

Clive Townley has applied on behalf of Peter and Rose Unger to have the property at 3398 Luxton Road excluded from the Agricultural Land Reserve.

BACKGROUND

This proposed ALR application to exclude the aforementioned property from the ALR was considered by the Agricultural Advisory Committee (AAC) at their meeting on 30 March 2009. At this meeting, the AAC requested that the applicant work with staff and provide further information on the net benefit to agriculture, as it relates to this proposal, prior to giving this ALR application further consideration. The applicant submitted a revised proposal for Council's consideration addressing AAC's request.

There are no previous ALR applications concerning this subject property. A rezoning application was also submitted in conjunction with the ALR exclusion application to rezone the subject property from AG1 (Agricultural 1) to BP2 (Business Park 2 – Sooke Road). The rezoning application is on hold until the Agricultural Land Commission (ALC) makes a decision on this ALR application. In 1997, a development permit was issued to the property owners for the enclosure of a carport and sundeck within the Floodplain Development Permit Area.

GENERAL ALR APPLICATION DATA

Applicant	Clive Townley
Owner	Peter and Rose Unger
Location	3398 Luxton Road
Legal	Lot 5, Block B, Section 88, Metchosin District, Plan 1139
Size of Property	3.36 ha (8.3 acres) – only 2.49 ha (6.16 acres) of the property is within the ALR.
Zoning	Agriculture 1 (AG1)
OCP Designation	Agricultural Strategy Lands
South Langford Neighbourhood Plan (SLNP)	Rural
DP Area	Riparian, Floodplain and Areas with Potential Habitat and Biodiversity Values

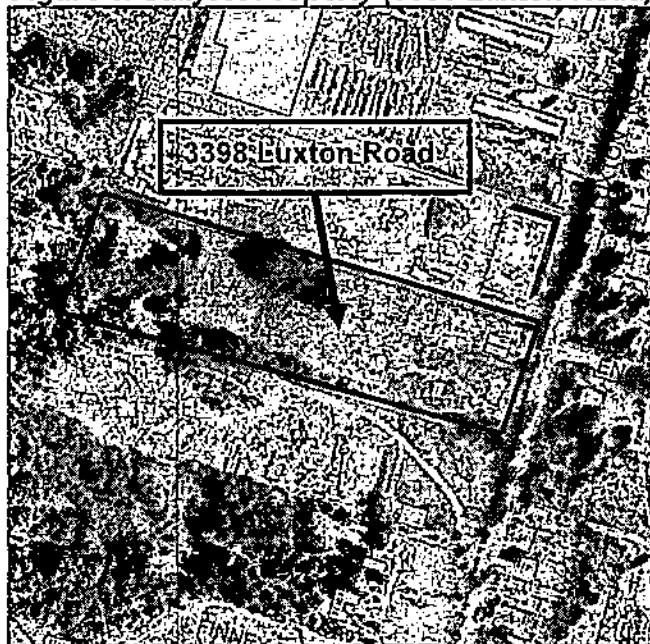
SITE AND SURROUNDING AREA

The site is currently occupied by two single-family dwelling units. The front and central portion of the property is flat and covered by grass and patches of scotch broom and sedges. The westerly portion of the property (outside of the ALR) is hilly and covered by mature second growth Douglas fir, Arbutus and Western Red Cedar trees. Grasses and moss species cover the rock outcrops. Along the eastern side of the northern property boundary is a small fenced vegetable garden that is idle and largely overgrown. Growing along the northern and southern property lines within the central portion of the property are large Western Red Cedar and Douglas fir trees.

Table 2. Surrounding Land Uses

	Zoning	OCP Designation	SLNP	Use	Within the ALR
North	BP 2 (Business Park 2)	Business or Light Industrial	Business Park/Service Commercial	Light Industrial (Slegg Lumber)	No
East	AG1 (Agricultural 1) Zone	Hillside	Large Lot Residential	Residential	No
South	AG1 (Agricultural 1) Zone	Agricultural Strategy Lands	Rural	Light Industrial (gravel pit)	Yes
West	AG1 (Agricultural 1) Zone	Neighbourhood	Urban Residential	Residential	No

Figure 1. Subject Property (3398 Luxton Road)



COUNCIL POLICY

OFFICIAL COMMUNITY PLAN

- Policy 11.1.6 Permit greenhouses in most zones.*
- Objective 11.2 Promote and support commercial agriculture as a viable business venture.*
- Policy 11.2.1 Require sustainable agriculture practices on city-owned parcels where and when appropriate through lease agreements.*
- Policy 11.2.7 Provide site selection support and for food processors considering locating in the community.*
- Policy 11.2.13 Encourage the development of locally-owned food/grocery stores and restaurants in new and existing neighbourhoods.*
- Objective 11.3 Ensure development in or around farmlands does not preclude long term viability.*
- Policy 11.3.1 Develop an edge planning policy for properties adjacent to ALR properties or acquire farmland as a means to ensure new development will not jeopardize the long term use of the land for agricultural purposes.*
- Policy 11.3.2 Support municipal purchasing of farmland that is not being actively farmed (to protect it from future threat of speculation) and the set up a community trust to manage intensive, farm operations on this land for the benefit of the community.*
- Policy 11.3.3 As it relates to exclusion applications of farm lands from the Agricultural Land Reserve (ALR), the City will support exclusions provided there is considerable benefit that can be provided such as farmland dedications for community trust and/or upgrades to farming / farmland infrastructure as part of exclusions.*

SOUTH LANGFORD NEIGHBOURHOOD PLAN

The designation of the subject property within the South Langford Neighbourhood Plan (SLNP) is "Rural." The South Langford Plan has been incorporated into Zoning Bylaw No. 300 as design guidelines.

COMMENTS

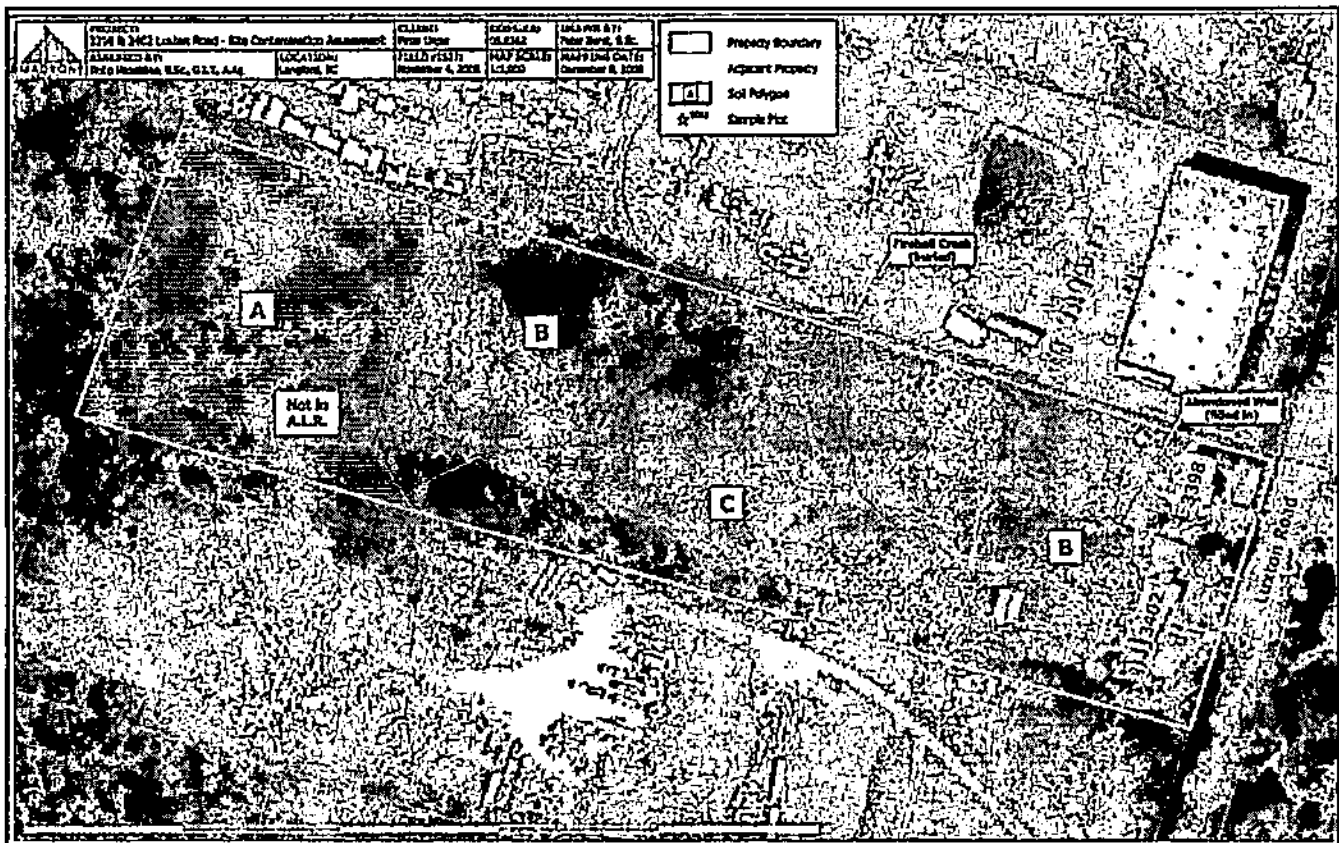
AGRICULTURAL SUITABILITY REVIEW FOR SOUTH LANGFORD NEIGHBOURHOOD PLAN AREA 2007
The Agricultural Suitability Review for South Langford Neighbourhood Plan Area prepared by Brian French, P.Ag. for the City of Langford provides an overview of the viability of agricultural lands in Langford that are within the ALR, as well as outlines various options/strategies to formulate an agricultural management strategy. The review recommends that the subject

property could be considered for exclusion under the condition that the exclusion provides a net benefit to agriculture.

LAND CAPABILITY ASSESSMENT

As summarized above, the Agricultural Suitability Review (French, 2007) recommends that the subject property could be considered for exclusion as long as there is a net benefit to agriculture. The applicant hired Madrona Environmental Services Ltd. to conduct a land capability assessment (please refer to Appendix B for a copy of the agrology report) on the subject property. The consultant concludes that *area Map Unit A (please refer to Figure 2 below) is highly unsuitable for agriculture due to the significant and unimprovable topographical, depth to bedrock and aridity limitations; and areas Map Units B & C (please refer to Figure 2 below) are marginally well-suited for agriculture due to the significant and unimprovable excess moisture limitations in combination with the aridity and undesirable soil structure limitations.* Council may wish to note that the ALR lands south of the subject site are also identified in the Agricultural Suitability Review as *“possible exclusion with net benefit to agriculture.”*

Figure 2. Map of the subject property (3398 Luxton Road)



LAND USE AND ROAD NETWORK PROPOSAL

If the subject property is removed from the ALR, the applicant would approach the City and propose to amend the OCP designation of the subject property from “Agricultural Strategy Lands” to “Business or Light Industrial,” amend the designation of the property in the SLNP from

COMPLIANCE WITH OFFICIAL COMMUNITY PLAN

Objective 11.3 of Section 11.0 Our Food System in the OCP states the following:

“Ensure development in or around farmlands does not preclude long term viability.”

Policy 11.3.1 of Section 11.0 Our Food System in the OCP states the following:

“Develop an edge planning policy for properties adjacent to ALR properties or acquire farmland as a means to ensure new development will not jeopardize the long term use of the land for agricultural purposes.”

Careful edge planning is crucial to ensure development in or around farmlands does not prevent long term viability of arable land. Appendix C provides an example of good edge planning. The Agricultural Suitability Review states that *“exclusion from the ALR should only be considered in the context of careful edge planning and buffering to protect the present and future agricultural use of the ALR lands.* Good edge planning techniques include, but not limited to, restricting the types of agricultural activities and intensities that takes place next to urban edges, public awareness, and adequate landscape and spatial buffers.

Policy 11.3.3 Section 11.0 Our Food System in the OCP states the following:

“As it relates to exclusion applications of farm lands from the Agricultural Land Reserve (ALR), the City will support exclusions provided there is considerable benefit that can be provided such as farmland dedications for community trust and/or upgrades to farming / farmland infrastructure as part of exclusions.”

Council has the opportunity to require a contributing benefit to agriculture at the time of rezoning of the lands that may be excluded from the ALR. Since 2006, Council has been collecting contributions toward the Agricultural Land Acquisition (ALR) Reserve Fund as a condition of rezoning. Other land improvements may include, but not limited to, importing organic materials, or suitable clean soils to land, improving drainage and irrigation works, and providing farm structures and/or equipment to lands remaining in the ALR. Discussed below is a proposal provided by the applicant that offers a net benefit to agriculture as it pertains to the exclusion of a portion or the entire subject property from the ALR.

NET BENEFIT TO AGRICULTURE

The applicant has provided a revised proposal for AAC's consideration that gives further information on the net benefit to agriculture as it relates to this proposal. The applicant proposes either a donation of one acre parcel from the subject lands to the City to be secured in a community land trust managed by the City for farming-purposes, or a monetary donation of \$150,000.00 to Langford's ALR Reserve Fund that would be endowed to The Land Conservancy (TLC) to support the Joseph Lohbrunner Farm Project at 1152 Lippincott Road. Considering that the farm is in Langford and in close proximity to the subject property, it may be appropriate to allocate this cash contribution to enhance this local project. The TLC also expressed that an endowment would be more practical than a donation of an acre of land.

OPTIONS

OPTION 1

That the Agricultural Advisory Committee recommend that Council:

1. Direct staff to submit a letter report to the Agricultural Land Commission stating that the City would support the exclusion of property at 3398 Luxton Road from the Agricultural Land Reserve subject to any future redevelopment of the subject property being guided by "Edge Planning" and/or "Agricultural Urbanism" principles at the time of rezoning to attain a net benefit to agriculture;

AND

2. Request a cash contribution of \$150,000.00 from the applicant at time of building permit towards the Agricultural Land Reserve Fund that would be exclusively allocated in regular payments to the Joseph Lohbrunner Farm Project at 1152 Lippincott Road;

OR

3. Request a cash contribution of \$150,000.00 from the applicant at time of building permit towards the Agricultural Land Reserve Fund that would be exclusively allocated in regular payments to the Joseph Lohbrunner Farm Project at 1152 Lippincott Road **AND** a one acre parcel from the subject lands to the City to be secured in a community land trust managed by the City for farming-purposes;

OR

4. Request an amenity land contribution worth \$150,000.00 to be secured in a community land trust managed by the City for farming-purposes;

AND

5. Direct staff to work with the property owner to ensure that any future redevelopment of land that may be excluded from the ALR is guided by ensuring careful edge planning and buffering is undertaken to protect the present and future agricultural use of the ALR lands;


OR

OPTION 2


6. Reject the application to exclude the property at 3398 Luxton Road from the ALR.
-



Matthew Baldwin, MCIP
City Planner




Leanne Blackwood, MCIP
Planner II

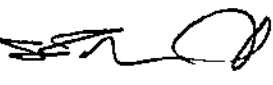


Jason Parks
Parks Manager


Bob Beckett
Fire Chief



John Manson, P.Eng
City Engineer



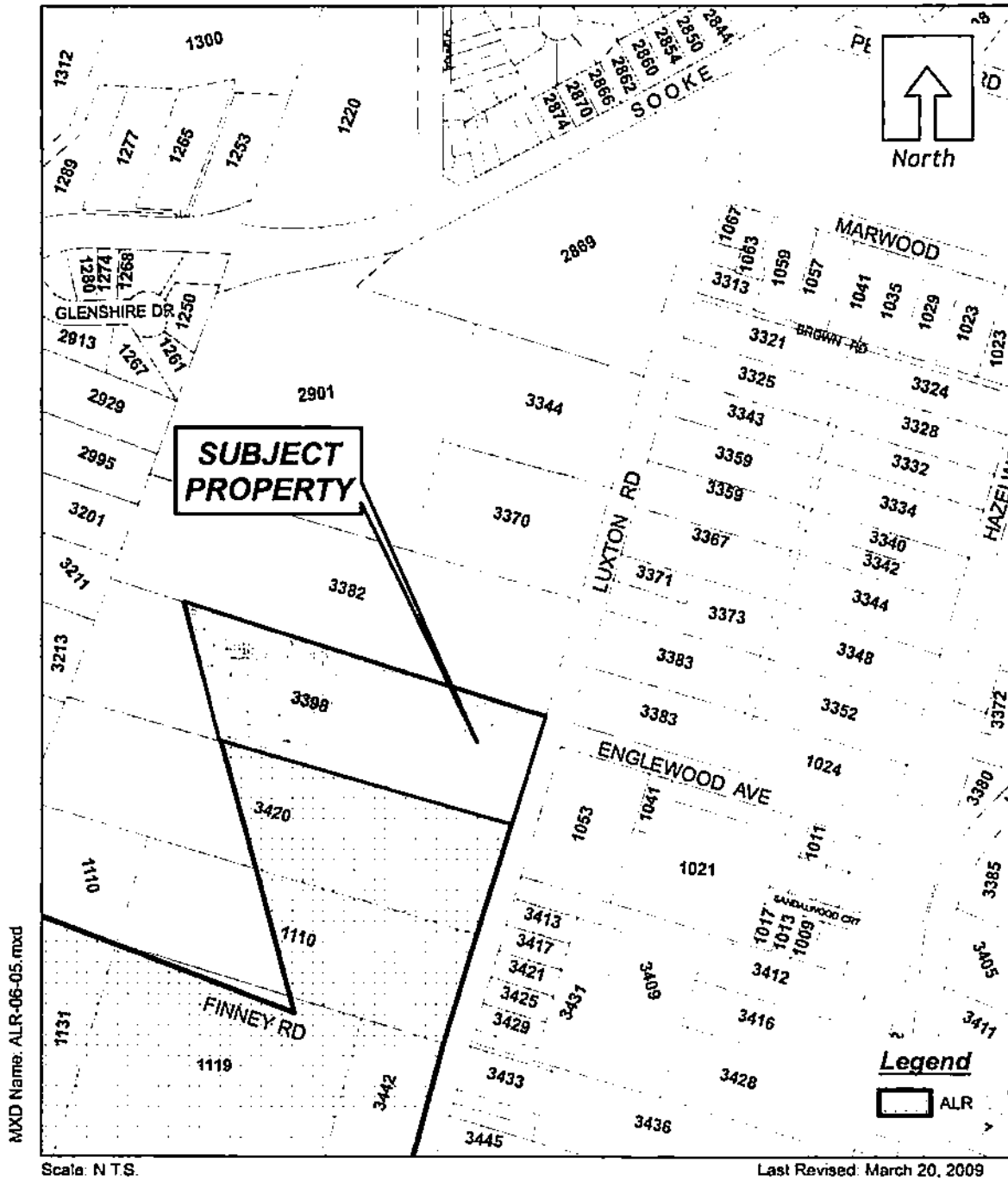
Steve Tennent
Treasurer



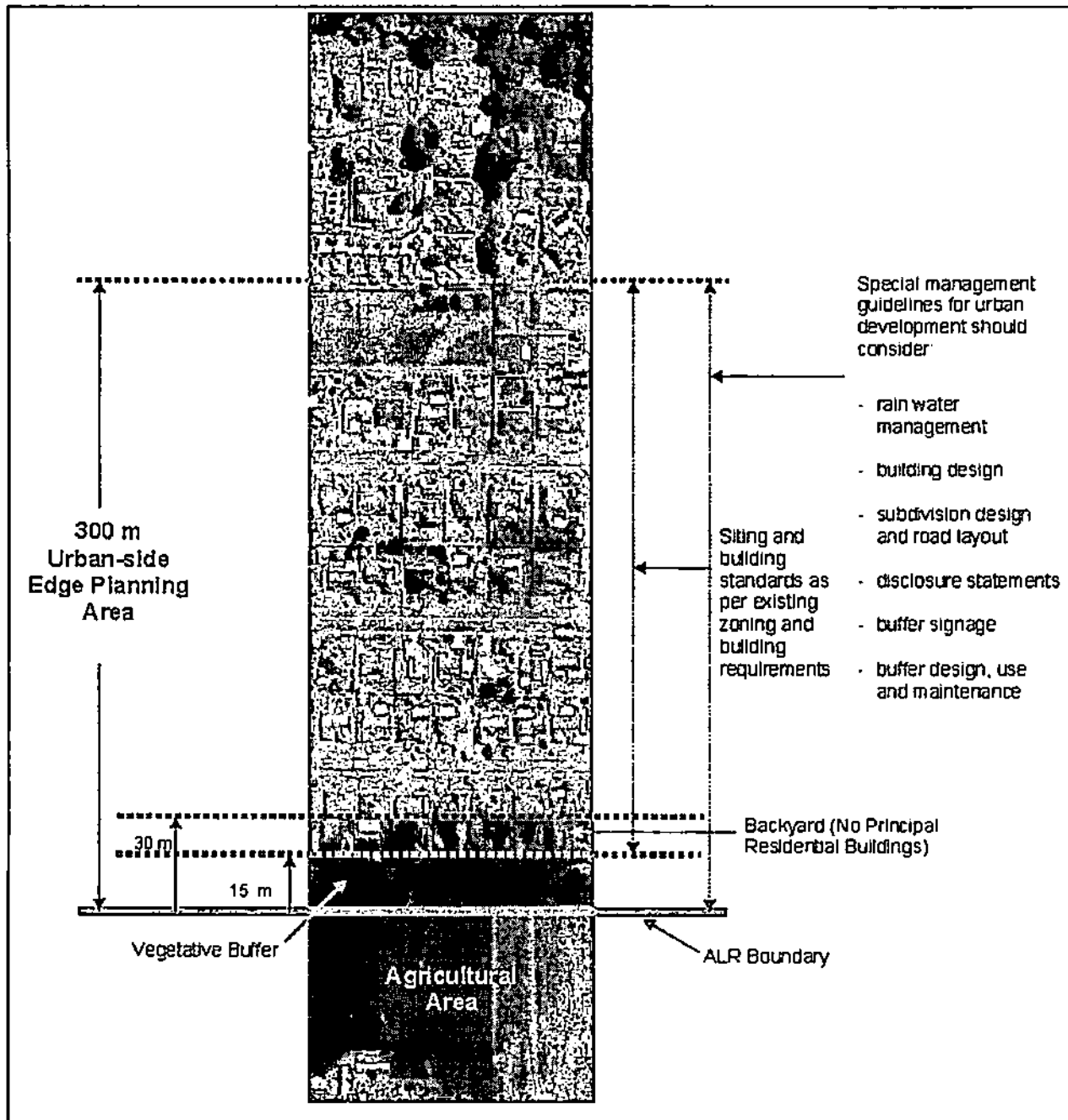
Jim Bowden
Acting Administrator

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APPENDIX A
AGRICULTURAL LAND RESERVE APPLICATION
ALR-06-05
3398 LUXTON RD



APPENDIX B





Staff Report
 to
Agricultural Advisory Committee

SCANNED

Date: June 10th, 2009
File: ALR-09-01
Subject: *Application to Exclude the Property at 3639 Happy Valley Road from the Agricultural Land Reserve.*

PURPOSE

Ken Showers has applied to exclude the property at 3639 Happy Valley Road from the Agricultural Land Reserve.

BACKGROUND

This application was discussed at the Agricultural Advisory Committee meeting on March 30th, 2009. The committee's recommendations are shown in the italicized text below:

- *Reconsider the application for 3639 Happy Valley Road at the next meeting of the Committee to allow the applicant time to provide additional information on the agrology of the subject property; and*
- *That the Agriculture Advisory Committee meet again in 4-5 weeks to discuss the net benefit to agriculture and the ALR applications for 3398 Luxton Road and 3639 Happy Valley Road.*

The applicant has provided another agrologist's report which provides a more detailed analysis of the central portion of the subject property (Map Area C – shown on page 5).

There are no previous applications regarding the subject property.

TABLE 1 - GENERAL ALR APPLICATION DATA

Applicant	Ken Showers
Owner	Ken and Ruth Showers
Location	3639 Happy Valley Road
Legal	Lot A Section 80 & 81, Metchosin District, Plan 8187 PID 005-439-001 (3639 Happy Valley Road)
Size of Property	2.5 acre (10,117 m ²)
Zoning	Agriculture 1 (AG1)
OCP Designation	Agricultural Strategy Lands

South Langford Neighbourhood Plan	Rural
DP Area	Habitat and Biodiversity

SITE AND SURROUNDING AREA

Approximately half of the property supports a large grass field to the south, which as shown in Figure 1, was previously hayed. The northern half of the property is made up of second-growth forest adjacent to Happy Valley Road, the house, driveway and lawn areas, as well as some sections of scotch broom.

FIGURE 1

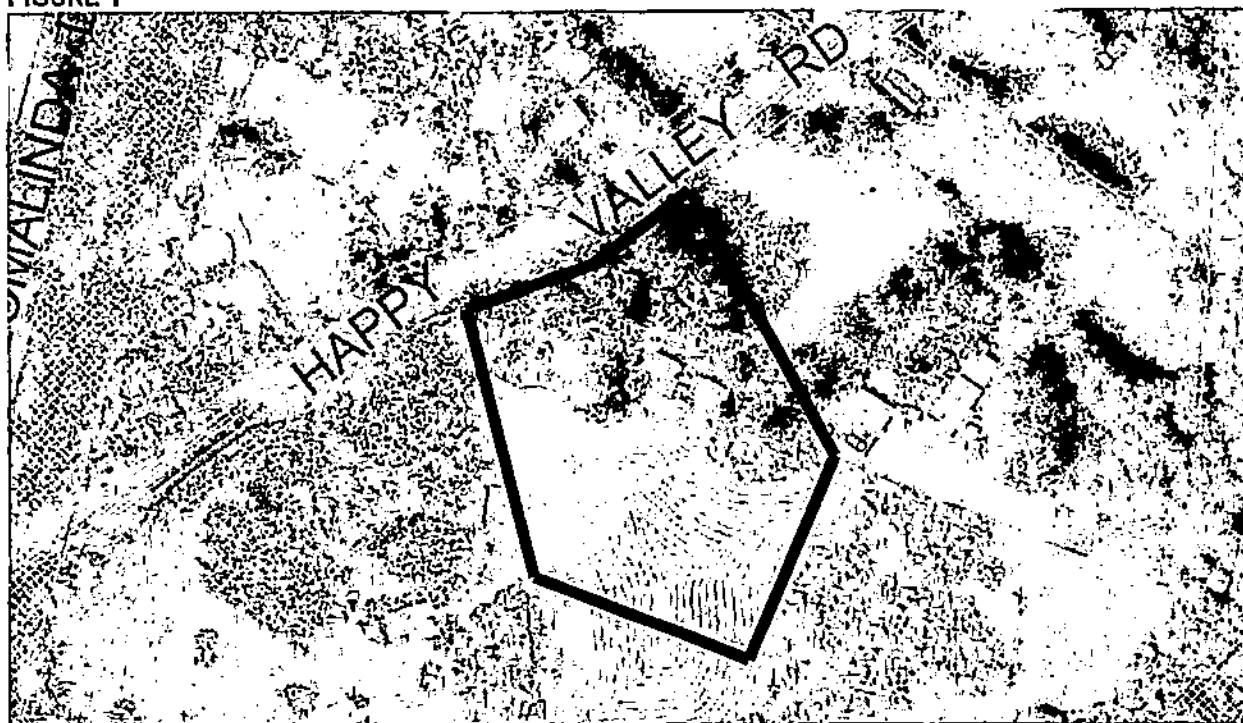


Table 2. - Surrounding Land Uses

	Zoning	OCP Designation	Use
North	AG1 (Agricultural 1 Zone)	Agricultural Strategy Lands	Single-Family Residential/small-scale agricultural activities
East	AG1 (Agricultural 1 Zone)	Agricultural Strategy Lands	Single-Family Residential/small-scale agricultural activities
South	AG1 (Agricultural 1 Zone)	Agricultural Strategy Lands	Single-Family Residential/small-scale agricultural activities
West	AG1 (Agricultural 1 Zone)	Agricultural Strategy Lands	Single-Family Residential/small-scale agricultural activities

COUNCIL POLICY

SOUTH LANGFORD NEIGHBOURHOOD PLAN

The designation of the subject property within the South Langford Neighbourhood Plan is *Rural with Heritage Values*, which under the Plan applies to areas where the traditional land use of a property is of significance to the history and culture of Langford...An average density of 1 lot per 12 ha (30 acres) applies to this designation. Council may support rezoning which supports the ongoing traditional use of lands within this designation. The South Langford Neighbourhood Plan has been incorporated into Zoning Bylaw No. 300 as a part of the design guidelines.

OFFICIAL COMMUNITY PLAN (OCP)

The following italicized excerpt from the OCP – Our Food System and Community Agriculture, explains the context of Council Policy.

Food self reliance is an issue gaining some interest in communities on Vancouver Island; 5% to 10% of the food consumed on the island is grown on the island. 95% of the food is therefore imported leading to negative impacts on GHG emissions, traffic, nutritional quality of food and local economy.

Policy 11.1.6 Permit greenhouses in most zones.

Objective 11.2 Promote and support commercial agriculture as a viable business venture.

Policy 11.2.1 Require sustainable agriculture practices on city-owned parcels where and when appropriate through lease agreements.

Policy 11.2.7 Provide site selection support and for food processors considering locating in the community.

Policy 11.2.13 Encourage the development of locally-owned food/grocery stores and restaurants in new and existing neighbourhoods.

Objective 11.3 Ensure development in or around farmlands does not preclude long term viability.

Policy 11.3.1 Develop an edge planning policy for properties adjacent to ALR properties or acquire farmland as a means to ensure new development will not jeopardize the long term use of the land for agricultural purposes.

Policy 11.3.2 Support municipal purchasing of farmland that is not being actively farmed (to protect it from future threat of speculation) and the set up a community trust to manage intensive, farm operations on this land for the benefit of the community.

Policy 11.3.3 As it relates to exclusion applications of farm lands from the Agricultural Land Reserve (ALR), the City will support exclusions provided there is considerable benefit that can be provided such as

***farmland dedications for community trust and/or upgrades to farming /
farmland infrastructure as part of exclusions.***

COMMENTS

AGRICULTURAL SUITABILITY REVIEW FOR SOUTH LANGFORD NEIGHBOURHOOD PLAN AREA 2007

The Agricultural Suitability Review for South Langford Neighbourhood Plan Area prepared by Brian French, P.Ag. for the City of Langford provides an overview of the viability of agricultural lands in Langford that are within the ALR, as well as outlines various options/strategies to formulate an agricultural management strategy. The review recommends that the subject property be retained in the ALR.

LAND CAPABILITY ASSESSMENT

The applicant hired Madrone Environmental Services Ltd. to conduct another land capability assessment for the subject property (please refer to Appendix B for a copy of the agrology report). The land assessment separates the subject property into three areas: Map Unit A (22.6% of the site area, 0.56 acres/2,266m²), Map Unit B (63% of the site area, 1.6 acres/6,474m²) and Map Unit C (14.4% of the site area, 0.35 acres/1,416m²), please refer to Figure 2 on Page 5.

Map Unit A (22.6% of site)

As the report notes, Map Unit A is comprised of second-growth forest adjacent to Happy Valley Road. There are douglas-fir, western redcedar, dull oregon-grape, salal, red huckleberry, holly and various grass species common throughout this map unit.

The Agrologist concludes that *Map Unit A is moderately well-suited for agriculture*. Despite this the report also states that *Map Unit A has aridity, fertility and stoniness limitations...and the stoniness limitation which occurs at the Class 3 level is unimprovable, as gravels are considered impractical to remove.*

Map Unit B (63% of site)

The report notes that this map unit area *is gently sloping with slopes ranging from 1 – 4%. The majority of Map Unit B is dominated by a grass field which has previously been hayed. The other portion of Map Unit B is made up of the house, driveway and lawn areas, as well as some second-growth forest and scotch broom patches.*

The Agrologist concludes that *Map Unit B is moderately well-suited for agriculture*. The report also notes that *within Map Unit B, aridity (A), and fertility (F) are the main limitations, with minor limitations due to undesirable soil structure (D).*

Map Unit C (14.4% of site)

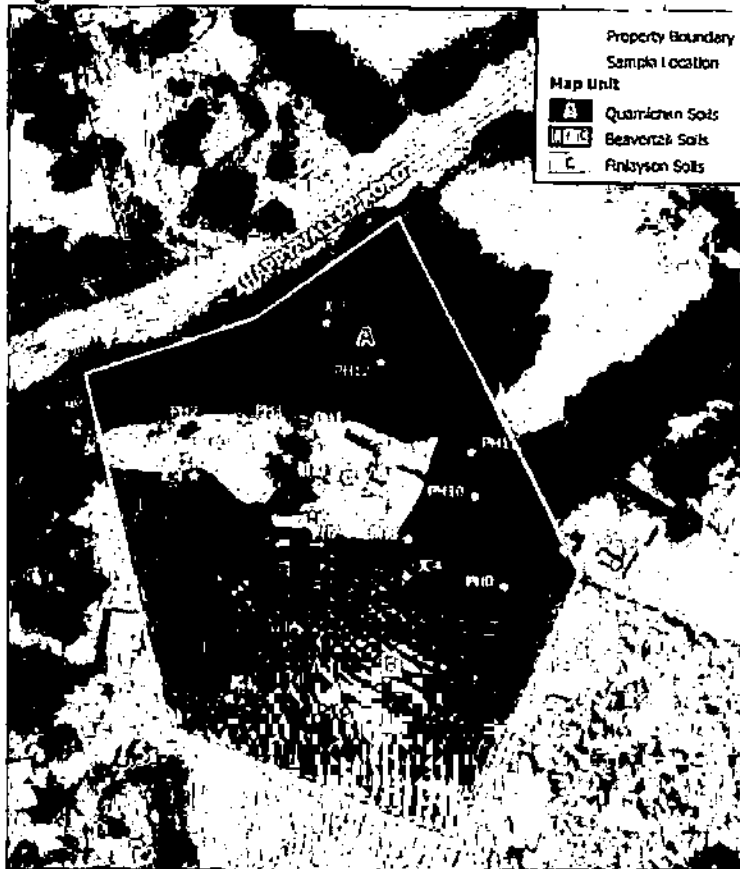
Map Unit C is comprised of grass lawn and small gardens within the central portion of the property including the home and majority of garage area. The report notes that the soils within this map area *are moderately well to imperfectly drained and silty clay loam textured with a very low coarse fragment contents, leading to significant undesirable soil structure and low perviousness at the Class 3D to 4D level.*

The overall land capability summary notes that *in general, the property (Map units A, B and C) are moderately well-suited for agriculture with improvable limitations due to aridity, fertility and undesirable soil structure. The stoniness and depth to bedrock limitations within Map Unit A, however, is considered unimprovable.*

The report explains that the minor limitations for map Unit B and C could be improved with deep plowing, irrigation, and fertilization. However, the report also notes that *these improvements may not be economically feasible due to the small size (1.03ha) of farmable land. The small size should be taken into consideration in evaluating the potential of this parcel to support an economically viable farm operation.*

Council may wish to note that the ALR lands west of the subject site are identified in the Agricultural Suitability Review as *possible exclusion with net benefit to agriculture*, however the adjacent properties on the east side of Happy Valley Road are proposed to be retained in the ALR.

Figure 2



CONCEPT PLANS (PROPOSED BY THE APPLICANT)

The applicant has submitted two draft concept plans of which he may wish to pursue by way of a future rezoning application. Both plans would require meeting all of the City's standards at a later date if a rezoning application was to come forward and these plans do not presuppose the requirements of the Approving Officer or the potential lot layout.

The applicant has explained that the proposed concept plans represent the minimum threshold of economic feasibility. In Option #2, the applicant is proposing to extend the properties into Map Area B so the potential future lot owners could have larger yards for food producing gardens. It should be noted that these plans may not coincide with the Agrologist's report with respect to what is or is not farmable due to the soil limitations and costs to upgrade the land.

Figure 3 – Option #1



PROPOSED LOT SIZES (APPROXIMATE)

Lot 1: 550m² (5,920ft²), Lot 2: 735m² (7,911ft²), Lot 3: 580m² (6,243ft²) Lot 4: 663m² (7,136ft²)
Lot 5: 695m² (7,480ft²).

Figure 4 – Option #2



PROPOSED LOT SIZES (APPROXIMATE)
 Lot 1: 550m² (5,920ft²), Lot 2: 735m² (7,911ft²), Lot 3: 890m² (9,579ft²) Lot 4: 663m² (7,136ft²)
 Lot 5: 1,795m² (19,321ft²)

NET BENEFIT TO AGRICULTURE

Council may wish to request that as a condition of any future rezoning, land improvements such as deep plowing, irrigation and fertilization are undertaken by the applicant, to the satisfaction of a Professional Agrologist, on the lands that are considered improvable (notwithstanding the financial cost of upgrades) and therefore could be recommended to be retained in the ALR (the remaining 1.94 acres/77.4% of the site).

Additionally, to ensure the farmable land provides a considerable benefit to agricultural production, Council may wish to have the City acquire a portion of the ALR land to be secured in a public trust (City of Langford), and be available to undercapitalized farmers on a lease, or lease to purchase basis for agricultural uses. Alternatively, the applicant has proposed to retain the farmable land for the purpose of farming it for themselves to produce a variety of berry crops.

Another option for Council is to secure a cash donation for a value commensurate with the property at 3398 Luxton Road (approximately \$150,000 per acre) to be payable to the City of Langford's ALR Fund so the City can either use the cash to acquire farmable land or to allocate these funds to other means to boost the net benefit to agricultural in South Langford.

OPTIONS

That the Agricultural Advisory Committee recommend that Council:

1. Direct staff to submit a letter report to the Agricultural Land Commission stating that the City would support the following portion of land to be excluded from the ALR subject to any future redevelopment of the subject property being guided by "Edge Planning" and/or "Agricultural Urbanism" principles at the time of rezoning to attain a net benefit to agriculture:
 - i) Map Unit A as shown in the Madrone Environmental Services Ltd. report dated March 3rd, 2008 comprising 0.56 acres (22.6% of the land) of the northern portion of the property at 3639 Happy Valley Road; OR
 - ii) Map Unit A, C and a portion of B as shown in the **Figure 4 – Option #2** comprising approximately 1.25 acres (50% of the land) of the northern and central portion of the property at 3639 Happy Valley Road; OR
 - iii) Map Unit A, C and B as shown in the Madrone Environmental Services Ltd. report dated March 3rd, 2008 comprising 2.5 acres (100% of the land) of the northern and central portion of the property at 3639 Happy Valley Road.

AND

- iv) The applicant be advised that the City is not making any representations with respect to any future subdivision of the property.

AND

2. That Council will accept one or more of the following to satisfy the City's objectives of increasing the net benefit to agriculture:
- i) That the applicant will retain ownership of the remaining ALR land and upgrade the land to make it farmable so the applicant can farm the land to produce a variety of berry species; **OR**
 - ii) That the lands that may be retained in the ALR are donated to the City and secured in a public trust (City of Langford), and be available to undercapitalized farmers on a lease, or lease to purchase basis for agricultural uses; **OR**
 - iii) That the applicant retain half of the land to remain in the ALR and that the other half be donated to the City and secured in a public trust (City of Langford), and be available to undercapitalized farmers on a lease, or lease to purchase basis for agricultural uses;

AND


- iv) That regardless of the Options chosen, the applicant provide a cash donation for a value commensurate with the property at 3398 Luxton Road (approximately \$150,000 per acre) to be payable to the City of Langford's ALR Fund so the City can either use the cash to acquire farmable land or to allocate these funds to other means to boost the net benefit to agricultural in South Langford.


AND


3. Direct staff to work with the property owner to ensure that any future redevelopment of land that may be excluded from the ALR is guided by the following:
- i) Ensure careful edge planning and buffering is undertaken to protect the present and future agricultural use of the ALR lands; and

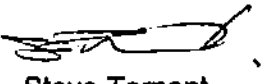
OR

4. Reject the application to exclude the property at 3639 Happy Valley Road from the ALR.


Matthew Baldwin, MCIP
City Planner



John Manson, P.Eng
City Engineer
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Grant Liebscher
Planner

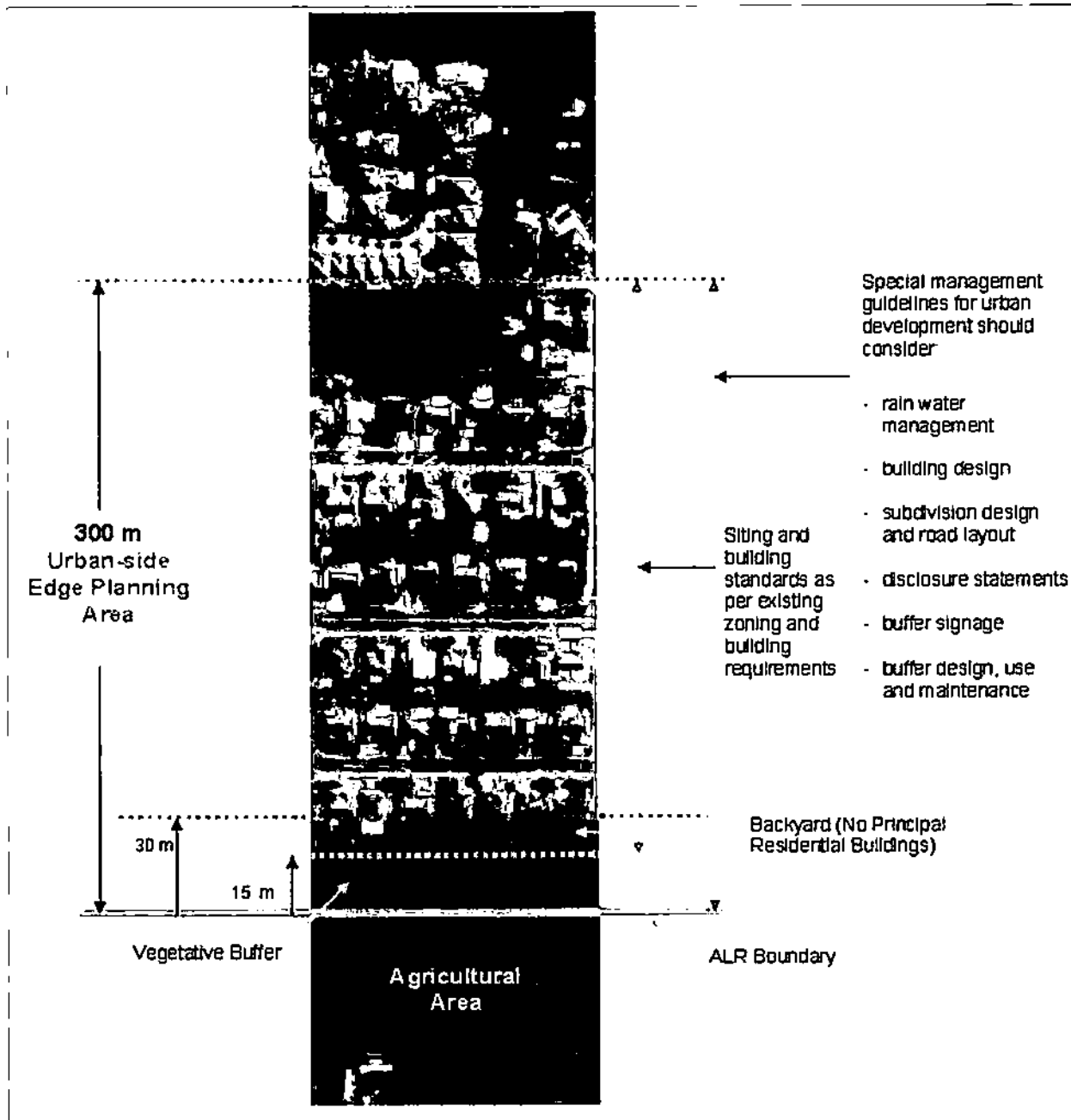

Steve Ternent
Treasurer

Jason Parks
Parks Manager

Bob Beckett
Fire Chief


Jim Bowden
Acting Clerk-Administrator

Appendix A – Pictorial Example of Edge Planting



MADRONE
environmental services ltd.

**3639 HAPPY VALLEY ROAD,
METCHOSIN LAND DISTRICT LANGFORD, BC**

**Mr. Ken Showers
3850 Happy Valley Road
Metchosin, BC, V9C 3X5**

**Jackie Churchill, M.Sc., B.I.T., A.Sc.T.
Philip A. Haseldine, B.Sc., A. Ag., G.I.T.
MADRONE ENVIRONMENTAL SERVICES LTD.
1081 Canada Avenue, Duncan, BC, V9L 1V2**

May 4, 2009

Dossier 08.0303

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* Hand written notes are added by the property owner -

LAND CAPABILITY ASSESSMENT
3639 Happy Valley Road, Langford, BC

MADRONE
environmental services ltd.

1.0 SUMMARY

- The 1.02 ha (2.5 acre) study site contains sandy and loamy sand soils of the Beavertail and Quamichan Associations as well as soils of the Filayson Association which a primarily silty clayey loam texture. The soils within the property are subject to variable limitations for aridity, stoniness, undesirable soil structure, fertility, and excess water.
- Map Unit A, Map Unit B, and Map Unit C are moderately well-suited for agriculture. Map Unit A, located in the northern portion of the study area has aridity, fertility and stoniness limitations as well as limitations arising from shallow depths to bedrock.
- Map Unit B, located in the eastern portion of the property, contains soils with limitations aridity, fertility and undesirable soil structure.
- Map Unit C, is located centrally on the property, and is bordered by Map Unit A to the north and Map Unit B to the south. It contains soils with limitations due to excess water, undesirable soil structure and low perviousness.
- Class 4 limitations occur throughout the entire property and can be improved generally to the Class 3, through processes such as irrigation, deep subsoiling, fertilization and improved drainage. The stoniness limitation which occurs in Map Unit A at the Class 3 level is unimprovable, as gravels are considered impractical to remove.

- These improvements may not be economically feasible due to the small size (1.03 ha) of farmable land. The small size should be taken into consideration in evaluating the potential of this parcel to support an economically viable farm operation.
- If only a portion of the property is excluded from the ALR (Map Unit A), the farmable area including the dwelling would be reduced to below 8,000 m² (the threshold of land area below which farm gate income must be over \$10,000.00), to 7,900.00 m². The required farmgate income required to maintain farm status for tax assessment purposes would jump from \$2,500.00 to \$10,000.00 placing a fiscal burden on the owner.
- The soils have an existing (*i.e.*, unimproved) land capability as follows:

Class	Area (%)
6 or 7	0
5	0
4	100
3	0
1 and 2	0

- Assuming improvement is economically feasible, the soils have a potential (*i.e.*, improved) land capability as follows:

Class	Area (%)
6 or 7	0
5	0
4	0
3	100
1 and 2	0

2.0 INTRODUCTION

At the request of Mr. Ken Showers (the Client), the land capability for agriculture was assessed at the 3639 Happy Valley Road property, located in Langford, 12.5 km west of Victoria, BC and approximately 14.5 km northeast of Sooke, BC. The study area encompasses all of the 1.03 ha (2.5 acres) property. The property is currently zoned Agricultural 1 (AG1) within the Agricultural Land Reserve (ALR).

2.1 Purpose and Scope

The purpose of the assessment is to evaluate the capability of the land to support agriculture. A detailed investigation of soil types within the property was conducted, and the site was segregated into polygons (map units) representing soil types and agricultural potential based on assessed limitations. The report includes a map of the property (Figure 1), (found on the next page) which shows the approximate boundaries of the identified map units.

PROJECT:
3639 Happy Valley Road - Land Capability Assessment

FIELD VISIT:
Sept. 12, 2008 & April 9, 2009

CLIENT:
Ken Showers

DOSSIER NO:
08.0303

ASSESSED BY: Jackie Churchill, M.Sc., B.I.T., A.Sc.T.
& Philip Haseldine, B.Sc., G.I.T., A.Ag.

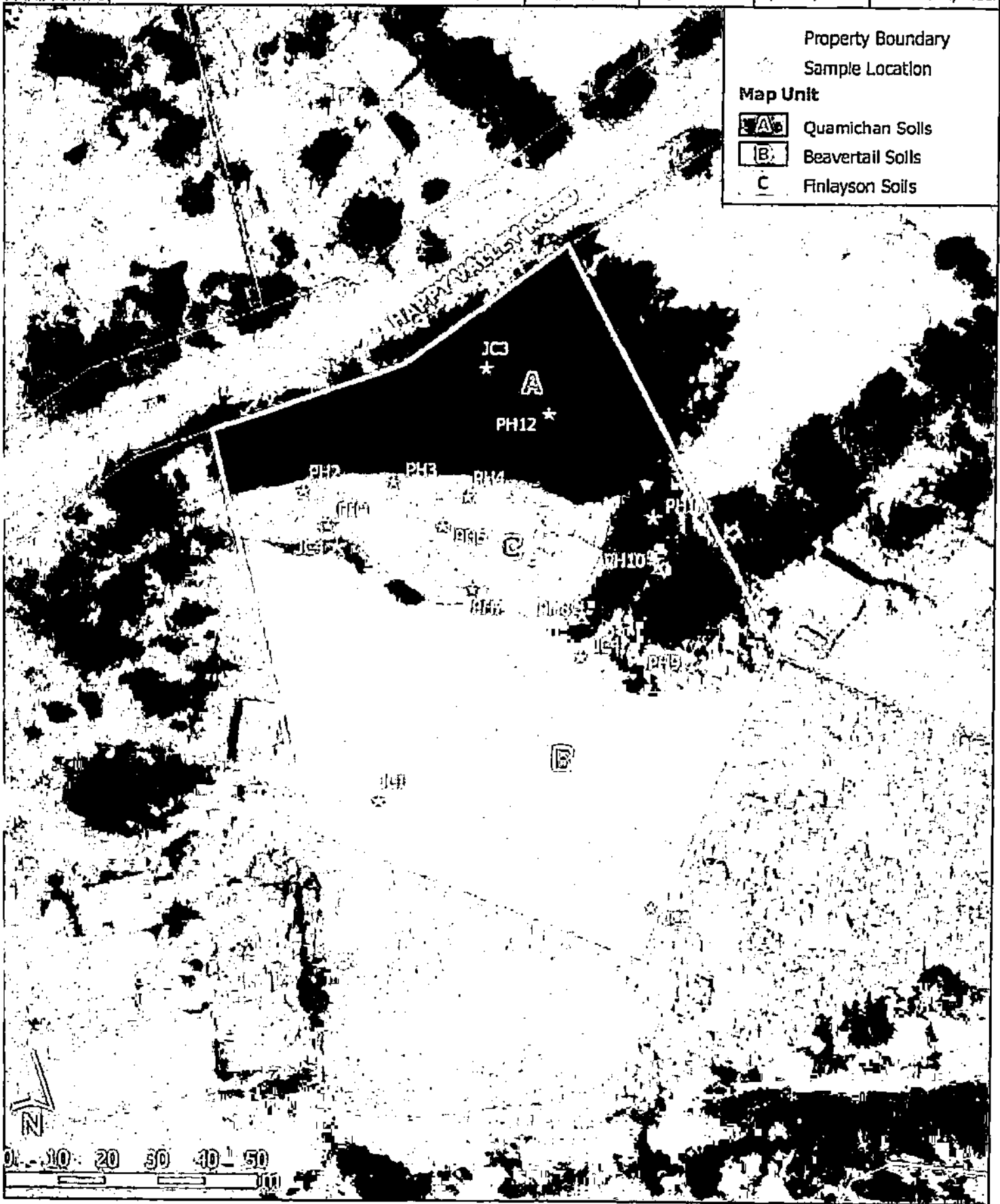
LOCATION:
Langford, BC

MAP SCALE:
1:1,000

MAP DATE:
April 13, 2008

DRAWN BY:
Peter Berst, B.Sc.

MADRONE



3.0 ASSESSMENT METHODS

3.1 Field Assessment

The initial field assessment was completed on September 12, 2008 (by Jackie Churchill, M. Sc., B.I.T., A.Sc.T.). During this assessment total of five soil pits were excavated (JC1 – JC5). A subsequent assessment was undertaken (by Philip A. Haseldine, B. Sc., A. Ag., G.I.T.) on April 9, 2009 in order to better delineate the soils in the area surrounding the buildings on the property. During the second assessment a total of eleven soils pits were excavated, six of the pits were studied in detail (PH2 – PH7) the remaining five pits (PH8 – PH12) were used to better delineate the boundaries of the map units. At sites where soil pits were dug, soil properties, including coarse fragment content, texture of fines, soil drainage, consistency (firmness), root density, content of buried wood, structure, colour (moist), horizon classification, and thickness, evidence of gleying or mottling, abundance of concretions, parent material, and depth to impervious horizon were recorded. Further observations of topography, soil disturbance, land use, and vegetation also occurred. Several photos were taken at each plot.

Based on the results from each pit, capability classes were mapped onto a 1:1000 orthophoto. Soils were described to the soil subgroup classification level, and assigned to Soil Associations/Phases described by Jungen (1985)¹. Soil data are shown in Table 2.

3.2 Land Capability and Soil Classification

The classes and terms used in this report are based on the B.C. Ministry of Environment manual *Land Capability Classification for Agriculture in British Columbia*. Soils were classified using *The Canadian System of Soil Classification*, and the names of the soils follow the report and maps included in the Ministry of Environment (1985) Technical Report 17, *Soils of Southern Vancouver Island*. The climatic capability for agriculture was estimated using the *Climate Capability for Agriculture* map 92B/NW of Victoria, B.C. (Coligado 1980).

The *Land Capability Classification for Agriculture in B.C.* contains seven classes differentiated on the basis on inherent capability of soils and climate to support agricultural crops.

¹ J.R. Jungen. 1985. MOE Technical Report 17. Soils of Southern Vancouver Island. BC Soil Survey Report # 4. BC Soil Survey, B.C. Ministry of Environment, Victoria, B.C.

² B.C. Ministry of Environment and Ministry of Agricultural and Food. 1983. *Land Capability Classification for Agriculture in B.C.* Ministry of Environment, Manual. No. 100-10.

³ Soil Classification Working Group. 1983. *The Canadian System of Soil Classification*. 3rd Edition. Agri. and Agri-Food Can. Publ. 1946 (Revised). Ottawa, ON. 157 pp.

Capability decreases from Class 1 to Class 7, with Class 1 soils able to support the greatest range and yield of crops and requiring the least amount of management to bring them into production. Conversely, Class 7 soils support the narrowest range of crops (if any) and require extreme management input to establish agricultural or forage crops. Classes 1 through 4 are considered capable of supporting sustained agriculture.

The classification also recognizes the nature of soil limitation. The greater the number and/or severity of the limitation(s), the lower the capability, and hence the higher the soil class. The type of limitation is shown with an alphabetic symbol (Table 1), which follows the land capability class. For example, a Class 4A soil suffers moderate limitations, due mainly to lack of sufficient soil moisture.

The classification also recognizes that management inputs may improve a soil, thus changing the capability class. For example, stone removal may alleviate a stoniness limitation such that the land capability class is changed from a Class 4P to Class 3P.

Table 1. Description of land capability limitations

Symbol	Description
A	Soil moisture deficiency (droughtiness due to poor soil moisture retention).
C	Adverse climate (thermal limitations due to growing season frost or low temperatures).
D	Adverse soil structure and/or low perviousness (soils are difficult to cultivate due to firmness or poor trafficability).
E	Erosion (soils have been subject to past erosion).
F	Fertility (soils have high fertilizer requirement).
I	Inundation (soils are flooded part of the year).
N	Salinity (soils have high salt content).
P	Stoniness (soils have high stone content).
R	Depth to rock (soils are shallow over bedrock).
T	Topography (land is sufficiently steep or complex to limit machine use).
W	Excess water (soils are wet).

4.0 STUDY AREA DESCRIPTION

4.1 Location

The study area is located at 3639 Happy Valley Road, in Langford, 12.5 km west of Victoria, BC and approximately 14.5 km northeast of Sooke, BC. The legal description is “Lot 2, Plan 6899, Section 80 and Parcel C of Section 81, Metchosin District”. The area assessed covers approximately 1.03 ha (2.5 acre). Figure 1 shows the property location.

The property lies between 63 m and 66 m above sea level.

4.2 Zoning and Existing Land Use

The property is zoned within ALR. Approximately, half of the property supports a large grass field to the south, which was previously hayed. The northern half of the property is made up of second-growth forest adjacent to Happy Valley Road, the house, driveway and lawn areas, as well as some sections of dense Scotch broom. Within the forested portion Douglas-fir, western redcedar, dull Oregon-grape, salal, red huckleberry, holly and various grass species are common. Invasive species such as Himalayan blackberry and thistles occur adjacent to the lawn areas on the property.

Under B.C. Regulation 411/95 of the Assessment Act; Standards for the Classification of Land as a Farm; a parcel of land which generates income from primary agricultural production can gain a “Farm” classification. Classification as a farm can reduce property taxes assessed to a property by the BC Assessment Authority. If the property lies fully within the ALR it should currently and continue to receive a 50% exception for school and hospital purposes should it receive farm classification.

In order for Mr. Shower’s 1.03-ha (2.5 acre) property to qualify as a farm it currently would need to produce \$2,500.00 worth of primary agricultural products such as Christmas trees, dairying, forage production, poultry, and egg production etc. If the area within Map Unit A of this assessment was to be allowed out of the ALR and subsequently developed; the remaining farmable area including the farmer’s dwelling would be reduced to 7,900 m². This would move the land into a size class (land <8000 m²) where farm gate income must be a minimum of \$10,000.00.

If the farmable area including the farmer's dwelling falls below 8000 m² the minimum farm gate revenue must be \$10,000.00 in order to gain status as a farm*.

It is clear that in order for Mr. Showers to have his land classified as a farm with the BC Assessment Authority he will have to sell crops amounting to \$2,500.00. If only a portion Map Unit A is allowed out of the ALR the effective size of the assessable land area will be reduced to 7,900 m². The required farm gate income would thus increase from \$2500.00 to \$10,000.00 on the remaining land parcel (Map Units B and C).

4.3 Climate

The nearest established climate station is "Victoria Marine", approximately 11.7 km west of the property at 31.7 m elevation. The area has a yearly precipitation of 1235.7 mm per year (including 27 cm of snow) and a mean annual temperature of about 9.1°C.

The area has low rainfall between May and September (about 142.6 mm) and has a climatic moisture deficit between 191 mm and 265 mm.

The *Climatic Capability Map for Agriculture* (Coligado, 1980) shows the assessment area as Class 4A(1), indicating a climatic aridity limitation at the Class 4 level, improvable with irrigation to Class 1. - *Very expensive - city water*

Frosts can occur as late as early May and as early as early October (rarely in late September), but on average, the area experiences 95 frost-free periods (days) annually. Frost may limit the production of certain sensitive crops such as kiwi, grapes, cherries, peaches, and apricots.

4.4 Landform and Soils

4.4.1 Landscape and Topography

Generally the topography over the entire study area is gently sloping to level, with slopes only ranging from approximately 1% – 4%. Some bedrock outcrop areas are steeply sided at 80% – 120% standing up to 1.0 m in height.

* http://www.bcassessment.bc.ca/pdf/process_agri_forest/farm_brochure.pdf (accessed April 30, 2009)

The surficial geology consists primarily of a mix of glaciomarine sediments, deposited in the early post-glacial (Holocene) period, as ice-sheets were retreating. At that time, the study area was under up to 40 m of marine water, and these sediments were deposited as part of a marine basin marginal deltaic formation from (glacial melt-water) out-wash rivers.

4.4.2 Soils Overview

Soils observed within the study area are derived from glaciomarine and glaciofluvial deposits. Accordingly, they reflect the predominantly sandy and loamy sand textures of the deep glacial outwash deposits. The soils in the study area are primarily members of the Beavertail, Finlayson and Quamichan Soil Associations generally classified as Orthic Humo-Ferric Podzols, Gleyed Eluvated Sombric Brunisols, and Orthic Dystric Brunisols (as described in Jungen, 1985).

Beavertail soils are found throughout the majority of the property in the southern portions while Quamichan soils occur mainly in the northern corner of the property. Quamichan soils generally have a high total “coarse fragment” content over 40% which strongly influences both soil moisture and nutrient retention.

Finlayson soils occur centrally on the property and are situated as a belt of soil oriented northwest to southeast located between Map Unit A and Map Unit B. Finlayson soils typically have a perched water table during the winter months. This is evident in the prominent mottling which occurs in the subsoils. The dense and compact subsoil horizon restricts perviousness to slow within Map Unit C.

4.4.3 Map Units and Soils

The soils on the site were separated into three polygons or map areas (Map Unit A, B, and C), containing similar land capability classification and soil types.

Map Unit A

Map Unit A occupies .23 ha (0.56 acres) or 22.6% of the study area and represents the northern portion the property.

* Coarse fragments are defined as particles greater than 2 mm in diameter (gravel, cobbles, stones).

This unit consists of the Quamichan Soil Association (Orthic Dystric Brunisols). These soils are typically rapidly drained with gravelly loamy sand textures (Jungen, 1985). Within the study area the soils are well drained with loamy sand surface textures and total coarse fragment content of approximately 45%.

Map Unit A is comprised of second-growth forest adjacent to Happy Valley Road. There are Douglas-fir, western redcedar, dull Oregon-grape, salal, red huckleberry, holly, and various grass species common throughout this map unit.

The main limitations to agricultural capability in Map Unit A are aridity (A), fertility (F), Depth to soil bedrock (R) and stoniness (P).



Photo 1. Northern forested corner of the property, adjacent to Happy Valley Road, within Map Unit A, depicting prominent bedrock outcrop with steep sides.



Photo 2. Quamichan soils present within Map Unit A. Note the coarse fragments.

Map Unit B

This map unit comprises a total of approximately .65 ha (1.6 acres) representing 63% of the study area. This area is level to gently sloping with slopes ranging from 1% – 4%. The majority of Map Unit B is dominated by a grass field which has previously been hayed. The other portion of Map Unit B is made up of a small portion of driveway as well as some second-growth forest and Scotch broom patches. The soils in Map Unit B are made up of Beavertail soils which are classified as Orthic Humo-Ferric Podzols with minor inclusions of Orthic Dystric Brunisol.

These soils (as described in Jungen, 1985) are typically well drained loamy sands or sandy loams with less than 20% fine gravels and dense, compact subsoils. However, the Beavertail soils within the study area are primarily well drained, sands to loamy sands with low total coarse fragments ranging between 5% – 12%.

The main limitations to agricultural capability in Map Unit B are aridity (A) and fertility with minor limitations due to undesirable soil structure (D).



Photo 3. Grass field located in the southern portion of the property within Map Unit B (looking north).



Photo 4. Grass field located in the southern portion of the property within Map Unit B (looking south).



Photo 5. Beavertail soils found throughout the grass field portion of Map Unit B.

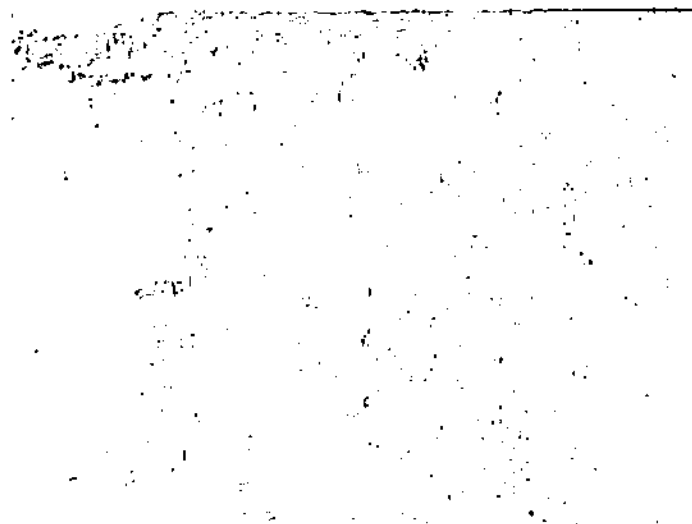


Photo 6. Beavertail soils found throughout the grass field portion of Map Unit B.



Photo 7. Lawn area adjacent to the house within Map Unit B.



Photo 8. Beavertail soils found within the lawn area of Map Unit B.

Map Unit C

Map Unit C occupies .14 ha (0.35 acres) or 14.4% of the study area and represents the northern portion the property.

This unit consists of the Finlayson Soil Association (Gleyed Eluviated Sombric Brunisol). These soils are typically imperfectly drained with silty clay loam textures (Jungen, 1985). Within the study area the soils are moderately well to imperfectly drained with silty loam surface textures changing to silty clay loam at depth and total coarse fragment content of approximately 15%.

Map Unit C is comprised of grass lawn small gardens within the central portion of the property, including the home and majority of the garage area. There are scattered Douglas-fir, western redcedar, and various grass species throughout this map unit.

The main limitations to agricultural capability in Map Unit C are aridity (A), excess water (W), and low perviousness (D).



Photo 9. Soils pit PH-3, evident grey horizon indicating seasonally imperfect drainage. Local soils are Gleyed sombric brunisols.



Photo 10. View to the southeast within Map Unit C. Primary residence is visible in the background. Access road is centre left in photo.

5.0 LAND CAPABILITY ASSESSMENT

Map Unit A

The main limitations to agricultural production are aridity (A), fertility (F) Depth to solid bedrock (R) and stoniness (P).

In general the soils within Map Unit A are well drained and loamy sand textured with high coarse fragment (>2 mm) contents, leading to significant fertility limitations at the Class 4F level, improvable to Class 2F with fertilization and seasonal aridity limitations at the Class 4A level. In general, these could be improved to Class 3A through irrigation. However, the degree of improvement is limited by the relatively low water storage capacity of these soils due to their coarse textures and high amount of coarse fragments will make it difficult to provide sufficient soil moisture for certain crops.

Also, high stoniness (P) is a significant limitation in soils in this map unit. Soils have approximately 45% total coarse fragments (greater than 2 mm) resulting in a Class 3P stoniness limitation. The majority of coarse fragments in Map Unit A are coarse and fine gravel which is considered impractical to remove and therefore Map Unit A will have an unimprovable stoniness limitation.

In addition, significant and unimprovable limitations due to depth to solid bedrock (R) exist. I estimate that limitations resulting from shallow depths to solid bedrock occur at the Class 3R and Class 4R level over 25% and 15% respectively within Map Unit A.

Map Unit B

Within Map Unit B, aridity (A) and fertility (F) are the main limitations, with minor limitations due to undesirable soil structure (D).

Soils in Map Unit B experience seasonal aridity limitations at the Class 4A level. In general, these could be improved to Class 3A through irrigation; however, the degree of improvement is limited due to the low moisture retention in the coarse sandy soils.

Fertility limitations occur at the Class 4F level and are typically improvable to the Class 2F level with the use of fertilizers.

Undesirable soil structure (D), in the form of compacted subsurface horizons occurs at the Class 1 (*i.e.*, no limitation), Class 2D and Class 3D levels. Approximately 70% of Map Unit B is Class 1, while the remaining 20% and 10% is Class 3D and Class 2D, respectively. Improvement to the Class 1 or Class 2 levels in most cases could occur. Activities such as subsoiling could potentially improve the undesirable soil structure limitation by breaking up the compacted and root-restricted subsurface soil layers.

Furthermore, there is likely excess moisture (W) limitation at the Class 2W or Class 3W levels throughout Map Unit B due to the lower elevation of this map unit compared to the rest of the property and the dense compact subsoils common within Beavertail soils. Also, the client states that portions of the grass field are flooded during the winter. However, as the field work was completed at a dry time of the year, no direct signs of a wetness limitation were found in the soil profiles.

Map Unit C

The main limitations to agricultural production are aridity (A), excess water (W), and undesirable soil structure and low perviousness (D).

In general the soils within Map Unit C are moderately well to imperfectly drained and silty clay loam textured with a very low coarse fragment (>2 mm) contents, leading to significant undesirable soil structure and low perviousness (D) at the Class 3D to 4D level. The undesirable soil structure limitations could be improved to the Class 1, Class 2D, or Class 3D levels in most cases by deep plowing or subsoiling. However, Mr. Showers should be aware that these soils tend to recompact over time, requiring additional treatments. This could be a recurring cost of improvement. The drainage in the area should be improved to a level suitable for farming practices prior to initiating soil decompaction measures (decompaction is best done when subsoils are relatively dry, so that tines or plows have a 'shattering' effect; if they do not sufficiently drain, the soils will plastically deform around the implements, creating minimal decompaction.)

A seasonal aridity limitation at the Class 4A level exists. In general, these could be improved to Class 3A through irrigation.

5.1 Land Capability Summary

In general, the property (Map Units A, B, and C) are moderately well-suited for agriculture with improvable limitations due to aridity, fertility and undesirable soil structure. The stoniness and depth to solid bedrock limitations within Map Unit A however, is considered unimprovable.

The soils throughout the property have a significant limitation due to aridity. Their overall coarse textures combined with the climatic moisture deficit combine to make the soils subject to drought during the summer growing period.

The limitation is at the Class 4A level, improvable to Class 3A within Map Unit A through irrigation. Irrigation will be less effective in Map Unit A, due to the higher coarse fragment content resulting in a relatively low water storage capacity.

Throughout the property fertility is a limitation at the Class 4F level improvable to Class 2F with fertilization. - *However, the property abuts Bijaton Creek and Fertilizers could contaminate the Creek water.*

Within Map Unit A stoniness is a limitation at the Class 3P level. The stoniness limitation should be considered unimprovable as coarse and fine gravel, as opposed to stones and cobbles, are the dominant coarse fragment types. It is not considered practical to remove.

Lastly, the undesirable soil structure, at the Class 2D or Class 3D levels, found within Map Unit B and at the Class 3D to Class 4D within Map Unit C could be improved by deep plowing or ripping (when the subsoils are relatively dry) in areas to break up the compacted and root restricted subsurface soil layers.

Table 2 summarizes the soil observations and plot descriptions while Tables 3 summarizes the existing and improved limitations for each unit, and the area covered by each unit. Tables 4 and 5, respectively summarize the proportions of existing and improved limitations for each map unit.

Table 2. Soil Observation Plot Descriptions

Soil Pits/ Observations	Texture	Consistency	Total Coarse Fragment Content (%)	Cobbles/stones > 7.5cm (% by volume)	Coarse Gravel Content 2.5 cm to 7.5 cm (% by volume)	Fine Gravel Content <2.5 cm (% by volume)	Topography (%)	Drainage	Soil Subgroups*
JC1	S	Very Friable-Loose	5	0	1	4	4	W	O.HFP.
JC2	S	Very Friable-Loose	6	0	2	4	2	W	O.HFP.
JC3	LS	Friable	45	0	15	30	2	W	O.DYB.
JC4	LS	Friable-Firm	12	0	2	10	1	W-MW	O.DYB.
JC5	S	Very Friable-Loose	5	0	1	4	1	W	O.HFP.
PH2	FSL	Friable-Firm	15	0	0	15	1	MW-I	GLE.SB
PH3	SiL	Friable-Firm	20	0	0	20	2	MW-I	GLE.SB
PH4	SiL	Friable-Firm	15	0	0	15	0	MW-I	GLE.SB
PH5	SiCL	Friable-Firm	15	0	0	15	0	MW-I	R.HG
PH6	SiL	Friable-Firm	15	0	5	10	3	MW-I	GLE.SB
PH7	FSL	Friable-Firm	25	0	5	20	3	MW-I	GLE.SB

*Total Coarse Fragment Content is based on the sieved proportion of fine (2mm to 2.5 cm) and coarse (2.5 to 7.5 cm diameter) gravels as well as cobbles (7.5 to 25 cm diameter) and stones (> 25 cm diameter) of the total soil in upper 25 cm of the mineral soil.

Key to Soil Taxon: O.HFP.; Orthic Humo-Ferric Podzol, O.DYB.; Orthic Dystric Brunisol, GLE.SB.; Gleyed Sombrie Brunisol, R.HG.; Rego Humic Gleysol.

Key to soil drainage: I: Imperfect, MW; Moderately Well, W; Well.

Table 3. Land Capability Classifications and Improved Ratings for Area Units

Soil Map Unit	Approximate Area (ha)	Percentage of Area Covered by Unit	Existing Land Capability Rating (Unimproved)	Improved Rating
A	0.23	22.6	4	3
B	0.65	63	4	3
C	0.14	14.4	4	3
Total	1.03	100%		

Table 4. Proportions of Existing Land Capability Rating for Each Unit

Soil Map Unit	Existing Land Capability Rating	Proportion of Land Capability Rating in Each Unit (Unimproved)					
		2	3	4	5	6	7
A	4	0	0	100	0	0	0
B	4	0	0	100	0	0	0
C	4	0	0	100	0	0	0
Total Area of Each Class (ha)		0	0	1.03	0	0	0
Percent of Class Representation		0	0	100	0	0	0

Table 5. Proportions of Improved Land Capability Rating for Each Unit

Soil Map Unit	Improved Land Capability Rating	Proportion of Land Capability Rating in Each Unit (improved)					
		1	2	3	4	5	6 or 7
A	3	0	0	100	0	0	0
B	3	0	0	100	0	0	0
C	3	0	0	100	0	0	0
Total Area of Each Class (ha)		0	0	1.03	0	0	0
Percent of total area in each improved class		0	0	100	0	0	0

6.0 CONCLUSIONS

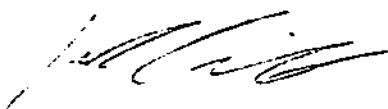
Soils are moderately well-suited for agriculture and are currently rated as Class 4 for agricultural capability, due to aridity, undesirable soil structure, fertility, and stoniness.

The limitations to soils throughout the property are improvable, except for the stoniness limitation in Map Unit A, and could result in a Class 3 rated by implementing processes such as irrigation, fertilization, and plowing. Depth to bedrock limitations within this polygon are considered unimprovable.

However, these improvements may not be economically feasible due to the small size (1.03 ha) of farmable land. The small size should be taken into consideration in evaluating the potential of this parcel to support an economically viable farm operation. *Also lack of inexpensive irrigation water, and danger of fertilizers contaminating adjacent creek water.*

In the event that only a portion of the property were excluded from the ALR (Map Unit A) the remaining land and dwelling would fall below the threshold of 8,000 m² to 7,900 m² thus requiring farm gate income to increase from the current \$2,500.00 to \$10,000.00. The increase in required farm gate income would be an added burden for the owner of the property.

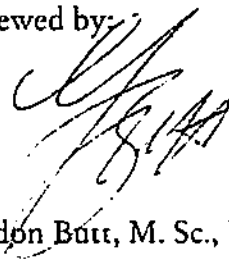
Prepared by:



Jackie Churchill, M. Sc., B.I.T., A.Sc.T.

Reviewed by:

May 4, 2009



Gordon Butt, M. Sc., P. Ag. P. Geo.

*MAY 4
2009*

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