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PPS/RP 2011-23

REPORT TO THE
PLANNING, TRANSPORTATION AND PROTECTIVE SERVICES COMMITTEE
MEETING OF WEDNESDAY, NOVEMBER 23, 2011

SUBJECT AGRICULTURAL LAND RESERVE APPLICATION FOR INCLUSION OF LOTS 1 AND 2, SECTION 30, OTTER DISTRICT, PLAN 13987

PURPOSE

The purpose of this report is to consider the application to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve (ALR).

BACKGROUND

An application has been received requesting that Lots 1 and 2, Section 30, Otter District, Plan 13987 located at 2322 Kemp Lake Road and totalling 11.4 ha be included in the ALR. In response, Capital Regional District (CRD) Community Planning staff has prepared a report to the Land Use Committee (LUC) and the matter has also been considered by the Juan de Fuca (JdF) Agricultural Advisory Planning Commission. The Community Planning staff report is attached as Appendix 1.

The applicant also owns three properties in the District of Sooke for which application has been made to exclude lands, totalling 16.6 ha, from the ALR in favour of development in accordance with the District of Sooke Official Community Plan (OCP) policies for the Technical Industrial overlay affecting the largest of these properties. Mapping of the subject lands from the District of Sooke staff report is attached as Appendix 2 for geographical reference. A referral request regarding the exclusion of ALR lands to the CRD has not been made as an OCP amendment was not initiated due to the Technical Industrial overlay area designation affecting the subject lands.

The applicant is attempting to achieve a land swap for the Agricultural Land Commission's (ALC) consideration. Prior attempts to exclude the subject lands in Sooke have not been successful. The applicant hopes for more favourable consideration by arranging for an exchange of ALR lands, albeit in two different local jurisdictions and for differing land areas and agricultural capability.

These applications were considered by the District of Sooke on October 11, 2011, by the JdF LUC on October 19, 2011 and by the JdF Agricultural Advisory Planning Commission on November 7, 2011. The District of Sooke passed a resolution in support of the staff recommendation to forward the application for exclusion to the ALR with a request that it be considered in conjunction with the application for inclusion of the Otter Point lands. The LUC passed a resolution in support of the staff recommendation to refer the inclusion proposal to a number of public agencies, including the CRD Planning, Transportation and Protective Services Committee and the full CRD Board. The JdF Agricultural Advisory Planning Commission passed a motion in support of the ALR inclusion of the Otter Point lands, but expressed some concern regarding the effect of the agricultural buffer on adjacent properties.

As the Community Planning staff report indicates, Section 17 of the *Agricultural Land Commission Act* establishes requirements for applications for inclusion of land in the ALR. Individuals make application to include land in the ALR through the local government pursuant to Section 34 of the *Act*. A local government recommendation regarding the inclusion application is not required however, as the application to include land in the ALR would lead to a future amendment to the RGS and OCP if approved, staff recommended that the application be referred to the CRD Planning, Transportation and Protective Services Committee and full CRD Board for review.

ALTERNATIVES

1. Respond to the referral by the Community Planning office regarding the application to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve, that the proposal is in keeping with the over-arching policies of the Regional Growth Strategy pertaining to the long-term use of such lands as renewable resource working landscapes and that mapping amendments required to support the inclusion be made through the Regional Growth Strategy Review process, should the application to the Agricultural Land Commission be given favourable consideration.

2. Respond to the referral by the Community Planning office regarding the application to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve, that the proposal is not supported at this time, for the reasons that said proposal is not currently addressed by the Regional Growth Strategy.

GROWTH STRATEGY IMPLICATIONS

Regional Growth Strategy Requirements: For the JdF Electoral Area, Section 865(1) of the *Local Government Act* applies regarding matters of consistency. All bylaws and all services of a regional district must be consistent with a board-adopted RGS.

Regional Context Statement (RCS) Requirements: A RCS forms part of a municipal OCP and addresses how local planning and land use policy will work towards the goals and objectives established in the RGS to achieve consistency over time.

Regional Growth Strategy Consistency Considerations:

As the Community Planning staff report indicates, the properties subject to the inclusion application are designated as Rural/Rural Residential Policy Area in the RGS. Lands within the ALR are identified as Renewable Resource Land Policy Area and are to be retained for the long-term as renewable resource working landscapes. If the inclusion is approved by the ALC, staff notes that the zoning, OCP designation and RGS designation should ultimately reflect the change in land use status to ensure consistency between these bylaws.

As indicated in the staff reports for the Sandown Raceway application in North Saanich (PPS/RP 2011-13 and PPS/RP 2011-22), the RGS is silent on the prospect of inclusion or exclusion of lands from the Renewable Resource Lands designation. Moreover, the notion of a land swap is not addressed in the RGS. However, the RGS defines the Renewable Resource Policy Area designation to include: *"lands within the Agricultural Land Reserve (ALR)..."* and the decision to accept the inclusion proposal rests with the ALC. Should the ALC accept the inclusion, it follows that the local planning documents and the RGS should be amended accordingly.

Regional Context Statement Consistency Considerations:

The Regional Context Statement (RCS) for the District of Sooke does not specifically address the potential for a land exchange in the ALR. As the Sooke District staff report indicates, a portion of the largest property (1841 Brooks) has an OCP General Classification of "Technical Industrial". Action 4.5.4 of the OCP indicates that properties identified by the Technical Industrial overlay will be the subject of negotiation with the ALC for exclusion from the ALR due primarily to their limited agricultural capability. The same action indicates that land with farming potential should be included in the ALR, in order to maintain a net zero loss of ALR land. District staff suggests that the action item does not specify the location of the lands eligible for

inclusion. In this case, the lands reside in the JdF Electoral Area. Although it is unorthodox for an OCP to apply policy affecting lands outside its jurisdiction, the other consideration is that the decision-making body (ALC) is not bound by municipal boundaries.

As previously noted, the RGS does not anticipate the notion of swapping ALR lands and this is a matter that should be addressed during the RGS review process. The notion of a land swap is better than an outright exclusion, however, as with the North Saanich proposal, a new policy framework in the RGS should include criteria that provides for exchange of an equivalent area, in an appropriate location and with suitable agricultural potential. Such criteria will address, for example, the ability to exchange lands anywhere within the CRD. Explicit reference to ALR land exchange should also be addressed in municipal RCSs.

Technical mapping changes required to facilitate this exchange proposal in the RGS, i.e. the removal of the subject lands in Sooke from the Renewable Resource designation on Map 3 and the addition of the Otter Point lands, can be addressed through the RGS review.

FINANCIAL IMPLICATIONS

N/A

CONCLUSION

A full debate on the renewable resource policy area affected by this proposal will occur as part of the RGS review. This proposal helps to identify a gap in current regional policy; the new framework needs to provide flexibility for local circumstances or conditions without undermining regional planning principles. Planning staff recommend that the proposal be supported and that enabling policies and mapping be reconciled through the RGS review process.

RECOMMENDATION

That the Planning, Transportation and Protective Services committee:

1. Respond to the referral by the Community Planning office regarding the application to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve, that the proposal is in keeping with the over-arching policies of the Regional Growth Strategy pertaining to the long-term use of such lands as renewable resource working landscapes and that mapping amendments required to support the inclusion be made through the Regional Growth Strategy Review process, should the application to the Agricultural Land Commission be given favourable consideration.

Margaret Misek-Evans, MCIP
Senior Manager, Regional & Strategic Planning

Robert Lapham, MCIP
General Manager, Planning & Protective Services

Kelly Daniels
Chief Administrative Officer
Concurrence

Appendices: 2

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ALR-01-11 – Shaw

REPORT TO JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, OCTOBER 18, 2011

SUBJECT **AGRICULTURAL LAND RESERVE APPLICATION FOR INCLUSION OF LOTS 1 AND 2, SECTION 30, OTTER DISTRICT, PLAN 13987 (ALR-01-11 - Shaw)**

PURPOSE

The purpose of this report is to consider the application to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve (ALR).

BACKGROUND

The applicant is requesting that Lots 1 and 2, Section 30, Otter District, Plan 13987 located at 2322 Kemp Lake Road be included in the ALR (Appendix 1). The subject properties are currently zoned Rural Residential 3 (RR-3) in the Sooke Land Use Bylaw No. 2040 and are designated Settlement Area in the Otter Point Official Community Plan (OCP) Bylaw No. 3354. Lot 1 is approximately 6.4ha and has an existing dwelling and several agricultural buildings which predate CRD Building Inspection records. Lot 2 is approximately 5.3ha and is currently vacant. Both lots have largely been cleared for pasture with vegetation remaining in the western portion. There is a pond on Lot 1 with an outflow draining westward into King Creek. The two properties are currently under production for beef and hay and the land is assessed as a farm by BC Assessment Authority (BCAA). An Agricultural Capability Assessment was conducted by Madrone Environmental Services Ltd. on September 7, 2011 (Appendix 2).

The applicant owns three properties within the District of Sooke comprising 16.56ha that are within the ALR and has made application to exclude those lands in exchange for including the two Otter Point properties in the ALR. The District of Sooke will be considering the application for exclusion on October 11, 2011.

ALTERNATIVES

1. Proceed with referral of the application to the Otter Point Advisory Planning Commission, Agricultural Advisory Planning Commission, CRD Planning, Transportation and Protective Services Committee and full CRD Board for comment.
2. Recommend denial of the application to the ALC and do not proceed with referral.
3. Refer the application back to staff for more information.

LEGISLATIVE IMPLICATIONS

Section 17 of the *Agricultural Land Commission Act* (the '*Act*') establishes requirements for applications for inclusion of land in the ALR. Individuals make application to include land in the ALR through the local government pursuant to Section 34 of the *Act.*

Part 9 of the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation* (the '*Regulation*') outlines owner application requirements for including land in the ALR. Section 28 of the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation* requires local governments to submit the application to the ALC within 60 days; however, local government can hold a public information meeting pursuant to Section 27 of the *Regulation*, in which case the application shall be submitted to the ALC within 90 days. The ALC does not require a recommendation from local governments regarding applications to include land in the ALR.

PUBLIC CONSULTATION IMPLICATIONS

Owner applicants are not required to provide any public notice regarding application to include property in the ALR. As Section 28 of the *Regulation* requires local governments to receive inclusion applications and submit them to ALC, this allows local government an opportunity to make comment and provide a recommendation on the proposal. Local governments may also decide to hold a public information meeting on the application pursuant to Section 27 of the *Regulation.*

The Juan de Fuca Electoral Area Development Procedures Bylaw No. 3110 does not specify any public consultation requirements for ALR applications. As a courtesy, a notice of intent outlining the inclusion request

will be sent to property owners within 500m of the subject properties. Any responses received from the public will be presented at the October 18, 2011 Land Use Committee meeting.

The Advisory Planning Commissions were established to make recommendations to the Land Use Committee on land use planning matters referred to them relating to Part 26 of the *Local Government Act,* therefore, the proposal may be referred to the Otter Point Advisory Planning Commission (APC) and Agricultural Advisory Planning Commission (AAPC). Should the Land Use Committee refer the inclusion application to the AAPC and/or Otter Point APC for comment, a notice will be sent to property owners within 500m of the subject properties advising them of the meeting and a notice will be placed in the local newspaper informing the public of the meeting agenda.

REGIONAL GROWTH STRATEGY, OFFICIAL COMMUNITY PLAN AND ZONING IMPLICATIONS

The CRD Regional Growth Strategy (RGS) Bylaw No. 2952 identifies the subject properties as Rural/Rural Residential Policy Area. Lands within the ALR are identified as Renewable Resource Land Policy Area and are to be retained for the long-term as renewable resource working landscapes. Should the ALC approve the inclusion, the zoning, OCP designation and RGS designation should ultimately reflect the change in land use status to ensure the consistency between these bylaws. As the proposal requires an amendment to the OCP, which was previously approved by the CRD Board for consistency with the RGS, proposals to amend OCPs for the JDF electoral area should be reviewed by the Board for consistency prior to the introduction of the amending bylaw.

The Otter Point OCP Bylaw No. 3354 designates the land as Settlement Area and while this designation supports non-ALR agricultural activities, lands within the ALR are designated as Agricultural Land Areas to specifically identify policies that are consistent with the ALC *Act* and *Regulation*. Pursuant to Section 919.1(1)(c) of the *Local Government Act (LGA)*, Bylaw No. 3354 establishes development permit areas for the protection of farming. These areas are situated immediately adjacent to designated ALR areas and extend 15m from the ALR boundary in order to ensure adjacent land uses do not interfere with farm operations and to mitigate potential conflicts between adjacent uses. Should the properties be included in the ALR, the Otter Point OCP will be amended to re-designate the land and re-align Development Permit Area No. 4: Protection of Farming. The expansion of the Protection of Farming Development Permit Area may have implications for adjacent property owners which could be identified through the referral to the APC and notice of the meeting to adjacent property owners.

The property is currently zoned RR-3 in the Sooke Land Use Bylaw No. 2040. While the RR-3 zone does permit agriculture as a principal use, other permitted uses would be inconsistent with the ALC *Act* and *Regulation*. The properties would require re-zoning to the Agricultural (AG) zone which reflects permitted uses on ALR lands.

PLANNING ANALYSIS

The applicant has applied to include two properties in Otter Point in the ALR as compensation for excluding three properties from the ALR in the District of Sooke. The Sooke Official Community Plan (OCP) designates the three properties as Agricultural; however, the land is also identified in the Plan as a potential location for a future technical industrial park. The Sooke OCP indicates that to compensate for lands being removed from ALR, land with farming potential should be included into the ALR by maintaining a net zero loss of agricultural land. The policy does not specify the location of the lands eligible for inclusion. In this case, the lands proposed to be included into the ALR are within the CRD's jurisdiction in the Juan de Fuca Electoral Area approximately 5 kilometres westward of those proposed for exclusion.

Previous attempts have been made to exclude the three parcels in the District of Sooke from the ALR but were rejected by the ALC based on the land having prime capability for agriculture and absence of community need. A soils report was conducted in 2006 assessing the soil on these parcels as Classes 3 and 4 for agricultural capability and improvable to Classes 1 and 2.

The report prepared by Madrone Environmental Services Ltd. assessing the Otter Point properties describes the land as southeast facing with gradual slopes of 5-20%. Madrone uses the Land Capability for Agriculture in BC assessment method which classifies seven classes of mineral and organic soils. The majority of the property has been improved for agriculture and is rated Class 2 with a small area on the west side rated Class 3 due to topographical limitations. As the soil has been improved and the land is currently under agricultural production, there may be merit in including the land in the ALR.

The 2007 Otter Point OCP identifies approximately 307ha (758.7 acres) of Agricultural Land Reserve land within the Plan area, comprising 9% of Otter Point. A 0.4ha parcel in Otter Point was excluded from the ALR in 2008 and no inclusions have occurred.

Should the ALC approve the inclusion, the zoning, OCP designation and RGS designation should ultimately reflect the change in land use status to ensure the consistency between these bylaws. The parcels are currently within the Rural/Rural Residential policy area of the RGS, the Settlement Area of the OCP and are zoned RR-3. While agricultural activities are permitted under these designations, there are specific designations for ALR lands in the RGS. As the application to include land in the ALR would lead to a future amendment to the RGS and OCP if approved, staff recommends that the application be referred to the CRD Planning, Transportation and Protective Services Committee and full CRD Board for review.

Further, the Otter Point OCP establishes a 15m Development Permit Area around ALR lands to protect them from development. This buffer ensures that "*adjacent land uses do not interfere with the functioning of normal farm operations and will help mitigate potential conflicts between adjacent uses. Retaining the viability of these lands for agriculture is important in terms of providing local food security and economic diversity but also in terms of preserving valuable rural landscapes for the community.*" Adjacent land uses should therefore be reviewed when considering a re-designation of the land and development permit areas. The expansion of the Farmland Protection Development Permit area may have implications for adjacent property owners which could be identified through the referral to the APC and notice of the meeting to adjacent property owners.

Staff recommends the inclusion application be referred to the Agricultural Advisory Planning Commission, the Otter Point Advisory Planning Commission, the CRD Planning, Transportation and Protective Services Committee and full CRD Board for consideration. Referral comments would be reviewed by the Land Use Committee and forwarded to the CRD Board for final recommendation to the ALC within the 90 day application review period as established by the *Regulation*.

CONCLUSION

The applicant is requesting to include two properties in Otter Point in the ALR in exchange for excluding land in the District of Sooke, as required in the Sooke OCP. The subject properties are currently under agricultural production for hay and beef and are assessed as farm class by BCAA. A soil assessment was conducted by Madrone Environmental Services Ltd. classifying the soil as Class 2 and 3. Should the land be recommended for inclusion into the ALR, amendments to the RGS, OCP and zoning bylaw will ultimately be required to ensure consistency.

RECOMMENDATION

That the proposal to include Lots 1 and 2, Section 30, Otter District, Plan 13987 in the Agricultural Land Reserve be referred to the Otter Point Advisory Planning Commission and the Agricultural Advisory Planning Commission, District of Sooke, Sooke School District, Ministry of Transportation and Infrastructure, the CRD Planning, Transportation and Protective Services Committee and full CRD Board.

Emma Taylor

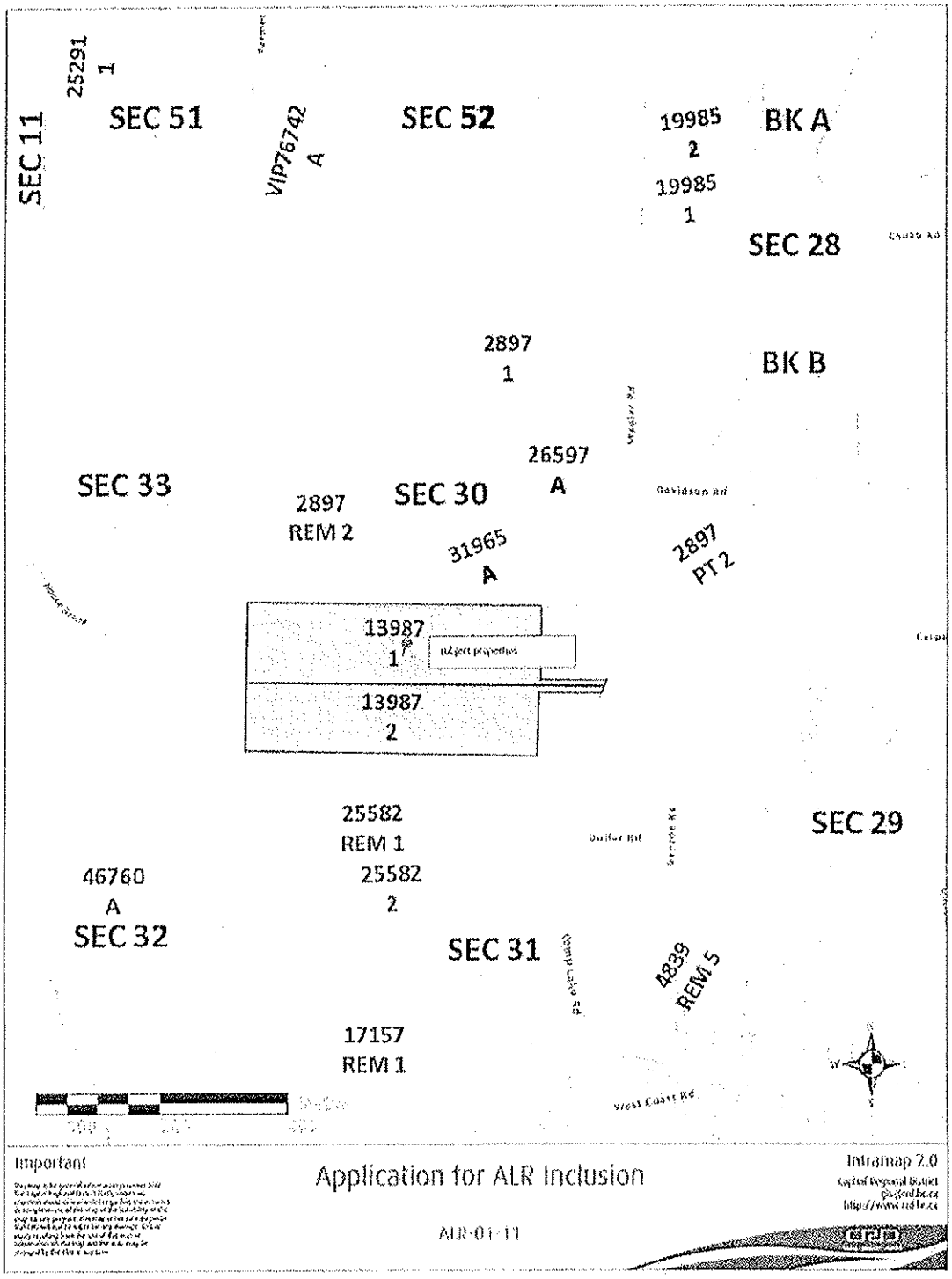
Emma Taylor, MA
Planner

June Klassen, MCIP
Manager, Local Area Planning

Robert Lapham
General Manager, Planning and Protective Services

Appendices:
1. Location
2. Madrone Environmental Services Ltd. Report

Appendix 1: Location



Appendix 2: Madrone Environmental Services Ltd. Report

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AGRICULTURAL CAPABILITY ASSESSMENT

Kemp Lake Road
Lots 1 and 2, Section 30, Otter PL 13987
Sooke, BC

FOR:

Mr. Ed Shaw
7096 West Coast Road
Sooke, BC V9Z 0S4

Eryne Croquet, P. Ag.
Madrone Environmental Services Ltd.

September 7, 2011

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AGRICULTURAL CAPABILITY ASSESSMENT

Kemp Lake Road
Lots 1 and 2, Section 30, Otter PL 13987
Sooke, BC

1 Introduction

Madrone Environmental Services Ltd (Madrone) was retained to conduct an agricultural capability assessment for two properties located in Sooke, BC (Table 1). The assessment will form part of an Agricultural Land Reserve (ALR) inclusion application to the Agricultural Land Commission (ALC). This report and accompanying maps provides an inventory of the soils and Land Capability for Agriculture (LCA) ratings for the properties.

Table 1: Property Information

Legal Description	Lot Address	PID	Area
Lot 1, Section 30, Otter PL 13987	2322 Kemp Lake Road	004-456-301	6.1 ha
Lot 2, Section 30, Otter PL 13987	Kemp Lake Road	004-456-327	5.3 ha

2 Methods

2.1 Field Reconnaissance and Soil Survey

I made observations about overall site characteristics during the field reconnaissance, including detailed observations about topography, aspect, and regional and local drainage conditions. I surveyed the soils at the site to Level 1 intensity in order to map the soils at 1:5000 map scale (MSWG, 1981). Generally, a level 1 survey requires one soil profile description per hectare. I located soil test pits to best describe the variability of soils throughout the assessment area,

while respecting the soil survey intensity requirements. I made additional observations about soil on road and ditch cuts.

I described each soil horizon in terms of coarse fragment content by volume, soil texture, colour, thickness, form and evidence of reducing conditions. I noted additional features of interest and took photographs of the soil profiles. In BC, soil profiles are described following the methodology in Describing Ecosystems in the Field (BC MELP and MOF, 1998).

I classified the soils according to the Canadian System of Soil Classification criteria and then I correlated site soils to the soils described in the Soils of Southern Vancouver Island Soil Survey (Jungen, 1985). I prepared soil maps for the assessment area, based on the results of the soil survey and the correlation.

2.2 Land Capability for Agriculture Assessment Methods

I determined the LCA ratings for each soil, dependent upon soil and site conditions, according to specific criteria presented in Land Capability Classification for Agriculture in British Columbia (Kenk, 1983). The ratings describe the general suitability of the land for agriculture as seven classes for mineral soil and seven classes for organic soil. Agricultural capability classes are modified into subclasses when limitations to agriculture exist. There are twelve subclasses for mineral soils and nine subclasses for organic soils. Appendix A describes the LCA rating classes and subclasses in more detail.

3 Site Description

The site is located 4.5 km west of Sooke, BC. The site is located on generally south and southeast facing, rolling slopes above the Juan de Fuca Strait. The elevation of the property is ranges from 30 to 70 m ASL and it is 800 m north of the ocean.

3.1 Zoning and Land Uses

The property is zoned Rural Residential 3 (RR-3) according to the Bylaw 2040, Sooke Land Use Bylaw, 1992 and it is outside the ALR.

Both properties are used as a cattle farm. A small herd grazes on the forested area on the west part of the farm. A hay field occupies the central part of the farm, and is the largest component of the farm. Farm buildings include a hay barn, a cattle barn, corrals, various tool and equipment sheds, a house, a garden, and a yard.

3.2 Climate

The nearest Environment Canada weather station to the site is at Victoria Marine, approximately 3.6 km east at an elevation of 31 m above mean sea level. Records for this

station are available for the 30-year period from 1971 to 2000. Mean annual precipitation at the station was 1236 mm and the daily average temperature was 9.1°C. The annual number of degree days above 5°C (growing degree days) was 1655 (Environment Canada, 2011).

The Climate Capability Map for Agriculture map shows the assessment area as Class 3A (3G) (Coligado, 1980). Class 3 climate capabilities have a 100 to 119 day frost-free period and a climate moisture deficit of 116 to 190 cm. Aridity limitations (A) indicate drought or aridity between May 1 and September 30 resulting in moisture deficits which are limiting to plant growth and can be improved with irrigation. Insufficient heat units (G) during the growing season are not considered improvable.

3.3 Landscape and Topography

The property is located on a hill that overlooks Juan de Fuca Strait to the southeast. The topography on the hill is rolling, with slopes ranging from 5 to 20%. Topography west of the property is controlled by sandstone bedrock outcrops. Adjacent properties have similar topography.

4 Existing Soils Maps

Existing 1:20 000 soil survey maps indicate that property is composed of three soil polygons (Figure 1 in Appendix C). Each polygon is composed of two soil associations (Jungen, 1986). Dashwood and Shawnigan soils comprise the main associations. Minor occurrences of Fleetwood and Tolmie soils occur on the northwestern fringe of the property and Quinsam, Robertson soils and rock outcrops are common in the southwest corner. These maps form the basis from which I conducted a more detailed soil survey.

Dashwood soils, classified as Duric Humo-Ferric Podzols, develop on fluvial or glaciofluvial parent materials. They are coarse-textured and commonly have 40 to 50% coarse fragment content. The strongly cemented duric horizons is usually found deeper than 75 cm. These soils are well-drained.

Shawnigan soils are Duric Dystric Brunisols that develop on deep gravelly glacial till. These coarse-textured soils generally have 20 to 50% coarse fragment content and are well-drained. The cemented duric horizon occurs between 70 and 100 cm deep.

Fleetwood soils are Duric Humo-Ferric Podzols that develop from glacial till deposits. They differ from the other soils on the site because they are moderately well to imperfectly drained.

Tolmie soils are poorly drained Orthic Humic Gleysols that develop from sandy deposits that overly deep silt or clay marine deposits. Robertson soils, classified as Orthic Humo-ferric Podzols, develop from glacial till and colluvial sediments. They are well to rapidly drained and

have up to 35% coarse fragments. Quinsam soils are well-drained Duric Humo-Ferric Podzols with 30 to 50% coarse fragments.

5 Land Capability for Agriculture Assessment

I conducted a detailed investigation of the soils on the property on August 30, 2011. I made observations about site conditions and described the soils exposed in five soil test pits and along an exposed transect adjacent to a recently cleaned ditch. I excavated soil pits by hand, with depths ranging from 41 to 61 cm.

At each observation point, I described the soil profile and made observations of topography, soil disturbance, land-use, parent material and vegetation. I took photographs at of each soil profile and of the landscape at each observation point. Appendix B contains soil profile descriptions, photographs and site photographs.

5.1 Soils

In contrast to the 1:20000 scale overview mapping, I found that all soils on the property correlated best well to the Shawnigan association and Orthic Dystric Brunisols. I did not find duric horizons in the shallow pits, most likely because the property has been improved to promote agricultural uses. It is possible that cemented horizons occur at depths greater than my pits.

The soils developed from a sandy loam to sandy textured glacial till, with hard consistence. Coarse fragment content ranged from 5 to 10%, with an average size greater than 7.5 cm. They are well-drained.

5.2 Land Capability for Agriculture Ratings

I determined the Land Capability for Agriculture ratings, based on the soil properties described in the test pits. The property is composed of four agricultural capability polygons, as shown on Figure 2 in Appendix C. The area used for hay fields, 4.3 ha, is rated Class 2 with a soil moisture deficit and topographic limitations (i.e., Class 2AT). A small area (3.8 ha) on the west side is rated Class 3 with topographic limitations, a soil moisture deficit and stoniness limitations. The remainder of the property, 3.5 ha, is rated Class 2 with a soil moisture deficit and stoniness and topographic limitations.

Some limitations can be improved. Soil moisture deficits can be improved with irrigation. Stoniness limitations can be improved through rock picking. It is difficult to improve topographic limitations without significant changes to the landscape. I have included improved LCA ratings for the property in Table 1.

Table 2: LCA Ratings

Polygon	Area (ha)	LCA Rating	Improved LCA Rating
1	1.9	Class 2APT	Class 2PT
2	1.5	Class 2APT	Class 2PT
3	3.8	Class 3TAP	Class 3TP
4	4.3	Class 2AT	Class 2T

6 Recommendations and Conclusions

The proposal is to add two lots (Lot 1 and 2, 2322 Kemp Lake Road, Sooke, BC) to the ALR. The 11.4 ha site is currently being farmed. I rated the agricultural capability as a mix of Class 2 and Class 3 lands, with a soil moisture deficit, and topographic and stoniness limitations. Class 2 and 3 lands are suited for agriculture. The improved ratings are a similar mix of Class 2 and 3 lands with topographic and stoniness limitations.

Soils on the site correlate to the Shawnigan Association. These soils are Orthic Dystric Brunisols, with sandy loam to sandy textures and coarse fragment contents ranging from 5 to 10%. Typical Shawnigan soils have greater coarse fragment contents than I described in the field. These soils have been improved by rock-picking and land clearing work. These soils are suited to soil-based agriculture.

I believe that this property should be added to the ALR.

Prepared by:

Eryne Croquet, B.Ag.
Agrologist / Soil Scientist

Reviewed by:

*This is a digital representation of the official hard copy stamped and signed document.

Gordon Butt, M. Sc., P. Ag., P. Geo.
Principal / Agrologist / Geoscientist

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EC/GB/mg

Limitations and Use of Report

The evaluations contained in this report are based on professional judgment, calculations, and experience. They are inherently imprecise. Soil, agricultural and drainage conditions other than those indicated above may exist on the site. If such conditions are observed, Madrone should be contacted so that this report may be reviewed and amended accordingly.

The recommendations contained in this report pertain only to the site conditions observed by Madrone at the time of the inspection. This report was prepared considering circumstances applying specifically to the client. It is intended only for internal use by the client for the purposes for which it was commissioned and for use by government agencies regulating the specific activities to which it pertains. It is not reasonable for other parties to rely on the observations or conclusions contained herein.

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APPENDIX A

Land Capability for Agriculture Overview

Land Capability for Agriculture Overview

Land Capability for Agriculture (LCA) in BC is a classification system that groups agricultural land into classes that reflect potential and limitations to agriculture. The classes are differentiated based on soil properties and climate conditions. The system considers the range of possible crops and the type and intensity of management practices required to maintain soil resources but it does not consider suitability of land for specific crops, crop productivity, specific management inputs or the feasibility of implementing improvements.

There are two land capability hierarchies, one for mineral soils and one for organic soils. Each hierarchy groups the land into seven classes that describe the range of suited crops and required management inputs. The range of suited crops decreases from Class 1 to Class 7 and/or the management inputs increase from Class 1 to Class 7. For example, Class 1 lands can support the broadest range of crops with minimal management units.

Lands in Classes 1 to 4 are considered capable of sustained agricultural production of common crops. Class 5 lands are considered good for perennial forage or specially adapted crops. Class 6 lands are good for grazing livestock and Class 7 lands are not considered capable of supporting agricultural production.

LCA Classes are subdivided into subclasses based on the degree and kind of limitation to agriculture. Subclasses indicate the type and intensity of management input required to maintain sustained agricultural production and specify the limitation. For example, lands rated Class 2W have an excess water limitation that can be improved by managing water on the site. Most lands are rated for unimproved and improved conditions. Unimproved ratings are calculated based on site conditions at the time of the assessments, without irrigation. Past improvements are assessed as part of the unimproved rating. Forested lands are assessed assuming they are cleared. Improved ratings are assigned assuming that existing limitations have been alleviated. Generally, improvement practices taken into account are drainage, irrigation, diking, stone removal, salinity alleviation, subsoiling, intensive fertilization and adding soil amendments.

LCA Classes

Class	Description	Characteristics
1	no or very slight limitations that restrict agricultural use	• level or nearly level • deep soils are well to imperfectly drained and hold moisture well • managed and cropped easily • productive
2	minor limitations that require ongoing management or slightly restrict the range of crops, or both	• require minor continuous management • have lower crop yields or support a slightly smaller range of crops that Class 1 lands • deep soils that hold moisture well • managed and cropped easily
3	limitations that require moderately intensive management practices or moderately restrict the range of crops, or both	• more severe limitations than Class 2 land • management practices more difficult to apply and maintain • limitations may: o restrict choice of suitable crops o affect timing and ease of tilling, planting or harvesting o affect methods of soil conservation
4	limitations that require special management practices or severely restrict the range of crops, or both	• may be suitable for only a few crops or may have low yield or a high risk of crop failure • soil conditions are such that special development and management conditions are required • limitations may: o affect timing and ease of tilling, planting or harvesting o affect methods of soil conservation
5	limitations the restrict capability to producing perennial forage crops or other specially adapted crops (e.g. cranberries)	• can be cultivated, provided intensive management is employed or crop is adapted to particular conditions of the land • cultivated crops may be grown where adverse climate is the main limitation, crop failure can be expected under average conditions
6	not arable, but capable of producing native and/or uncultivated perennial forage crops	• provides sustained natural grazing for domestic livestock • not arable in present condition • limitations include severe climate, unsuitable terrain or poor soil • difficult to improve, although draining, dyking and/or irrigation can remove some limitations
7	no capability for arable culture or sustained natural grazing	• all lands not in Class 1 to 6 • includes rockland, non-soil areas, small water-bodies

LCA Subclasses for Mineral Soil

LCA Classes, except Class 1 which has no limitations, can be divided into subclasses depending upon the type and degree of limitation to agricultural use. There are twelve LCA subclasses to describe mineral soils. Mineral soils contain less than 17% organic carbon; except for an organic surface layer (SCWG, 1998).

LCA Subclass	Map Symbol	Description	Improvement
Soil moisture deficiency	A	used where crops are adversely affected by droughtiness, either through insufficient precipitation or low water holding capacity of the soil	irrigation
Adverse climate	C	used on a subregional or local basis, from climate maps, to indicate thermal limitations including freezing, insufficient heat units and/or extreme winter temperatures	n/a
Undesirable soil structure and/or low perviousness	D	used for soils that are difficult to till, requiring special management for seedbed preparation and soils with trafficability problems includes soils with insufficient aeration, slow perviousness or have a root restriction not caused by bedrock, permafrost or a high watertable	amelioration of soil texture, deep ploughing or blading to break up root restrictions cemented horizons cannot be improved
Erosion	E	includes soils on which past damage from erosion limits erosion (e.g. gullies, lost productivity)	n/a
Fertility	F	limited by lack of available nutrients, low cation exchange capacity or nutrient holding ability, high or low pH, high amount of carbonates, presence of toxic elements or high fixation of plant nutrients	constant and careful use of fertilizers and/or other soil amendments
Inundation	I	includes soils where flooding damages crops or restricts agricultural use	diking
Salinity	N	includes soils adversely affected by soluble salts that restrict crop growth or the range of crops	specific to site and soil conditions
Stoniness	P	applies to soils with sufficient coarse fragments, 2.5 cm diameter or larger, to significantly hinder tillage, planting and/or harvesting	remove cobbles and stones
Depth to solid bedrock and/or rockiness	R	used for soils in which bedrock near the surface restricts rooting depth and tillage and/or the presence of rock outcrops restricts agricultural use	n/a
Topography	T	applies to soils where topography limits agricultural use, by slope steepness and/or complexity	n/a
Excess Water	W	applies to soils for which excess free water limits agricultural use	ditching, tilling, draining
Permafrost	Z	applies to soils that have a cryic (permanently frozen) layer	n/a

LCA Subclasses for Organic Soil

Organic soils are composed of organic materials such as peat and are generally saturated with water (SCWG, 1998). Subclasses for organic soils are based on the type and degree of limitation for agricultural use an organic soil exhibits. There are three subclasses specific to organic soils. Climate (C), fertility (F), inundation (I), salinity (N), excess water (W) and permafrost (Z) limitations for organic soil are the same as defined for mineral soil.

LCA Subclass	Map Symbol	Description	Improvement
Wood in the profile	B	applies to organic soils that have wood within the profile	removal
Depth of organic soil over bedrock and/or rockiness	H	includes organic soils where the presence of bedrock near the surface restricts rooting depth or drainage and/or the presence of rock outcrops restricts agricultural use	n/a
degree of decomposition or permeability	L	applies to organic soils that are susceptible to organic matter decomposition through drainage	n/a

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APPENDIX B

Soil Profile Descriptions and Site Photographs

Soil Profile Descriptions and Photographs

Sooke-01 – Soil Profile Description

Horizon	Depth (cm)	Description
Ap	0 - 20	Very dark grayish brown (10YR 3/2 m), sandy loam to loam; 10% coarse fragments; hard consistence; abundant, fine roots.
Bf	20 - 30	Brown (10YR 5/3 m), loam; 5% coarse fragments; very hard consistence; few, fine roots.
Bf2	30 - 45+	Dark brown (10YR 4/3 m), sandy loam; 5% coarse fragments; hard consistence.

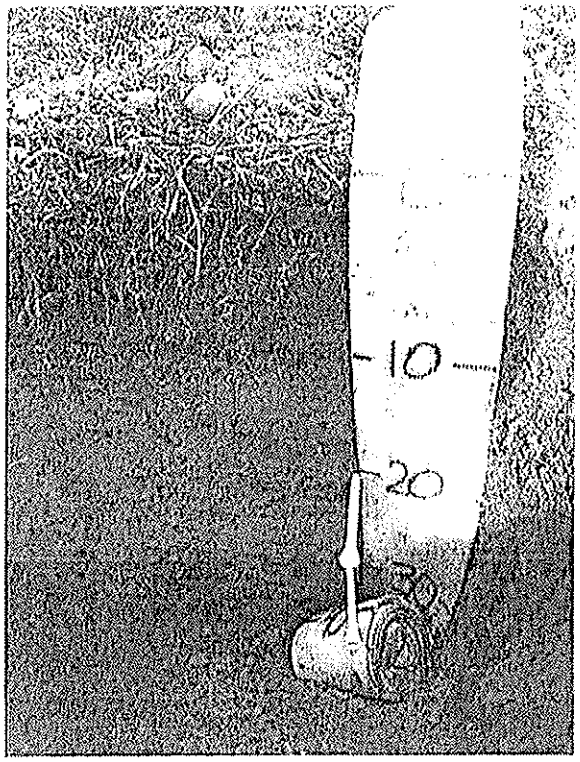

FIGURE 1: SHAWNIGAN SOIL PROFILE

Comments: crest of a gently rolling hill, up to 10% slopes with south to southeast aspect.

Soil Profile Description

Horizon	Depth (cm)	Description
Ahe	0 - 15	Very dark grayish brown (10YR 3/2 m), sandy loam; 10% coarse fragments; hard consistence; abundant, fine and few, coarse roots.
Bf	15 - 20	Dark yellowish brown (10YR 4/4 m), sand; 5% coarse fragments; very hard consistence; few, coarse roots.
Bf2	20 - 41+	Dark yellowish brown (10YR 4/4 m), sand; 5% coarse fragments; slightly hard consistence.

Comments:

- Crest to upper slope position of the hill, with south to southeast aspect.
- Second growth forest vegetation, used for cattle pasture.

Sooke-03 – Soil Profile Description

Horizon	Depth (cm)	Description
Ahe	0 - 7	Dark yellowish brown (10YR 3/4 m), sandy loam; 5% coarse fragments; hard consistence; abundant, fine and few, coarse roots.
Bf	7 - 24	Dark grayish brown (10YR 4/2 m), sandy loam to loam; 5% coarse fragments; slightly hard consistence; few, fine roots.
Bf2	24 - 41+	Brown (10YR 5/3 m), sandy loam to loam; 10% coarse fragments; hard consistence; few, fine roots.

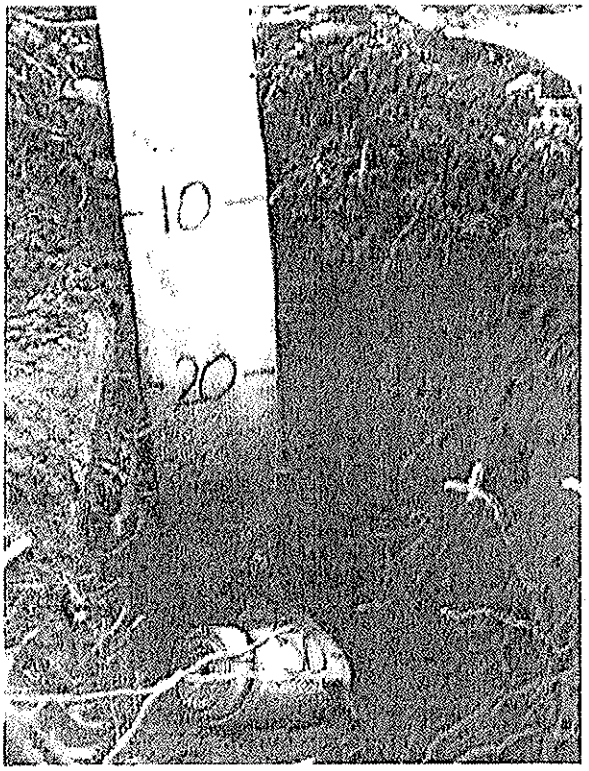

FIGURE 2: ROBERTSON SOIL

Comments:

- Midslope position on 15-20% slopes
- Small bedrock outcrops in area

Sooke-04 – Soil Profile Description

Horizon	Depth (cm)	Description
Ap	0 - 18	Very dark grayish brown (10YR 3/2 m); loam; 10% coarse fragments; friable consistence; abundant, fine and few, coarse roots.
Bf	18 - 46	Brown (10YR 4/3 m), sand to sandy loam; 5% coarse fragments; slightly hard consistence; few, fine roots.
Bf2	46 - 53	Yellowish brown (10YR 5/4 m) sand to sandy loam; 5% coarse fragments; hard consistence; inclusions of hard material.
Bf3	53 - 61+	Light brownish gray (10YR 6/2 m), sand; 5% coarse fragments; very hard consistence.

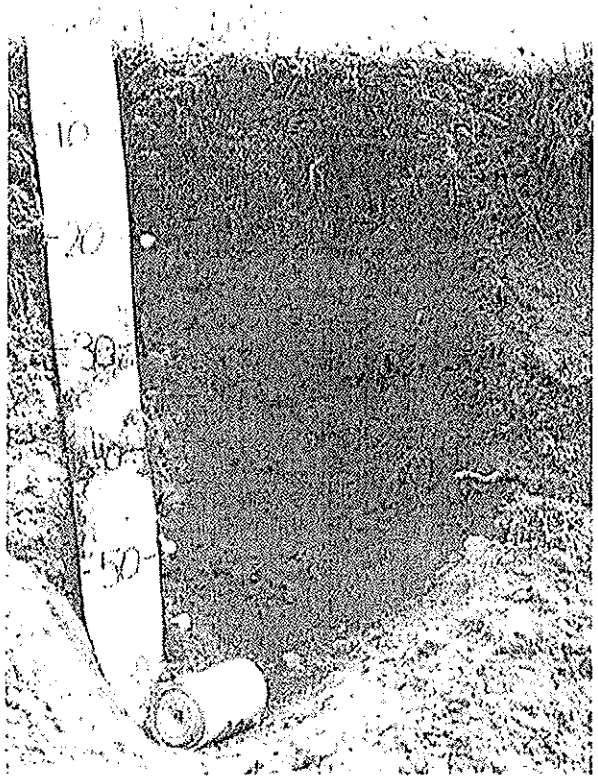

FIGURE 3: SHAWNIGAN SOIL

Comments:

- Midslope position, 5 to 10% slopes, south to southeast aspect.
- South end of ditch cut, representative of modal soil conditions along cut.
- Soils have been improved by rock-picking.

Sooke-05 – Soil Profile Description

Horizon	Depth (cm)	Description
Ap	0 - 32	Very dark brown (10YR 2/2 m), sand; 2% coarse fragments; slightly hard consistence; abundant, fine roots; granular structure.
Bf	32 - 42+	Dark yellowish brown (10YR 3/6 m), sand; 10% coarse fragments; slightly hard to soft consistence; massive, loose structure.

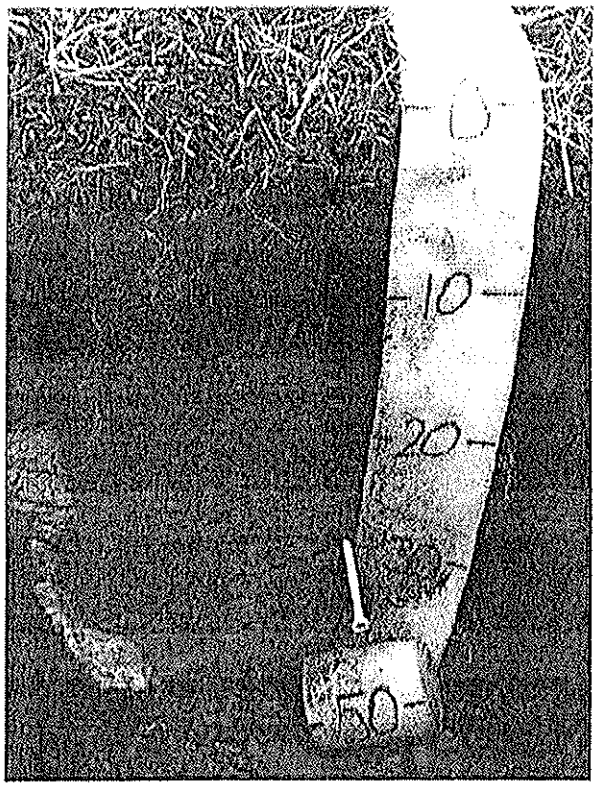

FIGURE 4: SHAWNIGAN SOIL

Comments:

- Midslope position, 5 to 10% slopes, south to southeast aspect.
- South side of hay field.
- Soils have been improved by rock-picking.

FIGURE 6: LOOKING EAST, OVER HAY FIELD AND PASTURE

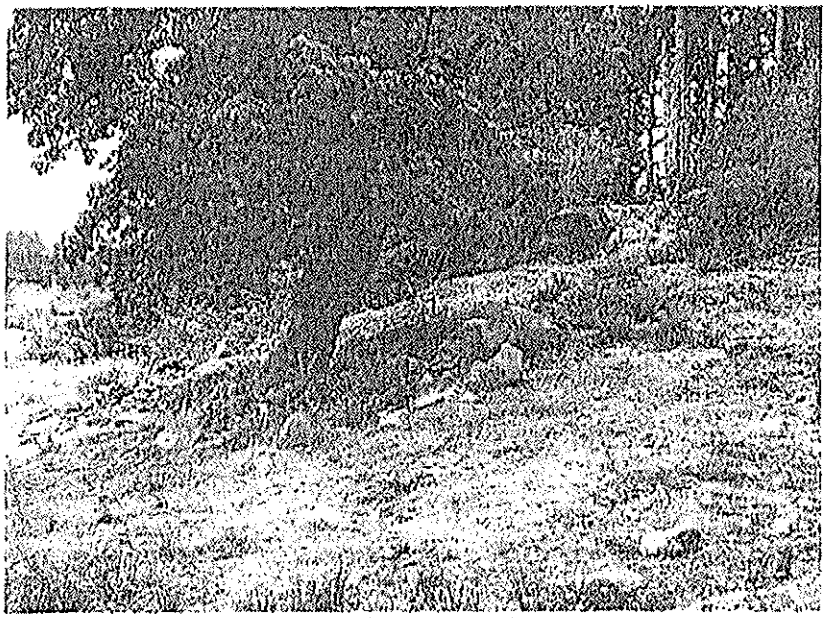

FIGURE 5: EXAMPLE OF AREA RATED CLASS 3, USED FOR CATTLE PASTURE

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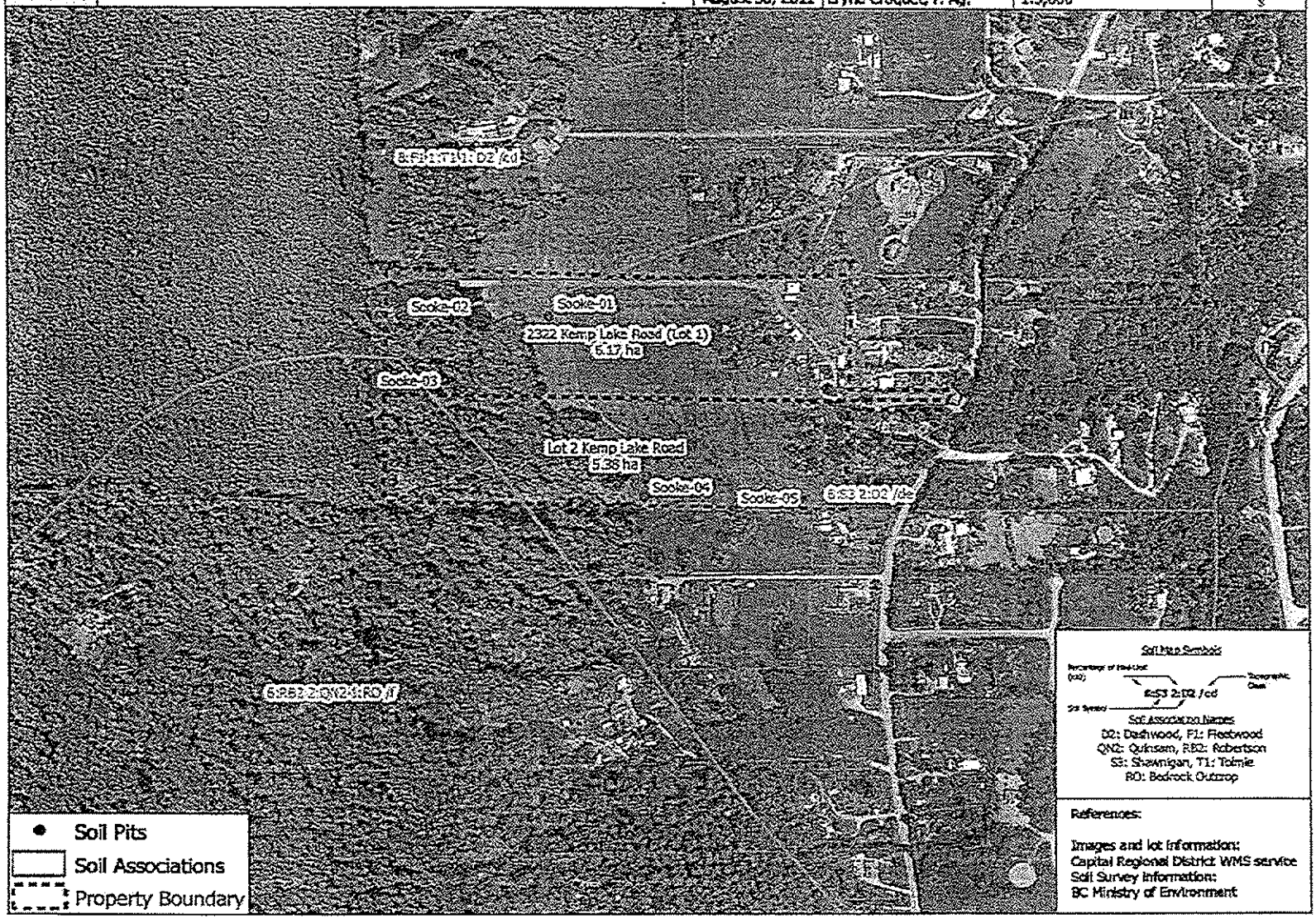
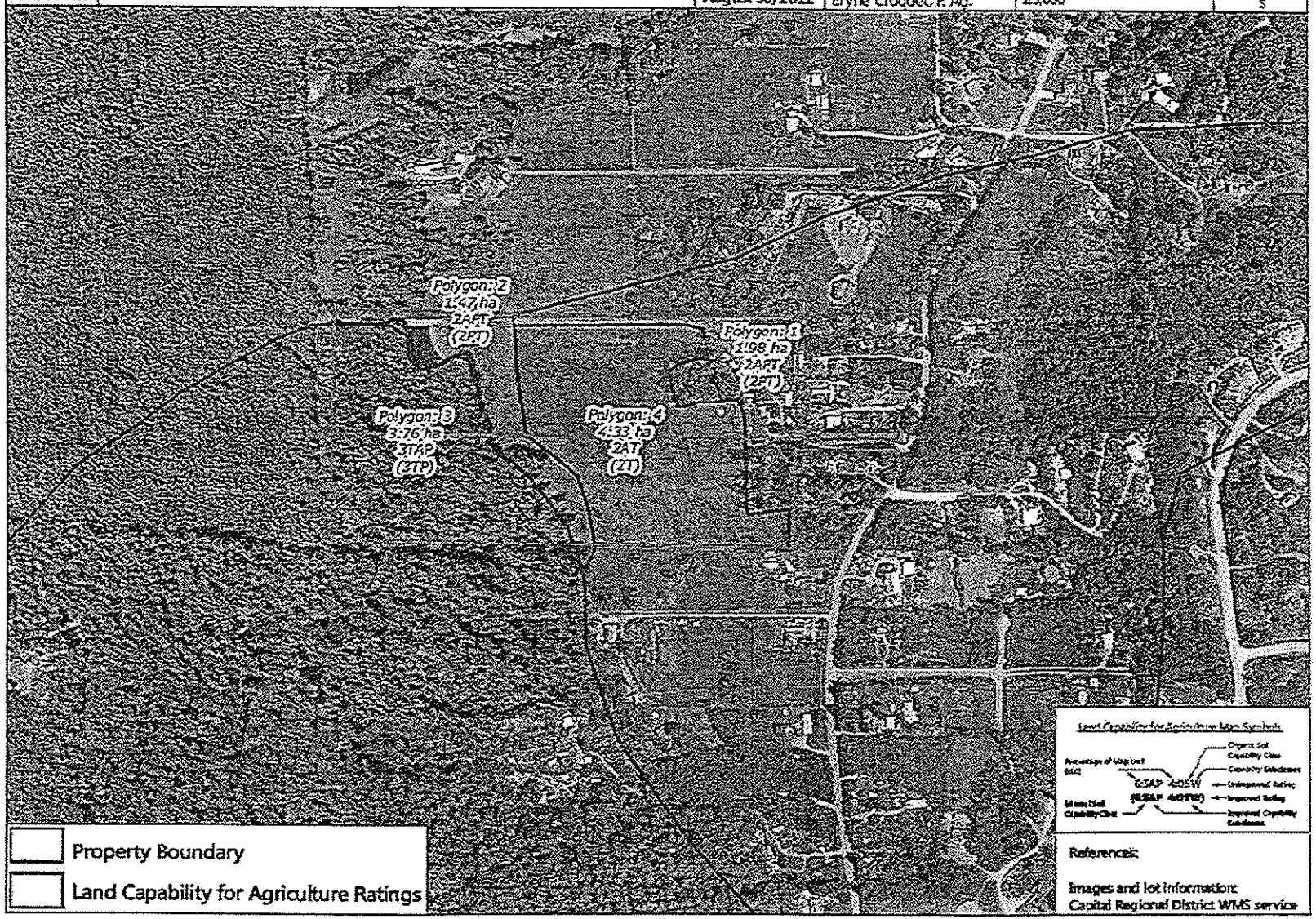
APPENDIX C

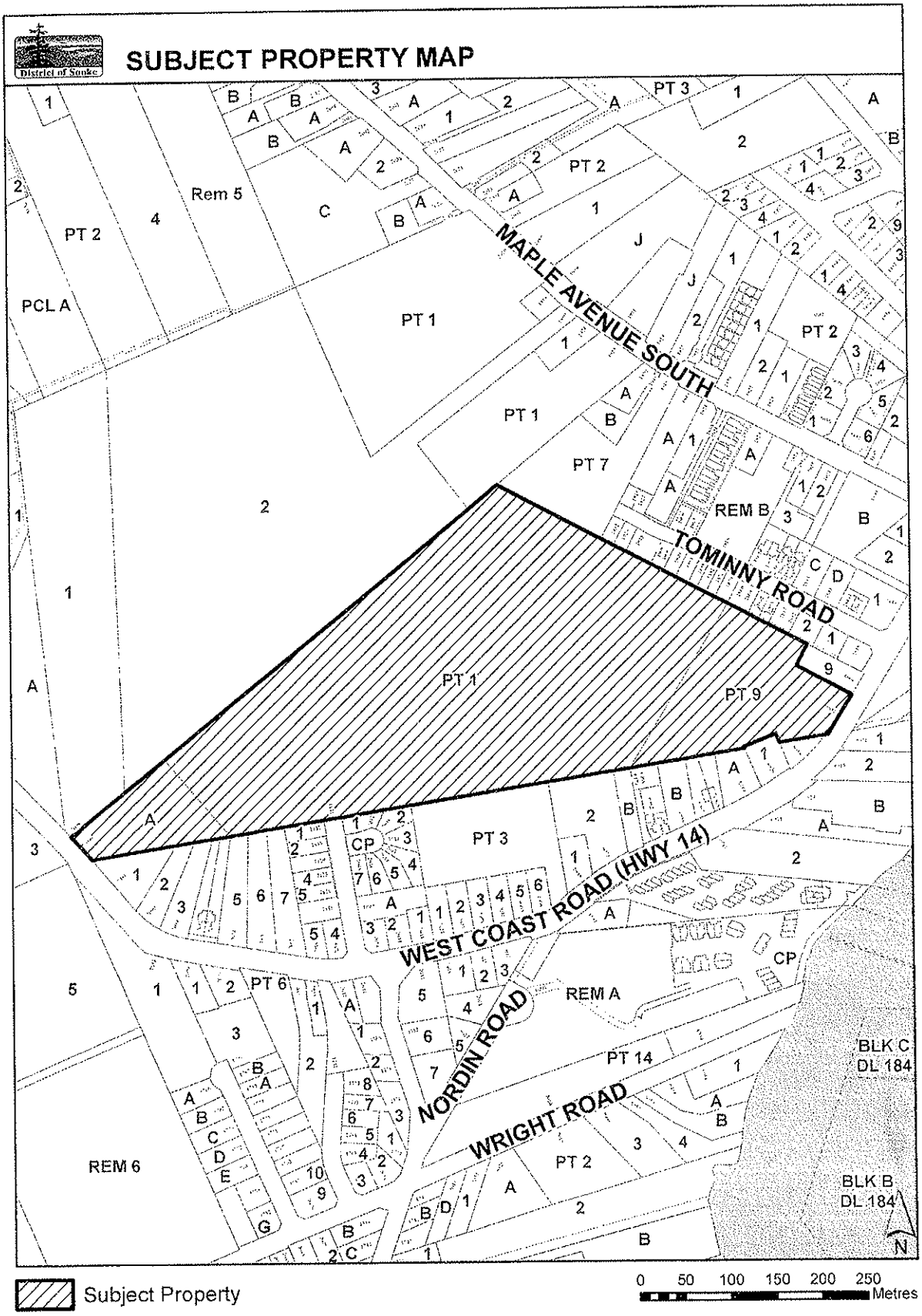
Maps

PROJECT: Agricultural Capability Assessment	**CLIENT:** Mr. Ed Shaw	**DOSSIER NO:** 11.0249	**MAPPING DATE:** September 6, 2011
FIGURE 1: Soil Distribution and Soil Pit Location	**FIELD DATE:** August 30, 2011	**DRAWN BY:** Bryne Croquet, P. Ag.	**MAP SCALE:** 1:5,000



MADRONE	**PROJECT:** Agricultural Capability Assessment	**CLIENT:** Mr. Ed Shaw	**DOSSIER NO:** 11.0249	**MAPPING DATE:** September 7, 2011
	FIGURE 2: Land Capability for Agriculture Ratings	**FIELD DATE:** August 30, 2011	**DRAWN BY:** Eryne Croquet, P. Ag.	**MAP SCALE:** 1:5,000




SUBJECT PROPERTY MAP
District of Sooke
MAPLE AVENUE SOUTH
TOMINNY ROAD
WEST COAST ROAD (HWY 14)
NORDIN ROAD
WRIGHT ROAD
PT 1
PT 2
PT 3
PT 6
PT 7
PT 9
PT 14
REM A
REM B
REM 5
REM 6
PCL A
CP
BLK C
DL 184
BLK B
DL 184
N
Subject Property
0 50 100 150 200 250
Metres