District of North Saanich
Community Agricultural Commission
Regular Meeting
Wednesday, September 11, 2019 at 1:30 p.m.

(Please note that all proceedings are recorded)

AGENDA		PAGE NO.
1.	**APPROVAL OF AGENDA**	
2.	**ADOPTION OF MINUTES**	
	(a) Minutes of the Community Agricultural Commission held June 5, 2019 2019-06-05 Minutes	2 - 5
3.	**REFERRALS**	
	(a) Completion of Sandown Agricultural Reclamation Activities - Request for comments as to the adequacy of the reclamation and drainage works. Memo Sandown Reclamation Attachment A Attachment B Attachment C	6 - 118
4.	**NEW BUSINESS**	
5.	**ADJOURNMENT**	

SUBJECT TO ADOPTION

DISTRICT OF NORTH SAANICH

Minutes of the Meeting of the
Community Agricultural Commission

Wednesday June 5, 2019 at 1:30 p.m.

PRESENT:	Chair	S. Rowed
	Members	I. Fancey
		M. Hughes
		E. McMurphy
		J. Rashleigh
		M. Soellner
		D. Chown
	Council Liaison	C. Stock (1:51p.m.)
	Chief Administrative Officer	T. Tanton
	Director of Planning & Community Services	A. Berry
	Planner	C. Rimell
	Commission Secretary	C. Gotto
	Community Planning Commission Liaison	J. Kingham
ABSENT:	Member	M. Aylard

The meeting was called to order at 1:35 p.m.

The Chief Administrative Officer assumed the role of Chair and welcomed members to the Community Agricultural Commission.

The Commission members gave a brief introduction of themselves.

The outgoing Commission Chair expressed appreciation to the Commission.

1. ELECTION OF CHAIR AND VICE CHAIR

The Chief Administrative Officer called for nominations for the position of Chair.

MOVED BY: D. Chown
Seconded by unanimous consent

1-CAC That Susan Rowed be nominated Chair of the Community Agricultural Commission.

CARRIED

The Chief Administrative Officer called a second and third time for further nominations for Chair. As there were none, Susan Rowed was declared Chair.

Susan Rowed assumed the role of Chair.

The Chair requested a review of Roberts Rules of Order at the next Commission meeting.

The Chair called for nominations for the position of Vice-Chair.

The Commission, by unanimous consent, nominated Irfane Fancey as Vice-Chair of the Community Agricultural Commission.

2. APPROVAL OF AGENDA

MOVED BY: E. McMurphy
SECONDED BY: I. Fancey

2-CAC That the agenda be approved as circulated.

CARRIED

3. APPROVAL OF MINUTES

MOVED BY: D. Chown
SECONDED BY: E. McMurphy

3-CAC That the September 19, 2018 minutes be approved.

CARRIED

4. REFERRALS

a.) Temporary Use Permit for Agri-Tourism Accommodation – 1890 Mills Road.

The Chief Administrative Officer, Director of Planning & Community Services, and Planner discussed and addressed questions from the Commission members.

MOVED BY: D. Chown
SECONDED BY: I. Fancey

4-CAC The Community Agricultural Commission support the issuance of a temporary use permit (TUP 2019-01) for a period of 3 years for an agri-tourism accommodation in the form of 6 farm camping sites and request that Council consider the following recommendations:

1.) The encouragement of composting toilets as long as they don't have any long term environmental impact; and
2.) That the placement of any portable toilets be in a location that results in the least amount of environmental impact for servicing.

CARRIED

OPPOSED: E. McMurphy, M. Hughes

MOVED BY: J. Rashleigh
SECONDED BY: I. Fancey

5-CAC The Community Agricultural Commission recommend that Council consider as a condition of the temporary use permit that the applicant provide the following statistical information at the end of the three years:

1.) The length of stay of visitors; and
2.) The number of visitors

CARRIED

MOVED BY: J. Rashleigh
SECONDED BY: I. Fancey

6-CAC The Community Agricultural Commission recommend that Council consider in addition to the previous recommendation that the statistical report of the temporary use permit include the visitor's mode of transportation.

CARRIED

The Planner left the meeting at 2:20p.m.

b.) Library ALC Application update

The Chief Administrative Officer and Director of Planning & Community Services discussed and addressed questions from the Commission.

MOVED BY: E. McMurphy
SECONDED BY: D. Chown

7-CAC The Community Agricultural Commission support the recommendation that Council direct staff to prepare an Agricultural Land Commission exclusion application for the Panorama site.

CARRIED

M. Hughes left the meeting at 2:33p.m.

5. <u>NEW BUSINESS</u>

a. Appointment of liaison to the Community Stewardship Commission

The Commission, by unanimous consent, appointed Susan Rowed as liaison to the Community Stewardship Commission.

b. Appointment of liaison to the Community Planning Commission

The Commission, by unanimous consent, appointed Irfane Fancey as liaison to the Community Planning Commission.

6. ADJOURNMENT

MOVED BY: E. McMurphy
SECONDED BY: D. Chown

8-CAC That the meeting be adjourned at 2:37p.m.

CARRIED

CERTIFIED CORRECT	APPROVED AND CONFIRMED
Recording Secretary	Curt Kingsley Director, Corporate Services

District of
North Saanich

MEMORANDUM

To: Community Agricultural Commission

Date: August 30, 2019

From: Anne Berry
Director of Planning & Community Services

Re: Completion of Sandown Agricultural Reclamation Activities – Request for comments

The purpose of this memo is to seek Community Agricultural Commission comments on the reclamation and drainage works completed at the Sandown site. Specific direction is detailed below:

The reclamation of the Sandown Agricultural site to state suitable for general agriculture is a condition of the Phased Development Agreement (PDA) associated with the rezoning and land transfer of the former 95 acre racetrack property. The rezoning and subdivision created a 12 acre commercially zoned property (the site of the Canadian Tire building) and an 83 acre property zoned for agricultural uses. As the site was located in the Agricultural Land Reserve (ALR) and exclusion application was necessary to remove the commercial portion of the site from the ALR. In order to ensure there was no net loss of land in the Agricultural Land Reserve the District also included 12 acres of land adjacent to the municipal hall.

A drainage and reclamation plan was prepared by Madrone Environmental Services Ltd. for Platform Properties (the developer). This plan, per the terms of the PDA, was approved by the Agricultural Land Commission. The remediation works are now complete.

A condition of the PDA requires that prior to certification of the plan the agrologist must consider any comments of the Agricultural Advisory Commission (now called the Community Agricultural Commission) as to the adequacy of the reclamation and drainage work (complete excerpt from the PDA below):

5. *The owner shall implement the approved Reclamation and Drainage Plan at the Owner's cost and shall engage an agrologist to monitor and oversee the implementation of the plan and to certify to the District and the Agricultural Land Commission, upon completion of the implementation of the plan, that the land is properly drained and in a state suitable for general agricultural purposes. The certification shall not be provided until the agrologist has considered any comments of the Agricultural Advisory Commission as to the adequacy of the reclamation and drainage work.*

Attached is the closure of reclamation activities summary dated August 16th, 2019 prepared by Thomas Elliot of Madrone Environmental Services Ltd. Additionally, the previous report Dated December 31st, 2018 is attached for reference. Per the requirements of the PDA, and subsequent to Council direction, staff is seeking comments from the CAC as to the adequacy of the reclamation and drainage works. Any comments from the CAC will be provided to Platform Properties and Mr. Elliot for response prior to staff reporting back to Council.

For reference, also attached is a copy of the staff report which included the approved Reclamation and Drainage Plan.

Respectfully submitted,

Anne Berry
Director of Planning & Community Services

Attachments:

A: August 16th, 2019 Letter from Madrone Environmental Services
B: December 31st, 2018 Letter from Madrone Environmental Services
C: Staff report dated July 13th, 2016

Attachment A

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environmental services ltd.

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Duncan, BC V9L 1V2
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August 16, 2019

TO: Andrew Sinclair (Platform Properties) – andrew@platformproperties.ca

Closure of Reclamation Activities

Sandown Agricultural Property

Glamorgan Road, District of North Saanich

1 Introduction

This Closure of Reclamation Activities report is a summary of the current reclaimed agricultural status of Sandown Agricultural Property. This report is a product of observations, made during a June 26, 2019 field review, of reclamation activities intended to resolve deficiencies noted in previous assessment for substantial completion of agricultural reclamation activities[1], and evaluation of all prior reclamation and drainage management activities on the Sandown Agricultural Property. This letter style report is intended to only address previously noted deficiencies, and any pertinent agricultural concerns noted at time of the recent field review, toward establishing closure of agricultural reclamation under purview of the proponent.

2 Background

Thomas R Elliot PhD, P.Geo., PAg., of Madrone Environmental Services Ltd. (Madrone) was retained by the proponent, Platform Properties Ltd. (Platform), to act as a Qualified Professional Agrologist (QP) for the reclamation of a former horse racing facility (hereafter referred to as the 'Site' or 'Sandown') located at 1810 Glamorgan Road, within the District of North Saanich (DNS) as part of an Agricultural Land Commission (ALC)

[1] *"Summary of Reclamation Activities for the Sandown Agricultural Property on Glamorgan Road, District of North Saanich"* Madrone Environmental Services Ltd. 31/12/2018.

approved Reclamation and Drainage Plan (the Plan), which was meant to fulfill the Phased Development Agreement (PDA) between DNS and Platform. The PDA has a requirement which requires that the Plan shall return the land to a *state suitable for general agricultural purposes* (District of North Saanich Sandown Phased Development Agreement, Schedule A. Jan 07, 2014).

Madrone fulfilled the duties of QP for the reclamation according to the ALC requirements as set out in the PDA. Furthermore, Thomas R Elliot was identified as the Agrologist of Record with the ALC, which can be defined as the QP accepting responsibility for development and implementation of sound practices toward improving agricultural capability of the Site, as established within the Plan.

The primary purposes of this letter-style report is to:

- update the December 31 2018 '*Summary of Reclamation Activities*' letter issued by Madrone,
- establish the state of reclamation activities implemented by Platform at time of recent field review ('Project Closure' or 'Closure').

3 Reclamation Scope

The Site was subset into polygons which were to be subject to specific reclamation activities, as per the approved Plan, in order to improve the agricultural capability of the Site "*to a state suitable for agricultural purposes*" [PDA & ALC Resolution #357/2011; #383/2011]. The ALC's requirement, as per the approved Plan, is interpreted as a land capability suitable for general agricultural production of standard rotation crops (i.e. non-specialty produce) of **Class 1 (optimal) through 4 (agriculturally viable - suboptimal)** of the Canada Land Inventory System[2]. A 'deficiency' of implementing the Plan results in a limitation to agricultural capability that exceeds Class 4 (e.g. Class 5 through 7).

4 Reclamation Summary

This section serves as a summary of the key components of Madrone's QP observations during reclamation and in the latter stages of the Sandown project.

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2 Smith, 2012. A Work in Progress - The British Columbia Farmland Preservation Program. Brunaby, British Columbia. http://www.alc.gov.bc.ca/assets/alc/assets/library/archived-publications/alr-history/a_work_in_progress_-_farmland_preservation_b_smith_2012.pdf

4.1 Reclamation Activities

The reclamation activities for each polygon and the observations and QP evaluation of completion are summarized in the table below, which should be read in conjunction with the annotated map provided. The map is annotated with areas that correspond to the numeration of noted deficiencies/recommendations in Table 1 below.

Table 1. Summary of reclamation activities at Closure

Polygon	Reclamation Activities	Deficiencies	Recommendations
1	1. Subsoil	1. none	1. Reclamation program has been met. Continued incorporation of cover crops is recommended to improve soil structure.
	2. Grade	2. none	2. n/a
	3. Amend with organic matter	3. none	3. Reclamation program has been met. See additional note on soil stewardship in Section 6.1 of this document.
2	1. Land clearing	1. none	1. n/a
	2. Incorporate land clearing debris	2. none	2. DNS should proceed with standard agricultural practice that will remove/break-up & incorporate wood residue from areas 2.A & 2.B.
	3. Subsoil	3. none	3. n/a
	Incidental (in Scope) Grass area (indicated on map) has been subsoiled, graded and tilled. North-South ditching has been re-established along eastern boundary.		Incidental (in Scope) – none
3	1. Land clearing	1. none	1. n/a
	2. Grade to level	2. none	2. n/a
	3. Till & cover-crop	3. none	3. n/a
4	Not subject to reclamation	-	-
5	Not subject to reclamation	-	-
6	DNS Class A compost facility	-	-

4.2 Compaction Monitoring

Areas 1.A & 1.C have been subsoiled and demonstrated decreased compaction in both the near (0 – 15cm) and subsurface (15 – 30cm) through field measurement at time of closure

review. Arable and accessible land (i.e. outside of drainage ditches) within Area 1.B was subsoiled which resulted in a measured decrease (post-compensation for lower moisture content at time of closure review) in subsurface (15 – 30cm) compaction. The presence of cover-crop and the incorporation thereof through subsequent crop-rotations will result in a reduced compaction within the arable layer of all areas.

4.3 Post-Reclamation Land Capability for Agriculture

The LCA of land subject to reclamation activities, as outlined in the PDA, are summarized in Table 2 below. Please note that the objective of the PDA was to deliver the lands to a '*state suitable for agriculture*' and the 'Potential LCA' indicated in Table 2 below is achievable through additional measures to address limitations. Additional measures are not within the scope of works indicated within the PDA and are the responsibility of DNS and/or the selected Operator for Sandown Farm.

TABLE 2. LAND CAPABILITY FOR AGRICULTURE AT CLOSURE

Soil Polygon	LCA Existing Post-Reclamation - Explanation	Potential LCA with Further Improvements - Activity
1	3W - Excess Water - Low permeability layer at depth perches water; 3I – Inundation - Seasonal inundation limiting early season access by machinery; 3P – Stoniness - General coarse fragment content; 2D – Unfavourable soil structure - Compaction due to soil texture that will moderately impede deep-rooting crops; 2X – Foreign Material - Anthropogenic detritus;	2W – Excess Water - Increase soil organic content; - No till management over long term; 3I – Inundation - No reasonable improvement; 3P – Stoniness - No reasonable improvement; 2D – Unfavourable soil structure - No reasonable improvement; 1 – Foreign Material - Cleared through standard Ag practice;
2	4F – Fertility - Low available nitrogen (i.e. high fixation) due to amount of organic carbon that has been incorporated to the soil; 3W – Excess Water - 1. Lowest lying lands within the region susceptible to prolonged periods of water table near surface; - 2. Natural seepage area subject to high water table/content; 2OB – Wood in the profile - Limited area in NW where land clearing has occurred, and land breaking is an ongoing process; 2X – Foreign Material - Anthropogenic detritus;	1 – Fertility - Decomposition of wood residue in soil over time (2 – 5 yrs); 3W/2W – Excess Water - 1. No reasonable improvement; - 2. Soil forming and biologic activity over time (2 – 5 yrs); 1 – Wood in the profile - Decomposition of wood residue in soil over time (2 – 5 yrs); 1 – Foreign Material - Cleared through standard Ag practice;
3	4P – Stoniness - Fine to coarse gravel within the soil profile; 3F – Fertility - Low nutrient holding capacity due to soil texture (gravelly sandy loam); 2T – Topography - Low angle simple slopes;	4P – Stoniness - No reasonable improvement; 2F – Fertility - Incorporate organic matter; 2T – Topography - No reasonable improvement;

4	Not Subject to Reclamation	Not Subject to Reclamation
5	Not Subject to Reclamation	Not Subject to Reclamation
6	DNS Yard & Garden Class A Compost Facility	DNS Yard & Garden Class A Compost Facility

5 Summary

The areas which were found to be deficient in the December 31 2018 review have been addressed, resolving the lands to an agricultural capability between Class 4 and Class 2.

Upon acceptance of this assessment by DNS, I will relinquish my Agrologist of Record status for Sandown reclamation and management.

6 Closure and Future Works

The reclamation activities on Site are complete with the land capability for agriculture for all polygons evaluated at Class 4 or better. Standard management practices, as part of continued operation of the Site as a farm, will progressively improve the land capability agriculture and address noted limitations (e.g. stoniness, CEC/Fixation/Organic matter content & unfavourable soil structure in 1.B, sparse woody debris in profile, etc.), as well as Site factors which were not noted in this document but are inherent to the Site (e.g. limited areas of seasonal inundation, soil structure due to texture, excessive soil moisture, or generally poor regional conveyance of waters).

Moving forward, there continues to be an opportunity to develop the agricultural capacity of the soils on Site. For the near future (1 – 3 years), I make future works recommendations in Section 6.1 that are outside of the current reclamation program.

6.1 Soil Stewardship

As part of ongoing agricultural practices continue to:

- incorporate cover crop once machine trafficable (planting season);
- re-seed with Red clover (*Trifolium pretense)* or cereal rye (Secale cereale);

- incorporate crop into plow layer at maturity (fall);
- re-seed with winter wheat (*Triticum aestivum*);
- till to incorporate in subsequent season, after which establish no-till methods for commercial crops.

6.2 Ecologic considerations

1. In areas with wood residue remaining (2.A & 2.B), continue standard agricultural practice of removing such debris from planting surface;
   a. Wood residue/land clearing debris can be accumulated adjacent the ditch to delineate the ditch for machine operators, enhance the watercourse buffer area, as well as providing habitat for small carnivorous mammals and raptor prey-species;
   b. At no time should woody debris be placed such that it will interfere with clearing of annual vegetation from the ditch, or otherwise impede flow within the ditch.
2. The high ratio of carbon to nitrogen (i.e. Fixation) in areas amended with organic matter (2.A & 2.B) will decrease to a favourable long-term nitrogen-supply in approximately 2 – 3 years time. Until such time, primary sources of commercial crop nitrogen should come from incorporation of nitrogen-fixing cover crops or alfalfa meal as opposed to commercial mineral nitrogen fertilizers. The application of nitrogen fertilizers to the heavily subsoiled & tilled land may result in an unintended conveyance of nitrogen to the drainage channel at this time. Over time, the soil will not only make nitrogen available through decomposition of wood residue, but will also develop capacity to 'hold' available nitrogen which is field applied through increased available carbon content, which will mitigate this consideration in the future.

6.3 General

1. Continue to cover-crop, rotating between nitrogen fixing and high organic-matter crop types (as per Soil Stewardship, above);
2. Conduct analytic testing of soil nutrient content after 1 year of fallow, adjust amendment or cover-crop type to suit;
3. Re-evaluate the land capability for agriculture in three-years;

We trust that this letter report meets your current needs. Madrone is available to provide any further information or guidance that may be required by Platform.

Yours truly,

MADRONE ENVIRONMENTAL SERVICES LTD.

Tom Elliot 16-08-2019

Thomas R Elliot PhD P.Ag P.Geo
Professional Agrologist

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APPENDIX

Reclamation Plan at Closure

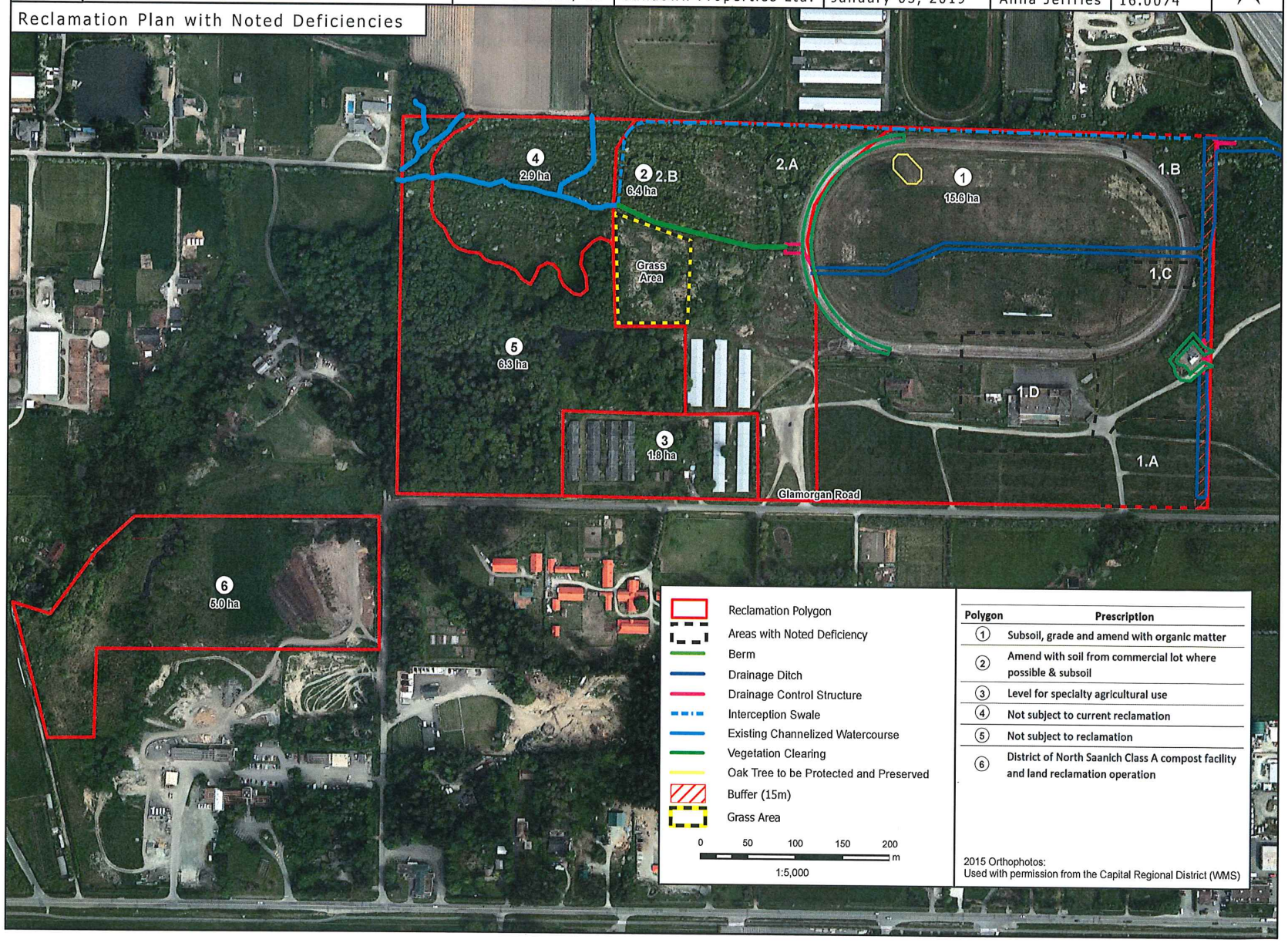
DOSSIER: 16.0074

MADRONE ENVIRONMENTAL SERVICES LTD.

PROJECT:
Agricultural Assessment & Drainage Plan: 1710 & 1810 North Glamorgan Road

ASSESSED BY:	LOCATION:	CLIENT:	MAP DATE:	DRAWN BY:	DOSSIER:
Thomas R. Elliot, PhD P.Ag P.Geo & Jim Richard, P.Ag	North Saanich, BC	Sandown Properties Ltd.	January 03, 2019	Anna Jeffries	16.0074

Reclamation Plan with Noted Deficiencies



Polygon	Prescription
1	Subsoil, grade and amend with organic matter
2	Amend with soil from commercial lot where possible & subsoil
3	Level for specialty agricultural use
4	Not subject to current reclamation
5	Not subject to reclamation
6	District of North Saanich Class A compost facility and land reclamation operation

2015 Orthophotos:
Used with permission from the Capital Regional District (WMS)

Attachment B

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December 31, 2018

TO: Andrew Sinclair (Platform Properties) – andrew@platformproperties.ca

Summary of Reclamation Activities for the Sandown Agricultural Property on Glamorgan Road, District of North Saanich

1 Introduction

Thomas R Elliot PhD, P.Geo., PAg., of Madrone Environmental Services Ltd. (Madrone) was retained by Platform Properties Ltd. (Platform) to act as a Qualified Professional Agrologist (QP)[1] for the reclamation of a former horse racing facility (hereafter referred to as the 'Site' or 'Sandown') located at 1810 Glamorgan Road, within the District of North Saanich (DNS) as part of an Agricultural Land Commission (ALC) approved Reclamation and Drainage Plan (the Plan), which is meant to fulfill the Phased Development Agreement (PDA) between DNS and Platform. The PDA has a requirement which requires that the Plan shall return the land to a *state suitable for general agricultural purposes* (District of North Saanich Sandown Phased Development Agreement, Schedule A. Jan 07, 2014).

Madrone fulfilled the duties of the QP for the reclamation according to the ALC requirements as set out in the PDA.

The purpose of this letter report is to provide a summary of the reclamation activities completed by Platform, and to provide recommendations for any noted deficiencies observed on the Site.

[1] Qualified Professional

2 Reclamation Scope

The Site was subset into polygons which were to be subject to specific reclamation activities, as per the approved Plan, in order to improve the agricultural capability of the Site "*to a state suitable for agricultural purposes*" [PDA & ALC Resolution #357/2011; #383/2011]. In this report, that ALC requirement is interpreted as a land capability suitable for general agricultural production of standard rotation crops (i.e. non-specialty produce) of Class 1 through 4 of the Canada Land Inventory System[2].

3 Monitoring Scope

The PDA and ALC decision outline the role for QP, in addition to which DNS requested monitoring responsibilities in the following areas:

- Regularly monitor reclamation activities and assess compliance with the PDA, the Plan, applicable permits and legislation;
- Ensure compaction of soil on Site is minimized or otherwise rectified through reclamation activities;
- Ensure there is limited mixing of subsurface parent material (silty loam to clayey silt) with surficial soil (loam to silty loam); and
- Observe, document, and report all non-conformances;

Monitoring was conducted throughout the reclamation process on an irregular schedule to reflect the staging and ongoing activities on Site. During periods where multiple components of the reclamation program were ongoing, Madrone increased the frequency of attendance to Site for monitoring purposes.

The primary monitoring activities conducted during each Site visit included inspection of Erosion and Sediment Control (ESC) measures, reclamation methods and practices, compaction measurements, field guidance (as necessary), Site meetings with stakeholders and work area inspections. Any concerns that may have been noted during Site visits were immediately communicated to the on-Site reclamation contractors.

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[2] Smith, 2012. A Work in Progress - The British Columbia Farmland Preservation Program. Brunaby, British Columbia. http://www.alc.gov.bc.ca/assets/alc/assets/library/archived-publications/alr-history/a_work_in_progress_-_farmland_preservation_b_smith_2012.pdf

4 Reclamation and Monitoring Summary

This section serves as a summary of the key components of Madrone's QP observations during reclamation and toward the end of the project.

4.1 Reclamation Activities

The reclamation activities for each polygon and the observations and QP evaluation of completion are summarized in the table below, which should be read in conjunction with the annotated map provided. The map is annotated with areas that correspond to the numeration of noted deficiencies/recommendations in Table 1 below.

Table 1. Status summary of reclamation activities

Polygon	Reclamation Activities	Deficiencies	Recommendations
1	1. Subsoil	1. Limited areas (see map) of: 1.A pre-existing compaction 1.B poor sprouting of cover crop likely due to Cation Exchange Capacity (CEC) consequent of limestone crush fraction. 1.C lack of subsoiling	1. Once machine trafficable, in the areas noted below: 1.A subsoil to a depth of 40cm and till 1.B incorporate organic matter & over-seed 1.C subsoil to a depth of 40cm and till
	2. Grade	2. none	2. n/a
	3. Amend with organic matter	3. none	3. Reclamation program has been met. See additional note on soil stewardship in Section 6.
		Incidental (out of scope) 1. Reclamation of land beneath structures has increased stoniness in area 1.D to an approximate Class 3P (stoniness) limitation.	Incidental (Out of scope), 1. Within area 1.D, use rock picking equipment during crop rotation. 2. Overseed the limited area post-incorporation of existing crop.

Polygon	Reclamation Activities	Deficiencies	Recommendations
2	1. Land clearing 2. Incorporate land clearing debris 3. Subsoil	1. none 2. Large pieces of land clearing debris (woodwaste) remain within this polygon (2.A & 2.B) 3. none Incidental (in Scope) Grass area (indicated on map) was not machine accessible during the staged reclamation.	1. n/a 2. Standard agricultural practice will continually remove large woodwaste from areas 2.A & 2.B 3. n/a Incidental (in Scope) – Re-establish east-west cut-off ditch at south-side of access road to a depth of 40cm. – Connect cut-off ditch with pre-existing north-south ditch at eastern extent of area – Once area is machine accessible, subsoil toward direction of central channel and till.
3	1. Land clearing 2. Grade to level 3. Till & cover-crop	1. None 2. None 3. Till & cover-crop yet to be completed.	1. n/a 2. n/a 3. Till and broadcast seed (due to rock-content) with suitable cover crop.
4	Not subject to reclamation	-	-
5	Not subject to reclamation	-	-
6	DNS Class A compost facility	-	-

4.2 Compaction Monitoring

Due to the timing of reclamation activities and concerns raised by DNS staff toward the issue of soil degradation through compaction, Madrone monitored the degree of compaction in select areas identified during field review throughout the reclamation process. The closure field inspection identified areas known to still require subsoil and tillage due to the staging of works on Site, and the closing weather-window for the Site during which soils of the types present are workable.

Table 2. Summary of compaction monitoring from select areas identified during field review

Polygon	Location ID (see Map)	Depth (cm)	Penetrometer (bar)	Soil	Comment / Recommendation
1	1.A	0 – 15	32.5	Loam	Staging area not subject to tilling as of yet
		15 – 40	37.5	Silty loam	Subsoil & till
	1.B	0 – 15	14.0	Sandy loam	Increased limestone crush fraction
		15 – 30	27.5	Marine silt	Subsoil & till
	1.C	0 – 25	17.5	Med brown sandy loam	Adjacent drainage channel, not subject to tilling as of yet
		25 – 40	20.0	Silty loam	Subsoil & till
	1.D	0 – 25	9.0	Sandy loam	Former grandstand area
		25 – 40	12.5	Silty loam	None
2	2.A	0 – 15	5.0	Organic rich loam	Woodwaste incorporated to surficial material
		15 – 40	12.5	Loam	None
	2.B	0 – 25	9.0	Organic rich loam	Woodwaste incorporated to surficial material
		25 – 40	22.0	Silty loam	None

5 Summary

The significant reclamation progress made to date substantially completes the Plan. There are limited areas which were found to be deficient. It is understood that Platform intends to continue reclamation activities on Site to meet the PDA requirements, and will have QP monitoring procedures in place.

Based on conditions during the final Site inspection and on previous observations, Madrone recommends the following reclamation activities:

Polygon 1

1 In areas that were: used for staging or access to the Site (1.A); a limited area with increased limestone crush (track-base) content (1.B); and workspace adjacent to

drainage works (1.C), as indicated on the associated map, the reclamation will be completed through tillage as noted in Map 1 and Tables above.

2 In areas with low sprouting/growth of cover crop likely due to limestone crush affected CEC (1.B), proceed with incorporation of existing crop and overseed on subsequent planting. CEC will improve with increased organic matter content.

Polygon 2

1 In grass-area with high water content and machine access challenges:

a. Re-establish east-west cut-off ditch at south-side of access road to a depth of 40cm.

b. Connect cut-off ditch with pre-existing north-south ditch at eastern extent of area

c. Once area is machine accessible, subsoil and till.

Polygon 3

1 Seed and till the graded soil surface.

6 Closure and Future Works

The reclamation activities on Site are substantially complete with limited deficiencies noted alongside recommended methods for meeting the planned reclamation to a state suitable for agriculture. Once the noted deficiencies are addressed, reclamation will be fully complete.

Moving forward, there continues to be a requirement to develop the agricultural capacity of the soils on Site as they are currently disrupted due to the reclamation activities. For the near future, I make the following future works recommendations that are outside of the current reclamation program:

Soil Stewardship

As part of ongoing agricultural practices continue to:

- incorporate cover crop once machine trafficable (planting season);
- re-seed with Red clover or cereal rye (*Secale cereale*);
- incorporate crop into plow layer at maturity (fall);

- re-seed with winter wheat (*Triticum aestivum*);
- till to incorporate in second season, after which establish no-till methods for commercial crops.

Ecologic considerations

1 In areas with large woody debris remaining (2.A & 2.B) continue standard agricultural practice of removing such debris from planting surface;

   a. Collected woody debris can be reserved for Hugel Mounds in the specialty agriculture portion of the Site (Polygon 3), or

   b. Woody debris can be used as a buffer between the central drainage ditch and adjacent arable fields.

   c. Use of large woody debris as a buffer will increase the habitat for small rodents, which – when considering proximity to known raptor nests (specifically a Barn Owl nest box located less than 30m to the southwest) – provides ecosystem support integrated to the agricultural area. Please note that the presence of small rodents may have a negligible impact on crop productivity.

2 The high ratio of carbon to nitrogen in areas amended with organic matter will decrease to a favourable long-term nitrogen-supply in approximately 2 – 3 years time. Until such time, primary sources of commercial crop nitrogen should come from incorporation of nitrogen-fixing cover crops as opposed to nitrogen fertilizers. The application of nitrogen fertilizers to the heavily subsoiled & tilled land may result in an unintended conveyance of nitrogen to the drainage channel at this time. Over time, the soil will develop capacity to 'hold' nitrogen which is field applied through increased available carbon content, which will mitigate this consideration in the future.

General

1 Continue to cover-crop, rotating between nitrogen fixing and high organic-matter crop types (as per Soil Stewardship, above);

2 Conduct analytic testing of soil nutrient content after 1 year, adjust amendment or cover-crop type to suit;

3 Re-evaluate the land capability for agriculture in three-years;

We trust that this letter report meets your current needs. Madrone is available to provide any further information or guidance that may be required by Platform to continue with QP Site inspections.

Yours truly,

MADRONE ENVIRONMENTAL SERVICES LTD.

BRITISH COLUMBIA
3039
Thomas Elliot
Dec 31 2018
P.Ag.
INSTITUTE OF AGROLOGISTS

Thomas R Elliot PhD P.Ag P.Geo
Professional Agrologist

MADRONE
environmental services ltd.

APPENDIX

Reclamation Plan with Noted Deficiencies

PROJECT: Agricultural Assessment & Drainage Plan: 1710 & 1810 North Glamorgan Road					
ASSESSED BY: Thomas R. Elliot, PhD P.Ag P.Geo & Jim Richard, P.Ag	LOCATION: North Saanich, BC	CLIENT: Sandown Properties Ltd.	MAP DATE: January 03, 2019	DRAWN BY: Anna Jeffries	DOSSIER: 16.0074

MADRONE environmental services ltd.

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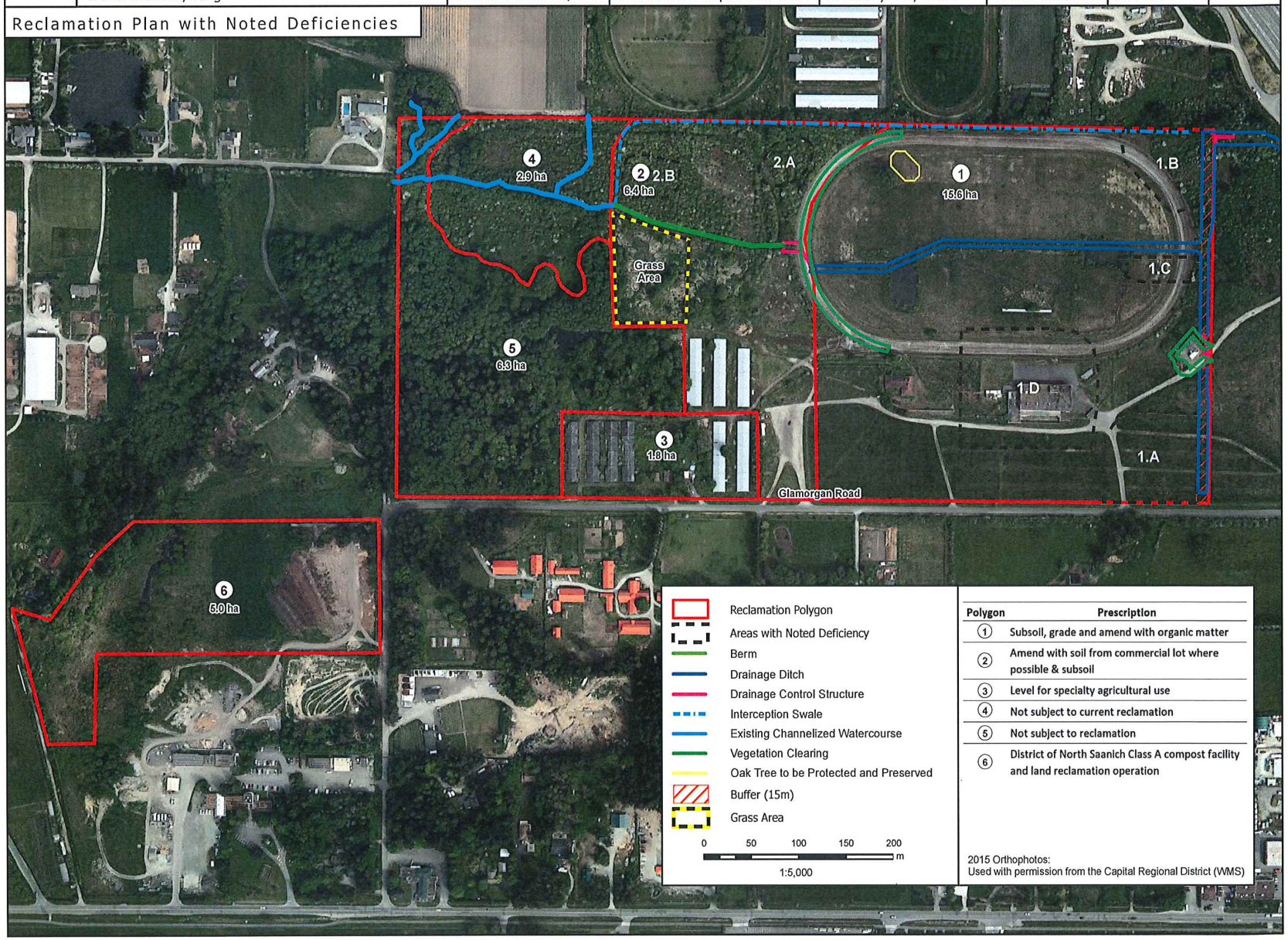
Reclamation Plan with Noted Deficiencies



Polygon	Prescription
1	Subsoil, grade and amend with organic matter
2	Amend with soil from commercial lot where possible & subsoil
3	Level for specialty agricultural use
4	Not subject to current reclamation
5	Not subject to reclamation
6	District of North Saanich Class A compost facility and land reclamation operation

2015 Orthophotos:
Used with permission from the Capital Regional District (WMS)

Attachment C

District of
North Saanich

STAFF REPORT

To: Rob Buchan
Chief Administrative Officer

Date: July 13, 2016

From: Anne Berry
Director of Planning and Community Services

File: 3360-20-2011-03

Re: Sandown Site Drainage and Agricultural Reclamation Plan – Update Report

RECOMMENDATION(S):

That Council

1. Accept the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan and report and addendum prepared by Madrone Environmental Services Ltd (dated May 30th, 2016 & July 13th, 2016).

STRATEGIC PLAN IMPLICATIONS:

This matter relates to the following Council strategic priorities:

Protect and Enhance Rural, Agricultural, Heritage, Marine and Environmental Resources

Ensure Strong Leadership, Fiscal Responsibility and Transparent Government

Council's Strategic Plan supports the District's commitment to protect its rural, agricultural and heritage roots and lifestyle, and calls for progressive leadership, service excellence, and outstanding stewardship of public assets.

INTRODUCTION/BACKGROUND:

In 2014 the District entered into a Phased Development Agreement (PDA) with the owners of the former Sandown Raceway. In the fall of 2011 the Agricultural Land Commission (ALC) conditionally approved a land exclusion/inclusion related to the site, and established a deadline by which the conditions were to be met (5 years from the date of approval). Refer to Attachment D for the ALC decision. The terms of the PDA are based on this 5 year timeframe and reflect the requirements of the ALC conditions of approval. One key requirement is that the lands be returned to a state suitable for general agriculture and that a drainage and reclamation plan be prepared to the satisfaction of the ALC.

DISCUSSION:

On June 27th Council received the staff report presenting an Agricultural Land Reclamation Assessment and Preliminary Drainage Plan (Plan), prepared by Madrone Environmental Services Ltd, for the former site of the Sandown Raceway on Glamorgan Road. The staff report, including the Plan, is appended as Attachment A for reference.

Staff has prepared this new report in order to address questions that arose at the June 27th Committee of the Whole meeting, and to provide greater clarity regarding the Agricultural Land

Commission requirement for a land reclamation and drainage plan as a condition of approval to the 2011 exclusion application, and the terms of the Phased Development Agreement.

Phased Development Agreement:

Under Schedule A of the Phased Development Agreement:

- The owner is to engage at the owner's cost an agrologist to prepare a Reclamation and Drainage Plan for the *Agricultural Land*;*

  **In the Agreement "Agricultural Land" means the approximately 33.5 hectare portion of the land designated P-6 by the Zoning Bylaw Amendment*

- The land to which the Reclamation and Drainage Plan applies is the *Agricultural Land* other than the approximately 10ha portion in the south west corner of the *Agricultural Land* (that was treed on the date of execution of the agreement – October 20th, 2014);

- The objective of the plan is to return the land that is subject to the Reclamation and Drainage Plan to a state suitable for general agricultural purposes;

- The plan is for approval of the Agricultural Land Commission following referral of plan to the District of North Saanich Agricultural Advisory Commission *(now part of the Community Planning Commission)*;

- The Reclamation and Drainage Plan is required to include the following:

  - the removal of all buildings and structures from the *Agricultural Land* other than such buildings and structures the District may have specified in writing prior to its approval of the Reclamation and Drainage Plan;

    Staff note: At this time the District has not yet determined which buildings and structures will be kept. Although the Vision Sandown report has been presented to Council, decisions regarding specific future land uses have not yet been made, therefore direction has not yet been given with respect to building retention.

  - the installation of appropriate drainage facilities and infrastructure and incidental grading of the land;

  - the use of all topsoil removed from the *Commercial Land***, including the prior inspection by the agrologist of the source of the topsoil to ensure that it meets agricultural use standards.

    ***Commercial Land means the approximately 5 hectare portion of the Land on the west side of McDonald Park Road north of Glamorgan Road that was approved for exclusion from the Agricultural Land Reserve by Agricultural Land Commission Resolution #357/2011 and designated C-5 by the Zoning Amendment Bylaw.*

- Other than the demolition and removal of buildings and structures, the owner is not to commence implementation of the Reclamation and Drainage Plan until it has been approved in writing by the District and the Agricultural Land Commission;

Key District Obligations under the Phased Development Agreement:

The majority of the obligations in the PDA lie primarily with the property owner, not with the District. In general, the District has a reactive role to play, with the owner required to take the lead on the conditions in the PDA, and the District to respond in a timely manner.

Should the PDA expire, which could occur as early as November 14, 2016, the current zoning on the lands would remain in place; however, the ALC approval would also have expired; therefore, the uses would be subject to ALR restrictions. If the Agricultural Land Commission extends the 5 year term of its approval the expiration date in the PDA would also be extended.

Under the terms of the PDA, the applicant has the ability to forward the plan to the ALC for review without Council direction. However, the owner may not commence implementation of the plan unless the plan has been approved in writing by the District and the ALC. Council's decisions regarding the implementation of the plan may be better informed once the ALC has made a decision whether or not to approve the plan and extend the deadline.

Committee of the Whole (June 27, 2016) Questions:

The discussion at Committee of the Whole raised several additional questions regarding the drainage and reclamation potential of the site. Staff has attempted to summarize these questions with the additional background information provided by the agrologist at the COW meeting and from the updated plan (unless otherwise noted) in order to provide responses with greater detail.

1. The source of soil for soil amendments in the plan is based on the soil available from the commercial site to the east. Does the amendment plan create restrictions for the amount of soil that can be used on the agricultural portion of the site?

Response: The proposed reclamation plan accounts only for the soils that will be removed from the commercial portion of the site. Staff notes that the District may have the opportunity to obtain soils from the Victoria Airport Authority (VAA) if the VAA chooses to develop the 40 acres of land they have designated for future business park uses. While the plan was prepared based only on the soils from the commercial portion of the Sandown site, modification could be made to accommodate the VAA soils in the future, which could potentially enhance the reclamation levels. There is currently no fixed date for the VAA soils, and any soil grading and distribution on site would be responsibility of the District.

2. The western forested portion of the site is not ideal for reclamation due to soil texture and the standing water at the surface. Reclamation of this area could increase the drainage flow from the property therefore this area is proposed to be kept to attenuate the water from the remainder of the property to minimize impacts to the existing drainage system. There are also currently two existing ponds which retain water on the site. Is there an opportunity to use these ponds for agricultural irrigation purposes?

Response: If the land levels surrounding the existing ponds are raised through the remediation process, the ponds may have the ability to retain more water and could have the potential to be used as a source for irrigation purposes.

Water retention in the northwest corner is necessary whether the land remains in its current state or with the introduction of a formal pond. The current state is not engineered nor has design work been undertaken for a formal pond. The drainage and reclamation plan suggests that leaving the northwest area in its current state would allow it to continue to attenuate flows and thereby not worsen existing drainage conditions downstream. Conversely, reclamation and draining of

lands in the northwest would have the potential to exacerbate flooding issues downstream without the provision of a formal stormwater retention pond.

The updated plan notes that three factors contributed to this area being identified as not ideal for reclamation: established nascent forest; excess soil moisture limitations to agriculture and inundation; and predicted impact of climate change and consequent downstream stormwater management. While it is possible to remediate this portion of the site, it would likely require a significant input of additional soil and would also require drainage studies and infrastructure improvements beyond the scope of the required drainage and reclamation plan.

3. There is a parking lot area on the site and also older internal site roads and buildings. Will ripping be required to reclaim these lands?

Response: Test pits were dug in the parking lot area. It is anticipated that the proposed para-tilling work would be sufficient and ripping will not be required for this area. Ripping is used where significant soil compaction has taken place. For example, if it is determined that the grandstands are to be removed, ripping would be required in the building footprint. However, the derelict stables are concrete footings with perimeter concrete pads, and are built on different soils so it is expected that any required soil disturbance will take place with normal excavation equipment when the building are removed; therefore, ripping will not be required in that location.

4. Clarification is sought regarding the south west treed portion of the site and the 10ha area identified in the Phased Development Agreement as unsuitable for reclamation. The proposed plan identifies approximately 13ha as unsuitable for reclamation, and this area extends north to beyond what would be described as the south west area.

Response: This area shows ponding water, which is indicative of a high perched soil and low decomposition rate. The plan has been updated to reflect the 10ha area exception provided in the PDA. The exclusion in the PDA applies to approximately 10ha, described as being in the southwest portion of the Agricultural Land; therefore, the proponent is not excluded from including the northwest portion of the property in the reclamation plan. The updated plan notes that due to drainage and climatic considerations the reclamation of the marginal clayey loam lands in the north and west of the property and an area surrounding Wsikem creek in the portion of the site is not recommended in order to maintain the forested hydrologic "buffer" area that currently favorably reduces the rate of water leaving the Agricultural Land into the Munro Rd. drainage.

Incidental grading of the soils beneath the stables, which would occur through works associated with their removal, could create a space suitable for specialty agriculture (such as greenhouses), However, additional amendments would be required to render the soils suitable for general agriculture, which could achieved with future soil importation from the VAA lands and would be beyond the scope of the proposed reclamation plan. These lands have been identified within the reclamation area in the updated plan. Please refer to Figure 1 below, obtained from the updated plan.

Figure 1: 10ha no-reclamation area

5. In addition to the previous question, clarification is also sought regarding the requirement for improvements in the northwest corner of the property. This land has not been identified for remediation.

Response: Staff has reviewed the PDA and the plan. The PDA does not specifically exclude the northwest corner, only the approximately 10ha portion noted in the previous question. The proponent has recommended in the plan that this area be kept in its current state for drainage purposes, however it has been identified as lands for 'potential future reclamation' in the addendum to the plan dated July 13th 2016. Please refer to Figure 2 below.

6. Clarification is sought regarding the methodology for the test pits.

Response: Six test pits were dug using a mini-excavator. The number of test pits is determined by investigation capacity limitations. Test pit distribution is based on a breakdown of the landscape into identifiable components, then representative areas are selected and subsequently samples are collected in the selected areas. These areas are fully excavated, and soil profiles are examined in detail. Approximately 25 additional test holes in other areas were dug using an auger and shovel method to confirm the consistency of the rest of the site with soil conditions in the test pits.

7. Clarification regarding agricultural suitability was requested.

Response: The plan provided a summary of the agricultural land capability classes 2 through 4. There are seven classes of land capability; based on the spectrum class 1 is the most suitable for the production of common agricultural crops whereas class 7 has no capability for arable or sustained natural grazing, but may be improved somewhat by draining or diking. There are also subclasses which can be assigned to each class of soil, to further refine the agricultural capability of the land in question on the basis of the type of limitation to agricultural use. The plan identified two of these subclasses, D (undesirable soil structure) and W (excess water). A copy of the ALC's Agricultural Capability Classification in BC is appended to this report as Attachment C.

8. There was discussion regarding the removal of the grandstands and their condition. Building removal requirements were requested.

Response: Buildings will be treated appropriately when the buildings are to come down. Platform is responsible for the cost of the removal of the buildings and any necessary abatements. The issuance of a demolition permit by the Building Department would be required in order to proceed.

9. There was question regarding discussions with local First Nations.

Response: Staff have advised the owners of the First Nations' desire to reclaim some of the salvageable wood.

Staff also notes that the Tseycum and the Paquachin were invited to participate in the Vision Sandown community engagement process.

10. A question was raised regarding the retention of the Old Oak tree.

Response: The Randall family has an expectation that the Oak tree in the center of the racetrack will be preserved and protected with a covenant as it is of significance to the family. The tree is identified in the District's OCP as a Significant Tree.

11. A question regarding the impacts of climate change was raised.

Response: The updated plan addresses this question with respect to the northwest corner of the site. The addendum advises that the impact of changing precipitation trends (less summer rain and more winter rain) and the use of marginal lands (clayey loam at surface as opposed to silt loam soil composition is more difficult for farm machinery to traverse) was considered in balance with the downstream stormwater infrastructure. As a result the plan states that even if tilled and amended with available materials to improve drainage, the western portion of the Agricultural Land would have a soil structure limitation that could limit machine access during the planting and growing season until drought conditions drained the excess water.

12. There was mention of the possibility of three springs located on the property.

Response: The updated plan determines that these are not springs, rather they are groundwater upwellings due to the limited depth of the soil materials which are of low-permeability and the limited subsurface movement of water. They are identified as a consequence of a near surface perched water table and may not present at surface if the final grade is elevated in these localized areas, and lateral movement of groundwater is improved through paratilling.

The majority of the concerns heard at the June 27th COW meeting were related to the potential for reclamation of the northwest corner of the property. The updated plan speaks specifically to this area, noting that the lands can be reclaimed for agricultural purposes; however, this would require work outside the scope of the PDA, including the following:

- Amendment of the PDA;
- Suitable agricultural, primarily sand, soil for fill, which may trigger a Fill Assessment under the ALC Act;
- On site drainage and retention infrastructure that would reduce the amount of viable agricultural land to be gained;
- An integrated stormwater management plan for municipal infrastructure in the area;
- A farm plan to establish the cost of implementation versus anticipated yield.

Staff notes that an amendment to the PDA may not be required and that a farm plan, while a prudent decision, would not necessarily be required. Once Council has determined the specific future uses on the site, and the future governance model (such as a lease), the process to reclaim the lands to levels above the requirements of the PDA and the ALC could then be established.

Figure 2, below provides an updated version of the reclamation and drainage site plan, which includes the approximate location of the 10ha portion of land not proposed for reclamation and two new areas to undergo paratilling and grading for reclamation towards specialty agriculture and future reclamation by the District.

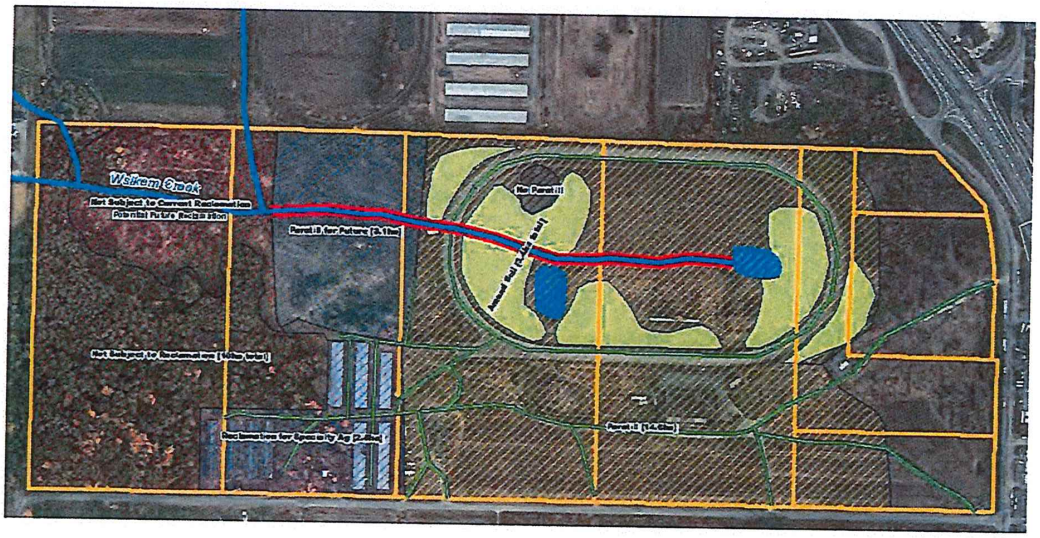


Figure 2: Updated Reclamation Plan

The updated plan also includes a more detailed reclamation timeframe, which anticipates a total of approximately 10 months of time required to achieve the proposed recommendations:

Activity	Estimated Time Required	Running Total, including seasonal-window operational delay
Demolition and removal of material	2 mo	2 mo
Re-grade of Site with amended fill	Up to 6 mo	8 mo
Tilling	Up to 2 mo	[concurrent] 8 mo
Cover Crop and Fallow, ploughing-in organics bi-annually to be undertaken by the DNS as an agricultural practice.	-	-

Table 1: Reclamation timeframe

Future Land Uses:

At the June 27th COW meeting, Council received the final Vision Sandown report prepared by the CRFAIR consultant. Although Council has not yet directed staff to undertake an assessment of the recommendations in that report, there are some options which are easy to implement, there are also several elements of the Vision Sandown plan which are well beyond the scope of the Agricultural Land Reclamation and Assessment and Preliminary Drainage Plan and beyond the requirements of the Agricultural Land Commission. This report also indicates a desire to maintain some of the existing conditions and feature of the property. However, proposed uses are compatible and would be achievable with additional improvements which the District could choose to undertake in the future, after the specific site uses and future governance model have been determined.

Additionally, a stormwater management plan will be required when the owners make application to subdivide the commercial portion of the property from the agricultural portion.

Agricultural Land Commission:

The ALC has advised that only following a review of the drainage and reclamation plan could they consider an extension to their deadline, and for how long. Their extension would in turn extend the length of the PDA, limited by the 10 year maximum term in the PDA. A copy of the ALC's decision regarding the inclusion/exclusion application is appended as Attachment D.

ALC conditions of approval for the exclusion/ inclusion required the following related to the drainage and reclamation plan:

- The engagement of a professional agrologist or otherwise qualified professional to oversee the implementation of the reclamation and drainage plan for the subject lands and ensure that all soils used to rehabilitate or improve the land are of appropriate quality.

- The engagement of the Agricultural Advisory Commission to review the agrologist report and site development plans to ensure the benefits to the agricultural community are realized.

- The approval by the Commission (ALC) of a reclamation and drainage plan prepared by a professional agrologist or otherwise suitably qualified professional for the consolidated parcel and the parcel proposed for inclusion to return the lands to a state suitable for agricultural purposes. The plan would include the removal of the abandoned racetrack buildings and structures, stockpiling and utilization of the topsoil from the land to be excluded to assist in the reclamation of the proposed consolidated parcel and the land to be included, and ensuring of proper drainage on and from the property. The plan would also include estimated timelines and, if appropriate, a phased approach to reclamation.

  (Staff note: the District has not yet determined which buildings will be retained on the site, as specific future uses have not been decided. Without any Council discussion to retain specific buildings, all existing buildings would be removed. The Vision Sandown consultation is complete, however an assessment of the land use options and possible governance models has not yet been conducted.)

- That the source of any soil being added to the subject properties be inspected to ensure it is not contaminated and meets standards for agricultural use.

OPTIONS:

Council can:

1. Accept the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016 & July 13th, 2016); OR

2. Not accept the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016 & July 13th, 2016); OR

3. Other.

FINANCIAL IMPLICATIONS:

Regarding the drainage and reclamation plan this is the responsibility of the owner.

In addition to the significant agricultural opportunities that will be created through the transfer of this land to the District there will be increased revenues from taxation and from the cell tower lease located on the property.

In 2012 a financial benefit analysis was completed as part of the rezoning process:

Value of 83 acres of agricultural land	$2.4 million
Value of 10 years net new tax revenue & leases (less costs of improvements)	$1.47 to $2.3 million
Total anticipated benefit over ten years	**$3.87 to $4.7 million**

The cell tower located on the eastern edge of the agriculturally zoned portion of the site generates revenue in the range of $35,000 to $40,000 annually. Leases and renewal options are in place to the mid 2030's.

LEGAL IMPLICATIONS:

None identified at this time.

CONSULTATIONS:

The plan was referred to the Community Planning Commission (CPC) at their June 15th, 2016 meeting. The CPC recommended forwarding the plan to the Agricultural Land Commission. Please refer to the staff report dated June 16th, 2016 (Attachment A) for a copy of the minutes of the meeting.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

The Infrastructure Services department also reviewed the Agricultural Land Reclamation and Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd and this report has been circulated to the Directors for review.

SUMMARY/CONCLUSION:

The owner has submitted the plan and its addendum to the District for review and acceptance. This ensures that Council is aware of the proposed plan allowing the process to remain

transparent, and the submission of this follow up report provides additional information sought by Council in response to their concerns and concerns identified by the public. Under the terms of the PDA the applicant can forward the plan to the ALC for review without a Council process. However, the owner may not commence implementation of the plan unless the plan has been approved in writing by the District and the ALC. Council's decision regarding the implementation of the plan may be better informed once the ALC has made a decision whether or not to approve the plan and extend the deadline.

Based on the PDA requirements, and the recommendation of the Community Planning Commission, staff recommend that Council accept the agrologist's plan.

Respectfully submitted,

Anne Berry
Director, Planning & Community Services

Concurrence,

Rob Buchan
Chief Administrative Officer

Concurrence:

Theresa Flynn, Director Financial Services

Eymond Toupin, Director Infrastructure Services

Curt Kingsley, Director Corporate Services

John Trelford, Director Emergency Services

Attachments:

A. Staff report dated June 16, 2016 (including the original Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd. Dated May 30th, 2016)
B. Updated Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd. Dated July 13th, 2016
C. Agricultural Land Commission Agricultural Capability Classification in BC
D. Agricultural Land Commission Decision 52454 & 52455 (inclusion/exclusion)

Attachment A

District of
North Saanich

STAFF REPORT

To: Rob Buchan
Chief Administrative Officer

Date: June16, 2016

From: Anne Berry
Director of Planning and Community Services

File: 3360-20-2011-03

Re: Sandown Site Drainage and Agricultural Reclamation Plan

RECOMMENDATION(S):

That Council:

1. Receive the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd (dated May 30th 2016) for information; and

2. Accept and forward the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016) to the Agricultural Land Commission for review and acceptance; and

3. Recommend the Agricultural Land Commission grant an extension to the November 14, 2016 expiration date for ALC applications 52454 and 52455.

STRATEGIC PLAN IMPLICATIONS:

This matter relates to the following Council strategic priorities:

Protect and Enhance Rural, Agricultural, Heritage, Marine and Environmental Resources

Ensure Strong Leadership, Fiscal Responsibility and Transparent Government

Council's Strategic Plan supports the District's commitment to protect its rural, agricultural and heritage roots and lifestyle, and calls for progressive leadership, service excellence, and outstanding stewardship of public assets.

INTRODUCTION/BACKGROUND:

In 2014, Council adopted a bylaw to authorize a Phased Development Agreement (PDA) for a commercial development on the western portion of the former Sandown Raceway site on Glamorgan Road. This was a complex process which required Agricultural Land Commission (ALC) approval as the proposal involved the exclusion of the commercial site, and the inclusion of additional land to the Agricultural Land Reserve (ALR) in order to ensure there was no net loss to the reserve. As a result, the ALC's approval was conditional upon various criteria, one of which was the requirement that the developer engage an agrologist to prepare a drainage and agricultural reclamation plan for the remaining 83 acre agricultural portion of the Sandown Raceway site.

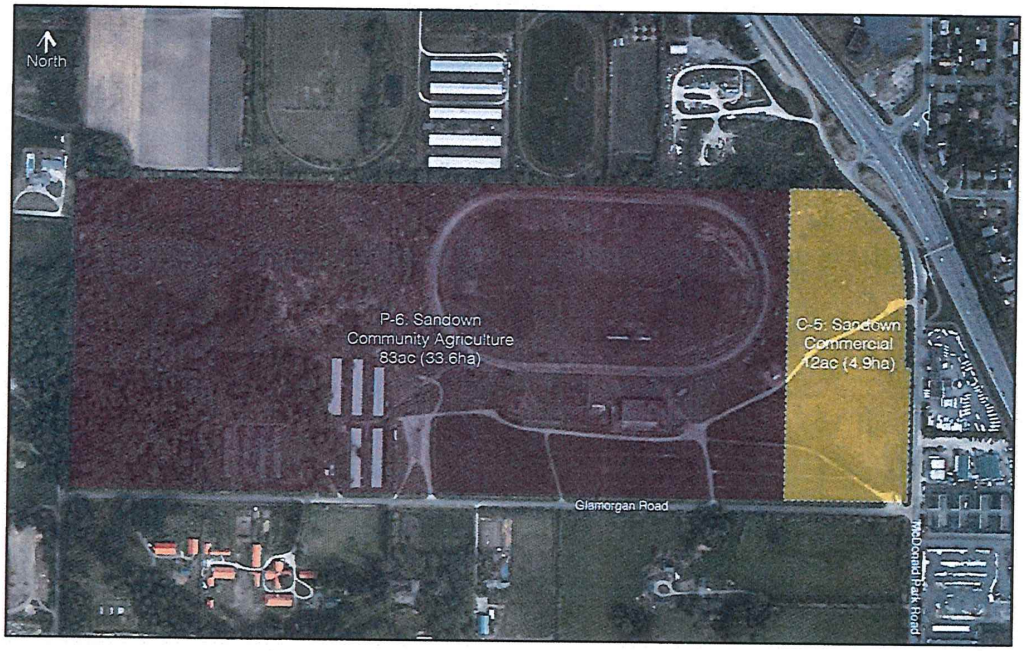


Figure 1 – Sandown Site

DISCUSSION:

The developer retained Madrone Environmental Services Ltd. to conduct an assessment of the site and to prepare the plan. The proposed Agricultural Land Reclamation Assessment and Preliminary Drainage Plan (the Plan) is appended as Attachment A. The PDA requires that the reclamation plan be reviewed by the District's Agricultural Advisory Committee (now part of the Community Planning Commission) prior to being forwarded to the ALC for review and approval. The Community Planning Commission reviewed the Plan on June 15, 2016.

Per the requirements of the PDA, the plan is intended to focus on drainage and agricultural improvements for the agricultural portion of the site and is not intended to include the commercially zoned portion. Drainage for the commercial site will be addressed separately as part of the subdivision of the property when the commercial development proceeds. Specific agricultural uses for the site are yet to be established, therefore the reclamation plan is intended to improve the agricultural capability and the drainage on the site to a general agricultural standard, per the conditions of approval required by the ALC, without consideration of any pre-determined agricultural uses.

The report has identified excess free water to be the primary limitation to agriculture and notes that the central part of the site is the most suitable area for reclamation. As such the plan has focused on this area for reclamation and drainage improvements.

Key recommendations from the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd:

The Phased Development Agreement identified that the approximately 10ha portion of the south west corner of the site be excluded from the requirement to prepare a reclamation plan for those lands. Upon Madrone's review of the site conditions, the area that has been identified in the Plan

as unsuitable for reclamation to the minimum land capability requirements of the ALC is approximately 13ha in total, which is a 3ha difference from the PDA.The report states that excess soil moisture is the main limitation to agriculture on the property. Methods of soil reclamation proposed, include a combination of paratilling, ripping, soil amendment and site grading techniques depending on site location and soil conditions. Figure 2, below, illustrates the recommended reclamation methods.

The proposed methods of soil reclamation are considered to be mechanisms which will in turn improve the drainage in the reclaimed area as they are intended to assist in improving the excess free water limitations that currently exist in that area. Two existing ponds which drain to Wsikem Creek are proposed to be maintained. Limited re-activation of Wsikem Creek in the proposed reclamation area, through removal of excess vegetation and silt-dredging, is recommended to ensure that there is sufficient gradient to transport any excess water from the reclaimed agricultural lands. The nascent forest and marsh lands immediately adjacent to the creek would be retained and intended to provide stormwater detention.

The report suggests that if the recommendations for mitigating limitations to agriculture are implemented there is no anticipated material change in off-site storm water peak flow volume. However, an engineering analysis of the site hydrology and hydraulics, including assessment and quantification of runoff, regrading requirements, existing and future conveyance capacity of the creek within the site, on-site stormwater storage capacity, and constraints to discharge (elevation and quantity) from northwest portion the site were not completed as part of the plan.

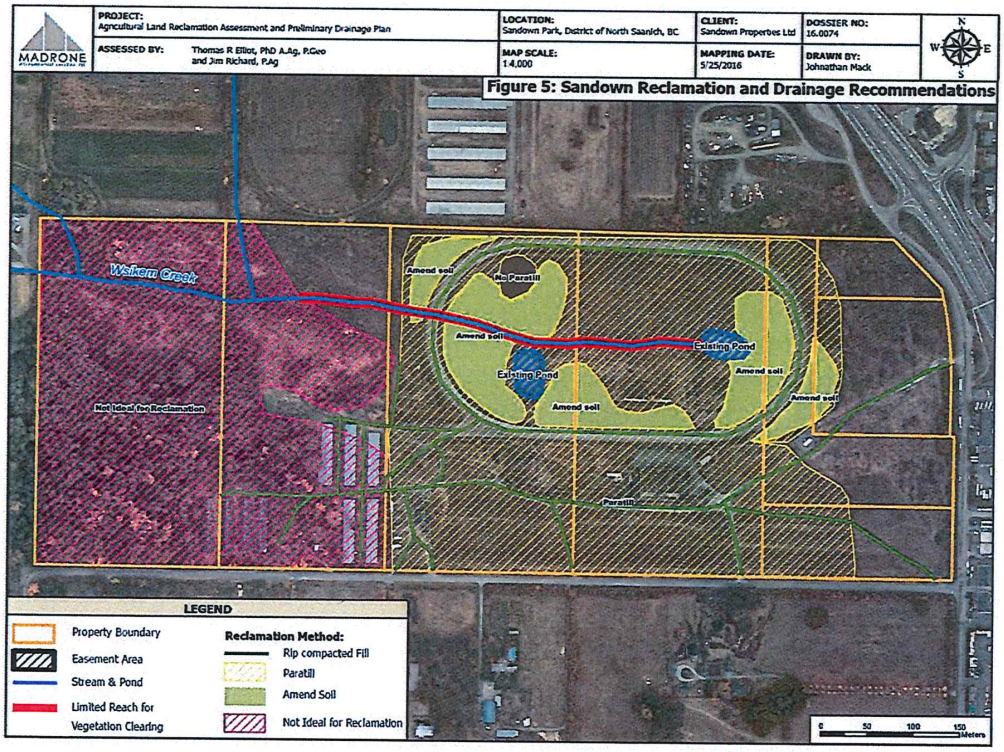


Figure 2 – Sandown Reclamation and Drainage Recommendations

ALR inclusion/exclusion timing considerations

The Agricultural Land Commission required various obligations to be completed, upon which their approval was conditional. One such requirement is that the exclusion and inclusion of the lands in the ALR must be completed within five years of their approval. The five year expiration will occur November 14, 2016 unless the ALC grants an extension. Staff have received correspondence from the ALC advising that the that the Commission would be willing to consider extension of the completion deadline after considering the professional agrologist's reclamation report required under decision condition #3. Only following review of the professional assessments and recommendations in this report would the Commission be in a position to consider if it would be appropriate to extend the time limit for completion of the conditions of approval, and for what length of time.

ALC approval of an extension of the expiration date will in turn extend the expiration date of the PDA, thereby allowing the developer the opportunity to continue to meet the terms of the agreement in order to subdivide and develop the commercial portion of the site, and allowing the District to continue its process to establish the future site uses and governance model for the Sandown agricultural lands.

Future site uses:

The District has recently completed the Vision Sandown consultation process that was undertaken in order to assist Council in determining the future specific agricultural uses and governance model for the Sandown site. Once Council has reviewed the final report prepared by the consultant, Council will then be able to direct staff as to preferred options for the site.

OPTIONS:

Council can:

1. Receive the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd (dated May 30th 2016) for information; AND

2. Support and forward the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016) to the Agricultural Land Commission for review and acceptance; AND

3. Recommend the Agricultural Land Commission grant an extension to the November 14, 2016, expiration date for ALC applications 52454 and 52455; OR

4. Not forward the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016) to the Agricultural Land Commission for review and acceptance; OR

5. Other

FINANCIAL IMPLICATIONS:

None identified at this time. The soil reclamation and drainage improvements recommended in the Plan to return the site to a state suitable for general agricultural purposes are to be undertaken by the developer, per the conditions of the Phased Development Agreement. Should Council wish to see a further degree of reclamation undertaken once the final specific agricultural uses have

been determined, any additional costs that may be associated as a result would be borne by the District as those works would exceed the scope of the requirements in the PDA.

LEGAL IMPLICATIONS:

None identified.

CONSULTATIONS:

The District's Community Planning Commission reviewed the report at their June 15th, 2016 meeting where they passed the following motion of support for the plan and recommended it be forwarded to the Agricultural Land Commission:

MOVED BY: I. Wight

SECONDED: A. Osborne

18-CPC The Community Planning Commission recommends that Council:

1) support the agricultural reclamation and preliminary drainage plan prepared by Madrone Environmental Services in their Agricultural Land Reclamation Assessment and Preliminary Drainage Plan (dated May 30th, 2016); and
2) forward the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan to the Agricultural Land Commission for review.

CARRIED

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

The Infrastructure Services department also reviewed the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan prepared by Madrone Environmental Services Ltd, and this report has been circulated to the Directors for review.

Infrastructure Services recommends that once the Vision Sandown process is complete and more specific agriculture uses are determined for the site, an engineering assessment of the site drainage should be completed to review site hydrology and hydraulics, including quantification of runoff, site regrading requirements, existing and future conveyance capacity of the creek within the site, on-site stormwater storage capacity, and constraints to discharge from the site.

SUMMARY/CONCLUSION:

As the proposed the Agricultural Land Reclamation Assessment and Preliminary Drainage Plan meets the scope of the requirements per the Agricultural Land Commission and the Phased Development Agreement, staff recommends that Council accept and forward the Plan to the Commission for review and acceptance, and additionally that Council recommend the ALC grant an extension to the expiration date associated with their conditions of approval.

Respectfully submitted,

Anne Berry
Director, Planning and Community Services

Concurrence,

Rob Buchan
Chief Administrative Officer

Concurrence:

Theresa Flynn, Director Financial Services

Eymond Toupin, Director Infrastructure Services

Curt Kingsley, Director Corporate Services

Gary Wilton, Director Emergency Services

Attachment A: Agricultural Land Reclamation Assessment and Preliminary Drainage Plan report prepared by Madrone Environmental Services Ltd (dated May 30th, 2016)

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AGRICULTURAL LAND RECLAMATION ASSESSMENT AND PRELIMINARY DRAINAGE PLAN

Sandown Park
District of North Saanich, B.C.

FOR:

Sandown Properties Ltd.
c/o Platform Properties Ltd.
900-1200 West 73rd Ave
Vancouver, BC V6P 6G5

BY:

Thomas R. Elliot, PhD A.Ag P.Geo
Jim Richard, HBES, P.Ag

May 30, 2016

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AGRICULTURAL LAND RECLAMATION AND DRAINAGE PLAN- PRELIMINARY ASSESSMENT

Sandown Park
District of North Saanich, B.C.

1 Introduction and Synopsis

Madrone Environmental Services Ltd. (Madrone) was retained by Sandown Properties Ltd. (Sandown) to assist in development of an agricultural land reclamation and drainage plan for the Sandown Park property – located within the Agricultural Land Reserve (ALR), in the District of North Saanich, B.C. (the 'property' or 'site', see Figure 1).

The Sandown property is required to be reclaimed to a state suitable for general agricultural purposes, according to the Agricultural Land Commission and a phased development agreement (PDA) with the District of North Saanich (DNS). In this report, "to a state suitable for general agricultural purposes" is interpreted as a land capability suitable for general agricultural production of standard rotation crops (i.e. non-specialty produce).

The primary limitation to agriculture on the farmable portion of the site is excess free water during the winter months, which remains until early to mid-spring and forces later seeding. Occasional periods of excess water can also occur during the crop growing period. The excess free water condition can also result in delayed and/or reduced crop yield, as well as loss due to moisture-related damage of standard rotation crops.

Reclamation of Sandown agricultural land "to a state suitable for general agricultural purposes" may involve:

(i) demolition and removal of abandoned racetrack buildings and infrastructure deemed to be of no further beneficial future use;

(ii) a three-stage plan to improve drainage that includes:
   a. stockpiling and management of topsoil stripped from the commercially zoned 5.0 ha along the east side of the property;
   b. paratilling to incorporate stocked topsoil on limited areas of the site as a soil amendment, at the rate and location determined by land capability for agriculture assessment; and,
   c. paratilling of larger limited areas of the site to improve infiltration and surface drainage.

(iii) Clearing of vegetation overgrowth from specific sections of the existing main drainage ditch.

The above stated activities will mitigate existing limitations to agriculture and improve the agricultural capability class for the areas considered suitable for reclamation.

1.1 Project Background

Sandown Park is an approximate 38-hectare (ha) land assemblage in the ALR, comprising eight separately-titled parcels. The property has a decades-long history of former use as a horse race-track operation, but as that land use ended several years ago, the property now lies dormant.

Sandown – owner of Sandown Park – seeks to redevelop the property. In conjunction with Platform Properties Ltd. (Platform) and the DNS as redevelopment partners, Sandown has entered into a PDA whereby the undeveloped, easternmost approximate 5.0 ha of the property next to Highway 17 has been excluded from the ALR, and rezoned for commercial use and development.

In exchange for retaining the commercial parcel under Sandown ownership, the remaining approximate 33 ha of agricultural Sandown land is to be turned over to the DNS for agricultural use[1]. Agricultural reclamation and redevelopment of Sandown's remaining 33 ha lands "to a state suitable for agricultural purposes" is a specific condition of the 2011 decision by the Agricultural Land Commission (ALC), to exclude the easternmost 5.0 ha from the ALR, for commercial development by Sandown and Platform. The ALC furthermore specifies the condition that a formal reclamation and drainage plan is to be developed for the remaining 33 ha agricultural lands.

[1] Resolutions #357/2011 and #383/2011; Agricultural Land Commission, Burnaby B.C., October 26, 2011.

Madrone accordingly provides this assessment of current site agricultural land conditions, focusing on land capability for agriculture, documentation of existing drainage conditions, and a preliminary plan for agricultural reclamation and drainage works on the property.

1.2 Madrone Scope of Work

Madrone's scope of work for this initial assessment of the Sandown Park agricultural lands project and report, as developed through discussions with Sandown and Platform in consultation with DNS, includes the following:

Task 1. Data Compilation - desktop mapping and background data compilation/review, including climatic data, published soils inventory and agricultural land capability mapping, existing surface hydrology features and management infrastructure, processing/review of a LIDAR survey dataset provided to Madrone by Platform and DNS;

Task 2. Site Inspection and Land Capability Assessment for Agriculture (LCA) – completion of a site 'walkover' inspection to visually confirm property boundaries, existing infrastructure and general physical conditions on Sandown Park, to inform the development of an agricultural land reclamation and drainage plan that will guide agricultural usage on the property, including:

- visual inspection of existing property drainage conveyance and off-property drainage discharges, to inform Site drainage plan as may be required;
- LCA field work, using soil test-pitting to ground-truth the characteristics and distribution of soil polygons within the Sandown property, and to confirm ratings for unimproved and potential improved agricultural capabilities, but excluding:
  - the easternmost 5.0 ha slated for commercial development, and
  - the forested southwestern upland area consisting in part or totality of the approximate 25 acres [10 ha] of treed area identified in the PDA

Task 3. Preliminary Report - Agricultural Land Reclamation and Drainage Plan – describe LCA and site inspection results for integration to a preliminary agricultural reclamation and drainage plan for the remaining 33 ha of agricultural property; submit to Sandown, Platform and DNS for draft review.

Task 4. Final Report – Incorporate revisions and comments from Platform and DNS; prepare final document and figures for submission to DNS and ALC by Platform.

1.3 Site Description – Zoning and Land Use

The Sandown Park property currently consists of eight separately-titled parcels, which are detailed below in Table 1. The property is situated within Development Permit Area 2 (Significant Water Resources), and Area 5 – Commercial/Industrial[2]. The agricultural lands are currently zoned by the DNS as P-6 (Exhibition), while the commercial lands are zoned C-5 (Sandown Commercial). Property parcels are individually identified in Figure 1, attached.

Table 1 – Legal description of Site lots, Zoning and DPA

PID	Legal description	Zoning	DPA
005880289	Sec 14, Rge 2E, Area 6103, Lot 2	Exhibition 6 – Agricultural	-
005880386	Sec 14, Rge 2E, Area 6103, Lot 3	Exhibition 6 – Agricultural	-
003692248	Sec 14, Rge 2E, Area 6103, Lot 4	Exhibition 6 – Agricultural	2
005880505	Sec 14, Rge 2E, Area 6103, Lot 5	Exhibition 6 – Agricultural	2
005880670	Sec 14, Rge 2E, Area 6103, Lot 6	Commercial 5	5
005880751	Sec 14, Rge 2E, Area 6103, Lot 7	Commercial 5	5
005880548	Sec 14, Rge 2E, Area 6103, Lot 8	Commercial 5	5
009422021	Sec 14, Rge 2E, Area 6103, Lot REM	Commercial 5	5

The Sandown property is presently dormant, insofar as formal agriculture use is concerned. It is understood however, that some small-scale *ad hoc* public use occurs from time to time, with the permission of Sandown.

Historical development and agricultural use of the Sandown property was focused primarily on horse and harness racing, using the main racetrack oval and facilities that still dominate the site.

Fourteen building groups and/or structures reportedly remain on the site[3], in various states of repair. These include a grandstand and paddock building immediately south of the racetrack, other viewing stands, photograph towers, scoreboards, short-term

[2] From http://northsaanich.geocortex.com/NorthSaanich/Index.html?viewer=public accessed march 24th 2016

[3] Stage 1 Preliminary Site Investigation, 1810 Glamorgan Road, North Saanich, British Columbia; by PHH Arc Environmental Ltd., July 27, 2011.

accommodations (i.e. non-permanent dwellings), farm equipment shelters, paddocks, stables and processing areas that are typical of a full-time horse racing operation. The southern portion of the site [from west to east] features forest-lands in the south-western quarter, barns, temporary housing and equipment storage, a caretaker residence, and open grass fields that were used for occasional parking (now somewhat compacted as a result).

An abandoned second racetrack remains present in the northwestern part of the site, which historically was used as a warm-up track. Built of apparently simpler construction with a lesser amount of land-alteration impact compared to the main racetrack[4], this second racetrack oval is now largely obscured from view (except in aerial photographs or imagery) by natural vegetation and tree re-growth that has largely reclaimed this part of the Sandown property.

1.4 Physical Background

1.4.1 Climate

Climate data covering the Sandown property is available for the 30-year period from 1981 to 2010[5], as recorded by the Victoria International Airport climate station, located approximately 1 km south of the property at an elevation of 19.5 m above mean sea level. Historical mean annual precipitation is 845.3 mm, and the daily average temperature is 10.0°C. The annual number of degree days above 5°C (GDD), used as a heat-index for predicting crop development, is 2008.7. The GDD value is a relatively high heat index, indicating no restriction to crop development.

The nearest climate station used by the Ministry of Environment in the Climatic Capability Classification for Agriculture in BC report is the Saanichton station. The Climatic Moisture Deficit (CMD) – the difference between growing season precipitation and evapotranspiration – is -202mm, which places it in Moisture Class 4a (CMD of -191 to -265mm), improvable to Climatic Class 1. Class 4 aridity limitations indicate drought or aridity between May 1 and September 30 (the growing season), which result in moisture deficits that are moderately limiting to plant growth. Aridity limitations can be improved to Class 1 using irrigation, as it is less than a 40 mm climatic moisture deficit. A thermal class 1 rating has frost-free period in excess of 150 days (coastal areas), with Saanichton reporting 226 days.

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[4] Fraser Randall, *pers. comm.* on-site as representative/part owner of Sandown Properties Ltd.

[5] http://climate.weather.gc.ca/climate_normals/index_e.html. Victoria Int'l Airport Climate Normals. Accessed March 30, 2016

1.4.2 Landform and Topography

The topography of Sandown Park is level to gently rolling. Ground surface elevations climb toward the southwestern quarter of the property, with the highest elevation of just over 20 metres above sea level (masl) occurring along the southwestern property boundary. The central and eastern portions of Sandown Park are situated at approximately 10 masl; lowest elevations of approximately 8 masl occur near the northwest property corner. Slopes gradients over the property generally range from 0% to 5%. Topographic contours are illustrated on a 1 m interval basis in Figure 3, attached.

1.5 Published Soils Maps and Information

Glacial and post-glacial parent soil materials that underlie the general Sandown Park area are described in detail in the Resource Atlas of the adjacent Municipality of Central Saanich Resource Atlas. Huntely *et al.* (1998) mapped the surficial geology of the area as largely comprising glaciomarine deposits, and described as suspension and submarine gravity flow deposits of silt, clay, diamicton, and sands with minor gravels.

Soils of the North Saanich area and Sandown Park have been mapped by the B.C. Ministry of Agriculture. According to previous 1:100,000 scale mapping conducted by Jungen (1978 - Map Sheet R11-984), the central and western portion of the property are predominantly covered by the Cowichan soil series, with lesser areas of Parksville, Tolmie, Metchosin and Qualicum soil series. The southwestern corner of Sandown Park is overlain by Metchosin and Qualicum soil series, which directly corresponds with the presence of forested uplands. The soils are derived from similar parent materials, though the Parksville soils tend to be more clay-rich.

The soil series present on the site are described below in Table 2, and are outlined as mapped by Jungen (1978) in Figure 2, attached.

Table 2 – Published Soils on Sandown Park

Soil Series	Parent Material	Texture & Drainage	Topo-graphy	Predominant Classification	LCA Rating (Unimproved)
Parksville	Glaciomarine and fluvial (silt loam-sand) deposits.	Sandy loam or loamy sand. Poorly drained; seasonally high perched water table	Level to gently rolling	Orthic Humic Gleysol	3W
Cowichan	Marine (clay, silty clay loam) deposits.	Silty clay loam or silt loam. Poorly drained; perched WT.	Level	Orthic Humic Gleysol	4W

Soil Series	Parent Material	Texture & Drainage	Topo-graphy	Predominant Classification	LCA Rating (Unimproved)
Tolmie	Stratified glaciomarine (silt, clay)	Clay loam deposits. Poorly drained; seasonally high perched water table.	Level to gently rolling	Orthic Humic Gleysol	3W
Metchosin	Decomposed organics.	Well decomposed organic deposits. Very poor drainage with high water table.	Level	Typic Humisol	5W
Qualicum	Fluvioglacial or marine deposits.	VG sandy loam to VG sand fluvial	Level to gently rolling.	Orthic Dystric Brunisol	3A

1.6 LCA classes

A brief description of the agricultural capability limitations classes encountered on site are as follows:

Class 2 – minor limitations that require ongoing management or slightly restrict the range of crops, or both;

Class 3 – limitations that require moderately intensive management practices or moderately restrict the range of crops, or both;

Class 4 – limitations that require special management practice or severely restrict the range of crops, or both.

The main types of agricultural capability limitations encountered on site are:

W – Excess water limits agricultural use, typically resolved through ditching, tilling and drainage systems;

D – Undesirable soil structure and/or low perviousness results in soils that are difficult to till, requiring special management for seedbed preparation and soils that are difficult to traverse with machinery. This limitation type includes soils that have insufficient aeration, slow perviousness or other root restrictions. Undesirable soil structure is typically resolved using soil amendment, deep tillage or blading (ripping) to break up undesirable structure.

2 Sandown Park Site Inspection and Observations

Sandown site observations described below were recorded by Madrone's Thomas R Elliot, who attended the Sandown property on March 21st 2016. Site observations and soil classification ground-truthing investigations were completed over an approximate 5-hour period, including test-pitting by a rubber-tired backhoe to excavate six soil test-pits. Soil textures and types were logged in test-pits SP01 through SP06, locations of which were marked by GPS in the field. As Sandown and Platform had indicated, the easternmost 5.0 ha excluded commercial land and the forested uplands in the southwest quadrant were not to be covered by Madrone's work, so no sampling occurred in those zones.

Madrone's soil test-pit locations are illustrated in Figure 3, attached. Soil profiles observed in test-pits SP01 through SP06 are described in logs contained in Appendix A. The soils are further discussed in the context of our Land Capability Assessment, below in section 3. Site photographs of representative conditions on Sandown Park are contained in Appendix B.

Drainage features and other general soil conditions on Sandown Park were also observed during Madrone's March 21st 2016 inspection, and are summarized hereunder:

- excess free water was present on ground surface across the central, northern and western portions of the site;
- evidence of significant excess free water at surface which floods the paddock and grandstand areas; only a moderate amount of excess free water was directly observed in the central area;
- two open-water ponds are present inside the main racetrack, and are connected by an east-west central drainage channel (Wsikem Creek) that flows west-northwesterly through the low-lying portion of the property's northwestern quadrant, discharging off-site into a municipal roadside ditch along Munro Road;
- significant disperse surface areas within the property (~10% of total land area) are covered by compacted imported fill (reportedly crushed limestone) used to construct vehicle laneways, and to create the structural bed of the main racetrack;
- the extensive grass field/occasional parking area occupying the southern portion of the Site which has been compacted through casual use;

2.1 Soil Test-Pit Observations – Comments by Thomas Elliot

I oversaw excavation of six test-pits, the locations of which were considered to be most representative of site conditions, combining surface expression of water table, terrain, vegetation and land-management practices.

Detailed observations of soil properties were noted for each soil pit, including soil texture, drainage, consistency, structure, colour, horizon classification and thickness, and evidence of gleying or mottling.

Based on my soil profile descriptions, I compared site soils to soils described in the Soils of the Vancouver Island – Map Area 92B/NW; 92G/4 (Jungen, 1978). From my assessment, I identified one soil type on the property that I classify as Orthic Humic Gleysol. The Orthic Humic Gleysol directly correlates to the 1:100,000 scale mapped polygons of Parksville, Cowichan, and Tolmie soil series, although the latter was not directly observed. Mapped soil classification units and characteristics are summarized below in Table 3.

Within test pits SP03 & SP04, I encountered relict drainage tiles at 25cm and 100cm depths below grade, respectively. The drainage tile at 100cm depth was also overlain by 20 – 30cm of imported fill on surface, indicating an original installation depth of 70 – 80cm. The drainage tiles in both test-pits appeared to be no longer functioning, due to insufficient gradient and/or insufficient freeboard above the perched seasonal water table.

2.2 Site Drainage Observations – Comments by Thomas Elliot

During my site visit there was extensive standing water at surface in the central, north and western portions of the site, the area of which roughly corresponds to the Cowichan soil series mapped in Figure 4. I observed one main drainage channel running from the center of the property to the northwest, with one main tributary contributing from the north.

The central grandstand had standing water along the southern edge of the concrete foundation, which in places filled existing shallow ditching that are in place along the periphery.

I observed standing water against the southeast and east bermed edge of the central race track on the eastern-most exterior. In addition to the two ponds within the interior of the same track, I further observed water at surface, which increased in extent as I approached the western edge of the track. A drainage channel (Wsikem Creek), overgrown and

partially obstructed by vegetation, connects the two ponds with the western edge of the track, wherein it travels through a culvert.

Immediately west of the track, where the culvert emerges, Hawthorne thicket grew from small depths of standing water in low lying areas. A 70 – 100 cm excavated drainage ditch was present, albeit overgrown, which held water below surface grade – meaning that the water level in the ditch was lower than the standing water at surface. This observation is largely indicative of soil conductivity.

The abandon historic track, comprising much of the west and northern portion of the property, was found to be inundated with minor amounts of standing water at surface and a fine-textured silt and organic rich surface material. The area was generally overgrown with Hawthorne, dogwood, and other wet-environment specialist species. Some internal pathways that had evidence of occasional use were present through the overgrowth. One tributary ditch coming from the north connected with Wsikem Creek within the historic track – where it too was moderately overgrown. This portion of the property is outside of the heavily treed upland area not required to be reclaimed under the PDA, however it would require extensive redevelopment for general agricultural use and is not ideal for reclamation.

South of the historic track was an extensive sedge and clump-grass marsh, which was soft to walk on whereas other areas were found to be slick from silt, yet firm, under foot. Machine traffic would be highly restricted in this area.

Other areas not mentioned in these observations either demonstrated very minimal or no excess free water at surface, with no significant drainage infrastructure apparent.

3 Land Capability Assessment for Agriculture

An agricultural Land Capability Assessment (LCA) was completed by Madrone's Thomas Elliot, to confirm current baseline conditions on Sandown Park, relative to published conditions.

Under a LCA, agricultural capability classes are subdivided into subclasses where limitations to agriculture are found to exist. There are twelve subclasses for mineral soils and nine subclasses for organic soils, and are outlined in Appendix C in greater detail.

Combining the soil profile descriptions presented in Appendix A, together with an evaluation of moisture regime, and observed limitations to agriculture, the LCA (per

Kenk, 1983) for Sandown Park is described below, and is illustrated in summary form on Figure 4, attached.

3.1 Primary LCA Limitation

The dominant soil limitation on the Sandown property is a seasonally- perched water table at an agricultural limitation class 3W (See section 1.6), which creates the major condition of insufficient drainage, in the silt to clay loam textures where observed (see Table 3).

A seasonally perched water table was evidenced by the presence of free water, and by mottling and gleying of the subsurface soil profile. There was no indication on the March 31 inspection day that soils around test-pits SP03 & SP04 were regularly affected by excess free water at or near surface (i.e. 5W conditions). However, test-pit SP05 demonstrated free-flowing water within the first uppermost 15cm of soil, which is a 5W limitation. This condition is likely enhanced by increased organic and clay content at surface that inhibits surface drainage through infiltration.

3.2 Secondary LCA Limitations

Secondary land capability limitations on Sandown Park include the following:

- low perviousness at the 2D level across the entire site, in silty clay loam, clay loam or sandy clay soil textures;
- surface water inundation at the 2I level across the western third of the site, and
- undesirable soil structure at the 4D level, which characterizes the areas of compacted fill soils that underlie site roads, racetracks and building and structure footprint areas.

Due to the limited drainage on the property, the primary LCA of excess surface water during winter months will adversely affect perennial crop production, and will persist into mid- to later spring, which will force late seeding of annual crops. Furthermore, the excess surface water sitting atop the very fine to fine-grained soil textures will delay typical farm machinery access to large areas of the property until late spring to early summer when soils have dried.

Table 3 – Observed Soil Characteristics and Locations

Soil classification (Subgroup)	Texture and coarse fragment content	Class distinction	LCA rating un-improved (improved)	Soil Test-Pit Locations (see Fig. 3)
Orthic Humic Gleysol Parksville	Silt loam to loam, no coarse fragments within in situ soil profile.	Presents mottled soil (gleying) from ~40cm to depth of 120cm.	3W(2W)	SP01, SP02 & SP06
Orthic Humic Gleysol Cowichan	Clay loam to silt loam, no coarse fragments within in situ soil profile.	Presents heavily mottled soil from (gleying) ~20cm to full excavated depth of 150 – 180cm.	4W(3W)	SP03, SP04 & SP05

4 Drainage Conditions - Wsikem Creek Watershed

The property falls within the Wsikem Creek Watershed, on-site features of which include the two ponds and connecting ditches that are situated inside the main racetrack. This surface drainage flows west-northwesterly across the property, and discharges off-site in a roadside municipal ditch constructed along the south side of Munro Road (see Figure 3). Limited observations (due to thick hawthorn growth around the Wsikem Creek channel) suggest that flows across the western portions of the site are hindered by low gradient, and may be further obstructed by thick vegetation growth within the ditch channel.

These ditch features are all identified by the Capital Regional District's Sensitive Habitat Inventory[6] as components of 'Wiskem Creek[7]. Tributary drainage channels were also observed, which appear to discharge to the central east-west Wsikem Creek. These include a shallow (15cm) ditch from the north and multiple shallow (15cm) ditches dispersed throughout the Site.

Excess perched surface water was observed across much of the west and northwest area of the site. The perched water presents as ponding, and as seasonal excess soil-water that freely drains overland (or in the near-surface soils) into Wsikem Creek as it traverses across the western part of the property.

At the time of Madrone's site inspection, the Wsikem Creek system on-site was holding stagnant water that exhibited no clear indication of directional flow. This condition of

[6] https://maps.crd.bc.ca/Html5Viewer/?viewer=public Accessed April 20th 2016

[7] This is the name used in the CRD Sensitive Habitat Inventory.

apparent stagnation is likely related to siltation in-filling of the channel, and/or excessive vegetation growth within the channels.

5 Potential Agricultural Improvements

Excess soil moisture (seasonal) is the main limitation to agriculture on the property. The soil which would result in the greatest crop damage due to excess free water conditions is the Cowichan Orthic Humic Gleysol soil profile that covers much of the central, north and west parts of the property (see Figure 4).

The Orthic Humic Gleysol is classified as 4W, improvable to 3W, due to the poor inherent drainage resulting from the fine-grained texture, as well as depth of the underlying clay-rich layer. There are standard tilling methods designed to improve infiltration and structure of the surface soil (e.g. paratilling) which would be applicable to Orthic Humic Gleysols, however the soils on site were found to be silt-loams, which would reconstitute with inundation from seasonal perched water due to the underlying clay-rich layer which starts at a depth of 20 – 40 cm. Consequently, the Cowichan Orthic Humic Gleysol may continue to produce a seasonally perched water table despite paratilling.

However, drainage for the Cowichan Orthic Humic Gleysol could be improved by amending the poorest draining areas, as identified through field observation, with a more conductive soil (e.g. loam with organic content). This form of amendment could increase water conductivity and freeboard above the existing perched water table to match that of the adjacent Parksville Orthic Humic Gleysol.

The Parksville Orthic Humic Gleysol soil, due to texture, has a marginally improved conductance of excess water, resulting in a 3W limitation to agriculture class. Furthermore, due to the imperfect drainage starting below 40 cm depth and a silty loam to loam composition of the shallow soil, tilling to a depth of 40 – 50 cm will improve vertical infiltration and lateral conductance. Therefore, the Parksville Orthic Humic Gleysol could be improvable to the 2W level by undertaking a program of paratilling.

Historically-compacted soil areas, characterized by a 4D limitation within the site, can be remediated and reclaimed through a program of ripping; redistribution; removal and/or amending the road/racetrack fill soils, to diminish the fill soil content to lower than 15% by volume.

The improvements for each soil series, identified above, would reduce or eliminate the limitations to, and improve the capability for, agriculture of the lands under consideration for reclamation.

Lastly, attempts to agriculturally reclaim the 13 ha [32 acres] identified in the northwestern, western and southwestern forested areas of the site (Figure 5) are not recommended at this time. This recommendation is supported by evidence from the LCA whereby it was determined that the predominant agricultural limitation of undesirable soil structure (difficult for machinery to traverse) at Class 4D was present in the northwestern and western areas. The Class 4D limitations is due to an increased silt/clay and organics fraction within the upper most 20cm of the soil column of the Cowichan Soil Series present (See notes for Soil Pit 5).

Additionally, from a general professional agrologists perspective, efforts to agriculturally reclaim the northwestern and western areas would also be significantly challenged by the extent and thickness of natural revegetation and nascent forest regrowth that is now present (see Figure 5 for delineation and Photographs 3 & 4 for revegetation and nascent forest regrowth, respectively). Furthermore, from a hydrogeologist perspective, the southwestern area is considered to be an upland groundwater recharge area due to the increased sand content of the soil column (See notes for Soil Pit 6), topographic location, and mature forest cover present. The southwestern upland area should not be developed for general agricultural purposes at this time. Of note is that a 10 ha portion of the 13 ha area identified is not required to be reclaimed, as per the PDA.

6 Agricultural Reclamation Assessment and Preliminary Drainage Plan

The site and soil conditions observed have identified an excess free water primary limitation to agriculture, with secondary limitations including undesirable structure and inundation. In assessing the property, we identify the central portion as the ideal agricultural land for reclamation.

In this report, we differentiate between tilling and ripping as a surficial soil treatment. It is important to use a tilling plow (paratilling or otherwise) so as to not turn-over or compact the subsoil where tilling is recommended. Correspondingly, there can be significant overturning of soil and potential for deep subsurface compaction when a dozer ripper-attachment is recommended. As such, the mechanical ripping of surficial materials should be reserved for areas that have historically undergone mechanical compaction, and require more significant structural disruption.

6.1 Agricultural Reclamation – Recommendations

Reclamation of Sandown Park to higher agricultural purposes through redevelopment could proceed as follows:

- Stage 1 – Inventory of existing infrastructure for preservation:
  - select and confirm existing infrastructure features that could be retained for re-purposing and future use;
  - map out and confirm property areas and features that will not be subject to physical reclamation and/or drainage modification;
  - confirm which areas will be designated for retention by the demolition subcontractor.
- Stage 2 – Demolition and reclamation of former building footprints & roadbeds:
  - reclaim and recycle structural fill soils and materials (crushed concrete) that could be suitable for possible re-purposing and re-use on the 5.0 ha commercial development land (e.g. crushed limestone removed from the racetrack bed);
  - demolish and remove existing infrastructure or structures (following HazMat assessments and/or remediation) that were not identified for preservation in Stage 1 above;
  - prepare former building and structural footprint areas for physical reclamation to agricultural use, by breaking up and removing hard surfaces (concrete/asphalt), followed by dozer-ripping of the underlying compacted sub-soils;
  - rehabilitate former building footprints and historically compacted roadbeds and areas (see Figure 5 – indicated as 'compacted fill') through the use of a dozer-ripper or by tillage where possible;
  - rehabilitate compacted and filled soil zones by the mixing of stockpiled topsoil from the adjacent 5.0 ha commercial development, and/or the disrupted *in situ* compacted fill, with surrounding native soil to a level lower than 15% by volume;
  - an example of 15% by volume would be 10 cm of imported compacted fill being incorporated to approximately 60cm of soil through dozer-ripping.
- Stage 3 – Soil stockpiling as amendments:
  - topsoil and other soils of suitable quality could be stockpiled and managed for later use on-site as amendment soils, particularly as/when it becomes available by stripping of the adjacent 5.0 ha commercial development area;

- stockpiled topsoil or other suitable soil could be used to amend limited areas of the Cowichan Orthic Humic Gleysol soils (see Figure 5), at a 15 – 20 cm depth rate, by paratilling it in for moderate incorporation to a 40 – 50 cm depth during spring, summer or autumn months;
- complete soil tilling to incorporate amendment soils in at an approximate rate of 35% by volume (i.e. 15 – 20 cm of amendment soil depth tilled to a total depth of 40 – 50 cm).
    - note that without texture analysis, the rate of soil amendment is based on: heuristic assessment of the soil present on site, and likely source of topsoil (adjacent commercially zoned parcel).

- Stage 4 – Paratilling for improved drainage and surface grading toward the existing Wsikem Creek:
    - paratill to a depth of 40 – 50 cm during summer months for limited areas of the Parksville Orthic Humic Gleysol soils, as shown in Figure 5, particularly in areas south of the racetrack grandstand where vehicle parking may have compacted soils;
    - existing drainage watercourse (Wsikem Creek) and associated ponds in the central portion of the site are to be retained to facilitate on-site drainage;
    - re-grade and contour amended soil surfaces to grade generally toward the west at an overall gradient of 2%, with local grading up to 6% leading to Wsikem Creek (see Section 6.2 Preliminary Drainage Plan) and associated ponds in the central portion of the site.
    - improved surface drainage and conveyance to Wsikem Creek will see the low-lying western area of the property, previously identified as not suitable for reclamation at this time, receive an increased instantaneous volume under storm conditions; but no greater discharge volume overall.

6.2 Preliminary Drainage Plan – Recommendations

Drainage and Soil Structure – per Stages 2, 3 and 4 of Section 6.1 Agricultural Reclamation above, we recommend soil ripping, amendments use, and tilling-in as part of agricultural reclamation to improve the excess free water limitation on the site. These actions could consequently improve drainage and increase soil freeboard above the seasonally perched water table in low-lying areas (see recommendations of Section 5 for reasoning). Therefore, the land capability for agriculture will be improved by addressing the excess free water limitation through improved drainage and increased freeboard.

Wsikem Creek – tilling and soil amendment could increase conductance of the soil, whereby the existing drainage channel – now receiving a greater volume of water in shorter timeframes – may limit transport of water off-site. As such, we recommend limited re-activation of the Wsikem Creek drainage ditch through removal of excess vegetation and silt-dredging where necessary to ensure sufficient gradient exists for transport of excess free water from the reclaimed agricultural lands to the western portion of the site. The reactivation would be limited to the reach indicated in Figure 5, after which the nascent forest and inundated bunch-grass marsh would hold excess water – acting as a retention pond. I predict that the increase of instantaneous storm water volume would be managed by the existing clump-grass and sedge marsh as well as general inundation of the western forested area – resulting in no increase in off-site peak flow.

Storm Water Management – If the above recommendations for mitigating limitations to agriculture are implemented, there is no anticipated material change in off-site storm water peak flow volume. However, storm water management should be considered along with improvement of land capability to a state suitable for general agriculture; acknowledging that storm water management is a future consideration and not addressed within this report. Madrone also notes that the separate, yet adjacent, commercial development of the 5.0 ha parcel excluded from the ALR will likely have to be engineered by civil specialists to manage drainage discharging off-site into municipal systems. It is therefore recognized that any drainage installations contemplated to improve discharge of excess perched water off the commercial property westward will require co-operation between agrologists and design engineers. The DNS will also need to be consulted regarding the conveyance of drainage into downstream municipal ditches.

7 Statement of Author Qualifications

Thomas R. Elliot, PhD, A.Ag P.Geo is a practicing Agrologist who possesses a Doctoral degree in Pedology (Soil Science) conferred by the University of Guelph in 2008. Thomas has conducted land capability for agriculture assessments, landscape to site-scale hydrologic assessments, and has overseen ecologic restoration of degraded landscapes. He has published over 30 peer-reviewed journal articles and made over 100 technical, policy, and knowledge transfer/outreach presentations in his past 12 years of career practice. Thomas is a registered professional geoscientist (P.Geo) in B.C., and is currently articling with the B.C. Institute of Agrologists (A.Ag) under mentoring by senior Professional Agrologist colleagues.

8 Closure

Madrone appreciates the opportunity to have provided service in this matter. If there are any questions, please contact the undersigned.

Sincerely,
MADRONE ENVIRONMENTAL SERVICES LTD.

Prepared by:

Tom Elliot

Thomas R. Elliot, PhD A.Ag, P.Geo

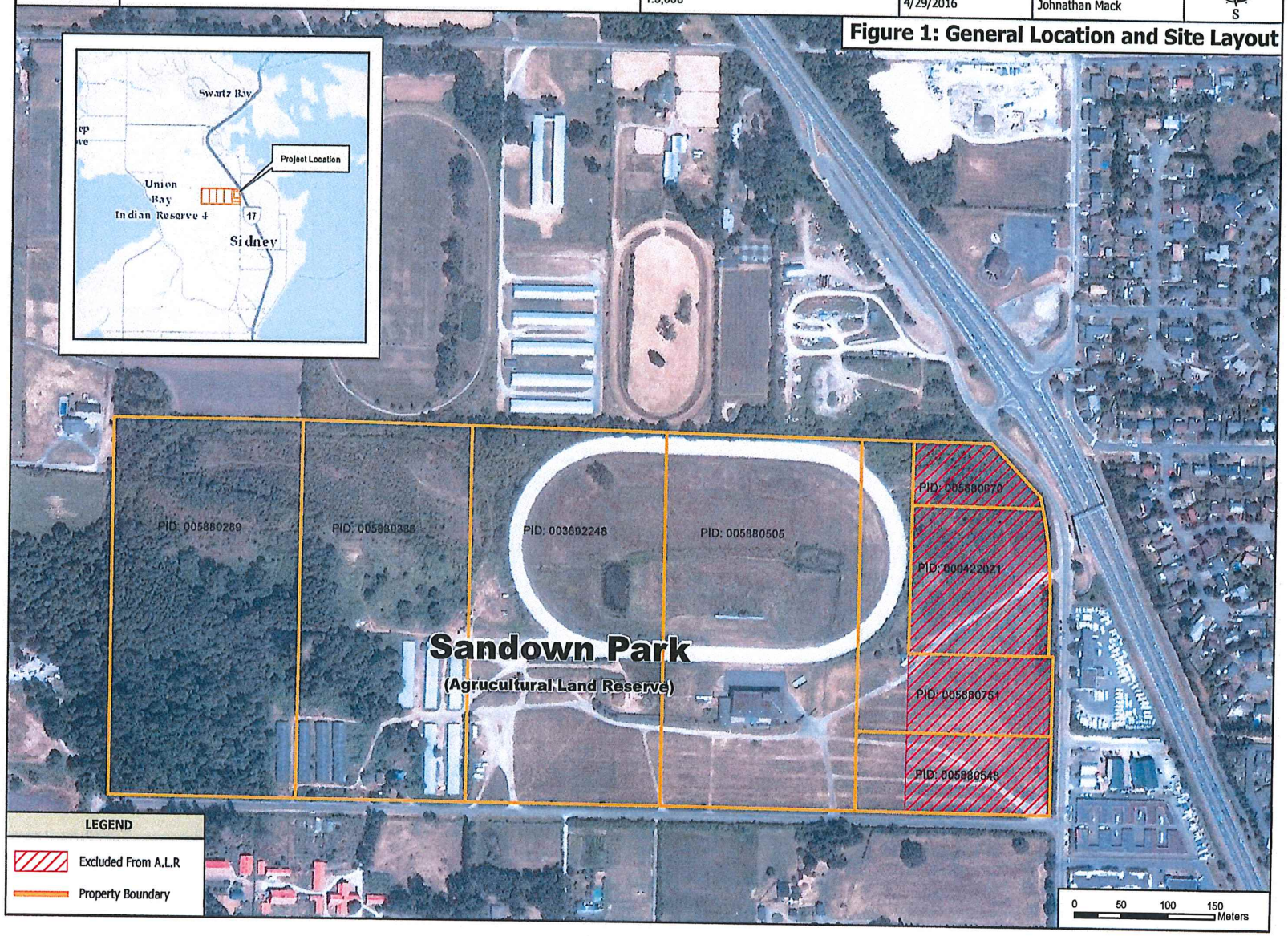
Reviewed by

BRITISH COLUMBIA 1960 INSTITUTE OF AGROLOGISTS

James Richard, HBES, P.Ag

MADRONE environmental services ltd.	**PROJECT:** Agricultural Land Reclamation Assessment and Preliminary Drainage Plan	**LOCATION:** Sandown Park, District of North Saanich, BC	**CLIENT:** Sandown Properties Ltd	**DOSSIER NO:** 16.0074	N W E S
	ASSESSED BY: Thomas R Elliot, PhD A.Ag and Jim Richard, P.Ag	**MAP SCALE:** 1:5,000	**MAPPING DATE:** 4/29/2016	**DRAWN BY:** Johnathan Mack	

Figure 1: General Location and Site Layout



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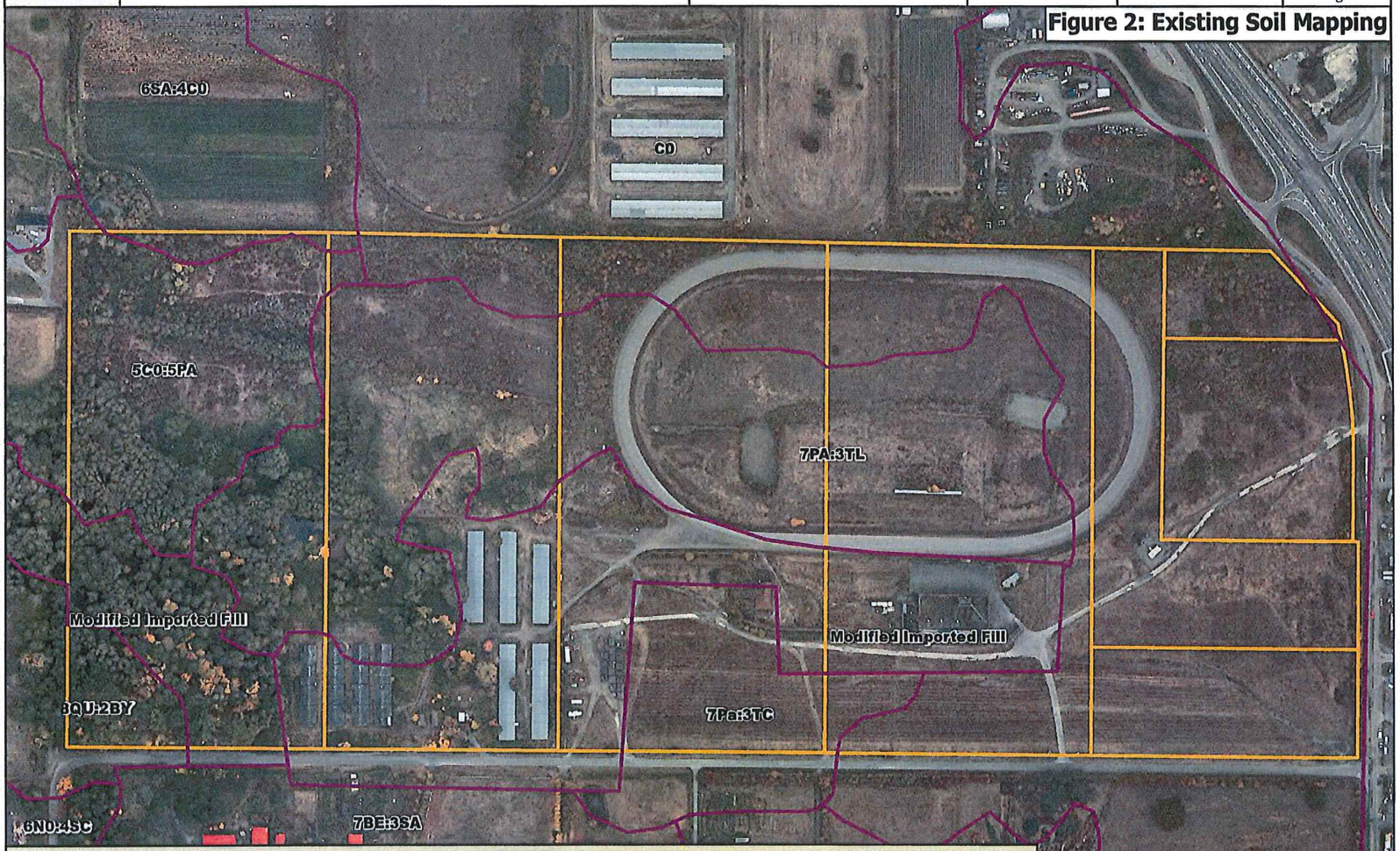
N W E S

Figure 2: Existing Soil Mapping



LEGEND

Property Boundary

Soil Type Polygon

Soil Region:

CO = Cowichan (Silty clay loam or silt loam marine deposits)
SA = Saanichton (Silt loam and silty clay loam marine deposits)

PA = Parksville (Between 30cm and 100cm of sandy loam or loamy sand marine deposits over silt loam or silty clay loam marine deposits)
TL = Tolmie (Between 10 and 30 cm of sandy loam or loamy sand marine deposits over silty clay loam marine deposits
BE = Brigantine (loamy sand or sandy loam fluvial and marine deposits over silty marine deposits)
BY = Baynes (loamy sand or sandy loam fluvial or marine deposits)

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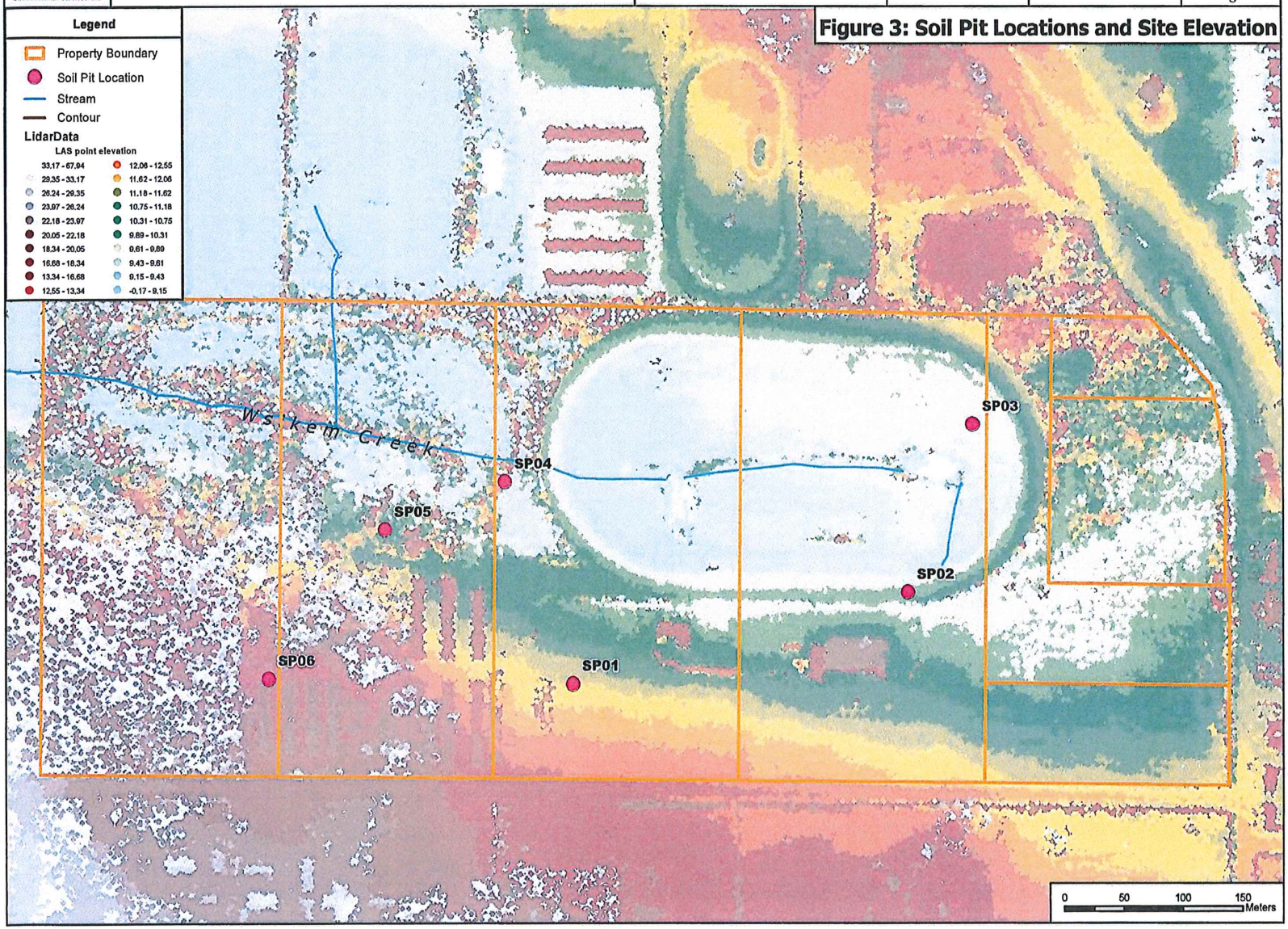
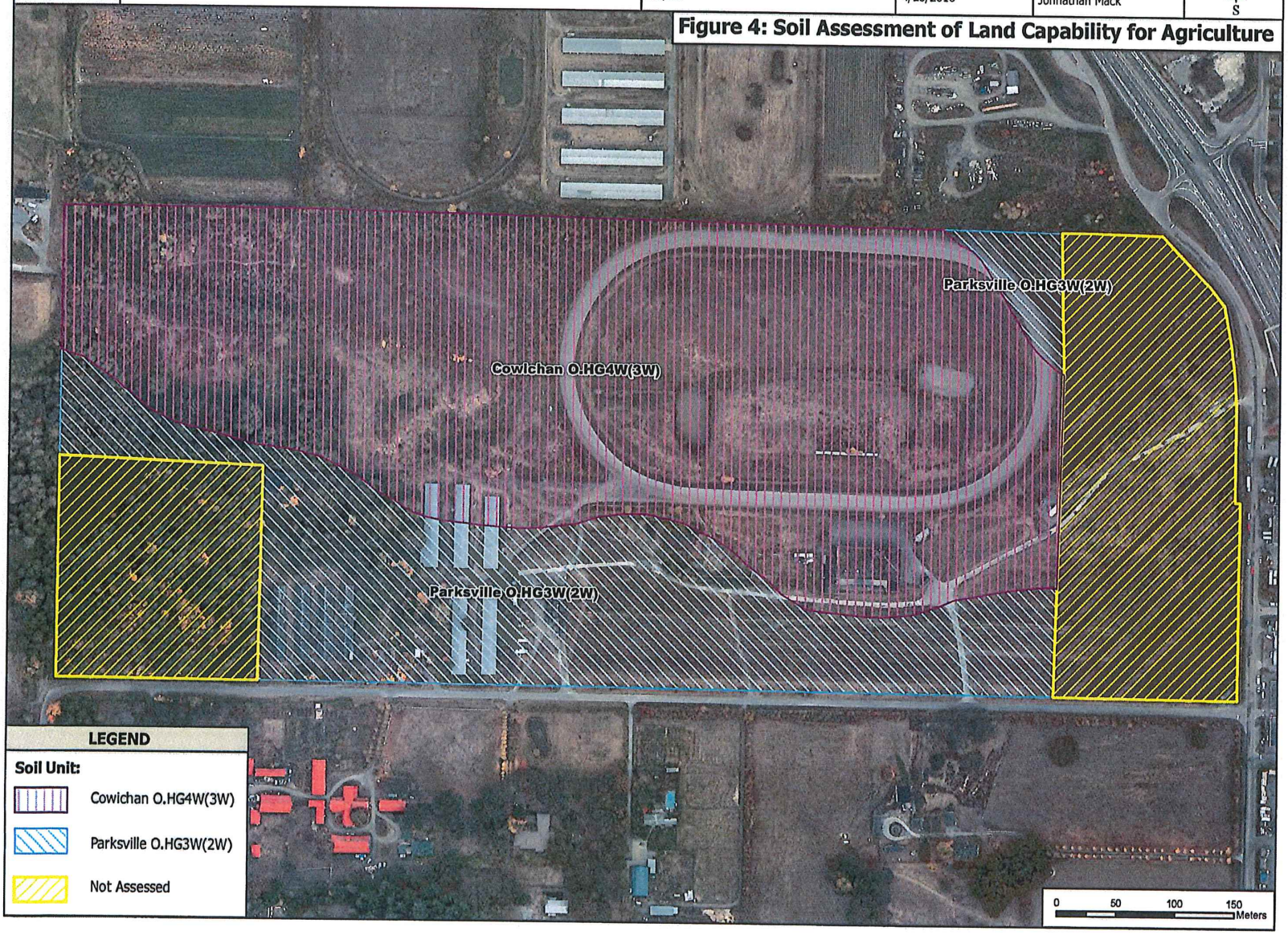
	ASSESSED BY: Thomas R Elliot, PhD P.Geo A.Ag and Jim Richard, P.Ag	**MAP SCALE:** 1:4,000	**MAPPING DATE:** 4/29/2016	**DRAWN BY:** Johnathan Mack

Figure 3: Soil Pit Locations and Site Elevation



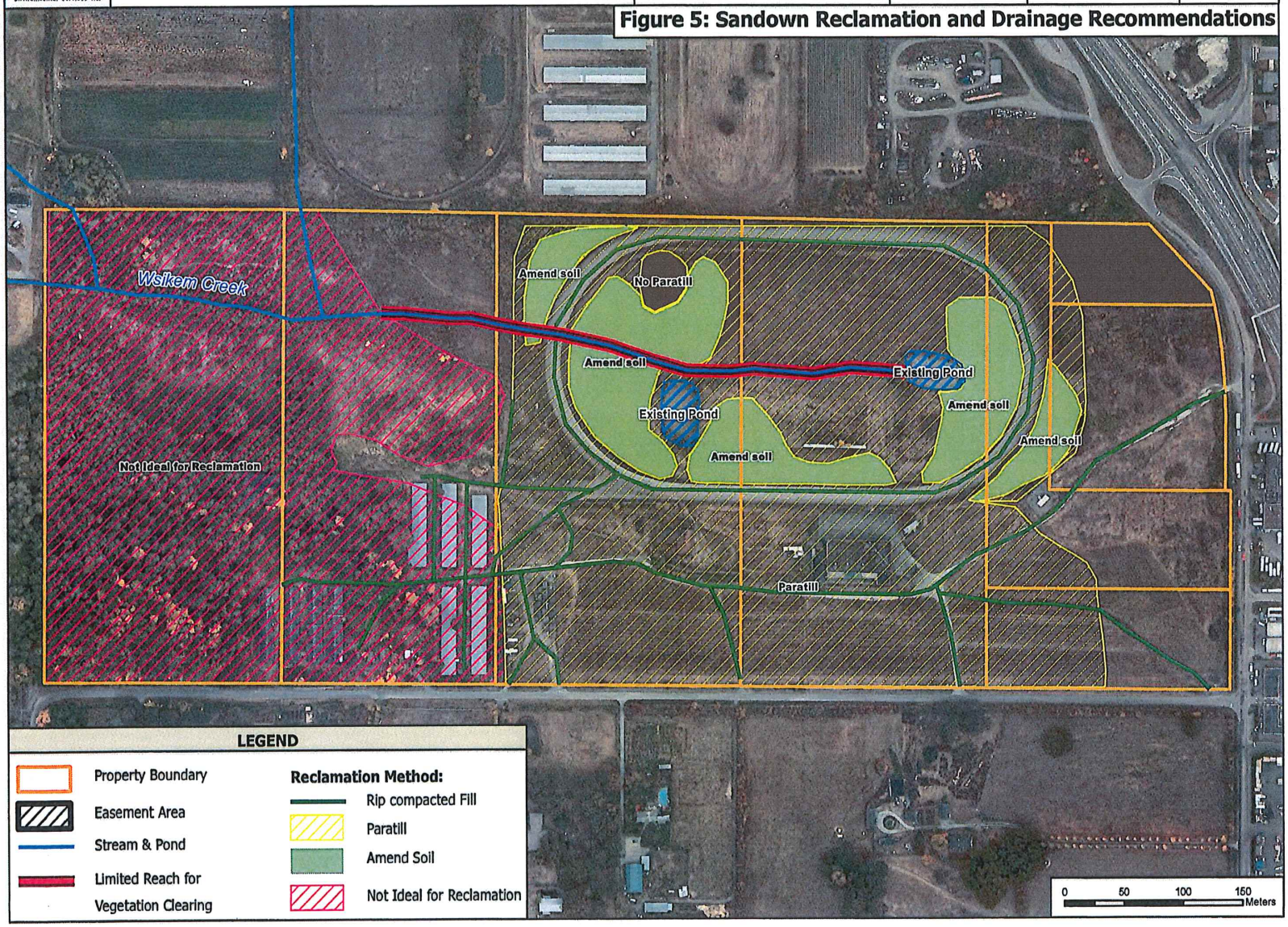
MADRONE environmental services ltd.	**PROJECT:** Agricultural Land Reclamation and Drainage Plan - Preliminary Assessment	**LOCATION:** Sandown Park, District of North Saanich, BC	**CLIENT:** Sandown Properties Ltd	**DOSSIER NO:** 16.0074	N W E S
	ASSESSED BY: Thomas R Elliot, PhD A.Ag and Jim Richard, P.Ag	**MAP SCALE:** 1:4,000	**MAPPING DATE:** 4/20/2016	**DRAWN BY:** Johnathan Mack	

Figure 4: Soil Assessment of Land Capability for Agriculture



MADRONE environmental services ltd.	**PROJECT:** Agricultural Land Reclamation Assessment and Preliminary Drainage Plan	**LOCATION:** Sandown Park, District of North Saanich, BC	**CLIENT:** Sandown Properties Ltd	**DOSSIER NO:** 16.0074
	ASSESSED BY: Thomas R Elliot, PhD A.Ag, P.Geo and Jim Richard, P.Ag	**MAP SCALE:** 1:4,000	**MAPPING DATE:** 5/25/2016	**DRAWN BY:** Johnathan Mack

Figure 5: Sandown Reclamation and Drainage Recommendations



9 Limitations

The evaluations contained in this report are based on professional judgment, approximate 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.

References

BC Ministry of Environment, Climatology Division. (1981). Climatic Capability Classification for Agriculture in British Columbia, APD Technical Paper 4, Victoria, BC.

BC Ministry of Environment, Lands, and Parks and BC Ministry of Forests. (1998). Field Manual for Describing Terrestrial Ecosystems Land Management, Handbook Number 25.

Huntley, D., Bennett, K., Bobrowsky, P. and J. Clague. Municipality of Central Saanich Resource Atlas; Surficial Geology and Geomorphology of Central Saanich Peninsula, Southeastern Vancouver Island. Accessed Sept 28 2015: http://www.centralsaanich.ca/Assets/Central+Saanich/Publications/CS+Resource+Atlas/Surficial+Geology.pdf?method=1

Jungen, J. BC Ministry of Environment (1978) Soils of the Southern Vancouver Island Area, 92B/NW; 92G/4.

Kenk, E. (1983) Land Capability Classification for Agriculture in British Columbia, MOE Manual 1, Ministry of Environment and Ministry of Agriculture, Kelowna.

Lalonde, V and Hughes-Games, G. (1997).B.C. Agricultural Drainage Manual, B.C. Ministry of Agriculture, Fisheries and Food

Nyvall, J. (2002) Soil Water Storage Capacity and Available Soil Moisture, Resource Management Branch, Ministry of Agriculture, Food and Fisheries. Abbotsford.

Soil Classification Working Group (1998) The Canadian System of Soil Classification 3rd ed. Research Branch. Agriculture and Agri-Food Canada, Ottawa, ON. Publ. 1646.

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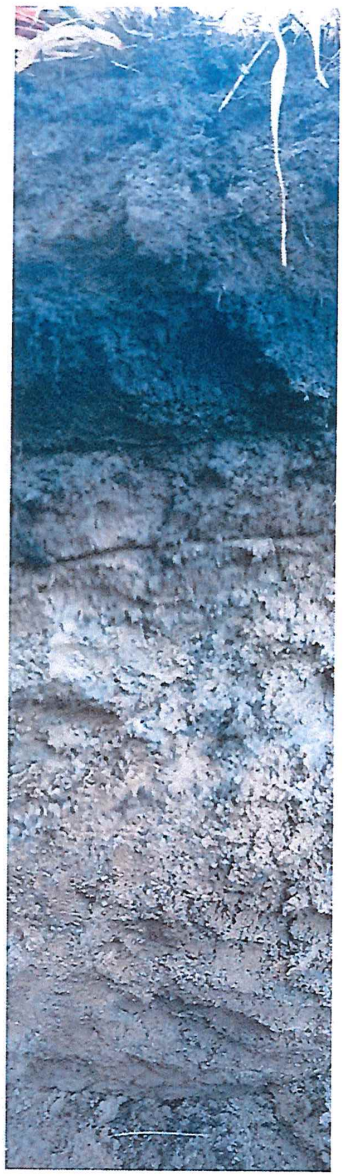
APPENDIX A

Soil Profile Descriptions

Pit 1 – Soil Profile Description

HORIZON	DEPTH (CM)	DESCRIPTION
Ah	0 - 10	Dark grayish brown (10YR 4/1) to black (10YR 2/1); sandy loam modified organic accumulation; numerous fibrous roots; medium granular structure with a smooth boundary.
Bhgj	10 - 25	Black (10YR 2/1) to gray brown (2.5YR 3/1) silt loam organic carbon accumulation; numerous fine fibrous roots; medium granular structure with a diffuse boundary.
Bfmg	25 - 55	Gray brown (2.5YR 3/1) to medium gray brown (2.5Y 6/4) silt loam; sparse fine roots; iron mottles with a fine granular structure forming an irregular boundary.
Cfmg	55 - 110+	Light reddish brown (2.5Y 6/3) silt loam; gleying and iron mottles with a fine granular/massive structure.



Photograph 1. Soil Pit 1 [SP01]
Comments: Orthic Humic Gleysol of the Parksville Soil Series.

Pit 2 – Soil Profile Description

HORIZON	DEPTH (CM)	DESCRIPTION
Technosol	0 - 50	Gray, compacted imported crushed gravel with abrupt interface.
Technosol	50 - 75	Light brown (7.5YR 4/6) to reddish brown (7.5YR 5/8) imported sand/silt mixture, intersected at middle by gravel layer; abrupt transition.
Bhmj	75 - 100	Dark brown (5YR 2.5/1) compacted silt loam; mottled with massive structure.
Cmg	100 - 160+	Dark gray (2.5y 6/3) mottled and gleyed sandy silt material with medium granular structure and diffuse transition.

Photograph 2. Soil Pit 2 [SP02]
Comments: Orthic Humic Gleysol of the Parksville Soil Series.

Pit 3 – Soil Profile Description

HORIZON	DEPTH (CM)	DESCRIPTION
Be	0 - 10	Light grayish brown (2.5Y 6/1); silt loam; numerous fibrous roots; fine granular structure with a disrupted boundary.
Btfmg	10 - 55	Medium gray brown (2.5Y 4/3) silt loam; sparse fine fibrous roots; fine granular structure with ferric mottles and gleying ending with a diffuse boundary.
Cmg	55 - 150+	Light gray brown (2.5Y 4/2) silt; gleying and with a fine granular/massive structure.

Photograph 3. Soil Pit 3 [SP03]
Comments: Orthic Humic Gleysol of the Cowichan Soil Series.

Pit 4– Soil Profile Description

HORIZON	DEPTH (CM)			DESCRIPTION
Technosol	0	-	20	Light gray crush gravel; compacted.
Ahgj	20	-	35	Brown black (7.5YR 3/1) to dark gray brown (10YR 5/4) silt loam with accumulated organic carbon; fine fibrous roots; medium granular structure with a diffuse/inconsistent boundary.
Bfmg	35	-	50	Light reddish brown (10YR 5/4) silt loam; distinct iron mottles with a medium granular structure forming an irregular boundary.
Cm	50	-	160+	Light gray brown (2.5Y 4/2) silt loam to silt; gleying with a fine granular/massive structure.

Photograph 4. Soil Pit 4 [SP04]
Comments: Orthic Humic Gleysol of the Cowichan Soil Series.

Pit 5– Soil Profile Description

HORIZON	DEPTH (CM)			DESCRIPTION
Ahg	0	-	25	Gray black (10YR 3/1) to black (10YR 2/1); gleyed clay loam organic accumulation; numerous fibrous roots; medium granular structure with a smooth boundary.
Bgm	25	-	65	Gray black (10YR 3/1) gleyed and mottled silt loam; numerous fine roots; fine granular structure with a diffuse to irregular boundary.
Bfmg	65	-	90	Reddish gray black (10YR 5/3) ferric mottled and gleyed silt loam; fine granular structure forming an irregular boundary.
Cmg	90	-	180+	Light brown (2.5y 4/2) mottled and gleyed silt loam, coarse granular texture.

Photograph 5. Soil Pit 5 [SP05]
Comments: Orthic Humic Gleysol of the Cowichan Soil Series.

Pit 6– Soil Profile Description

HORIZON	DEPTH (CM)			DESCRIPTION
Technosol	0	-	30	Light gray crushed coarse and compacted imported gravel.
Ahgj	30	-	55	Medium gray brown (5YR 2.5/2) organic carbon enriched loam with sparse fine roots with minor gleying.
Bfmg	55	-	70	Light gray brown (10YR 4/3) silt loam; iron mottles with gleying of a fine granular structure forming an irregular boundary.
Cmg	70	-	180+	Medium reddish brown (7.5YR 5/1) silt loam; gleying and iron mottles with a fine granular/massive structure.

Photograph 6. Soil Pit 6 [SP06]
Comments: Orthic Humic Gleysol of the Parksville Soil Series.

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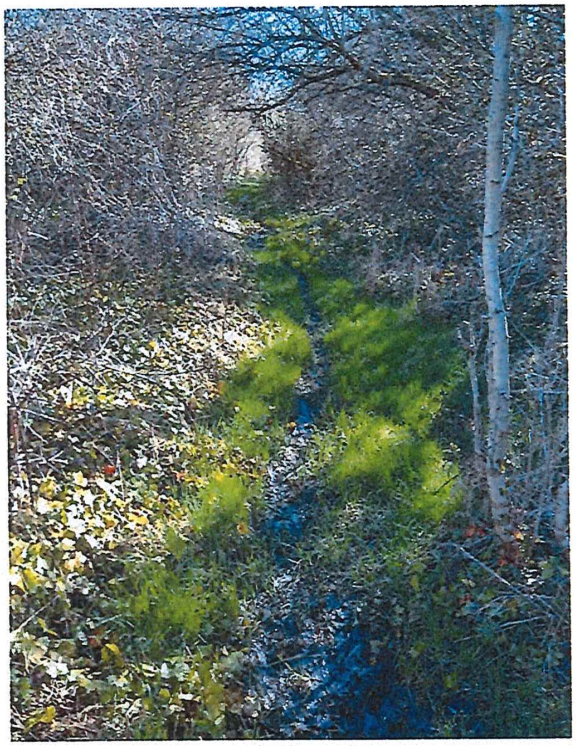
APPENDIX B

Site Photos

Photograph 1 – Mid section of the Site looking northeast, near SP01, across the track infield (track surface in foreground). Note the standing water in foreground and artificial pond in the background.

Photograph 2 – Looking southeast from the southeastern corner of the track near SP02. Note the extensive ponding of water at surface in the fore and background.

Photograph 3 – West section of the Site looking north across the abandoned and derelict historic track near SP05. Note the wetland grass and standing water in foreground.



Photograph 4 – Looking east along the remnant of the old track at north boundary of Site. Note the excess water at surface in the foreground and background.

Photograph 5 – North of the derelict stables on Site looking west, near SP06. Note the raised ground level of the old stable structures to keep the surfaces relatively dry.

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APPENDIX C

Land Capability for Agriculture Overview

DOSSIER: 16.0074

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Land Capability for Agriculture Overview

Land Capability for Agriculture (LCA) in B.C. 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, sub soiling, intensive fertilization and adding soil amendments.

LCA Classes and Characteristics

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, as summarized below. 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 sub-regional 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, location 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

Attachment B

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July 13th, 2016

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Vancouver, B.C.
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andrew@platformproperties.ca

RE: Additional Land Capability for Agriculture and Drainage Information Regarding Sandown Property in North Saanich, B.C.

Mr. Sinclair,

During our attendance of the June 27th District of North Saanich (DNS) Council Meeting a series of questions were raised regarding Sandown Properties Ltd.'s (Sandown) intention to transfer approximately 33 ha of land (Agricultural Land) to the DNS. More specifically, those questions largely pertained to improvements to the Agricultural Land required by the Phased Development Agreement (PDA) as entered into by the current owners and the DNS.

To satisfactorily resolve these questions I have first provided some pertinent background information that influences the approach and context of the Reclamation and Preliminary Drainage Plan as provided to Sandown by Madrone Environmental Services Ltd. (Madrone). After which, I provide a series of Addenda to accompany the Reclamation and Preliminary Drainage Plan report that will address the questions that you provided via *per comm.*

1 Background

A condition of transfer, due to the Property being within the Agricultural Land Reserve (ALR) is meeting a set of criteria set forward by the Agricultural Land Commission (ALC) in a 2011 decision to Approve Application #52454. The critical components of the ALC decision include:

- Reclamation and redevelopment of the Agricultural Land to a state suitable for agricultural purposes;
- Approval by the [ALC] of a reclamation and drainage plan prepared by a professional Agrologist, or other suitable professional, that includes:
    - Removal of the abandoned racetrack buildings and structures;
    - stockpiling and utilization of the topsoil from the land to be excluded to assist in the reclamation of the proposed consolidated parcel and the land to be included;
    - ensuring proper drainage on and from the property;
    - estimated timelines; and
    - if appropriate, a phased approach to reclamation.
- A professional Agrologist, or other suitable professional, [will] oversee the implementation of the reclamation and drainage plan;

Further, within the PDA, there are additional considerations within Schedule A, Paragraph 2 which states:

- The Owner shall engage [sic] an agrologist to prepare a Reclamation and Drainage Plan for the Agricultural Land other than the approximately 10 ha portion in the southwest corner of the Agricultural Land that is treed on the date of execution of this agreement, for the approval of the ALC following referral of the plan to the District of North Saanich Agricultural Advisory Commission for its comments.
- The objective of the Reclamation and Drainage Plan shall be to return the land that is subject to the Reclamation and Drainage Plan to a state suitable for general agricultural purposes.

2 Addendum

2.1 General

The future land use of the Agricultural Land will dictate specific drainage and agricultural capability requirements. It is our understanding the requirements of both the ALC decision and the PDA were specified to an agricultural standard, which did not require end uses to be defined. Furthermore, at the time of writing, specific land use or planning considerations – which were anticipated from the external *Vision Sandown* process – were not available, and the DNS has yet to endorse a specific land use plan. As such, I prepared the report to meet the above stated ALC requirements, where possible, and extended the requirements to the more specific PDA. Due to the unspecified end land use, there were components of the ALC decision that I was not able to fully speak toward, which include:

- ensuring 'proper drainage'; which has a varying definition dependent upon end land use and potential crop type, although a preliminary drainage plan is outlined in the Reclamation and Preliminary Drainage Plan and is further referenced below in Sections 2.2.3 – Drainage and Climatic Considerations, and 2.8 – 'Drainage';
- providing 'estimated timelines'; which I am unable to provide due to unknown start dates and land-use planning process. I have, however, provided additional information on estimated timelines within a later addendum point;
- a 'phased approach' to reclamation, which recognizes that reclamation is something that occurs over time, reasonably beyond the scope of the ALC decision and PDA requirements.

The Reclamation component of the plan was guided, in part, by the "Reclamation and Environmental Protection Handbook for Sand, Gravel and Quarry Operations in British Columbia" of the BC Ministry of Transportation and Highways. I also incorporated concepts presented by "The Potential of Marginal Agricultural Lands" document prepared by the BC Ministry of Agriculture, which feeds the "Criteria for Technical Reports Submitted by Consultants"[1] of the ALC, alongside standard documents referenced within the report. Factors considered include:

- Groundwater;
- Watercourses and Wetlands;
- Soil and Groundwater Contamination;
- Loss of Plant Cover;
- Dust;
- Public Safety;
- Specialty Crop use on Marginal Land; and
- Urban agriculture or small-plot community agriculture uses.

Certain limitations became apparent during review and consideration of background documents, which I did not include in the report but have now provided below:

- 'Soil being added to the subject properties' (as noted in condition 4 of the ALC decision) was taken to indicate the Agricultural Land intended for Reclamation; whereby addition – not import – of soil from the eastern excluded lands of the properties owned by Sandown, the movement of which would not be restricted between land parcels of an agricultural use group (e.g. redistribution of soil within a farm), is subject to an inspection and screening requirement. Furthermore, the

[1] Land Reclamation Technical Reporting Criteria http://www.alc.gov.bc.ca/assets/alc/assets/applications-and-decisions/supporting-documents/criteria_for_technical_report_requirement.pdf

PDA explicitly identifies and reinforces this interpretation under Schedule A, Section 3(c).

- Importation of fill is a considerable, non-farm use, process as indicated in ALC Act Section 20, and is not referred to in the ALC decision.
- Establishing marginal agricultural land would not meet the criteria set out within the PDA, even though it appears to meet the 'agricultural purposes' requirement of the ALC decision;
- The western portion (approximately 30%) of the property is not required to be reclaimed as per the PDA;
- Historical land use presented as marginal agricultural land, short-term forage production, or summer pasture has degraded the site through poor land use management.
- The Agricultural Land end uses have not been determined at time of assessment and writing, somewhat limiting reclamation decision making and drainage planning, however the end land use is not required to meet the PDA requirements and ALC conditions.

2.2 Northwest Portion of the Sandown Property

Within the Reclamation and Preliminary Drainage Plan, I indicated that the northwest portion of Sandown is not ideal for reclamation (see Section 3.1 – Primary LCA Limitation and Figure 5). The three factors which contributed to this area being identified as such are: established nascent forest set for exclusion from reclamation by the PDA; excess soil moisture limitation to agriculture and inundation; and, predicted impact of climate change and consequent downstream stormwater management as per ALC decision criteria and *per comm.* from staff at the DNS.

2.2.1 No-Reclamation Area

The forested area set aside from reclamation by the PDA is estimated in the following Google Earth image. While there was no map of the area available at time of writing, a description was used in conjunction with field observations and landform to inform and establish a 'no-reclamation' area to optimize future potential for agriculture on the remaining property. The area presented in Figure 1 is not required to be reclaimed by the PDA.

Figure 1 – The 10 hectare 'no-reclamation' area to be excluded from reclamation as per the PDA. The green area indicated is 10 hectares and was laid-out based on field observations and written description (i.e. '10 ha portion [sic] that is treed...' – PDA Schedule A, Section 2) of the area not required to be reclaimed by the PDA.

2.2.2 Soil and Land Capability Limitations to Agriculture

The primary limitation to agriculture was observation of free flowing excess soil moisture at surface within the west-central portion of the site, which is a Class 5W limitation. The widespread occurrence of the 5W limitation was confirmed in soil pit, vegetation type and exploratory holes.

Furthermore, there was inundation limitation at class 2I in the far west of the property and area surrounding Wsikem Creek upstream of Munro Road. The 2I level of occasional inundation during the growing period would affect crops within this area, and potentially affect perennial crops through winter inundation. The areas of inundation noted during field assessment of the Agricultural Lands are shown in Figure 2 below:

Figure 2 – Excess water (purple) and Inundation (light blue) limitations to agriculture. Please note, these limitations present to varying degrees within these areas. I have not included areas of overlap for the purpose of clarity.

2.2.3 Drainage and Climatic Considerations

For the northwest portion of the Sandown property, I also had to consider the impact of changing precipitation trends and use of marginal agricultural lands in balance with downstream stormwater infrastructure. Particularly important were the predictions for less summer rain (Figure 3) and more winter rain (Figure 4) combined with the current capacity of Munro Road stormwater infrastructure and ALC direction to ensure 'proper' drainage on and from the property. Further, the composition of soil in the western portion of the property shifted toward a clayey loam at surface as opposed to a silt loam, which would result in a lower trafficability, or ability to travel over without sinking, by farm machinery if amended with soil from the eastern portion of the property (a silt loam), as per the ALC decision. Consequently, even if tilled and amended with available materials to improve drainage, the western portion of the Agricultural Land would have a soil structure limitation that could limit machine access during the planting and growing season until drought conditions drained the excess soil moisture.

With these considerations, I saw fit to not recommend the reclamation of the marginal clayey loam lands in the north and west of the property that were inundated at time of assessment, as well as an area surrounding Wsikem creek in the western portion of the site in order to maintain the forested hydrologic 'buffer' area that currently favourably reduces the rate of water leaving the Agricultural Land into the Munro Rd drainage.

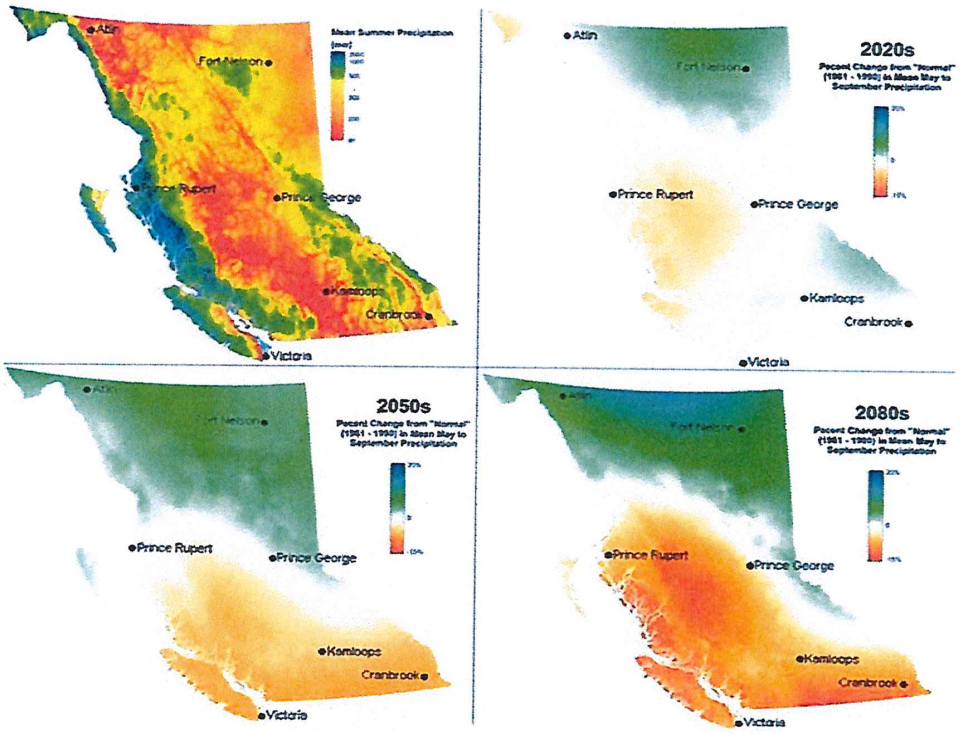

Figure 3 – Predicted Change in Precipitation for Growing Season (May to September).

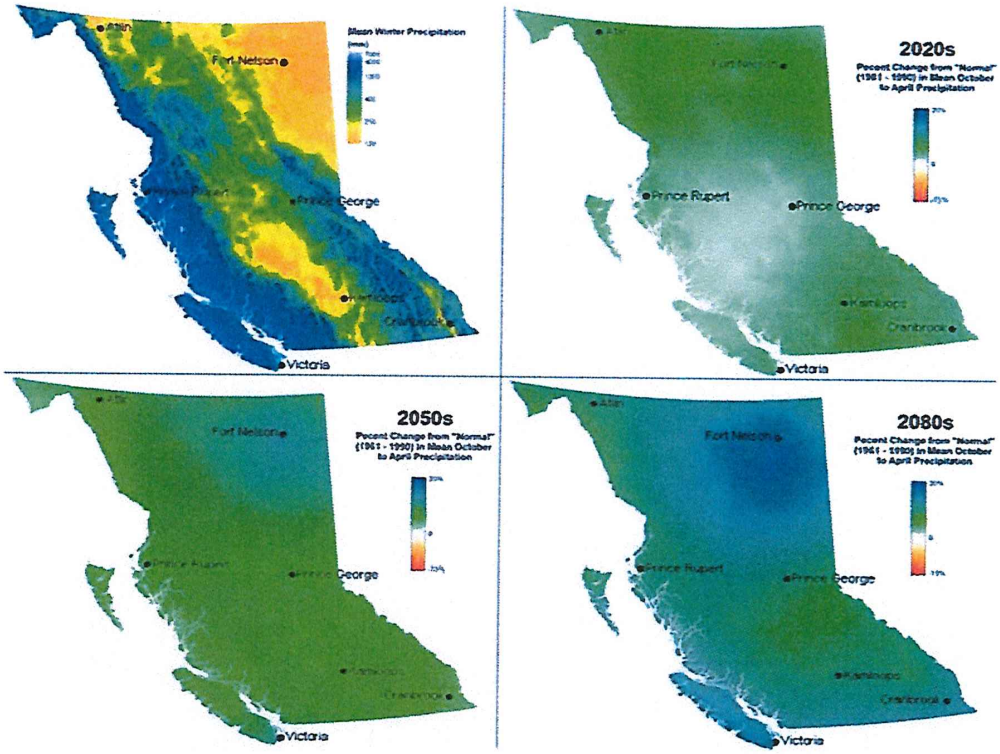

Figure 4 – Predicted Change in Precipitation from 'Normal' in Winter (October to April).

2.2.4 Historic Land Use

I respect that historical evidence suggests active agriculture in the northwest of the property. However, if high value agriculture was practiced in this portion of the Agricultural Land, the area now appears to have been degraded – potentially due to compaction of the clayey loam surficial material – which is a common consequence of marginal land agriculture and historic tillage practices. Furthermore, the upstream hydrologic regime has been altered through channelization of Wsikem Creek and installation of drainage tiles in the area identified for Reclamation. Lastly, the precipitation patterns of the area have also shifted to a slight degree, resulting in more water being delivered in shorter time-periods[2]. As a potential consequence of these factors, the treed area in the western portion of the site is currently subject to inundation conditions.

2.2.5 Adjacent Land Use

I also respect that adjacent, similar or up gradient, properties to the north are under active cultivation. I would like to note that there is also a considerable drainage infrastructure and retention features observed during my site visit and visible in aerial photographs, which include a drainage pond in the southwest corner of 1793 John Road, and on 1548 Munro Road. In addition, existing soil maps indicate a completely different soil type (See Figure 2 of the Reclamation Report) for the property to the north in question. Local properties have likely experienced multiple decades of development to arrive at the current agricultural productivity – something that is a valuable long term project, but not feasible for the handover of the Agricultural Land to DNS in a 'state suitable for general agriculture'.

2.2.6 Summary Answers Regarding the Western Agricultural Land

Could the northwest portion of the property be reclaimed for agricultural purposes as more soils of suitable agricultural standard come available?

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[2] There is a noted increase in annual precipitation and extreme daily rainfall as per comparison of 1961 – 1990 Climate Normals to those of 1981 – 2010, indicating a climate regime which is becoming more wet with higher intensity storm events. This evaluation is based on the Victoria International Airport weather station data, found here: http://climate.weather.gc.ca/climate_normals/results_1961_1990_e.html?searchType=stnName&txtStationName=victoria&searchMethod=contains&txtCentralLatMin=0&txtCentralLatSec=0&txtCentralLongMin=0&txtCentralLongSec=0&stnID=261&dispBack=0

- Yes, however that would require the land to be cleared and the import of additional soil over time, which is outside of the scope required by the PDA.

What would be required to reclaim this land?

- Amendment of the PDA;
- Suitable agricultural, primarily sand, soil for fill, which may trigger a Fill Assessment under the ALC Act;
- On site drainage and retention infrastructure that would reduce the amount of viable agricultural land to be gained;
- An integrated stormwater management plan for municipal infrastructure in the area;
- A farm plan to establish the cost of implementation versus anticipated yield.

Therefore, I recommended that some of the western portions of the Agricultural Land are not-ideal for reclamation – including an approximate 3 hectares, in addition to the 10 hectare no-reclamation, which encompass portions of land that have an excess soil moisture limitation in clayey loam soil (west-central area) and another area which has widespread surficial compaction and inundation issues (the stable areas).

2.2.7 Concluding Statement on the Western Agricultural Land

It is critically important to note the above recommendation does not prevent the DNS from utilizing all of the Agricultural Land at a future point in time. Furthermore, and in consideration of the discussion surrounding the area of land within my recommendation, I believe it could be further clarified that:

- the southern stables area could be reclaimed for specialty agricultural purposes (see Section 2.3 – Horse Stable Areas);
- the west-central portion of the Agricultural Lands could be identified as an area for future improvement (e.g. through importation of suitable agricultural soil for amendment) by the DNS;
- the 'Not Ideal for Reclamation' boundary in the northwest portion of the Agricultural Land is altered to more specifically identify the 10 ha no-reclamation requirement of the PDA; and,
- In the future, should the DNS wish to reclaim more of the Agricultural Land for cultivation; it could likely be accommodated as indicated above in Section 2.2.6.

To support these future initiatives, I would recommend ripping and grading of the stable area post demolition, removal of vegetation and clearing of an additional section of Wsikem creek, as well as clearing and paratilling of the west-central area that is not restricted to prepare for additional deposit of suitable agricultural soil by the DNS. Note that additional import and deposit of soil to the west-central area would be conducted through the DNS in an ongoing manner as the material becomes available over time. Please refer to Section 2.4 for an updated Reclamation Plan Figure 5 which reflects these changes.

2.3 Horse Stable Areas

The stable areas in the southern portion of the Agricultural Land could potentially be reclaimed to a state suitable for general agricultural with:

- sufficient imported fill to amend the soil to improve texture and drainage;
- improve organic content in soil through sourcing of suitable agricultural fill;
- a hydrogeologic assessment that considers and determines the impact of agricultural practice on the underlying Moderate Vulnerability aquifer (#609, see information below)

Aquifer # 609 characteristics:

Aquifer Name	609 IIIB (7)
Aquifer Materials	Sand and Gravel
Productivity	Moderate
Vulnerability	Moderate
Aquifer Description Report	iMapBC

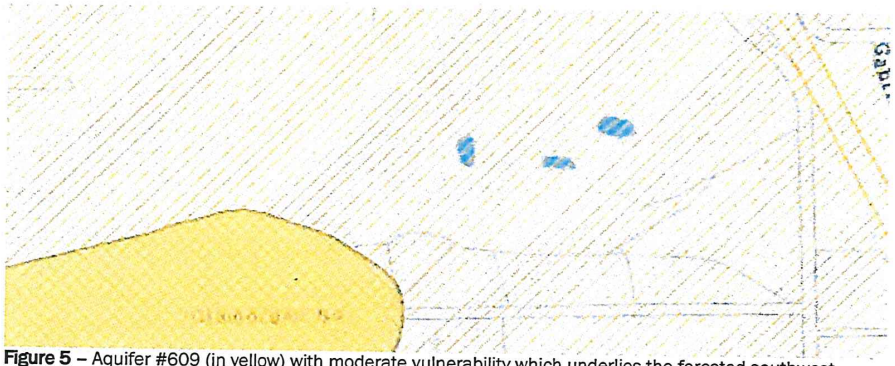


Figure 5 – Aquifer #609 (in yellow) with moderate vulnerability which underlies the forested southwest corner and Stable areas on the Sandown Property.

Alternatively, this area could be moderately graded in concert with removal of the stables so as to permit the installation of improvements for specialty agriculture that would benefit from road access (e.g. greenhouses or community farm store), should the DNS wish to make use of this area.

2.4 Update of Reclamation Plan Figure 5

Please see an updated Figure 5 of the Reclamation and Preliminary Drainage Plan below.

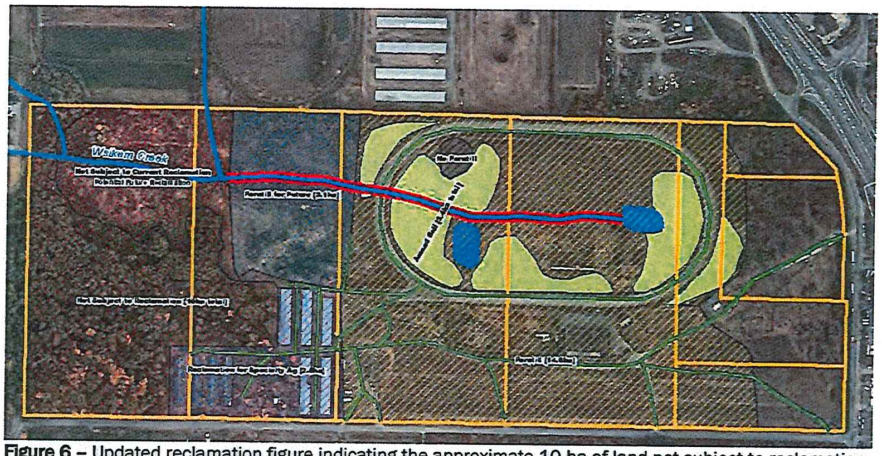


Figure 6 – Updated reclamation figure indicating the approximate 10 ha of land not subject to reclamation as per the PDA. There were also two new areas identified (Amethyst and Blue hatch) to undergo grading and paratilling, respectively, for reclamation toward specialty agriculture and future reclamation by the DNS based on suitable agricultural soil availability. A potential future reclamation area has been identified, should the DNS wish to reclaim more of the Agricultural Land in the Future.

2.5 Test Pits Methodology

Determining location and number of soil test pits for general land reclamation is highly dependent upon site context and apparent limitations. For the Agricultural Land, I proceeded with the following step-wise assessment of soil test pits on land that was scheduled for Reclamation as per the PDA:

1. Review of depositional method and quaternary geologic history of the area;
2. Review of existing soil classification and limitation assessments at 1:100,000 and 1:50,000 scale;

3. Review of historic aerial photographs to provide context and historical land use factors;
4. Review of regional hydrology, storm water management, vegetation cover, and land-use activities;
5. Incorporate all of the factors from Steps 1 – 4 to identify likely spatial variability of subsurface pedogenic conditions on Site;
6. Considering the results from Step 1 – 5, determine the likely distribution of variable soil texture on Site;
7. Considering the information from Steps 2, 3 & 4, determine general areas that will present representative samples for the results of Step 5 & 6;
8. Compare the result of Step 7 with data from Step 1 to verify capture of previous soil surveys;
9. Arrive on site and establish distinct soil pit locations within the general areas of Step 7, based on local conditions.

While surveying the Agricultural Land during site visits, and while traveling between test pits, I used a shovel, trowel or auger to dig exploratory sample holes, which verify continuity of observations from soil pits.

Through this method I was able to establish 6 discrete representative sample points representing the major pedogenic forces acting on the area. Further confirmatory shovel and auger holes were conducted to ensure similar soil texture and structure existed between these soil test pits – as those were the most pertinent factors in land capability for the Agricultural Land. I would estimate that I established an additional 25 sampling locations.

The entire area to be assessed was approximately 22 ha (the original 33 ha – 10 ha no-reclamation treed area), which is adequately represented by the total sampling (~35 samples, 6 of which were detailed investigations) and site observations when considering the depositional history and consistent pedogenic forces.

2.6 Old Roadways and Fill areas

It is known that old roadways and fill areas exist in the southern portion of the site, as the information was available in Figure 2 of the Reclamation report.

These areas, depending upon level of compaction, may require additional subsurface ripping if paratilling is not sufficient to disrupt the consolidated soil structure.

This could apply to other unknown areas if encountered, would be an 'on-the-fly' decision required of the subcontractor to meet the terms of any tilling contract, and would likely be carried out as such.

2.7 Auger/Exploratory Holes

Since these were conducted in an *ad hoc* basis to confirm continuity of observation from established data points, and the uniformity of pedogenic conditions, I did not record these locations in detail.

2.8 Drainage

It is understood there are existing downstream limitations in the municipal stormwater drainage system. It is further understood site servicing remains to be designed for the property; however these tasks will be undertaken by Sandown for review by the DNS as part of site development. In so doing, Sandown has approached its Civil Engineer to consider the drainage component and has been advised it could expand the existing ponds and install flow control devices if necessary to ensure the western discharge from the property does not exceed the existing condition. Subject to the detailed design and given my knowledge of the conditions on the property, this approach seems feasible and should be considered as part of site development.

2.9 'Springs'

The Agricultural Land is underlain by a considerable silt-clay deposit which creates an impermeable surface between .4 – 1.6m in depth. Since the depth to impermeable material is variable, as is the existing land surface, the limited subsurface movement of water – due to low permeability – will result in localized upwelling, or arrival to surface, of shallow groundwater.

To my knowledge and understanding of hydrogeology, these should not be defined as springs. They have no connection to an aquifer, as they are consequence of a near surface perched water table. They are not safe to drink. They are not a resource protected by the Water Act. These groundwater upwellings may not present at surface if final grade is elevated in the localized area and lateral movement of groundwater is improved through paratilling.

2.10 Reclamation timeframe

Development of land capability for agriculture will occur over longer timeframes due to the intrinsic nature of soil amendment and nutrient availability. Consequently, it is very difficult to predict the time associated with a complete reclamation effort to Class 1 no-limitation to agriculture land. That said, it is possible to estimate the timeframes associated with the activities recommended herein, as follows:

Activity	Estimated Time Required	Running Total, including seasonal-window operational delay
Demolition and removal of material	2 mo	2 mo
Re-grade of Site with amended fill	Up to 6 mo	8 mo
Tilling	Up to 2 mo	[concurrent] 8 mo
Cover Crop and Fallow, ploughing-in organics bi-annually to be undertaken by the DNS as an agricultural practice.	-	-

3 Statement of Author Qualifications

Thomas R. Elliot, PhD, A.Ag P.Geo is a practicing Agrologist who possesses a Doctoral degree in Pedology (Soil Science) conferred by the University of Guelph in 2008. Thomas has conducted land capability for agriculture assessments, landscape to site-scale hydrologic assessments, and has overseen ecologic restoration of degraded landscapes. He has published over 30 peer-reviewed journal articles and made over 100 technical, policy, and knowledge transfer/outreach presentations in his past 12 years of career practice. Thomas is a registered professional geoscientist (P.Geo) in B.C., and is currently articling with the B.C. Institute of Agrologists (A.Ag) under mentoring by senior Professional Agrologist colleagues.

PROFESSIONAL PROVINCE OF Dr. T. ELLIOT # 43570 BRITISH COLUMBIA GEOSCIENTIST

Thomas R. Elliot, PhD P.Geo A.Ag
Agrologist, Geoscientist and Hydrogeologist

4 Limitations

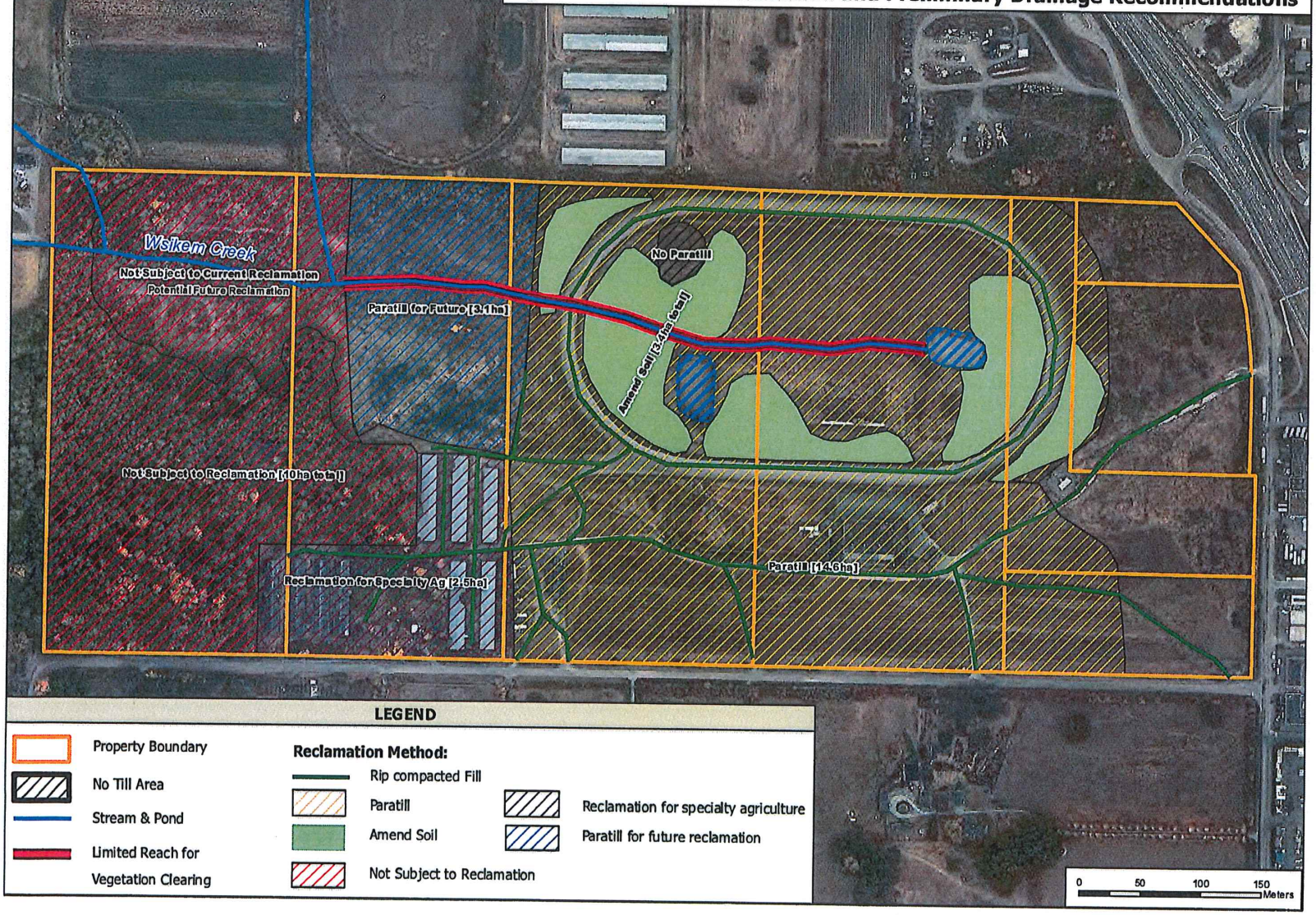
The evaluations contained in this addendum are based on professional judgment, approximate calculations, and experience. They are inherently imprecise. Soil, agricultural and drainage conditions other than those indicated above may exist on the site. If such conditions are observed, Madrone should be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

The recommendations contained in this addendum pertain only to the site conditions observed by Madrone at the time of the inspection. This addendum 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.

MADRONE	**PROJECT:** Agricultural Land Reclamation Assessment and Preliminary Drainage Plan	**LOCATION:** Sandown Park, District of North Saanich, BC	**CLIENT:** Sandown Properties Ltd	**DOSSIER NO:** 16.0074
	ASSESSED BY: Thomas R Elliot, PhD A.Ag, P.Geo and Jim Richard, P.Ag	**MAP SCALE:** 1:4,000	**MAPPING DATE:** 7/13/2016	**DRAWN BY:** Johnathan Mack

N W E S

Figure 5: Sandown Reclamation and Preliminary Drainage Recommendations



LEGEND

- Property Boundary
- No Till Area
- Stream & Pond
- Limited Reach for Vegetation Clearing

Reclamation Method:

- Rip compacted Fill
- Paratill
- Amend Soil
- Not Subject to Reclamation
- Reclamation for specialty agriculture
- Paratill for future reclamation

Attachment C

AGRICULTURAL CAPABILITY CLASSIFICATION IN BC

Not all agricultural lands are created equal and not all agricultural land are capable or suitable for producing all agricultural products, regardless of the level of management applied. The main limiting factors in British Columbia are climate and topography. Climate determines the heat energy and moisture inputs required for agricultural production. Topographic limitations mostly restrict the ability to use cultivation equipment. Soils with all their variability are also a key limiting factor. Depending upon their properties and characteristics they may be appropriate for sustaining the production of certain agricultural products, but not others.

In BC agricultural capability ratings and limitations are assessed through a classification system known as the "Land Capability Classification for Agriculture in British Columbia"[1]. The classification system describes seven land capability classes for agriculture (Classes 1 to 7). Class 1 land has minimal limitations when associated with the most amenable climates in the Province. In Class 2 to Class 5 lands the limitations increase. Class 6 lands have limitations that preclude arable agricultural activities yet are capable of sustaining native and/or perennial uncultivated agriculture. Class 7 lands have limitations that preclude all arable and natural grazing agricultural systems, regardless of the climate. Increasingly, new innovations in drainage and irrigation, tillage, nutrient replenishment (whether organic or inorganic), pest management, as well as closed environmental systems, allow for agricultural production on agricultural land once deemed too limited or unsuited for producing specific products. The recognition of 'arable' agricultural activities is also significant in that Class 6 and 7 lands may still be agriculturally productive, where topography and climate allows, and where the agricultural activities are dedicated to closed environmental systems (i.e. greenhouses).

The land capability classification for agriculture has two main components; the capability class and the capability subclass. The class identifies potential for agriculture. **The best agricultural lands are rated Class 1 because they have the ideal climate and soil to allow a farmer to grow the widest range of crops. Class 7 is considered non-arable, with no potential for soil bound agriculture.** As the class numbers increase from Class 1 to Class 7, the range of crops decreases. Associated with each class is a subclass that identifies limitations or special management practices needed to improve the soil, such as topography, stoniness, soil moisture deficiency, low fertility, etc. Regular management practices required to make land productive include, drainage, irrigation, stone picking, fertilization etc.

AGRICULTURAL CAPABILITY CLASSIFICATION IN BC

LAND CAPABILITY CLASSES FOR MINERAL SOILS

The seven land capability classes for mineral soils are defined and described as follows:

CLASS 1 LAND IN THIS CLASS EITHER HAS NO OR ONLY VERY SLIGHT LIMITATIONS THAT RESTRICT ITS USE FOR THE PRODUCTION OF COMMON AGRICULTURAL CROPS.

Land in Class 1 is level or nearly level. The soils are deep, well to imperfectly drained under natural conditions, or have good artificial water table control, and hold moisture well. They can be managed and cropped without difficulty. Productivity is easily maintained for a wide range of field crops.

CLASS 2 LAND IN THIS CLASS HAS MINOR LIMITATIONS THAT REQUIRE GOOD ONGOING MANAGEMENT PRACTISES OR SLIGHTLY RESTRICT THE RANGE OF CROPS, OR BOTH.

Land in class 2 has limitations which constitute a continuous minor management problem or may cause lower crop yields compared to Class 1 land but which does not pose a threat of crop loss under good management. The soils in Class 2 are deep, hold moisture well and can be managed and cropped with little difficulty.

CLASS 3 LAND IN THIS CLASS HAS LIMITATIONS THAT REQUIRE MODERATELY INTENSIVE MANAGEMENT PRACTISES OR MODERATELY RESTRICT THE RANGE OF CROPS, OR BOTH.

The limitations are more severe than for Class 2 land and management practises are more difficult to apply and maintain. The limitations may restrict the choice of suitable crops or affect one or more of the following practises: timing and ease of tillage, planting and harvesting, and methods of soil conservation.

CLASS 4 LAND IN THIS CLASS HAS LIMITATIONS THAT REQUIRE SPECIAL MANAGEMENT PRACTISES OR SEVERELY RESTRICT THE RANGE OF CROPS, OR BOTH.

Land in Class 4 has limitations which make it suitable for only a few crops, or the yield for a wide range of crops is low, or the risk of crop failure is high, or soil conditions are such that special development and management practises are required. The limitations may seriously affect one or more of the following practises: timing and ease of tillage, planting and harvesting, and methods of soil conservation.

CLASS 5 LAND IN THIS CLASS HAS LIMITATIONS THAT RESTRICT ITS CAPABILITY TO PRODUCING PERENNIAL FORAGE CROPS OR OTHER SPECIALLY ADAPTED CROPS.

Land in Class 5 is generally limited to the production of perennial crops or other specially adapted crops. Productivity of these suited crops may be high. Class 5 lands can be cultivated and some may be used for cultivated field crops provided unusually intensive management is employed and/or the crop is particularly adapted to the conditions peculiar to these lands. Cultivated field crops may be grown on some Class 5 land where adverse climate is the main limitation, but crop failure can be expected under average conditions. Note that in areas which are climatically suitable for growing tree fruits and grapes the limitations of stoniness and/or topography on some Class 5 lands are not significant limitations to these crops.

CLASS 6 LAND IN THIS CLASS IS NONARABLE BUT IS CAPABLE OF PRODUCING NATIVE AND OR UNCULTIVATED PERENNIAL FORAGE CROPS.

Land in Class 6 provides sustained natural grazing for domestic livestock and is not arable in its present condition. Land is placed in this class because of severe climate, or the terrain is unsuitable for

AGRICULTURAL CAPABILITY CLASSIFICATION IN BC

cultivation or use of farm machinery, or the soils do not respond to intensive improvement practises. Some unimproved Class 6 lands can be improved by draining and/or diking.

CLASS 7 LAND IN THIS CLASS HAS NO CAPAPBILITY FOR ARABLE OR SUSTAINED NATURAL GRAZING.

All classified areas not included in Classes 1 to 6 inclusive are placed in this class. Class 7 land may have limitations equivalent to Class 6 land but they do not provide natural sustained grazing by domestic livestock due to climate and resulting unsuitable natural vegetation. Also included are rockland, other nonsoil areas, and small water-bodies not shown on maps. Some unimproved Class 7 land can be improved by draining or diking.

Agriculture Capability Subclasses

The subclass indicates lands with similar kinds but varying intensities of limitations and hazards. It provides information on the kind of management problem or use limitation. Except for Class 1 lands, which have no significant limitations, the capability classes are divided by subclasses on the basis of type of limitation to agricultural use. Each class can include many different kinds of soil, similar with respect to degree of limitation: but soils in any class may require unlike management and treatment as indicated by the subclasses shown.

A & M	Soil moisture deficiency	**N**	Salinity
C	Adverse climate (excluding precipitation)	**P**	Stoniness
D	Undesirable soil structure	**R**	Shallow soil over bedrock and/or bedrock outcroppings
E	Erosion	**T**	Topography
F	Low fertility	**W**	Excess water (groundwater)
I	Inundation (flooding by streams, etc.)	**S & X**	Cumulative and minor adverse conditions

AGRICULTURAL CAPABILITY CLASSIFICATION IN BC

Table 1: ALR Area by Region

Region	ALR Area (hectares)*	ALR Area (percent)
Okanagan	224,977	5
Island	116,207	2
South Coast	148,207	3
Interior	1,528,968	33
Kootenay	392,557	8
North	2,210,783	49
Total	4,621,699	100

* ALC GIS Database as of April 2013

Table 2: Total CLI Agriculturally Classified and ALR Lands in British Columbia (hectares)

CLI Agricultural Classification	Total Area Classified (hectares)	Land in the ALR	ALR as a Percent of Land Classification
Class 1	69,989	52,920	75.6%
Class 2	397,634	289,079	72.7%
Class 3	999,644	692,090	69.2%
Class 4	2,131,581	1,409,080	66.1%
Class 5	6,137,470	1,468,100	23.9%
Class 6	5,357,781	431,560	8.1%
Class 7	14,898,572	167,540	1.1%
Water		88,890	
Total	29,992,071	4,599,259	

Source: Select Standing Committee on Agriculture, 1978, Inventory of Agricultural Land Reserves in British Columbia, Phase 'I Research Report.

Table 3: Agriculture Capability (BC Land Inventory) by Region

Committee Region (Current Region)	Total ALR Area	BCLI Class 1-4 Lands (hectares)	BCLI Class 1-4 Lands (percent)
Cariboo (Interior)	947,000	335,000	37
Island (Island)	112,000	83,000	74
Kootenay (Kootenay)	429,000	232,000	54
Mainland (South Coast)	175,000	130,000	74
Okanagan (Okanagan)	238,000	140,000	59
Omineca (North)	504,000	217,000	43

AGRICULTURAL CAPABILITY CLASSIFICATION IN BC

Peace (North)	1,336,000	960,000	72
Skeena (North)	277,000	147,000	53
Thompson (Interior)	580,000	181,000	31
British Columbia	4,599,000	2,425,000	53

Source: Select Standing Committee on Agriculture, November 1978, Land Productivity in BC; Phase 1 Research Report,

Table 4: British Columbia Agricultural Capability (Percent of BC's Land Base)

Land Capable of a Range of Crops (CLI Class 1-4)	2.70%
Prime Agricultural Land (CLI Class 1-3)	1.10%
Class 1 Agricultural Capability	0.06%
Land Suitable for Tree Fruit Production in the ALR	0.04%

Source: Smith, B.E. 1998. Planning for Agriculture - Resource Materials, Provincial Agricultural Land Commission, Burnaby

References

1. Agricultural Land Commission Website November 2013. http://www.alc.gov.bc.ca/alr/What_is_Ag_Land.htm and http://www.alc.gov.bc.ca/alr/Ag_Capability.htm
2. Canada Land Inventory. 1972. Reprint. Soil Capability Classification for Agriculture. Report No. 2. Department of the Environment. Ottawa, Ontario. 16 pp. [Available here]
3. Climatology Unit. 1981. Climate Capability Classification for Agriculture in British Columbia. APD Technical Paper 4. Air Studies Branch, British Columbia Ministry of Environment. Victoria, B.C. 23 pp. [Available here]
4. Kenk, E. and I. Cotic. April, 1983. Land Capability Classification for Agriculture in British Columbia. MOE Manual 1. Surveys and Resource Mapping Branch, Ministry of Envirnoment and Soils Branch, Ministry of Agriculture and Food. Kelowna, B.C. 68 pp. ISSN 0821-0640 [Available here]
5. Runka, G.G. 1973. Methodology — Land Capability for Agriculture — British Columbia Land Inventory (CLI). Soil Survey Division, British Columbia Department of Agriculture. Kelowna, B.C. 25 pp. [Available here]
6. Smith, B.E. 1998. Planning for Agriculture - Resource Materials, Provincial Agricultural Land Commission, Burnaby http://www.al.gov.bc.ca/resmgmt/publist/800Series/822420-1.pdf
7. B. Smith. 2006. ,A Work In Progress The British Columbia Farmland Preservation Program http://www.smartgrowth.bc.ca/Portals/0/Downloads/AWorkinProgress_Smith.pdf
8. Select Standing Committee on Agriculture, November 1978, Land Productivity in BC; Phase 1 Research Report
9. Select Standing Committee on Agriculture, 1978, Inventory of Agricultural Land Reserves in British Columbia, Phase 'I Research Report

Attachment D

Agricultural Land Commission
133–4940 Canada Way
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November 14, 2011

Reply to the attention of Jennifer Carson
ALC File: #52454/ #52455

Ascot Jockey Club Ltd.
William A. Randall
6137 Collingwood Place
Vancouver, BC
V6N 1V2

Dear Mr. Randall:

Re: Applications to Exclude land out of and Include land into the Agricultural Land Reserve

Please find attached the Minutes of Resolutions **#357/2011 and #383/2011** outlining the Commission's decisions as they relate to the above noted applications.

Once the conditions have been fulfilled with respect to Resolution 357/2011, File 52454 please send two (2) paper prints of the final survey plans to this office. When the Commission confirms that all conditions have been met, it will authorize the Registrar of Land Titles to accept registration of the plan and will confirm that the land has been excluded. Please note that a 5 year time limit has been placed on the completion of conditions.

Yours truly,

PROVINCIAL AGRICULTURAL LAND COMMISSION

Per:

Brian Underhill, Executive Director

Enclosure: Minutes/Sketch Plan

cc: Robill Holdings Ltd, Suite 1180 -505 Burrard Street, Vancouver, BC,
District of North Saanich (DNS File 3360-20)

TK/
52454d1/52455d1

PROVINCIAL AGRICULTURAL LAND COMMISSION

A meeting was held by the Provincial Agricultural Land Commission on Wednesday October 26th, 2011 at the offices of the Commission located at #133 – 4940 Canada Way, Burnaby, B.C.

COMMISSION MEMBERS PRESENT:

Richard Bullock	Chair
Jennifer Dyson	Vice-Chair
Gordon Gillette	Vice-Chair
Bert Miles	Commissioner
Jim Johnson	Commissioner
Jerry Thibeault	Commissioner
Lucille Dempsey	Commissioner
Denise Dowswell	Commissioner
Jim Collins	Commissioner

COMMISSION STAFF PRESENT:

Roger Cheetham	Regional Planner
Jennifer Carson	Land Use Planner
Terra Kaethler	Land Use Planner
Brian Underhill	Executive Director
Colin Fry	Executive Director

APPLICATION ID: #52454
PROPOSAL: To exclude approximately 5.0 ha for commercial uses, comprised of portions of four small (0.8 ha to 2 ha) parcels. The entire Sandown Racetrack facility is 38.1 ha under eight (8) titles. The applicant proposes to consolidate the remaining titles (4 parcels) into a single agricultural parcel, and include approximately 5.0 ha of adjacent District land into the ALR (Application #52455). (Application submitted pursuant to section 30(1) of the *Agricultural Land Commission Act*)

APPLICATION ID: #52455
PROPOSAL: To include approximately 5.0 ha District land into the ALR. The parcel is adjacent to the land proposed for exclusion under application #52454, (Application submitted pursuant to section 17(3) of the *Agricultural Land Commission Act*)

PROPERTY INFORMATION:

APPLICATION ID: #52454
Owner: Ascot Jockey Club
Dates of Acquisition: 1980, 1983, 2010. The family has owned the properties and racetrack for decades.
Properties: 8 separate parcels totalling 38.1 ha. All within the ALR.

PROPERTY INFORMATION (continued):

PROPERTY 1

Parcel ID: 005-880-289
Legal Description: Lot 2, Section 14, Range 2 East, North Saanich District Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 7.8 ha

PROPERTY 2

Parcel ID: 005-880-386
Legal Description: Lot 3 Section 14 Range 2 East, North Saanich District, Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 7.0 ha

PROPERTY 3

Parcel ID: 005-880-548
Legal Description: Lot 8, Section 14, Range 2 East, North Saanich District, Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 1.7 ha

PROPERTY 4

Parcel ID: 005-880-751
Legal Description: Amended Lot 7 (DD 192717I) Section 14, Range 2 East, North Saanich District, Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 2.9 ha

PROPERTY 5

Parcel ID: 005-880-670
Legal Description: Amended Lot 6 (DD 1927191I) Section 14, Range 2 East, North Saanich District, Plan 6103, Except Part in Plan 1187RW
Civic Address: Glamorgan Road, North Saanich
Size: 0.7 ha

PROPERTY 6

Parcel ID: 005-880-505
Legal Description: Lot 5, Section 14, Range 2 East, North Saanich District, Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 7.9 ha

PROPERTY 7

Parcel ID: 003-692-248
Legal Description: Lot 4, Section 14, Range 2 East, North Saanich District, Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 7.9 ha

PROPERTY 8

Parcel ID: 009-422-021
Legal Description: Section 14, Range 2 East, North Saanich District, Except Part in Plan 6103
Civic Address: Glamorgan Road, North Saanich
Size: 2.2 ha

PROPERTY INFORMATION (continued):

APPLICATION ID: #52455
Owner: District of North Saanich
Dates of Acquisition: 2002

Parcel ID:	005-463-386
Legal Description:	Lot 2, Sections 13 and 14, Range 1 East, North Saanich District, Plan 8126
Civic Address:	1620 Mills Road, North Saanich
Size:	5.0 ha

SITE INSPECTION MEETING:

A site inspection meeting was conducted on September 22, 2011, following which a report was prepared. The site inspection meeting report was approved by the agent and by Commissioner Dyson on October 14, 2011.

Section 14(2) of the *Agricultural Land Commission Act* provides that a member of the Commission who was not present at a meeting to determine an application or other matter may vote on the application or matter only if a summary of the meeting is given to the member before the vote. The site inspection meeting report constitutes a written record of the site inspection meeting and has been provided to all Commission members recorded above.

EXCLUSION MEETING:

For applications pursuant to section 30(1) of the *Agricultural Land Commission Act.*

The exclusion meeting was held on October 25, 2011 at the offices of the Commission. Those in attendance were:

Applicants: William Randall and Bill Randall
Agent: Rob Buchan
All Commission members and staff as previously listed, as well as Commissioner Sylvia Pranger.

The applicants explained the history of the property and their family's involvement with thorough-bred racing since the 1950's. Racing on the property ended in 2008, with off-track betting ending in 2011. The applicants approached the District of North Saanich with a proposal to establish 2.0 ha lots of the property. The District was not supportive of that proposal, but has been working with the applicants to develop a plan for the property that would benefit the agricultural community. The agent explained North Saanich's proposal in detail, highlighting the following:

- The proposal will result in the consolidation of 8 existing parcels into two, comprising a 33.5 ha. agricultural parcel and a 5.0 ha commercial parcel that may subsequently be further subdivided.
- A covenant is to be registered restricting the 33.5 ha. to agriculture and accessory uses.
- 5.0 ha. of municipal land is to be included into the ALR and improved for agriculture (as per Application #52454).

- It is planned that the land to be retained in the ALR and the area to be included into the ALR will be made available for agriculture purposes. This may include leases to existing farmers, allotments for new farmers, community gardens, farmer markets and educational initiatives, including university agricultural programs.
- It is intended that soil improvements will be made through the District's green waste program using top soil taken from the commercial parcel and possibly from other sources.
- The District is willing to enter into a MOU with the ALC and make a policy commitment to fund agricultural improvements using 50% of the incremental increase in tax revenues for at least 5 years

It was pointed out that if the proposal does not proceed it is likely that the existing subdivisions would be sold and developed for rural residential purposes.

COMMISSION CONSIDERATION:

Context

Section 6 of the *Agricultural Land Commission Act* identifies the purposes of the Commission as: (1) to preserve agricultural land; (2) to encourage farming on agricultural land in collaboration with other communities of interest; and (3) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, bylaws and policies.

Agricultural Capability

Based on the information contained in Map 92B.063 (Scale 1:20,000) of the BC Land Inventory (BCLI), 'Land Capability Classification for Agriculture in B.C.' system, the agricultural capability ratings for the area proposed for exclusion are identified as being:

Unimproved Rating: 4AW Improved Rating: (6:2DW 4:3DW)

Class and Subclass Descriptions:

Class 2 – Land in this class has minor limitations that require good ongoing management practices or slightly restrict the range of crops, or both.
Class 3 – Land in this class has limitations that require moderately intensive management practices or moderately restrict the range of crops, or both.
Class 4 – Land in this class has limitations that require special management practices or severely restrict the range of crops, or both.

A soil moisture deficiency
D undesirable soil structure
W excess water

- The soil capability ratings of the area proposed for exclusion are improvable to prime (2D) with limitations of unfavourable soil structure. Much of the cleared land is used for pasture, track and infield, and parking (on grass).

- The District also proposes to include an adjacent parcel of ~5.0 ha of previously disturbed land into the ALR. The property was used as a sandpit since the 1970's and was mined out. It is now being used as a municipal green waste facility and is in the process of being reclaimed. The soil capability of the lands proposed for inclusion are identified as predominantly Class 5 unimprovable, however, the District is working to improve the soils of this parcel.

The Commission considered that the land proposed for exclusion was of prime agricultural capability. Further, it noted that the land proposed for inclusion was of secondary capability for agriculture.

Agricultural Suitability

The Commission assessed whether external factors such as encroaching non-farm development have caused or will cause the land to become unsuitable for agriculture. The properties have prime agricultural capability and are in an agricultural area. Kept in one unit, the Commission does not believe there are external factors that render the land unsuitable for agricultural use.

However, the land is currently divided into eight separate parcels. Further, there is minimal agricultural activity due in part to the abandoned racetrack as well as the associated vacant barns and structures. The subject lands are at risk of being sold separately and further alienated. The subject property is, with the exception of one parcel located at the eastern extremity of the property, located in a special zone that in addition to farm uses also permits facilities related to the race track including horse stables, grandstand with or without clubhouse facilities and an agricultural exhibition facility. A caretakers unit is permitted as a secondary use. The one other property is zoned as Rural Agricultural within which farm uses, nurseries and a single family residential building are permitted. The Commission noted that the District proposes to rezone the property that is to remain in the ALR to restrict usage to agriculture.

Assessment of Potential Impact on Agriculture

The Commission also assessed the impact of the proposal against the long term goal of preserving agricultural land. The Commission recognized that the proposed consolidation and the covenanting of the land that is to remain in the ALR for agricultural use would result in significant benefits for agriculture and would remove the possibility of the area being developed as rural estates. Further, the Commission noted that the District intends to demolish the existing structures, rehabilitate the land, consult with the wider agricultural community to facilitate agricultural development on the property, and fund agricultural improvement initiatives; such as drainage works. It also intends to hire an Agrologist to manage the site. The Commission recognized that these measures will result in significant benefits for agriculture if they are undertaken by the District. The Commission noted that the District is willing to enter into a memorandum of understanding with the Commission and make a policy commitment to fund these projects. However, as pointed out by the applicant at the exclusion meeting, it is not possible to bind successive councils and there is a possibility that future councils might not be as willing as the present council to proceed with these improvements.

The Commission also considered that a 5.0 ha area of land was proposed for inclusion. While not of the same capability as the area to be excluded, the Commission appreciated the District's efforts to reclaim the land for agricultural use. It noted that the topsoil from the proposed exclusion area could be used to help rehabilitate the areas currently compromised by the race

track and associated facilities as well as the area proposed for inclusion. The Commission noted that it is important that the quality of the soils used for rehabilitation be monitored by a soils Agrologist, both with respect to the consolidated site and also the property to be included into the ALR.

Overall the Commission was of the view that the agricultural benefits arising from the proposal outweigh the negative impacts of excluding 5.0 ha of agricultural land. The Commission believed that with the District of North Saanich's leadership and management of this site, the community of North Saanich will be gaining a significant asset of a large agricultural parcel to be utilized in support of agricultural initiatives that will benefit to the whole community. The Commission viewed the proposal as a creative approach to rehabilitate and invest in the subject lands to improve the potential for agricultural use. The Commission recognized that it was not possible to guarantee that successive councils will pursue the project with the enthusiasm of the present council. However, the Commission noted that successive councils in North Saanich have consistently supported agriculture. Moreover the district has established an Agricultural Advisory Commission, has adopted an agricultural strategy and is at present embarking upon a study of agriculture, all of which encouraged the Commission to believe that future councils will wish to pursue the present initiatives.

CONCLUSIONS:

1. That the land under application has agricultural capability.
2. That the land under application #52454 for exclusion is suitable for agricultural use and that the proposed remainder parcel could be made even more suitable by reclaiming the former racetrack lands and consolidation of parcels into a larger parcel.
3. That the land under application #52455 for inclusion has agricultural potential.
4. That the overall agricultural benefits of the proposal outweigh the drawbacks stemming from the loss of agricultural land resulting from the proposed exclusion.

IT WAS
MOVED BY: **Commissioner B. Miles**
SECONDED BY: **Commissioner G. Gillette**

THAT the application #52454 be approved;

AND THAT the approval is subject to the following conditions:

1. The inclusion of approximately 5.0 ha of land as proposed (Application #52455).
2. A memorandum of understanding being developed and entered into with the Agricultural Land Commission to ensure that the future development of the site is in substantial accordance with the intent of the proposal and in accordance with the reclamation plan required under point 3. The memorandum of understanding is to provide for the engagement of a professional agrologist or otherwise qualified professional to oversee the implementation of the reclamation and drainage plan for the subject lands and ensure that all soils used to rehabilitate or improve the land are of appropriate quality. The memorandum of understanding is also to provide for the engagement of the Agricultural Advisory Commission to review the agrologist report and site development plans to ensure the benefits to the agricultural community are realized.
3. The approval by the Commission of a reclamation and drainage plan prepared by a professional Agrologist or otherwise suitably qualified professional for the consolidated

parcel and the parcel proposed for inclusion to return the lands to a state suitable for agricultural purposes. The plan would include removal of the abandoned racetrack buildings and structures, stockpiling and utilization of the topsoil from the land to be excluded to assist in the reclamation of the proposed consolidated parcel and the land to be included, and ensuring of proper drainage on and from the property. The plan would also include estimated timelines and, if appropriate, a phased approach to reclamation.

4. That the source of any soil being added to the subject properties be inspected to ensure it is not contaminated and meets standards for agricultural use.
5. The construction of a fence and the planting of vegetation for the purpose of buffering the excluded lands from the remainder parcel in accordance with the Commission's Landscape Buffer Specifications and the Ministry of Agriculture's Edge Planning Guidelines
6. The preparation of a subdivision plan to delineate the area to be excluded in accordance with the drawing submitted with the application
7. The registration of a covenant on title of the proposed consolidated parcel for the purpose of restricting use to agricultural and accessory uses and prohibiting park development on the site
8. The zoning of the consolidated lot that remains in the ALR being changed from Exhibition to an appropriate Rural Agricultural zone that is consistent with the Agricultural Land Commission Act and BC Regulation 171/2002 and only permits agricultural uses.
9. The exclusion and inclusion must be completed within five (5) years from the date of this decision.

AND THAT the application #52455 be approved.

CARRIED
Resolution # 357/2011
Resolution #383/2011

Provincial Agricultural Land Commission
Application #52454 and #52455
Resolution #357/2011 and #383/2011

- Subject properties
- 5.0 ha to be excluded
- 5.0 ha to be included
- Area to be consolidated

Proposal Overview