Agricultural Land Commission Act	**Policy P-10** **October 2017** **CRITERIA FOR AGRICULTURAL CAPABILITY ASSESSMENTS**

This policy is intended to provide information for professional agrologists submitting agricultural capability assessment reports (a "Report") as part of an exclusion, subdivision, non-farm use application, or as required through a compliance and enforcement action to ensure that they: 1) are providing sufficient information and evidence to support their assessment; 2) are qualified to complete this work; and 3) perform their work on the Reports in accordance with the Code of Ethics of the British Columbia Institute of Agrologists (the "Code of Ethics").The submission of a Report as part of an application is optional; however, one is recommended if low agricultural capability is the primary reason for the application.

CRITERIA FOR FIELD WORK AND REPORTING:

A detailed soil survey must be completed in order to support the agricultural capability assessment and to confirm or revise existing published capability mapping. The soil survey must be conducted at a Survey Intensity Level 1 (in accordance with the Soil Inventory Methods of BC) at a density of one detailed test pit for every one to five hectares. The surveyor must use their discretion in the field to determine how many test pits are required to accurately assess the site. Detailed test pits must include the following information:

- Horizon designations
- Horizon depths
- Colour (Munsell Colour Chart)
- Texture
- Structure
- Consistence
- Coarse fragment content by percent volume for gravel, cobbles and stones
- Presence and depth of mottles (size, abundance, colour)
- Drainage class
- Rooting depth/root restricting layer

Other information that must be collected as necessary includes:

- laboratory data to revise fertility ratings and salinity;
- clinometer readings for slope gradients; and,
- revisions to soil moisture deficits that are supported by local climate data and evapotranspiration rates corrected for site specific texture and coarse fragment content

Test pits must be excavated into the C horizon or to auger refusal. The surveyor must include a soil profile photograph with each test pit (including a tape measure for scale) as well as a landscape photo of the test pit area.

The Report must include a map indicating the location of the test pits and any new capability delineations not previously mapped (polygons). If the site has multiple agricultural capability ratings, the Report must also include a table of the unimproved and

improved agricultural capability ratings and area in hectares of each polygon. The Report must provide a discussion of crop suitability as well as non-soil bound agricultural suitability (e.g., greenhouses, poultry barns). Soil survey information and photos for each detailed test pit must be appended to the Report.

If any agricultural limitations are not considered improvable due to site specific considerations, the Report must provide evidence to support this claim. For example, if access to irrigation water is an issue that may limit agricultural capability of a property, the agrologist must calculate the agricultural water demand for a suitable crop compared to available water from various water sources. The Commission considers surface water licences, groundwater, dugouts, and purchasing water from water licence holders as viable options. If these are not considered viable, the agrologist must provide sufficient evidence as to why it is not.

Other information provided in the Report beyond these requirements is considered supplemental to the agricultural capability assessment. Examples of additional information include economic feasibility studies, planning considerations, access to markets, etc.

QUALIFICATIONS:

Agrologists who are submitting Reports to the Commission must provide a bio of their qualifications. The minimum requirements include:

- a bachelor's degree in Agriculture (preferred soils), physical geography, geology, civil or geological engineering, or equivalent;
- completion of upper level courses in agriculture and soil survey/soil genesis;
- completion of at least two full field seasons working under the supervision of a soil surveyor/pedologist;
- demonstrated knowledge of soil survey, soil mapping and agricultural capability classification according to the established methodology (see Methods below);
- registration with the British Columbia Institute of Agrologists in at least one of the following areas of practice:
    - soil and land conservation, reclamation planning and management;
    - soil and terrain classification, mapping and land evaluation; or,
    - arable land evaluation, conservation planning and management.

If the agrologist is unsure if they meet these minimum requirements or believe they have other training/education than those listed above, they should contact Commission Staff.

Reports will be reviewed by the Commission Staff for consistency with these requirements. Any Reports that are deficient in information may be sent back to the author for revision or may not be given the same weight as compliant Reports. The application will be put on hold while the Report is being revised.

CODE OF ETHICS:

It is extremely important that Reports not only comply with the requirements set out above but also that Reports must comply with the Code of Ethics. In particular, the following sections of the Code of Ethics are relevant and important:

1) Section 1
   “In discharging their responsibilities to the public, members must:

   (f) ensure that they distinguish between facts, assumptions and opinions in the preparation of reports or other materials; and

(g) ensure that they clearly state that a report or other materials constitutes an opinion and identifies the limitations within which the opinion is provided.

2) Section 2
"In discharging their responsibilities to the public, members must:

(f) decline any retainers, employment or assignments that would give rise to a conflict of interest.

3) Section 3
"In discharging their responsibilities as expert witnesses before courts and tribunals, members must:

(e) ensure that they provide an objective expert opinion and not an opinion that advocates for their client or employer or a particular partisan position."

The Commission is a "tribunal" under the *Administrative Tribunals Act*.

Members should be aware that, all else being equal, Reports that, in the opinion of the Commission, are not compliant with the Code of Ethics will not be given the same weight as Reports that are compliant with the Code of Ethics. This may adversely affect the application for which the Report has been prepared.

TERMS:

Agricultural capability assessment – means an assessment conducted as per the Land Capability Classification for Agriculture in BC (Kenk, 1983) to determine, confirm, or reassess the agricultural capability classification rating of agricultural land.

METHODS:

Agricultural Capability

Kenk, E. 1983. Land Capability Classification for Agriculture in BC. MOE Manual 1. Ministry of Environment. Victoria.

RAB. 1972. Climatic Capability for Agriculture in BC. Resource Analysis Branch Technical Paper 1. Province of BC. Victoria.

Soil Classification and Survey

Agriculture Canada Expert Committee on Soil Survey. 1987b. Soil Survey Handbook-Volume 1. Land Resource Research Centre, Contribution No. 85-30. Technical Bulletin 1987-9E. Agriculture Canada, Ottawa.

Agriculture and Agri-Food Canada, Soil Classification Working Group. 1998. The Canadian System of Soil Classification. Agriculture Canada. Research Branch. Ottawa.

Luttmerding, H.A., D.A. Demarchi, E.C. Lea, D.V. Meidinger and T.Vold (eds.). 1990. Describing Ecosystems in the Field - 2nd. Edition. MOE Manual 11, Ministry of Environment and Ministry of Forests. Victoria, B.C. 213pp.

Mapping Systems Working Group. 1981. A Soil Mapping System for Canada: Revised. Land Resource Research Institute, Contribution No. 142. Agriculture Canada, Ottawa. 94 pp.

Resources Inventory Committee. 1995 Soil Inventory Methods for British Colombia.