

2010 Reclamation Criteria for Wellsites and Associated Facilities

Summary of Changes

(Updated June 2011)

Government of Alberta ■

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2. Background

2.1. General - Apply to All Three Criteria

- **Land Manager:** For Public Lands, this includes staff from Sustainable Resource Development (SRD) responsible for stewarding public/crown lands. For Provincial Parks and Protected Areas this will include staff from Tourism, Parks and Recreation. For Special Areas this will include the Special Areas Board. For Private Lands, this includes the landowner, their designate, or occupant.
- **Regulator:** On Public Lands, this refers to Sustainable Resource Development. For Provincial Parks and Protected Areas this will include staff from Tourism, Parks and Recreation. On Private Lands and Special Areas this refers to Alberta Environment.

2.2. Cultivated Land Criteria

- See above

2.3. Forested Land Criteria

- See above

2.4. Native Grassland Criteria

- See above

3. Land Types in the 2010 Reclamation Criteria

The following changes were made to the Land use change section:

3.1. General - Apply to All Three Criteria

- Cultivated Lands: Statement was added to expand the application of the Cultivated Land Criteria to agroforestry tree farms was added

3.2. Cultivated Land Criteria

- See above

3.3. Forested Land Criteria

- See above

3.4. Native Grassland Criteria

- See above
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4. The Assessment Process

4.1. General - Apply to All Three Criteria

- A description for 'Undisturbed' and 'Disturbed' areas was added to this section for all three criteria documents.
- The section in all three criteria documents was revised to provide guidance for the information that is required to be submitted (i.e., assessment tool and RoO) versus information where alternate forms can be submitted (i.e., site diagrams, photos).
- The section on the Use of Step-outs has been revised to provide a better description on how these are to be included in the application. Step-out points are no longer averaged but included as additional points in the overall calculation. There is no limit to the number of step-outs that can be conducted.

4.2. Cultivated Land Criteria

- A section on sampling Minimum Disturbance Sites was added (Section 5.5.1). Use of the 'Minimal Disturbance' assessment for cultivated lands requires discussion and agreement by the landowner. This is still considered a Routine Application. Figure 3 was added providing an example of a 'Full Disturbance Assessment' versus a 'Minimal Disturbance Assessment' for a site.
- Figure 5 was added to replace Figure 3 to provide example diagrams for sampling along the access route.
- Table 3 was revised to reflect the construction period requirements for the soil assessment that apply to both the lease and access route.

4.3. Forested Land Criteria

- Section 5.1 (Implementation of the 2010 Forested Lands Criteria) was added. Table 1 and this Section describe the Landscape Criteria, Soils Criteria, and Vegetation Criteria required for the Forested Criteria.
- Section 5.3 (Items out of scope) was revised to include 'Previous Contractual Agreements'.
- Section 5.4 (Use of Professional Judgment) was added. Section 5.6.1 (Minimum Disturbance Sites) was added. The description of sampling for minimum disturbance sites was provided in previous version. A callout box was added to this section to describe the process on sites that have undergone 'Partial' and/or 'Progressive Reclamation'.
- Section 5.7 (Assessment Comparisons) bullet was added to Table 3 for the rating categories. The bullet that was added states: "For grids where rating drops have occurred for the same parameter, these grids cannot be adjacent to one another."

4.4. Native Grassland Criteria

- Section 5.3 (Vegetation override) was added to describe the requirements for applying a vegetation override could be applied to native grasslands.
 - Table 2 on the implementation dates for the criteria was revised and updated.
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5. Landscape Assessment

5.1. General - Apply to All Three Criteria

- Drainage: This section was revised and shortened in all three criteria. No additional information was added.

5.2. Cultivated Land Criteria

- Contour: Meso-contour and Micro-contour were added with reference that these two parameters are assessed during the Soil Assessment.

5.3. Forested Land Criteria

- Operability: This section was renamed from 'Contour and Stone Content' and separated into subsection headings on 'Contour' and 'Gravel and Rock'. A statement was included to describe what operability means on forested lands.

5.4. Native Grassland Criteria

- Operability: Subsection headings of 'Contour' and 'Gravel and Rock' were added. A statement was added to describe what operability means on native grasslands.
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6. Vegetation Assessment

The following changes have been made to the Vegetation Assessment:

6.1. General - Apply to All Three Criteria

- Weeds and Undesirable Plants: This section has been revised in all three criteria to reflect changes to the *Weed Control Act*. It also outlines the rating comparisons that apply to Prohibited Noxious, Noxious, and Undesirable/Problem Weeds.

6.2. Cultivated Land Criteria

- Table 5 has been updated to include the additional parameters that may or may not be used as part of the Vegetation Assessment
- Growth Stage: A section on Growth Stage and Growing Conditions was added.

- Growth Stage: Methodology for small seeded crops has been added. These are crops with seed diameters <2 mm in diameter and include canola, flax, and grass species.
- Growth Stage: Process for perennial crops was added.
- Plant Height: No changes were made
- Plant Density: methodology for pulse crops was added as a separate bullet; methodology was added for small seeded crops
- Head/Tuber Length: Title was changed to 'Head Length and Tuber Length', a description was added for a methodology that applies to all crops; methodology was added as separate bullets for pulse crops, small seeded crops, and perennial crops.
- Head/Pod/Tuber Weight: Title was changed to 'Head Weight, Pod Weight and Tuber Weight'. A description was added for methodology that applies to all crops; methodology was added as separate bullets for pulse crops, small seeded crops, and perennial crops.
- Head/Pod/Tuber Weight: A callout box was added to specify 50-g is only a minimum weight that should be used to determine the number of heads/pods/tubers to be collected. Once this is determined, the same number of heads/pods/tubers should be collected at each assessment point.
- Head/Pod/Tuber Weight: Small seeded crops do not require a weight measurement to be conducted. However assessors must make a comparison of the growth stage at each assessment point for small seeded crops using the BBCH scale.
- Plant Health – Plant Health: No changes have been made to this section
- Plant Health – Head/Pod/Tuber Health: No changes have been made to this section
- Seed Development Rating: No changes have been made to this section
- Pod Density: This section has been added to describe the pod density assessment and rating comparison that should be made for podded crops.
- Litter Quantity and Quality for Tame Pasture: This section has been added for the vegetation assessment for tame pasture. This includes a quality and quantity assessment simialr to the process described by the Range Health Assessment.
- Residue Management: No changes have been made to this section.

6.3. Forested Lands Criteria

- Herbaceous Species: A callout box was added to describe the term 'Compatible species' that is used in Table 1.
- Weeds/Undesirable Plants: A callout box was added to state the requirement to wait one full growing season occruing before reassessing the weed control program after the use of a herbicide.

6.4. Native Grassland Criteria

- Section 7.1 (Undisturbed vs. Disturbed Assessments Methodology) was revised to improve the description of the methodology for this component of the process.
 - Section 7.2 (Desirable Species Cover) was revised to improve the description of the methodology for this component of the process.
 - Section 7.3 (Calculating Percent Cover of Infill and Allowable Acceptable Substitutions) has been added to provide a better description of this process.
 - Table 7 was added to describe the vegetation classes for calculating the total percent cover for each of the implementation periods.
 - Section 7.4 (Desirable Species Percent Cover Calculation) was added to improve the description of the methodology for this component of the process. An example calculation has also been provided.
 - Section 7.5 (Plant community structure and layers) has been revised.
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7. Soil Assessment

The following changes have been made to the Vegetation Assessment:

7.1. General - Apply to All Three Criteria

- The description around the Level 1 and Level 2 Assessment was expanded
- Some heading titles were changed
- Level 1 Soil Assessment – Soil Texture: Description of requirements for imported topsoil was improved.
- Level 2 Soil Assessment: This section was renamed ‘Level 2 Soil Assessment (Optional) to identify that the Level 2 Soil Assessment is to be used at the discretion of the assessor.
- Level 2 Soil Assessment – Soil Texture & Organic Carbon: Descriptions for the comparisons for soil texture (Section 8.2.2.1) and organic carbon (Section 8.2.2.2) have been split into separate sections.

7.2. Cultivated Land Criteria

- Level 1 Soil Assessment – Operability: Section was expanded to include description on what ‘operability’ meant for cultivated lands.
- Level 1 Soil Assessment – Contour: A reference to macro-contour assessment being conducted during landscape assessment was added.

- Level 1 Soil Assessment – Rooting Restrictions: Section was expanded to include a statement that rooting restrictions need to be assessed to a depth below the restriction to a maximum depth of 1-m.

7.3. Forested Lands Criteria

- Level 1 Soil Assessment - Operability: Section was expanded to include a description on what 'operability' meant for forested lands.
- Level 1 Soil Assessment – Rooting Restrictions: Section was expanded to include a statement that rooting restrictions need to be assessed to a depth of 50-cm and supporting rationale provided that rooting depth and distribution are consistent onsite and offsite.

7.4. Forested Lands Criteria

- Level 1 Soil Assessment – Rooting Restrictions: Rooting restrictions need to be assessed to a depth onsite that is comparable offsite. If restrictions occur onsite, rooting restrictions need to be assessed to a depth below the restriction to a maximum depth of 1-m.

8. Other Considerations

The following changes have been made to this section:

8.1. General - Apply to All Three Criteria

- Pests and Weeds: No changes were made to this section
- Topsoil Additions: A statement was included on the physical and chemical properties that need to be characterized for sites where topsoil has been added.
- Amendments: A statement was added in this section to state that use of amendments must follow applicable guidelines and have agreement from the Land Manager on private lands, but approval from the Regulator is required on Public Lands.
- Amendments: Statement was added that amendments should not be added at rates that cause imbalances between the site and the control area.
- Amendments: A callout box was added describing requirements for sites where documentation of amendment use cannot be provided

8.2. Cultivated Land Criteria

- See above

8.3. Forested Lands Criteria

- See above

8.4. Native Grassland Criteria

- See above
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