

Conservation and Reclamation INFORMATION LETTER

Wellsite Criteria Summary Document - Revised

BACKGROUND

In February and March 1998, public meetings were held in 10 locations throughout Alberta. The public meetings were held to get input from the public, oil and gas industry and government stakeholders on reclamation criteria and the certification process for wellsites. Following the public meetings, a Steering Committee reviewed the results and proposed future action. In October 1999 the Ministers of Agriculture, Food and Rural Development and Environment released the Steering Committee's final report and recommendations to improve the certification process.

This Information Letter deals with part of Recommendation 5 that said a summary of the criteria should be sent to landowners along with the reclamation certificate application.

RESPONSE

A summary of the criteria is attached to this Information Letter. This summary allows operators to fulfill the recommendation.

QUESTIONS

Who developed the criteria summary?
Alberta Environment drafted the summary and the Technical Committee, established by the Steering Committee, reviewed and approved it. Technical Committee membership included representatives of agricultural landowners, oil and gas industry and government.

Is this the only version of the summary we can use?

Yes.

Who receives the summary?

On private land, the landowner and the occupant should be given a copy of the summary when they are given a copy of the reclamation certificate application. On White Area public land, the occupant should be given a copy of the summary along with a copy of the reclamation certificate application.

No summary is required for wellsites on Green Area public land.

Is this a regulatory requirement?

This is not a regulatory requirement. However, landowners and occupants will expect to get the summary with the reclamation certificate application. Industry supported this initiative to improve communication with landowners about wellsite activities on their land.

Who do I contact if I don't get a copy of the summary?

Contact the wellsite operator first. If this does not produce results, contact your local Conservation and Reclamation Inspector. The inspector will contact the operator to inform him of the industry initiative to provide this information.

If necessary, the industry associations will be asked to talk to the company about the importance of this initiative to industry.

CONTACTS

For Green Area public lands:

Alberta Environment,
Land Administration Division,
3rd Floor, 9915 - 108 Street,
EDMONTON, Alberta T5K 2G8.

Phone: (780) 427-3570

Fax: (780) 422-4251

For White Area public lands:

Alberta Agriculture, Food and
Rural Development,
Public Land Management Division,
Room 200, J. G. O'Donoghue Building,
7000 - 113 Street,
EDMONTON, Alberta T6H 5T6.

Phone: (780) 427-6597

Fax: (780) 422-4244

For all other lands:

Alberta Environment,
Environmental Sciences Division,
4th Floor, 9820-106 Street,
EDMONTON, Alberta T5K 2J6

Phone: (780) 427-5883

Fax: (780) 422-4192

e-mail: land.management@gov.ab.ca

Alberta's Reclamation Criteria for Wellsites and Associated Facilities – 1995 Update (Summary)

The *Reclamation Criteria for Wellsites and Associated Facilities – 1995 Update* describe procedures to assess whether wellsites in Alberta are properly reclaimed. Alberta Environment administers Criteria on privately owned, Special Areas, and Eastern Irrigation land in the White Area, and public land in the Green Area. Alberta Agriculture, Food and Rural Development administers Criteria on public land in the White Area.

Wellsite operators have a duty to conserve and reclaim all wellsites, to comply with Alberta's *Environmental Protection and Enhancement Act*. They must assess their reclaimed wellsites and meet requirements of the Criteria to demonstrate that reclamation is complete before they can obtain a reclamation certificate.

Reclamation requirements are not identical for all wellsites in Alberta. Site age determines the Criteria level to use. Newer constructed sites, for example, must meet more rigorous standards than older sites that were constructed before Criteria were developed. Specific Criteria are also available for various land use categories including Cultivated Land, Grassland, Forested Lands in the White Area, Peat Lands and Forested Lands in the Green Area.

The objective of conservation and reclamation for all wellsites is the return of equivalent land capability. This means that wellsite operators must plan their operations to ensure that conditions on their reclaimed sites are similar to pre-construction conditions. Use and management of the reclaimed site must be sustainable, and not limited by site or soil conditions that were not present before wellsite construction.

Criteria address the condition of three components on reclaimed wellsites including landscape, soil and vegetation. During a site assessment, an assessor will compare the condition of these components with the condition of the site before construction (where this information is available) or with representative conditions of the surrounding land. The assessor will check the condition of:

- Landscape – drainage, erosion, contour, stability, gravel and rocks, debris, vegetation and bare areas;
- Soil – surface soil depth and quality, soil profile restriction (compaction); and
- Vegetation – species composition and growth performance (the most appropriate of density, height, health, and cover).

An assessor will use the Criteria to pass or fail site reclamation. The assessor will also consider landowner/occupant comments. The operator will receive a reclamation certificate if the site meets the intent of the Criteria. Where individual criteria are not met, but the operator is able to provide acceptable justification, a certificate may be issued as well. A certificate signifies that the company may cancel their surface lease.

The operator and landowner have an opportunity to appeal the Inspector's decision to the Environmental Appeal Board. If an operator chooses to appeal the Inspector's decision, he must register his appeal within 30 days of the decision. A landowner must register his appeal within one year of the certificate date.

The operator remains responsible for any unsatisfactory reclamation conditions on the site for a period of five years after the certificate date, provided that these unsatisfactory conditions become evident after the certificate date. The operator remains responsible for contamination indefinitely.

Soil, Landscape and Vegetation Criteria

Reclamation success is judged on the basis of soil, landscape and vegetation criteria. Criteria vary geographically within the province and with land use. The Criteria are therefore arranged in five land use categories:

1. Cultivated Land

Includes all land that has been ploughed to prepare a seedbed at some time in the past, including cultivated peat land. Also includes land under continuous and rotational cropping systems and hay land. Grassland, which has a well-defined plough layer, and has a reasonable likelihood of cultivation, is also included in this category.

2. Grassland

Includes lands permanently in grass such as range improvement areas, grazing dispositions on public land in the White and Green Areas, native prairie, Special Areas Board land, and Eastern Irrigation District Land.

3. Forested Lands in the White Area

Includes treed (bush) land in the White Area on private or public land. Some of these lands have potential for cultivation or multiple use. Land in this category with severe limitations, which preclude future cultivation, may be judged with Grassland or Forested Lands in the Green Area criteria.

4. Forested Lands in the Green Area

Includes treed (bush) lands in the Green Area.

5. Peat Lands

Includes treed or non-treed uncultivated peat lands.

Site age also affects some of the criteria (for example, topsoil depths vary with age because topsoil conservation was not specifically required before 1983). Sites that were constructed before 1983 on Cultivated Land or Forested Land in the White Area may have little or no topsoil available to replace on the site. In these cases, a Management Plan may be developed to achieve a sustainable, manageable condition by creating a suitable plough layer or surface soil. A sustainable, manageable condition means the landowner/occupant can work the site, seed it and harvest it at the same time as the rest of the field, using the same equipment. There should be sufficient

vegetation to protect the soil from erosion. Crop yields must be sustainable but may not be equivalent to the rest of the field.

The soil, landscape and vegetation criteria are summarized for each land use category in Tables 1 and 2. For more details on the Criteria please obtain a copy from the Alberta Environment website at www.gov.ab.ca/env/protenf/landrec/index.html (click on the Publications button and then on C&R/IL/95-3) or from the Alberta Environment Information Center at (780)-944-0313.

**Table 1
Reclamation Criteria for Cultivated, Grassland and
Forested Lands in the White Area**

CRITERIA FOR VARIOUS LAND USE CATEGORIES			
ASSESSMENT FACTOR	CULTIVATED LAND	GRASSLAND	FORESTED LANDS IN THE WHITE AREA
1. LANDSCAPE			
• Drainage	Consistent with original pattern, direction and capacity		
• Erosion	No more gullies or blow-outs than on adjacent land		
• Contours	Must conform to adjacent contours		
• Stability	No visible slope movement, slumping, subsidence or tension cracks		
• Gravel & Rocks	<ul style="list-style-type: none"> No piles, windrows or concentrations Less than 10% increase in gravel on surface No increase in rock cover 	<ul style="list-style-type: none"> No piles, windrows or concentrations No more than an increase of 20% surface cover of gravel & rock 	
• Debris	<ul style="list-style-type: none"> No industrial or domestic debris allowed 	<ul style="list-style-type: none"> No industrial or domestic debris allowed Remove large roots and slash with brush rake Remaining slash and roots must not interfere with adjacent or normal land use 	
• Vegetation	Should be healthy and suitable for site		
• Bare Areas	No increase in number or size compared to original or control		
2. SURFACE SOIL REPLACEMENT DEPTHS (based on date of construction)			
• Required	<ul style="list-style-type: none"> 80% of control post-1994 70% of control 1983-94 60% of control pre-1983¹ 	<ul style="list-style-type: none"> 80% of control depth post-1994 60% of control pre-1994¹ 	
• Minimum	80% of required depth		
• Average On Site	Equal to or greater than required depth		
3. SURFACE SOIL QUALITY			
<ul style="list-style-type: none"> Texture Aggregate Size Aggregate Strength 	Remain in same class as control		
• Gravel & Rocks	<ul style="list-style-type: none"> Less than 10% more gravel No increase in rocks 	<ul style="list-style-type: none"> No piles, windrows or concentrations No more than an increase of 20% gravel & rock 	
• Organic Matter Loss (Estimated Admixing)	Non-topsoil materials in replaced surface soil should not exceed: 30% Post-1994 (Target Only - Not Criteria) 40% 1983-1994 N/A Pre-1983		
4. PROCESS RESTRICTIONS			
<ul style="list-style-type: none"> Water Permeability Vertical Rooting Soil Aeration 	Identify soil to 50 cm as restrictive or non-restrictive with respect to the three processes		
5. VEGETATION			
• Species Composition	Type and mix of species should be compatible with original or control species, or meet reasonable land management objectives		
<ul style="list-style-type: none"> Density Height Cover (Not annuals) 	Equal to or greater than 80% of control		
• Health	Plants should be healthy		

¹ Operators may develop a Management Plan for pre-1983 Cultivated Land or Forested Land in the White Area sites that cannot meet the topsoil depth requirements. See Criteria for details.

Table 2
Reclamation Criteria for Forested Lands in the Green Area and Peat Lands

CRITERIA FOR VARIOUS LAND USE CATEGORIES		
ASSESSMENT FACTOR	FORESTED LANDS IN THE GREEN AREA	PEATLANDS
1. LANDSCAPE		
• Drainage	• Consistent with original pattern, direction and capacity	
• Erosion	• No more gullies or blowouts than on adjacent land	
• Contours	• Must conform to adjacent contours	
• Stability	• No visible slope movement, slumping, subsidence or tension cracks	
• Gravel & Rocks	• No piles, windrows or concentrations • Meet requirements of approved surface disposition on Public Land	
• Debris	• No industrial or domestic debris allowed • No large roots and slash, removable by brush rake, allowed unless otherwise specified in approved surface disposition on Public Land	
• Vegetation	• Should be healthy and suitable for site	
• Bare Areas	• No increase in number or size compared to original or control	
2. SURFACE SOIL REPLACEMENT DEPTHS		
• Required • Minimum • Average On Site	• Replace all available surface soil as evenly as possible	• Replace all available salvaged surface soil as evenly as possible
3. SURFACE SOIL QUALITY		
• Texture • Aggregate Size • Aggregate Strength • Gravel & Rocks • Organic Matter	No Criteria	
4. PROCESS RESTRICTIONS		
• Water Permeability • Vertical Root Elongation • Soil Aeration	No Criteria	
5. VEGETATION		
• Species Composition	• Type and mix of species should be compatible with original or control species, or meet reasonable land management objectives	
• Density • Height • Health	No Criteria	
• Cover	• Equal to or greater than 80% cover of plants, litter and woody debris	