LAND USE AND BIODIVERSITY GUIDANCE

Clean Fuel Regulations

Environment and Climate Change Canada
Environnement et Changement climatique Canada

Canada

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Abstract

This is the first version of the *Land Use and Biodiversity Guidance document – Clean Fuel Regulations*. This should be read in conjunction with the *Clean Fuel Regulations* and the *Land Use and Biodiversity Declarations and Material Balancing Guidance document – Clean fuel Regulation.* This guidance provides information on each land use and biodiversity criteria, namely provision for agricultural and forest feedstock used to produce Low Carbon Intensity Fuel (LCIF) for the purposes of creating compliance credits under the Clean Fuel Regulation (CFR). It provides information on the options for compliance, including type of feedstock and Legislative recognitions. The Low Carbon Fuels Division can be reached at cfsncp@ec.gc.ca.

Disclaimer

This document is provided as guidance only. It does not in any way supersede or modify the *Canadian Environmental Protection Act, 1999* or the *Clean Fuel Regulation*s (CFR), or offer any legal interpretation of those proposed Regulations. In the event of an inconsistency between this document and the Act or Regulations, the Act and the Regulations prevail.

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1. Introduction

The objective of the Land Use and Biodiversity (LUB) criteria is to minimize negative environmental impacts from harvested or cultivated feedstock used in the production of LCIF. This document provides guidance related to the LUB criteria included in Section 45 to 60 of the CFR.

If a harvester intends to sell their feedstock for the production of a LCIF for creating compliance credits under the CFR, it is necessary for their harvesting practices to adhere to the applicable LUB criteria outlined in Sections 45 to 60 of the CFR.

1.1. Applicability of the LUB criteria

The LUB criteria exclusively pertain to feedstock utilized with the aim of creating compliance credits under the CFR. Consequently, other feedstocks are not obliged to adhere to these requirements.

The LUB criteria, including associated declarations and material balancing requirements, will start to apply to feedstock harvested and collected for the purpose of the CFR on January 1, 2024. However, it's important to note that the provision on indirect changes to land use (Subsection 50(1)), commonly referred to as Indirect Land Use Change (ILUC), came into effect upon registration of the Regulations.

1.2. LUB compliance Options

Compliance can be demonstrated using one of three methods: certification through a CFR-recognized certification scheme, adherence to existing legislation through deemed compliance or legislative recognition (LR), or individual compliance and demonstration by feedstock producers themselves.

1.2.1. Certification

Harvesters must maintain documents related to certification under a CFR-recognized certification scheme for applicable criteria when providing a certified feedstock. Additionally, in accordance with Subsection 58(2) of the CFR, harvesters are required to attest to their certification in the declaration.

1.2.2. Deemed Compliance and Legislative Recognition

Harvesters who have an obligation to comply with recognized legislation (Section 55) or have been deemed compliant under the *US EPA RFS2 Aggregate Compliance Program* (Section 53) can choose to specify the harvest location, and attest to this option of compliance in the declaration.

1.2.3. Harvester's Compliance

Feedstock producers can comply individually with LUB criteria applicable to their own specific location of harvest and demonstrate compliance at that location.

1.3. Language of Documents

All documents submitted to the Minister to demonstrate compliance with the LUB criteria for the provision stated in subsection 55(1) and subsection 54 (1) and (2) must be presented in either English or French. The document provider is responsible for ensuring that the original intent of the document is accurately conveyed in the English or French version (Subsection 55 (2)).

1.4. Carbon Intensity

The LUB criteria do not affect the carbon intensity (CI) values of LCIF. CI values measure the emissions generated during the lifecycle of the LCIF. These values are utilized to determine the quantity of compliance credits created by a specific volume of LCIF or a CO2e-emission-reduction project. However, in order for a LCIF to be eligible for compliance credit creation, the feedstock utilized in its production must comply with applicable LUB criteria.

2. Feedstock Types

The LUB criteria categorize feedstock into three types: non-biomass (Type 1), low-land-use concern (Type 2), and other agriculture or forest biomass (Type 3). Compliance with the LUB criteria varies for each feedstock type, as outlined below:

- **Type 1 Feedstock (Paragraph 46 (1) a):** No requirement to comply with any LUB criteria. However, LCIF producers and importers must maintain relevant records. Further information can be found in Chapter 2.1 of this document and the *Land Use and Biodiversity Declarations and Material Balancing Guidance Document*.
- **Type 2 Feedstock (Paragraph 46 (1) b):** Must comply with the provisions on indirect changes to land use (Subsection 50(1)) and meet all material balancing requirements. All points in the feedstock supply chain, from feedstock collection to LCIF producers and importers, must retain relevant records. Additional details can be found in Chapter 2.2 of this document and the *Land Use and Biodiversity Declarations and Material Balancing Guidance Document*.
- **Type 3 Feedstock (Paragraph 46 (1) c):** Must comply with all LUB criteria and adhere to all material balancing requirements. All points of the feedstock supply chain, from harvesters to LCIF producers and importers, must maintain relevant records. Further information can be found in Chapter 2.3 of this document and the *Land Use and Biodiversity Declarations and Material Balancing Guidance Document*.

2.1. Type 1 Feedstock

Type 1 feedstock, which refers to materials not derived from biomass, is considered eligible for creating compliance credits without having to comply to any of the LUB criteria. Examples include non-biomass materials that have undergone pyrolysis treatment. It is worth noting that when Type 1 feedstock is combined or processed with Type 2 or Type 3 feedstock, material balancing must be carried out at the point of mixing or treatment.

2.2. Type 2 Feedstock

Type 2 feedstock, also known as low land-use concern feedstock, is characterized by a significantly lower risk of land use change and biodiversity impacts. These specific feedstocks are distinct from other types and are subject to a subset of the LUB criteria (see Table *1* below). To account for the diverse range of examples, the CFR provides categories to which each feedstock can be assigned, such as “agricultural residues.”

Certain feedstocks are classified as Type 2 only when they are determined to be used or inedible, such as vegetable oils. If a feedstock is intentionally utilized, harvested, or rendered inedible for the purpose of

being labeled as Type 2 feedstock, it is not eligible under type 2 and instead becomes classified as Type 3 feedstock requiring compliance with all applicable LUB criteria (Subsection 46(2)).

Type 2 feedstock must meet the criteria for indirect changes to land use (see Chapter 4.1), as well as fulfill all material balance and declaration requirements.

When a portion of feedstock (Type 2) does not meet the "Indirect Land Use Change" criteria (section 50), the registered creator or foreign supplier, as the case may be, must ensure that the feedstock provider at the collection point performs material balancing to determine the portion of ineligible feedstock. Note that if the feedstock is primarily eligible with trace amounts of ineligible material, it can be classified as entirely eligible if the proportion of ineligible material falls within the quantitative materiality threshold set out in Paragraph 150(b) of CFR.

Table 1: Type 2 feedstock categories - Clarification and examples.

Category	Clarification	Applicable LUB criteria	Examples (*not an exhaustive list*)
Forest biomass derived from fire prevention and protection activities or from clearing activities that are not related to harvesting	Forest biomass gathered or collected to ensure protection from fire and forest biomass produced during clearing activities not related to harvesting.	Paragraph 57(2)(e): Material balancing	Wood generated from clearing for electrical post installation or construction of structures, Wood generated from forest thinning and slash piles gathered for fire prevention purposes, Wood obtained from the removal of pest-killed trees for fire prevention purposes
Crop residues or damaged crops	Crop residues: materials remaining after harvest. Damaged crops: crops that can no longer be used for their intended purpose due to damage from weather, pests, or disease.	Section 50: Crops — indirect changes to land use Paragraph 57(2)(e): Material balancing	Stover, stalks, stems, leaves, straw, husks, cobs, bagasse, crops that have been trampled on by wildlife, crops destroyed by extreme weather (e.g., flooding, tornado, drought, etc.)
Secondary forest residues	By-products of industrial wood-processing operations	Section 50: Crops — indirect changes to land use Paragraph 57(2)(e): Material balancing	Bark, shavings, or sawdust from sawmills, residual wood created by construction lumber production
Used* or inedible* organics from a residential area, retail store, restaurant, caterer, or food processing plant	Any organic material that is collected or disposed of by homes in a residential area, a retail store, a restaurant, a caterer, or a food processing facility. The full quantity of a mixture of organic and non-organic	Section 50: Crops — indirect changes to land use Paragraph 57(2)(e): Material balancing	Residential compost collection, By-products of food preparation from a restaurant or caterer, Waste and by-products from a food processing and production facility.

	materials is considered Type 2 feedstock.		Bruised/ non-consumable produce from grocery or retail stores
Used* fat and used* vegetable oils	All vegetable oil-based material used as part of a process not related to LCIF production.	Section 50: Crops — indirect changes to land use Paragraph 57(2)(e): Material balancing	Used canola or sunflower cooking oil from frying process, grease from restaurant, used plant-based lubricant oil
Used* animal litter or bedding	Any material used as a cushion or insulation on the floor for an animal sleeping area; material used for excrement collection.	Section 50: Crops — indirect changes to land use Paragraph 57(2)(e): Material balancing	Straw or hay bedding, cat/poultry litter
Animal materials	All materials derived or originating from an animal body part.	Paragraph 57(2)(e): Material balancing	Meat processing residuals, meat, dairy products, manure, fur, skin, and animal fats
Industrial effluents	Wastewater rejected by a facility for treatment or disposal	Paragraph 57(2)(e): Material balancing	Wastewater effluent
Municipal wastewater	All material derived from municipal wastewater destined for treatment and disposal in water body.	Paragraph 57(2)(e): Material balancing	Slush from treatment plant
Used* construction and demolition materials	All material resulting from the construction or demolition of a structure.	Paragraph 57(2)(e): Material balancing	Construction lumber, plywood, off-cuts, or floorboards left after construction

Environment Climate Change Canada considers, for the purpose of the CFR, that a material is “used” when it is utilized in a process unrelated to LCIF production, and the resulting substance is typically discarded by the individual or business. A Material that is intentionally used with the goal of being claimed as Type 2 feedstock is considered ineligible as per as per paragraph 46(1)(b). However, if the feedstock meets all the requirements applicable to Type 3 feedstock, it would be eligible for compliance credit creation. For the purpose of the CFR, Environment Climate Change Canada categorizes inedible materials as materials that exceeded their manufacturer's expiry date, are deemed unsafe for human consumption by a competent local health authority, or are considered unfit for sale, use, or distribution according to the business's quality control procedures.

2.3. Type 3 Feedstock

Type 3 feedstocks comprise agricultural or forest biomass materials that do not fall under the classification of Type 2 feedstocks. Type 3 feedstocks must comply with the applicable LUB criteria based on whether they are forest-based or agriculture-based, and they must also meet declaration and material balancing

requirements. Agricultural and forest Type 3 feedstocks are subject to distinct LUB criteria due to their differing harvesting and cultivation practices, which entail varying LUB risks.

Figure 1 below provides an overview of the LUB criteria applicable to agricultural and forest feedstocks, as well as those applicable to both types. Additionally, it provides options for demonstrating compliance which are also described in Chapter 1.2. Each one of the LUB criteria will be further explained in this document.

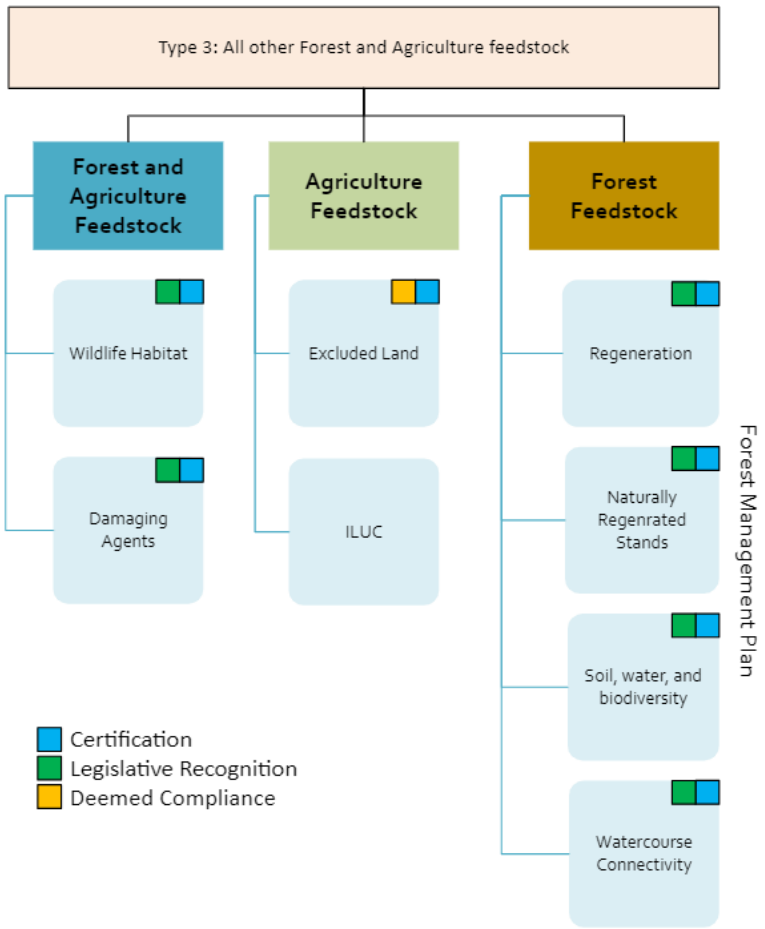

Figure 1: Illustration of the LUB criteria and their applicability to different feedstock categories, as well as different ways to demonstrate compliance with each one of the LUB criteria.

3. LUB Criteria – All Type 3 Feedstock (Agriculture and Forest)

The LUB criteria include two requirements that are applicable to both agricultural and forest feedstock, outlined in Sections 48 and 49 of the CFR. Section 48 focuses on the protection of wildlife habitat, while Section 49 addresses safeguards against damaging agents. These requirements specifically pertain to Type 3 feedstock.

3.1. Wildlife Habitat

> 48 (1) It is not permitted to harvest feedstock referred to in paragraph 46(1)(c) from land located in an area that provides a habitat for any rare, vulnerable, or threatened species.

As per section 48 of the Regulations, harvesters supplying feedstock that qualifies for eligibility through legislative recognition (see chapter 6) must maintain supporting documentation. An example of documentation would be an attestation of an exemption indicating the harvest location.

Harvesters supplying feedstock for which they obtained a certification under a CFR-recognized certification scheme for this provision must provide with their declaration a copy of the certificate containing the mandatory information listed under 58(2)(a) to (d).

For all other feedstock supplied, harvesters can individually fulfill the requirements of this provision at their respective sites in order to comply with Subsection 58 (1)(d) and (h) of the CFR. To meet these requirements, harvesters may ensure the absence of species classified as rare, vulnerable, or threatened (RVT) within the harvest area, as per the classification of their jurisdiction. Harvesters can consult the International Union for Conservation of Nature (IUCN) Red List of Threatened Species to identify the species present in their harvest area or seek guidance from the local authority responsible for safeguarding these species. An example of documentation required for a feedstock under subsection 48(1) would be an attestation that no RVT species are present within the area, as well as maintaining documentation on site.

> 48 (2) However, the Minister may, on application from a person who harvests a feedstock referred to in paragraph 46(1)(c) or who produces fuel from that feedstock, authorize the use of a feedstock obtained from rehabilitation or habitat-improvement activities carried out on land located in an area that provides a habitat referred to in subsection (1) if the Minister is satisfied that those activities do not adversely affect that habitat.

If an RVT species is found on the land of a harvester that is, at their respective site, individually fulfilling the requirement under Section 48 of the CFR, the feedstock on that land is deemed ineligible for the CFR, as per Subsection 48 (1).However, if the harvest is intended for rehabilitation or habitat improvement activities and does not adversely affect the habitat of any RVT species present, the harvester can apply for an exemption under Section 48(2).

To assess whether activities adversely affect the habitat of RVT species, the potential impacts of the planned activities in the area will be taken into consideration. The application must:

- Describe the activities that the harvester intends to perform in the area, and
- Demonstrate that those activities will not adversely affect the habitat of RVT species in the area.

3.2. Damaging Agents

> 49 A feedstock referred to in paragraph 46(1)(c) must be harvested and transported in accordance with measures that monitor, prevent, and control the introduction, spread and establishment of damaging agents, such as pests, invasive species and disease.

As per section 49 of the Regulations, harvesters supplying feedstock that qualifies for eligibility through legislative recognition (see chapter 6) must maintain supporting documentation. An example of documentation would be an attestation of an exemption indicating the harvest location.

Harvesters supplying feedstock for which they obtained a certification under a CFR-recognized certification scheme for this provision must provide with their declaration a copy of the certificate containing the mandatory information listed under 58(2)(a) to (d).

For all other feedstock supplied, harvesters can individually fulfill the requirements of this provision at their respective sites in order to comply with Subsection 58(1)(i). To meet these requirements, harvesters should implement processes or measures to ensure that the harvest aligns with the prevention, monitoring, and control of the introduction, spread, and establishment of damaging agents (e.g., pest, invasive species, and diseases). Harvesters must attest in the declaration their adherence to these processes and measures. Examples of such measures are provided below for reference:

Table 2: Example of measures for the prevention, monitoring, and control of damaging agents

Example of measures for the prevention, monitoring, and control of damaging agents	
Prevention Measures	• Apply sanitary measures to ensure that the materials are shipped free of pests, pathogenic agents and alien organisms which may carry risks of biological invasions. • Avoid moving, growing, raising, cultivating, or producing anything that there are reasonable grounds to believe is a pest, could be infested with a pest. • Package, transport, handle, control and use the material in a manner that prevents pest contamination and spread. • Develop risk management measures transportation of feedstock. • Establish measures, including rapid response measures, to help prevent invasive species from entering a site or leaving a site. • Clean and disinfect machinery to prevent spread of the pest. • Visually inspect the outside and inside of the feedstock shipment for contaminants such as plants, seeds, insects, egg masses, snails, animals, animal droppings, soil, etc.
Monitoring measures	• Implement detection and identification procedures of species on site. • Keep up to date with any suspected or actual occurrences of pests or invasive species in the vicinity. • Maintain and track occurrence of pest control procedures. • Implement practices to promote the early detection of damaging agents. • Develop and implement a pest management program that includes ongoing surveillance.
Control measures	• Develop strategies to, monitor, prevent and control damaging agents (such as pest, invasive species, or diseases) • monitor, prevent and control damaging agents immediately upon detection before they can establish and spread.

	• Implement exclusion measures (e.g., physical barriers, screens, controls on equipment, machinery, plants, soil, and growing media); pest control measures (e.g., cultural methods, treatments, and resistant cultivars). • Provide the means to restore native species and habitat conditions in ecosystems that have been invaded. • Measures to prevent the movement of invasive plants and plant products and pests.

4. LUB Criteria – Agricultural Feedstock

Certain LUB criteria are specific to agricultural feedstock in order to assess the impact of expanding into high-carbon stock lands, which includes indirect changes to land use and biodiversity impact as outlined in Sections 50 and 51 of the CFR. These criteria are further elaborated upon in the following subsections.

4.1. Indirect Changes to Land Use (ILUC)

> 50 (1) A feedstock referred to in any of subparagraphs 46(1)(b)(ii) to (vi) or paragraph 46(1)(c) that is a crop, crop by-product or crop residue must be produced in a manner that does not create a high risk of an indirect change to land use that adversely affects the environment.

ILUC refers to the indirect impact of biofuel and agricultural production on land use, causing deforestation, greenhouse gas emissions, and biodiversity loss. ILUC arises when the demand for biofuels or agricultural products drives the conversion of high carbon stock land, like forests and grasslands, into agricultural land, in turn leading to adverse environmental effects.

LCIF is deemed ineligible for the creation of compliance credits under the CFR if the feedstock used to produce it carries a high risk of causing indirect changes to land use. The CFR incorporates an ILUC approach that involves a global assessment of land expansion associated with common biofuel feedstock. The overall expansion and the extent to which this expansion occurs in high carbon stock land are utilized to determine whether a particular feedstock poses a significant risk of ILUC. When evaluating which feedstock creates a high risk of ILUC, the CFR refers to the biofuel feedstock listed in the annex to the Commission Delegated Regulation (EU) 2019/807 of March 13, 2019[1]. This LUB provision applies to both Type 2 and Type 3 feedstock (subparagraphs 46(1)(b)(ii) to (vi) and Paragraph 46(1)(c)).

To demonstrate compliance with Subsection 50(1), harvesters must provide attestation that the feedstock supplied is not identified as high ILUC according to the annex of the Commission Delegated Regulation (EU) 2019/807 dated March 13, 2019, as per section 58(1)(l) of the CFR. It is important to note that there are no certifications or legislative recognitions that would make this feedstock eligible for the creation of compliance credits under the CFR.

[1] See EUR-Lex Access to European Law for more details on the annex to the Commission Delegated Regulation (EU) 2019/807 of March 13, 2019

4.2. Excluded Lands

> 51 (1) It is not permitted to harvest feedstock referred to in paragraph 46(1)(c) that is a crop from land that,
>
> a) has an area greater than 1 ha and was, at any time on or after July 1, 2020,
>
> i) a forest that contains trees that are or are capable of reaching a height of 5 m and provide or are capable of providing a canopy cover of more than 10%,
>
> ii) a wetland that is periodically saturated with water for a period that is long enough to promote biological activity that is adapted to a wet environment, or
>
> iii) a grassland that is dominated by herbaceous or shrub vegetation that has not been cultivated for 10 years or more; or
>
> b) was never cultivated before July 1, 2020, and was, at any time on or after that day, in a riparian zone.

Subsection 51(1) of the CFR prohibits the expansion of cropland into areas with high carbon stock or high biodiversity. This requirement specifically applies to Type 3 feedstock. As a result, a LCIF is ineligible to create compliance credits under CFR if the feedstock used to produce it is harvested on excluded lands. The excluded lands consist of unharvested riparian zones, forest lands, wetlands, and grasslands, as described in Table *3* below. The following subchapters will outline the different methods for demonstrating compliance with this requirement.

Table 3: Description of the four different types of excluded lands.

Excluded Land Type	Description
Unharvested Riparian Zone	• Land within 30 metres, measured on a slope distance following its topography, from the high-water mark of a stream that is more than 3 meters wide, or, from the shores of a lake or permanent wetland that has an area greater than 5 hectares; and • Land that was never cultivated before July 1, 2020.
Forest	• Land that measures more than 1 hectare; and • Land that, at any time on or after July 1, 2020, contained trees that reach or can reach a height of 5 metres and provide or can provide a canopy cover of more than 10%.
Wetland	• Land that measures more than 1 hectare; and • Land that was, at any time on or after July 1, 2020, periodically saturated with water for a period long enough to promote biological activity that is adapted to a wet environment.
Grassland	• Land that measures more than 1 hectare; and • Land that was, at any time on or after July 1, 2020, dominated by herbaceous or shrub vegetation and had not been cultivated for 10 years or more.

4.2.1. Deemed Compliance

The CFR recognizes the United States Environmental Protection Agency's Renewable Fuel Standard 2 (US EPA RFS2) Aggregate Compliance Program (section 53(1)), as well as an application to the minister for recognition of no net expansion (section 54(1)) as deemed compliance mechanisms. These enable a jurisdiction's crop to be deemed compliant with the excluded lands criteria described above.

4.2.1.1. Excluded Lands Deemed Compliance – US EPA RFS2 Aggregate Compliance Program

> 53 (1) The Minister may exempt a feedstock that is a crop from the application of section 51 if,
>
> a) the country from which the feedstock originates is the United States or is a country that is covered by the aggregate compliance approach referred to in section 80.1457 of Subchapter C of Chapter I of Title 40 of the United States Code of Federal Regulations; and
>
> b) the Minister is satisfied that section 80.1457 of Subchapter C of Chapter I of Title 40 of the United States Code of Federal Regulations provides a sufficient level of environmental protection with respect to the land on which the feedstock is harvested.

If a country is approved under the *US EPA RFS2 Aggregate Compliance Program*, feedstock produced from that country may be deemed compliant with the excluded lands provision, and harvesters can demonstrate compliance by attesting in the declaration that their harvesting site was in a recognized country under this program during feedstock cultivation and harvest. For jurisdictions where the recognition of the *US EPA RFS2 Aggregate Compliance Program* is approved after January 1, 2024, deemed compliance under CFR is granted on the effective date of *EPA* approval.

In the event of any changes to the US EPA RFS2 Aggregate Compliance Program, deemed compliance will cease to apply on the earlier of the following dates:

- In the case of the US, the date when the US EPA publishes a finding that the 2007 baseline amount of agricultural land in the US has been exceeded or when the US EPA withdraws its approval of the jurisdiction under the program for other countries.

- The date when an amendment to the US EPA RFS2 Aggregate Compliance Program comes into effect and reduces the program's level of environmental protection for high carbon stock lands.

It is important to note that even in jurisdictions deemed compliant via recognition of the US EPA RFS2 Aggregate Compliance Program, declarations and material balancing documentation are still required to demonstrate compliance with the excluded lands provisions.

4.2.1.2. Excluded Lands Deemed Compliance – Application to the Minister

> 54 (1) The Minister may, on application from the national level of government of a country, exempt a feedstock that is a crop from the application of section 51 if the Minister is satisfied that the country from which the feedstock originates has not, since

July 1, 2020, undergone a net expansion of agricultural land, taking into account the following factors:

a) any net expansion since July 1, 2020 to the national borders within which agricultural land is measured;
b) the total amount of land within those national borders that was agricultural land on July 1, 2020;
c) data from the preceding year on the harvesting of land, including satellite data, aerial photography, census data and agricultural survey data;
d) data on the use of land to harvest crops between July 1, 2020 and the beginning of the preceding year, including satellite data, aerial photography, census data and agricultural survey data;
e) any factors that have had or may have an effect on the use of agricultural land within those national borders, including agricultural practices, economic considerations and the content, efficacy and enforcement of applicable laws;
f) the method of identifying which entity will gather and analyze data and submit it to the Minister, as well as the reliability and credibility of that entity;
g) evidence with respect to whether the data and methods used to evaluate the net expansion of agricultural land are reliable and transparent;
h) any comments from the public that the Minister receives; and
i) any information that is necessary to determine whether the country from which the feedstock originates has, since July 1, 2020, undergone a net expansion of agricultural land.

For jurisdictions that have not received approval under the US *RFS2 Aggregate Compliance Program*, Section 54 outlines the process and requirements to apply for an exemption from the excluded lands criterion. In this case, a jurisdiction's crops can still be considered compliant with the excluded lands criteria if the Minister is satisfied that the country has not experienced a net expansion of agricultural land since July 1, 2020. The Minister will assess the provided information and factors to make this determination.

The application for exemption must be submitted by the national government or a credible and reliable entity appointed by the national government to act on its behalf. The application for exemption should include the required information outlined in Section 54(1) a) to g). This includes providing details about any net expansion of national borders, the total amount of agricultural land within those borders, data on land harvesting and crop use, including satellite and census data.

Along with the application, a letter signed by an individual with a role similar to that of a Minister, who is responsible for the relevant government department dealing with agricultural land use patterns, agricultural practices, data, and statistics, must be provided (as per paragraph 54(2)(b) of the CFR). In the letter, the individual must affirm that the supporting data have been thoroughly reviewed by the respective government department and that the submitted information substantiates the claim that the jurisdiction has not experienced a net expansion of agricultural land since July 1, 2020.

A 60-day public comment period occurs after the publication of a jurisdiction’s application on the CFR Website. Public comments will be considered to inform the Minister’s decision.

Decisions made by the Minister regarding deemed compliance are valid for a period of one year unless a new decision is made based on a new application. The Minister will publicly announce the names of the countries that have been approved for deemed compliance and the date on which the approval takes effect.

It is important to note that declarations and material balancing documentation are mandatory to demonstrate compliance with the excluded lands criterion even in jurisdictions that have been deemed compliant through an application to the minister.

4.2.2. On site compliance

If a Type 3 feedstock harvest is not located in a jurisdiction deemed compliant with the excluded lands criteria through either the US RFS2 Aggregate Compliance Program or an application to the Minister, annual maps of the harvesting area must be maintained onsite. These maps should indicate the location of unharvested riparian zones, forests, wetlands, and grasslands (described previously) from July 1, 2020, to the present year. The maps must clearly demonstrate that the harvested area does not overlap any excluded land types.

4.2.2.1. Unharvested Riparian Zone

> 51(2) A riparian zone means land that is located within 30 m, measured on a slope distance following the topography of the land, of
>
> a) the high-water mark of a watercourse that is more than 3 m wide, or
> b) the shores of a lake or permanent wetland that has an area greater than 5 ha.

In order to determine if a land qualifies as an excluded unharvested riparian zone, it is necessary to establish the size and boundaries of the water body. This can be achieved by identifying the high-water mark of a stream or the edges of a lake or permanent wetland. This can be done through assessing the characteristics of bank vegetation or determining the highest water level over a specific period, excluding extreme weather conditions.

To identify the high-water mark based on vegetation characteristics, the unique traits of the vegetation in relation to its surrounding environment should be examined. This includes observing the water level at which the land has remained submerged for a significant period, resulting in the absence of vegetation or the presence of hydrophytic vegetation. Alternatively, the highest water level can be determined through surveys conducted since July 2020. If such surveys are not available, the highest water level recorded in the year prior to harvesting can be used as a reference.

According to the excluded land criterion, all riparian zones are automatically regarded as unharvested. Therefore, any feedstock obtained from these areas must be supported by documentation demonstrating that the zone was harvested at least once before July 1, 2020. Such documentation may consist of dated harvesting maps, records, or seeding maps, among other supporting documents.

4.2.2.2. Forest lands

A forest, as defined in the CFR, refers to an area larger than 1 hectare that, at any time on or after July 1, 2020, contained trees capable of reaching a height of 5 meters or more and providing a canopy cover exceeding 10%.

If a harvester intends to produce feedstock from land that is not categorized as forest, they must retain aerial maps demonstrating a canopy coverage of less than 10% of total harvest land. Additionally, if trees are present, information on the tree species within that area must be kept on site to support the claim that these trees are incapable of growing to a height of 5 meters or more and providing a canopy cover exceeding 10% in the future. It's important to note that that both the canopy and height requirement need to be achieved for a land to be considered a forest.

4.2.2.3. Wetlands

To determine if a land qualifies as an excluded wetland under sub paragraph 51(1)(a)(ii), it should be assessed based on the characteristics of the vegetation and biological activities present within that land. If a land remains saturated with water for a significant duration, supporting the growth of a distinct type of hydrophytic vegetation or a hydric soil with low oxygen levels, it would be classified as a wetland. Feedstock sourced from this type of land are ineligible for the creation of compliance credits, as per sub paragraph 51(1)(a)(ii) of the CFR.

Hydrophytes are plants that have adapted to thrive in environments with limited oxygen, such as submerged or waterlogged conditions. Some examples of hydrophytic plants include duckweed, water lily, pickerel weed, cattails, and soft stem bulrush. The presence of these plant species within a land area can indicate its classification as a wetland under the excluded land criterion.

4.2.2.4. Grasslands

To determine if a land qualifies as an excluded grassland under sub paragraph 51(1)(a)(iii), two key factors are considered: the cultivation timeframe and the presence of herbaceous and shrub vegetation. Herbaceous plants are characterized by their lack of woody stems, while shrub plants have multiple stems that originate from the ground.

If feedstock is sourced from grassland, documentations must be retained to demonstrate that the area has been cultivated at least once within the previous 10 years, therefore, demonstrating eligibility of the feedstock. Examples of documentation can include dated cultivation maps, records, or seeding maps that indicate recent cultivation activities on the land.

5. LUB Criteria – Forest Feedstock

> 52 The harvesting of any feedstock referred to in paragraph 46(1)(c) that is derived from forest biomass must be carried out in accordance with a forest management plan that meets the following requirements:
>
> a) it must be possible for a verification body to evaluate it,
> b) it must be implemented, monitored, and kept up to date, based on monitoring results, to promote adaptive management, by the person who is responsible for harvesting the feedstock; and

c) it must specify the practices to be followed to ensure that,
   i) the management of the land where the feedstock is harvested is carried out in a manner that promotes timely forest regeneration of that land to its pre-harvesting condition using species of trees that are ecologically suited to the site and drawn, if possible, from native species or local genotypes,
   ii) adverse effects are prevented on naturally regenerated stands containing multilayered canopies with trees near their maximum longevity as well as standing and fallen dead trees and forest debris at varying stages of decomposition,
   iii) forest management and related activities in the areas where the feedstock is harvested are carried out in a manner that prevents or mitigates adverse effects on the quantity and quality of the soil, on the quantity and quality of surface and ground water resources and on biodiversity, and
   iv) forest management and related activities in the areas where the feedstock is harvested are carried out in a manner that maintains the connectivity of watercourses.

Type 3 feedstocks sourced from forest biomass are eligible when harvested in accordance with a comprehensive forest management plan (FMP). The FMP must include practices focused on regeneration, protection of naturally regenerated stands, soil and water quantity and quality protection, biodiversity preservation, and maintaining watercourse connectivity.

This FMP should not only be implemented but also regularly monitored and updated based on monitoring results. The FMP must be readily available and accessible to a third-party verifier upon request. This requires the retention, organization, and regular updating of all relevant materials related to the plan, its implementation, and monitoring. Additionally, there should be a clear designation of the individual responsible for each aspect of the plan to facilitate clarification or further discussion if needed.

To demonstrate the effective implementation and monitoring of the FMP, it is important to retain additional documentation that supports each practice outlined in the FMP. These documents should showcase how the desired outcomes of each specific LUB provision are being achieved. Detailed information and examples of related management practices can be found in the following chapters.

5.1. Forest Regeneration

The FMP should outline the specific practices to be implemented to facilitate the effective management of harvested areas, with the goal of promoting conditions conducive to timely regeneration in order to restore the pre-harvesting condition as per subparagraph 52(c)(i). Depending on forest management objectives, harvested areas can go through various successional stages before returning to their pre-harvest condition. This regeneration should involve the use of tree species that are ecologically suitable for the site, preferably sourced from native species and local genotypes. In cases where natural regeneration is not feasible or unsuccessful, the harvested area should be replanted within 4-7 years from

the time of harvest. Table *4* presents some examples of related management practices that align with this criterion.

Table 4: Examples of management practices for the forest regeneration LUB criterion

Examples of Related Management Practices	
Regeneration	• Replanting of tree species in a ratio that matches the species ratio that was present prior to harvest. • Planting of tree species that are present in nearby natural forests or native species that are likely to promote natural regeneration. • Removal and/or control of undesired and competing vegetation to promote natural regeneration

5.2. Naturally Regenerated Stands of high value

The FMP should outline the specific practices that will be implemented to ensure the protection of naturally regenerated stands as per subparagraph 52(c)(ii). These stands consist of multi-layered canopies, including trees reaching their maximum longevity, standing, and fallen dead trees, as well as forest debris in various stages of decomposition.

The purpose of this provision is to establish measures that identify well established trees within harvesting areas and prevent actions that could have significant and widespread negative impacts on these areas. A significant and widespread negative impact would harm the stand structure, namely, the species composition, distribution of stems across diameter classes and age classes and the presence of deadwood in these areas, compromising their ability to provide habitat for species and maintain ecosystem integrity including the ability to supply the seeds or propagules needed for regeneration. Examples of practices for this requirement include the prohibition of clear-cutting without protection (e.g., the protection of advance regeneration).

5.3. Protection of Soil, Water, and Biodiversity

The FMP should outline the specific practices that will be implemented to prevent or mitigate negative impacts to soil quantity and quality, surface and groundwater quantity and quality, and biodiversity as per subparagraph 52(c)(iii).Table *5* presents some examples of related management practices that align with this criterion.

Table 5: Examples of management practices that pertain to the protection of soil, water resources and biodiversity.

Related Management Practices	
Soil Quantity and Quality	• Measurement of soil nutrients and actions taken to address any deficiencies. • Plan harvest so unharvested areas will absorb runoff from harvested areas (reduces erosion). • Removal and revegetation of all unneeded roads, landings, and trails as soon as possible. • Avoid forest harvest on steep and unstable slopes. • Harvesting planned in order to minimize road length and use existing roads when possible.

Water Quantity and Quality	• Minimization of road stream/wetland crossings. • Install culverts that allow for aquatic connectivity to be maintained. • Use of sedimentation capture techniques like silt fences/hay bales/sediment traps during road construction. • Remove logging debris from the stream channel. • Monitor weather conditions (e.g., rain, wind speed, temperature, humidity) when applying chemicals to prevent drift, volatilization, and runoff. • Have a spill contingency plan for chemicals being applied.
Biodiversity	• Harvest when species are not performing essential functions in the area. • Avoid road construction when aquatic wildlife is spawning or migrating. • Consider location of important wildlife habitat and alter harvest plans accordingly. • Remove and revegetate all unneeded roads, landings, and trails as soon as possible.

5.4. Watercourse Connectivity

The FMP should outline the specific practices that will be implemented to maintain watercourse connectivity as per subparagraph 52(c)(iv). Table *6* presents some examples of related management practices that align with this criterion.

Table 6: Examples of management practices that pertain to the watercourse connectivity LUB criterion.

Related Management Practices	
Watercourse Connectivity	• Minimize the amount of road stream crossings. • Install culverts that allow for aquatic connectivity to be maintained. • Limit use of fords. • Routinely inspect stream crossings to ensure that water is flowing and to clean out any debris. • Use bottomless arched crossings when possible.

6. Legislative Recognition (LR)

> 55 (1) The Minister may, on application from a national or subnational level of government of a country, exempt a feedstock that originates from that country from the application of subsection 48(1), section 49 or subparagraph 52(c)(i), (ii), (iii) or (iv) if the Minister is satisfied that the feedstock is
>
> a) in the case of subsection 48(1), subject to laws that effectively prohibit the harvesting of the feedstock in any area that provides a habitat for any rare, vulnerable or threatened species;
>
> b) in the case of section 49, subject to laws that effectively require it to be harvested and transported in accordance with measures to monitor, prevent and control the introduction, spread and establishment of damaging agents, such as pests, invasive species and disease;
>
> c) in the case of subparagraph 52(c)(i), subject to laws that
>
> i) effectively promote timely forest regeneration of the land where the feedstock is harvested to its pre-harvesting condition using species of trees that are ecologically suited to the site and drawn, if possible, from native species or local genotypes, and

ii) include enforcement requirements for forest regeneration on the land where the feedstock is harvested;

d) in the case of subparagraph 52(c)(ii), subject to laws that
   i) effectively prevent adverse effects on naturally regenerating stands containing multilayered canopies with trees near their maximum longevity as well as standing and fallen dead trees and forest debris at varying stages of decomposition, and
   ii) include enforcement requirements for the purpose of protecting stands described in subparagraph 52(c)(ii);
e) in the case of subparagraph 52(c)(iii) as it relates to soil, subject to laws that
   i) effectively require that forest management and related activities be carried out on the land where the feedstock is harvested in a manner that prevents adverse effects on the quantity and quality of the soil and mitigates any adverse effects that do occur, and
   ii) include enforcement requirements for the purpose of preventing adverse effects on the quantity and quality of the soil;
f) in the case of subparagraph 52(c)(iii) as it relates to surface and ground water resources, subject to laws that
   i) effectively require that forest management and related activities be carried out on the land where the feedstock is harvested in a manner that prevents adverse effects on the quantity and quality of surface and ground water resources and mitigates any adverse effects that do occur, and
   ii) include enforcement requirements for the purpose of preventing adverse effects on the quantity and quality of surface and ground water resources;
g) in the case of subparagraph 52(c)(iii) as it relates to biodiversity, subject to laws that
   i) effectively require that forest management and related activities be carried out on the land where the feedstock is harvested in a manner that prevents adverse effects on biodiversity and mitigates any adverse effects that do occur, and
   ii) include enforcement requirements for the purpose of preventing adverse effects on biodiversity; and
h) in the case of subparagraph 52(c)(iv), subject to laws that
   i) effectively require that forest management and related activities be carried out on the land where the feedstock is harvested in a manner that maintains the connectivity of watercourses, and
   ii) include enforcement requirements for the purpose of maintaining the connectivity of watercourses.

Legislative recognition serves as a mechanism to demonstrate compliance with the LUB Criteria for feedstock harvested; to be used in the creation of compliance credits under the CFR. National and subnational jurisdictions have the option to submit an application to the Minister, showcasing any

legislation they enforce that achieves the same outcomes as one or more of the LUB criteria. These legislations must be currently in effect, enforceable, and applicable to agricultural and/or forest harvest practices.

The Minister will review the submitted application to assess the alignment of the legislation with the intended outcomes of the criteria. If granted, legislative recognition for one or more criteria, the jurisdiction's name, along with the associated criteria, will be publicly listed on the CFR website. As a result, any feedstock harvested within that jurisdiction will be considered exempt from the criteria for which legislative recognition has been granted.

Harvesters can demonstrate compliance with the LUB criteria (except for ILUC and excluded lands) through legislative recognition by providing a set of GPS coordinates for the harvested areas, whether contiguous or non-contiguous. In this context, "sub-national" refers to a level of disaggregation no greater than one level below the national level, such as province or state.

Approved LR applications remain valid for seven years or until substantial changes occur to the legislation that would alter its ability to achieve the intended outcome of the LUB criterion.

It is important to note that legislative recognition is not the only means to demonstrate compliance with the LUB criteria. Harvesters operating in jurisdictions without legislative recognition for one or more criteria can still demonstrate compliance through a CFR-approved certification scheme or by retaining documentations onsite and complying individually at the specific harvest site. Harvesters located in jurisdictions without full legislative recognition may meet the LUB Criteria through a combination of compliance options. Regardless of the chosen compliance mechanism (legislative recognition, certification, or onsite compliance), declarations are required, and supporting documentation must be retained onsite.

6.1. Expected Legislative Outcomes

Legislative recognition does not exempt feedstock producers from being subjects to third-party verification (including site visits). *Table 7* provides more clarification on the legislative requirement for each one of the LUB criteria and *Table 8* shows the intended outcomes for each one of the LUB criteria.

Table 7: Legislative recognition requirements for each one of the LUB criteria.

Relevant Regulatory Section	Relevant Guidance Document chapters	Criteria for Legislative Recognition	Requirement for Legislative Recognition
48 (1), 55(1)(a)	3.1	Wildlife Habitat	The Minister is satisfied that the legislation effectively prohibits or controls the harvesting of feedstock in any area that provides a habitat for any rare, vulnerable, or threatened species identified by that jurisdiction. Legislation must target all the rare, vulnerable, or threatened species identified by the jurisdiction. Legislation targeting specific species would not constitute a standalone recognized legislation for CFR purposes, unless those specific species are

			the only ones identified by that jurisdiction and the legislation would be amended if further species are identified.
49, 55(1)(b)	3.2	Damaging Agents	The Minister is satisfied that the legislation effectively requires the harvest, and transport of feedstock in accordance with measures to monitor, prevent, and control the introduction, spread, and establishment of damaging agents.
52(c)(i), 55(1)(c)	5.1	Forest Regeneration	The Minister is satisfied that the legislation effectively promotes timely forest regeneration to the pre-harvesting condition using species of trees that are ecologically suited to the site and, if possible, from native species and local genotypes. Legislation must provide a timeline of replantation or regeneration and must have clauses to ensure ecological compatibility with the environment of the harvest areas.
52(c)(ii), 55(1)(d)	5.2	Naturally Regenerated Stands	The Minister is satisfied that the legislation effectively prevents adverse effects on naturally regenerated stands containing multi-layered canopies with trees near their maximum longevity and standing and fallen dead trees and forest debris at varying stages of decomposition.
52(c)(iii), 55(1)(e)	5.3	Soil Quantity and Quality	The Minister is satisfied that the legislation effectively requires that forest management activities prevent adverse effects on soil quantity and quality.
52(c)(iii), 55(1)(f)	5.3	Water Quantity and Quality	The Minister is satisfied that the legislation effectively requires that forest management activities prevent adverse effects on water quantity and quality.
52(c)(iii), 55(1)(g)	5.3	Biodiversity	The Minister is satisfied that the legislation effectively requires that forest management activities prevent adverse effects on biodiversity.
52(c)(iv), 55(1)(h)	5.4	Watercourse Connectivity	The Minister is satisfied that the legislation effectively requires that forest management activities maintain watercourse connectivity.

Table 8: Intended outcomes of the LUB criteria.

LUB criteria	Intention / Environmental Concern
Wildlife Habitat	• Protect and prevent negative impacts to rare, vulnerable, or threatened species' habitats.
Damaging Agents	• Prevent spread of pests, invasive species, and disease. • Avoid negative impacts to biodiversity and ecosystem functionality.
Indirect Changes to Land Use	• Exclude feedstock that contribute to high risk of ILUC. • Reduce release of sequestered carbon caused by land conversion.
Excluded Lands	• Prevent expansion into high-carbon stock lands. • Maintain lands with high biodiversity. • Reduce release of sequestered carbon caused by land conversion.

Forest Regeneration	• Ensure areas harvested for feedstock are regenerated.
Naturally Regenerated Stands	• Prevent adverse effects to naturally regenerated stands.
Soil, Water, and Biodiversity	• Prevent adverse effects to soil, water, and biodiversity.
Watercourse Connectivity	• Prevent and mitigate obstruction of watercourses. • Avoid potential impacts to aquatic habitat and downstream ecosystems.

7. Supporting Documentations Kept Onsite

As per Subsection 58(1), in order for feedstock to be eligible under the CFR, feedstock providers must issue declarations. Each declaration should include a statement attesting that the provider meets all relevant LUB criteria. The *Land Use and Biodiversity Declarations and Material Balancing Guidance Document* provides more details on how to submit a declaration and its content.

The supporting documentation should cover various aspects, such as the specific type of feedstock produced or used, location and boundaries of harvest areas in the case of deemed compliance and legislative recognition, , and historic maps of the harvest area or any other aspects needed to showcase the procedures for complying with the LUB requirement.

These supporting documents must be retained as per section 166 (1) of the CFR. Table *9* provides a summary of supporting documentation that can be kept onsite to demonstrate compliance with the LUB criteria. These supporting documentations must be made available to third-party verifiers in case feedstock providers are subject to a third-party verification. This can take place in the form of either a remote assessment or an onsite visit.

Table 9: Examples of acceptable supporting documentation to demonstrate compliance with the LUB criteria.

Criteria	Examples of acceptable supporting documentation to demonstrate compliance with the LUB criteria
All criteria (Except ILUC and excluded lands)	• Location of harvest if compliant through LR • Copy of the up-to-date certification
Wildlife Habitat	• Report on RVT species assessment within the harvest area (due diligence approach conducted by harvester) • Report made by local authorities stating that no RVT are located on site. • Map showing that no RVT species habitat overlaps with the harvested area.
Damaging Agents	• Set of guidelines for different points in the supply chain on how to prevent, monitor, and control the introduction, spread, and establishment of damaging agents. • Documentation confirming the completion of procedures to prevent, monitor, and control the introduction, spread, and establishment of damaging agents.

ILUC	• Sales and delivery documentation showing that the feedstock is not high ILUC.
Excluded Lands	• July 2020 aerial photographic map of grasslands, wetlands, forests, and unharvested riparian zones within the harvester's site. • Harvest map showing no overlap with July 2020 areas of high carbon stock. • If harvesting in previously harvested riparian zone, dated harvesting maps demonstrating that it was harvested pre-2020. • If harvesting in previously cultivated grassland (within last 10 years), dated seeding, or harvesting map)
FMP – forest regeneration	• Assessment documentation of tree species and distribution within the forest pre-harvest. • Documentation showing implementation of FMP practices on regeneration. • Documentation illustrating plan to replant within 4-7 years.
FMP – naturally regenerated stands	• Assessment documentation of tree ages and current longevity to identify naturally regenerated stands. • Documentation showing implementation of FMP practices on naturally regenerated stands. • Assessment of the decomposition stages of forest debris. • Post-harvest documentation demonstrating that clear-cutting without protection did not occur.
FMP – soil, water, and biodiversity	• Lab test of soil and water quality before and after harvest. • Assessment report of biodiversity before and after harvest. • Documentation showing implementation of FMP practices to protect soil, water, and biodiversity. • Documentation showing monitoring results of soil and water properties like nutrient concentrations, identification, and prevention of harvest in buffer zones.
FMP – watercourse connectivity	• Documentation showing implementation of FMP practices to maintain natural water flow (e.g., bridge construction with effective culverts).