Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Sequestration and Emissions Avoidance) Methodology Determination 2018

I, Josh Frydenberg, Minister for the Environment and Energy, make the following determination.

Dated

13 April 2018

Josh Frydenberg
Minister for the Environment and Energy

Contents

Part 1—Preliminary

1 Name

This is the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Sequestration and Emissions Avoidance) Methodology Determination 2018*.

2 Commencement

This determination commences on the day after it is registered.

3 Authority

This determination is made under subsection 106(1) of the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

4 Duration

This determination remains in force for the period that:

(a) begins when this instrument commences; and

(b) ends on the day before this instrument would otherwise be repealed under subsection 50(1) of the *Legislation Act 2003*.

5 Definitions

In this determination:

Act means the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

baseline period, for a project area or a part of a project area—see section 8 and (for land within a transferring project area) section 26.

calendar year means a period of 12 months starting on 1 January.

CFI Rule means the *Carbon Credits (Carbon Farming Initiative) Rule 2015*.

CO_2-e means carbon dioxide equivalent.

continuing transferring project—see section 24.

early dry season—see section 7.

fire season—see section 7.

former determination, for a transferring project area—see section 24.

fuel size class means the following:

(a) shrub fuel;

(b) fine fuel;

(c) coarse fuel;

(d) heavy fuel.

GIS means geographic information system.

high rainfall zone—see section 6.

late dry season—see section 7.

low rainfall zone—see section 6.

mapping unit: if a map that represents a particular area of land is divided into 2 or more discrete parts, with each part representing a different portion of that area of land, each such part is a ***mapping unit***.

Example: A pixel on a map that is in raster format.

National Inventory Report—see section 9.

net abatement amount, for an eligible offsets project in relation to a reporting period, means the carbon dioxide equivalent net abatement amount for the project in relation to the reporting period for the purposes of paragraph 106(1)(c) of the Act (see also section 29).

original project area, in relation to a subdivided project area—see subsection 15(2).

permanence obligation period, in relation to a savanna sequestration project, means the period from the declaration of the project until the last day the Regulator could issue a notice to relinquish Australian carbon credit units under Division 3 of Part 7 of the Act.

project area part, of a project area, means either that part entirely within the high rainfall zone or that part entirely within the low rainfall zone.

Example: If a project area is entirely within a single rainfall zone, it has a single ***project area part***. If a project area spans both rainfall zones, it has two ***project area parts***.

project management plan—see section 17.

relevant calculation period means:

(a) when calculating a value that relates to the baseline period—the baseline period; and

(b) when calculating a value that relates to a later calendar year, other than the amount referred to in paragraph (c)—the period that:

  (i) begins:

    (A) if the project area's baseline period under this determination is determined by reference to the *Carbon Credits (Carbon Farming Initiative) (Reduction of Greenhouse Gas Emissions through Early Dry Season Savanna Burning—1.1) Methodology Determination 2013*—on the relevant project commencement date within the meaning of that determination; and

    (B) otherwise—on the 1 January after the baseline period ends; and

  (ii) ends at the end of that year; and

(c) when calculating the 10-year project equilibrium fuel load for a particular calendar year for subparagraph 36(3)(d)(ii) of this determination—the period that:

  (i) begins on the later of:

    (A) the beginning of the period referred to in paragraph (b); and

    (B) the beginning of the ninth year before the calendar year; and

  (ii) ends at the end of the calendar year.

Note: In relation to sub-subparagraph (b)(i)(A), see subsection 26(3) of this determination for how the baseline period is determined. For a project area whose baseline period is determined by reference to the *Carbon Credits (Carbon Farming Initiative) (Reduction of Greenhouse Gas Emissions through Early Dry Season Savanna Burning—1.1) Methodology Determination 2013*, as a result of subsection 4.20(1) of that determination, there could be a gap of several years between the end of the baseline period and the project commencement date.

relevant weed species means a weed species that materially affects fire dynamics and is identified in the savanna technical guidance document as a relevant weed species.

Relevant Weeds Risk spatial data layer—see section 9.

restarting transferring project—see section 24.

savanna means land that is characterised by a tropical or sub-tropical vegetation formation with continuous grass cover occasionally interrupted by trees and shrubs.

savanna emissions avoidance determination means the following:

(a) the *Carbon Farming (Reduction of Greenhouse Gas Emissions through Early Dry Season Savanna Burning) Methodology Determination 2012*;

(b) the *Carbon Credits (Carbon Farming Initiative) (Reduction of Greenhouse Gas Emissions through Early Dry Season Savanna Burning—1.1) Methodology Determination 2013*;

(c) the *Carbon Credits (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management) Methodology Determination 2015*;

(d) the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination 2018*.

Savanna Fire Management High Rainfall Zone spatial data layer—see section 6.

Savanna Fire Management LDS End Date spatial data layer—see section 9.

Savanna Fire Management LDS Start Date spatial data layer—see section 9.

Savanna Fire Management Low Rainfall Zone spatial data layer—see section 6.

savanna sequestration project—see subsection 11(2).

savanna technical guidance document—see section 9.

SavBAT 3—see section 9.

seasonal fire map means a map of one or more project areas that:

(a) is a geospatial map that is divided into mapping units; and

(b) indicates whether the area of land represented by each mapping unit was burnt or unburnt in a particular fire season of a particular calendar year; and

(c) has been prepared in accordance with the savanna technical guidance document.

Note: A seasonal fire map indicates whether the area of land represented by each mapping unit was either burnt or unburnt in the early dry season and in the late dry season. A single seasonal fire map could cover an area where the late dry season starts on different dates (see section 7).

section 22 application in relation to an eligible offsets project means the application under section 22 of the Act for the declaration of the project as an eligible offsets project.

section 27 declaration in relation to an eligible offsets project means the declaration under section 27 of the Act that the project is an eligible offsets project.

section 29 application means an application made under regulations or legislative rules made for the purposes of section 29 of the Act to vary a section 27 declaration.

subdivided project area—see subsection 15(2).

transferring project area—see section 24.

vegetation fuel type means a type of vegetation that is characterised in terms of the structural formation (canopy height and foliage projected cover) of its dominant stratum

and its grass type, and that is identified as a vegetation fuel type for a particular rainfall zone in the savanna technical guidance document.

vegetation fuel type map means a map of one or more project areas that:

(a) is a geospatial map that is divided into mapping units; and

(b) has assigned to each mapping unit a code that indicates, for the area of land represented by the mapping unit:

(i) the appropriate vegetation fuel type; or

(ii) the fact that the area of land is ineligible; and

(c) has been created and validated in accordance with this determination.

Note: Other words and expressions used in this determination have the meaning given by the Act. These terms include:

25-year permanence period project
100-year permanence period project
Australian carbon credit unit
Climate Change Convention
crediting period
eligible carbon abatement
eligible offsets project
emission
Emissions Reduction Assurance Committee
greenhouse gas
offsets project
offsets report
project
project area
project proponent
Regulator
reporting period

6 Meaning of *high rainfall zone* and *low rainfall zone*

(1) In this determination:

high rainfall zone means the area of land identified as such on the Savanna Fire Management High Rainfall Zone spatial data layer.

low rainfall zone means the area of land identified as such on the Savanna Fire Management Low Rainfall Zone spatial data layer.

(2) In this determination:

Savanna Fire Management High Rainfall Zone spatial data layer means the document of that name, as published on the Department's website at the date this determination commenced.

Savanna Fire Management Low Rainfall Zone spatial data layer means the document of that name, as published on the Department's website at the date this determination commenced.

7 Meaning of *fire season*, *early dry season* and *late dry season*

(1) For this determination, the ***fire seasons*** are the early dry season and the late dry season.

Note: Each year in northern Australia, there is also a wet season, which occurs approximately from November to April. For the purposes of this determination, the definitions of the early and late dry seasons overlap with the wet season, as fire generally does not occur during the wet season.

(2) In this determination:

early dry season, for a particular area of land and for a particular calendar year, means the period of the calendar year that is not the late dry season for that area and that year.

late dry season, for a particular area of land and for a particular calendar year, means the period that:

(a) begins on the date of that year indicated for that area in the applicable Savanna Fire Management LDS Start Date spatial data layer; and

(b) ends on the date for that year (which may be in that year or in the following year) indicated for that area of land in the applicable Savanna Fire Management LDS End Date spatial data layer.

(3) For this section, a spatial data layer is ***applicable*** in relation to a particular calendar year if it is:

(a) if a later version of the spatial data layer is published before 1 July of the previous calendar year—the latest version so published; and

(b) otherwise—the version that was published when this determination commenced.

8 Meaning of *baseline period*

Baseline period*—general rule*

(1) For this determination, and subject to section 26 (which deals with transferring project areas), the ***baseline period*** for a particular area of land is:

(a) for an area of land that is wholly within the high rainfall zone—the period of 10 calendar years; and

(b) for an area of land that is wholly within the low rainfall zone—the period of 15 calendar years;

that ends immediately before:

(c) for an area of land that is part of a project area that was identified in the section 27 declaration when the project was declared an eligible offsets project—the calendar year in which the crediting period of the project begins; and

(d) for an area of land that is part of a project area that was identified in the section 27 declaration at a later date—the calendar year in which the relevant variation of the section 27 declaration took effect.

Note 1: If a project area has a single project area part (that is, if the project area lies entirely within a single rainfall zone), it has a single baseline period. If a project area has two project area parts (that is, if the project area spans both rainfall zones), the project area does not have a single baseline period. Instead, each project area part has its own baseline period.

Note 2: For transferring project areas, the former determination generally fixed a baseline period. Section 26 preserves the baseline period that applied under the former determination.

Baseline period*—subdivided project areas*

(2) The ***baseline period*** of an area of land in a subdivided project area is the same as the baseline period of the area of land in the original project area.

Note: See subsection 15(2) for the meaning of ‘subdivided project area’ and ‘original project area’.

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9 Documents that are updated from time to time

Definitions relating to documents that are updated from time to time

(1) For this determination, the following terms mean the document of the name indicated, as published on the Department's website and as in force from time to time:

(a) the ***Relevant Weeds Risk spatial data layer*** (if published);

(b) the ***Savanna Fire Management LDS Start Date spatial data layer***;

(c) the ***Savanna Fire Management LDS End Date spatial data layer***;

(d) the ***savanna technical guidance document***.

Note 1: If published, the Relevant Weeds Risk spatial data layer is used when complying with the monitoring requirement for weeds, section 40.

The Savanna Fire Management LDS Start Date spatial data layer and the Savanna Fire Management LDS End Date spatial data layer are used for the purposes of section 7 when working out when, for that calendar year, the late dry season begins and ends.

The savanna technical guidance document sets out:

- descriptions of the vegetation fuel types that are eligible for each rainfall zone; and
- instructions relating to mapping requirements, such as:
  - requirements relating to mapping units; and
  - how to validate vegetation fuel type maps, monthly fire maps and seasonal fire maps; and
  - the required accuracy of those maps; and
- relevant weed species, and details of weed monitoring requirements; and
- recommended guidelines for developing project management plans; and
- values of variables that are used to calculate the net abatement amount and that are either contained in, or calculated in accordance with, the National Inventory Report; and
- values of the fuel accumulation values that are used for the purposes of section 7 of Schedule 1.

Note 2: In 2018, the Department's website was http://www.environment.gov.au.

(2) For this determination, ***SavBAT 3*** (short for Savanna Burning Abatement Tool version 3) means the web-based information technology tool of that name as published on the SavBAT website and as in force from time to time.

Note 1: SavBAT 3 automates some processes required under this determination (in particular, the calculation of the net abatement amount) and provides reports that meet some of the reporting and record-keeping requirements of this determination.

Note 2: In 2018, the SavBAT website was https://savbat.net.au/.

(3) For this determination, the ***National Inventory Report*** is the most recently published document that is:

(a) known as the National Inventory Report; and

(b) prepared by the Department in fulfilment of obligations that Australia has under the Climate Change Convention.

Note: The National Inventory Report is available on the Department's website, which was, in 2018, http://www.environment.gov.au.

Updating of documents referred to in subsection (1) and (2)

(4) A document referred to in subsection (1) or (2) must include, or, when published, be accompanied by:

(a) an outline of the process that is intended to be undertaken before the document is republished in a modified form; and

(b) if the document is republished in a modified form:

(i) the reasons why the document was republished in a modified form; and

(ii) an outline of the process that was undertaken when modifying the document; and

(iii) if advice was obtained from the Emissions Reduction Assurance Committee in relation to the modification—a copy of the advice.

Example: For modifications of documents:

- that are required in order to comply with Australia's international obligations, or that are necessary or incidental to such modifications; or
- that are of a minor nature (such as correcting minor errors);

the outline for paragraph (4)(a) could indicate that public notice will be given before the document is republished.

For other modifications, the outline could indicate that, before the changes come into force:

- public consultation will be undertaken in relation to the proposed modifications; and
- when deciding whether to modify the document, regard will be had to matters such as the following:
  - all submissions received as a result of the public consultation, together with any advice received from the Regulator;
  - the scientific and technical rationale underlying the proposed modifications;
  - the impacts on project proponents (such as changes to regulatory burden) resulting from the proposed modifications;
  - the impact (if any) of the proposed modifications on the calculation of the net abatement amount;
  - whether it would be appropriate for the proposed modifications to be peer reviewed.

10 References to factors and parameters from external sources

(1) If SavBAT 3, or a calculation in this determination, includes a factor or parameter that is defined or calculated by reference to another instrument or writing, the factor or parameter to be used for a reporting period is the factor or parameter referred to in, or calculated by reference to, the instrument or writing as in force at the end of the reporting period.

(2) Subsection (1) does not apply if:

(a) the determination specifies otherwise; or

(b) it is not possible to define or calculate the factor or parameter by reference to the instrument or writing as in force at the end of the reporting period.

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Part 2—Savanna sequestration projects

11 Savanna sequestration projects

(1) For paragraph 106(1)(a) of the Act, this determination applies to an offsets project that:

(a) involves undertaking savanna fire management with the following objectives:

(i) removing carbon dioxide from the atmosphere by sequestering more carbon in dead organic matter than was sequestered during the baseline period;

(ii) avoiding the emission of methane and nitrous oxide from the burning of savannas, compared to the emissions during the baseline period; and

(b) does not result in an increase in:

(i) greenhouse gas emissions from other sources such as livestock; or

(ii) the rate of decomposition of organic carbon; and

(c) is carried out on a savanna that is in either or both of the following:

(i) the high-rainfall zone;

(ii) the low-rainfall zone; and

(d) can reasonably be expected to result in eligible carbon abatement.

(2) A project covered by subsection (1) is a ***savanna sequestration project***.

Projects not covered by this determination

(3) This determination does not apply to an offsets project whose applicable methodology determination is a savanna emissions avoidance determination.

(4) If the *Carbon Credits (Carbon Farming Initiative) Amendment Act 2018* commences, subsection (3) ceases to apply on and after the date that it commences.

Note: As a result of subsection (3), if a project proponent is running a project that is covered by a savanna emissions avoidance determination, they cannot apply this determination to the project by making a request under section 128 of the Act. See section 23 for an outline of other ways of moving their project onto this determination.

As a result of subsection (4), however, after the *Carbon Credits (Carbon Farming Initiative) Amendment Act 2018* commences, project proponents will be able to apply this determination to such a project by making a request under section 128 of the Act, in addition to the other ways of moving a project onto this determination outlined in section 23.

Part 3—Project requirements

Division 1—General

12 Operation of this Part

For paragraph 106(1)(b) of the Act, to be an eligible offsets project, a savanna sequestration project must meet the requirements in this Part.

13 Information to include in section 22 application

If one or more project areas of a savanna sequestration project will be transferring project areas, the section 22 application must include:

(a) a statement of that fact; and

(b) the identity of the transferring project areas; and

(c) the unique project identifiers for the projects from which the project areas will be transferring.

Note: See section 24 for the meaning of 'transferring project area'.

Division 2—Project area

Note: A savanna sequestration project may have one or more project areas.

If a project consists of 2 or more project areas, the project proponent may choose to divide the project for reporting purposes, with each reporting division consisting of one or more whole project areas—see section 77A of the Act and section 41 of this determination. The divisions may have different reporting schedules, provided that they all satisfy the reporting period requirements under the Act.

Whatever the reporting schedule for each project area, the method under this determination requires that the abatement calculations are made for each calendar year, and reported on in accordance with the project's reporting schedule.

14 Requirements relating to project area

Requirement to be in high or low rainfall zone

(1) A project area must not include an area of land that is in neither the high rainfall zone nor the low rainfall zone.

Requirement to maintain vegetation fuel types

(2) A project area, or a project area part:

(a) must include an area of land that contains a vegetation fuel type; and

(b) must not include an area of land that:

(i) contains a relevant weed species; or

(ii) contained a vegetation fuel type at the relevant date, but no longer does; or

(iii) was previously part of the project, or another project under this determination or a savanna emissions avoidance determination, but was removed in accordance with subsection (3), or the equivalent subsection of the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination 2018*.

Note: The eligibility requirement of subsection (2) applies regardless of whether the savanna technical guidance document specifies a method of monitoring for relevant weed species and, accordingly, regardless of whether project proponents are required to monitor for weeds in accordance with section 40.

(3) If an area of land in the project area is found to fit the description in subparagraph (2)(b)(i), (ii) or (iii), or if paragraph 25(4)(a) applies:
  (a) the area may be removed from the project in accordance with section 15; and
  (b) for that purpose, the area may be treated as not having fitted that description before its removal from that project.

(4) If an area of land in the project area was found to fit the description in subparagraph (2)(b)(i), it is nevertheless taken at a later time not to have fitted the description if the relevant weed species:
  (a) has been permanently removed; and
  (b) was not indicated as being present in the area of land by the latest monitoring for weeds under section 40.

(5) If the project proponent relies on subsection (3) or (4), the action under paragraph (3)(a) or (4)(a) must be taken:
  (a) as soon as practicable; and
  (b) no later than the end of the reporting period during which the issue came to the attention of the project proponent.

Note: The affected areas may be separated into a separate project area by subdividing under paragraph 15(1)(b) and then removed from the project under paragraph 15(1)(c).

(6) For subparagraph (2)(b)(ii), the ***relevant date*** is the date of the section 22 application or section 29 application in which the project area is first identified.

Note: The operation of subsection (6) is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) was met. See paragraph 21(3)(a).

15 Variations to project areas

(1) Any variation of the section 27 declaration of a savanna sequestration project so far as the declaration identifies the project area or areas after the start of the crediting period must be for one or more of the following only:
  (a) to add an additional project area;
  (b) to remove an entire project area and replace it with subdivided project areas;
  (c) to remove an entire project area and not replace it.

Note: A project area cannot be increased in size. To remove part of a project area from the project, the project area must first be subdivided so that the area to be removed now constitutes the whole of a (smaller) project area.

(2) For this determination, if:
  (a) a project area (the ***original project area***) is divided into 2 or more smaller project areas; and
  (b) the area made up of the areas of land covered by those smaller project areas, when taken together, is identical to the area of land covered by the original project area;

each smaller project area is a ***subdivided project area***.

Division 3—Project activity

16 Requirement to undertake savanna fire management

(1) The project proponent must undertake savanna fire management by undertaking planned burning in each project area each calendar year.

(2) The planned burning must be undertaken each year in such a way that the combination of:

(a) the pattern of planned and unplanned burning (if any) in all previous calendar years since the project commenced; and

(b) the planned burning undertaken in that calendar year (if any); and

(c) the planned burning that is proposed to be undertaken for the remainder of the permanence obligation period for the project;

in the project area together demonstrate a program of burning that:

(d) meets the objectives referred to in paragraph 11(1)(a); and

(e) could reasonably be expected to ensure that the amount of carbon sequestered in savanna in the project area does not decrease significantly over the permanence obligation period for the project.

(3) Subsection (1) is not contravened by a failure to undertake planned burning in a particular project area in a particular calendar year if the failure resulted from circumstances beyond the project proponent's reasonable control.

(4) If a project area is divided into 2 or more subdivided project areas on a particular date, for the purposes of this section, planned burning that was undertaken in any part of the original project area prior to that date may be treated as having been undertaken in any of the subdivided project areas.

Note: In monitoring whether a project continues to meet the requirements of section 16, the Regulator will consider a range of information, including the project management plan and other information included in an offsets report under subsection 36(3) and the information in any SavBAT 3 reports relating to the project.

17 Project management plan

Requirement to prepare project management plan

(1) The project proponent must, each calendar year, prepare a plan that describes the planned burning that is intended to be undertaken in each project area for that year.

(2) Such a plan is a ***project management plan***.

Time for preparation of project management plan

(3) A project management plan that relates to a particular project area must be prepared before commencing planned burning in that project area in the year to which the plan relates.

Updating or revising project management plan

(4) A project management plan may be revised or updated throughout the year to which it relates.

(5) Any revision or update of the project management plan must include the date of the revision or update.

Note 1: See paragraph 36(3)(c) for a reporting requirement for project management plans.

Note 2: The project management plan will form part of the Regulator's consideration of whether a project continues to meet the requirements of section 16.

Note 3: The savanna technical guidance document might contain recommended guidelines for project management plans. A project proponent may, but need not, prepare project management plans in accordance with such guidelines.

Note 4: A single project management plan may relate to one or more project areas.

Division 4—Vegetation fuel type map

18 Requirement to create and validate vegetation fuel type map

(1) Subject to section 27 (which deals with transferring project areas), this section applies:
  (a) when a section 22 application is made; and
  (b) when a section 29 application is made to add one or more further project areas.

Note: This section does not apply if a section 29 application does no more than divide one or more project areas as described in paragraph 15(1)(b). See section 20.

(2) The project proponent must create and validate a vegetation fuel type map for:
  (a) in the case of a section 22 application—each project area identified in the application; and
  (b) in the case of a section 29 application—each added project area.

(3) The project proponent must:
  (a) create the map (including selecting appropriate mapping units and assigning a code to each mapping unit of the map); and
  (b) validate the map;

in accordance with the savanna technical guidance document.

Note: The savanna technical guidance document sets out how to select appropriate mapping units, how to work out the appropriate vegetation fuel type for the area of land represented by a mapping unit, and how to assess whether a mapping unit is ineligible. This assessment will take account of the type of vegetation (including relevant weed species) in the area of land represented by each mapping unit. The savanna technical guidance document deals with the use of GIS and remote sensing in working out these matters.

(4) The creation and validation must be completed by the time the project proponent first reports under this determination on the relevant project area.

19 Revisions to vegetation fuel type map

When vegetation fuel type map must be revised

(1) If the project proponent becomes aware that:
  (a) a mapping unit in the vegetation fuel type map was classified, in accordance with the savanna technical guidance document, with a vegetation fuel type; and
  (b) either:
    (i) the classification was incorrect, and the mapping unit should have been classified as ineligible; or
    (ii) the mapping unit or the classification is not, or is no longer, in accordance with the savanna technical guidance document;

the project proponent must revise the vegetation fuel type map accordingly.

When vegetation fuel type map may be revised

(2) If the project proponent becomes aware that a mapping unit classified as ineligible may be classified with a vegetation fuel type in accordance with the savanna technical guidance document, the project proponent may revise the vegetation fuel type map accordingly.

How vegetation fuel type map is revised and validated

(3) If a map is revised (for example, if another code is assigned to a mapping unit) under this section, the revised map must be validated as required by the savanna technical guidance document.

Note: If the area of land represented by the mapping unit or units that are being revised is a material proportion of the whole, the savanna technical guidance document may require validation of the entire revised map.

(4) The revision and (if necessary) validation must:

(a) be done in accordance with the savanna technical guidance document; and

(b) if the revision is required by subsection (1)—be completed before submitting an offsets report for the reporting period in which the project proponent becomes aware of the matter referred to in that subsection; and

(c) otherwise—be completed before submitting an offsets report for the first reporting period for which the revised map is used.

Note: If, during a reporting period, the vegetation fuel type map is revised in accordance with this section, the version of the map as in force at the end of the reporting period is used for calculations of the net abatement amount for all years of the reporting period. See subsection 10(1).

20 Vegetation fuel type map for subdivided project area

(1) This section applies if:

(a) a vegetation fuel type map for a particular project area has been created and validated or revised and (if necessary) validated in accordance with this determination; and

(b) the project area is divided into 2 or more subdivided project areas.

(2) The vegetation fuel type map for the original project area is taken:

(a) to be a single map that relates to each subdivided project area; and

(b) to have been created and validated or revised and (if necessary) validated in accordance with this determination.

Division 5—Additionality

21 Requirement in lieu of newness requirement

(1) For subparagraph 27(4A)(a)(ii) of the Act, this section specifies a requirement in lieu of the newness requirement for a savanna sequestration project.

(2) The requirement is that, for each project area:

(a) the project area is a transferring project area; or

(b) a project covered by a savanna emissions avoidance determination or by this determination has not been undertaken in any part of the project area; or

(c) such a project has been undertaken in the project area or part of the project area, but no Australian carbon credit units have been issued in relation to any part of the project area while the project was covered by any such methodology determination.

Modification of operation of some provisions of this determination if paragraph (2)(c) is met

Note: For a project area that met the requirement of paragraph (2)(c), some provisions of this determination will operate in a modified manner to account for the project that has been previously undertaken. Subsection (3) sets out these modifications.

(3) For a project area that met the requirement of paragraph (2)(c):
   (a) for the purposes of subsection 14(6), disregard the section 22 application or the section 29 application in which the project area referred to in paragraph (2)(c) was first identified; and
   (b) for the purposes of subsection 24(1), disregard the project referred to in paragraph (2)(c); and
   (c) for the purposes of subparagraph 26(2)(d)(i), in determining whether the project area was first added as a result of a section 29 application, disregard the addition of the project area referred to in paragraph (2)(c); and
   (d) for the purposes of the following:
      (i) paragraph 3(1)(a) of Schedule 1;
      (ii) paragraph 3(1)(a) of Schedule 2;
      (iii) paragraph (a) of the definition of $C_{Seq,Prev}$ in subsection 4(1) of Schedule 2;

   disregard any values that might have been calculated in relation to the project area referred to in paragraph (2)(c).

22 Requirement in lieu of regulatory additionality requirement

(1) For subparagraph 27(4A)(b)(ii) of the Act, the requirement in subsection (2) is in lieu of the regulatory additionality requirement for a savanna sequestration project.

(2) A project area must not include land where fire management for the primary purpose of either or both of the following:
   (a) reducing emissions from fire;
   (b) sequestering carbon in dead organic matter;

   is required to be carried out by or under a law of the Commonwealth, a State or a Territory.

Division 6—Projects that include transferring project areas

23 Simplified outline of this Division

This Division is relevant to a savanna sequestration project if it contains a project area that was previously part of either a project covered by a savanna emissions avoidance determination or another project covered by this determination. Such a project area is a transferring project area.

There are several ways of moving a transferring project area from its original project to another project that is covered by this determination.

Moving project areas between savanna sequestration projects

A project area may be moved from one savanna sequestration project to another savanna sequestration project in accordance with section 23 of the CFI Rule. The project's crediting period would be adjusted in accordance with section 53 of the CFI Rule.

Moving project areas from emissions avoidance project to sequestration project

If the original project is covered by a savanna emissions avoidance determination, there are several options.

Before commencement of the *Carbon Credits (Carbon Farming Initiative) Amendment Act 2018*:

- One option is to apply to move all of the original project's project areas onto a project covered by this determination, in accordance with section 30A of the CFI Rule. This would involve seeking revocation of the original project's section 27 declaration.
- Another option is to apply to move only some of the original project's project areas onto a project covered by this determination, in accordance with section 30B of the CFI Rule. This would involve seeking a variation of the original project's section 27 declaration to remove the transferring project area or areas.

In either case, a new savanna sequestration project would need to be declared as an eligible offsets project. The new project would have a new crediting period, and would be a restarting transferring project.

After commencement of the *Carbon Credits (Carbon Farming Initiative) Amendment Act 2018*:

- A further option would be to request the Regulator to approve the application of this determination to the original project, under section 130 of the Act. The project would retain the same project area or areas.

In that case, the project's existing crediting period would continue. The project would be a continuing transferring project.

It is not possible to transfer a project area from a project covered by a savanna emissions avoidance determination to a savanna sequestration project under section 23 of the CFI Rule.

Projects that contain transferring project areas

Some provisions of this determination apply special rules to projects that contain transferring project areas, and apply differently to restarting transferring projects and continuing transferring projects. These provisions are principally set out in this Division.

24 Meaning of *transferring project area* and related definitions

Note: This section sets out definitions for several terms that are relevant to:

- a project that was previously covered by a savanna emissions avoidance determination; or
- a project that contains a project area that was previously part of either:
  - a project covered by a savanna emissions avoidance determination; or
  - another project covered by this determination.

Each such project contains at least one ***transferring project area***. This Division makes special rules for transferring project areas.

A project that contains a transferring project area might, depending on the circumstances, be a ***continuing transferring project*** or a ***restarting transferring project***, or it might be neither. This Division makes special rules for continuing transferring projects and restarting transferring projects.

*Meaning of **transferring project area** and **former determination***

(1) A project area of a savanna sequestration project is a ***transferring project area*** if, immediately before it was a project area of a project covered by this determination, it was a project area of:

(a) a project covered by a savanna emissions avoidance determination; or

(b) a different project covered by this determination.

Note: Subsection (1) is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) was met. See paragraph 21(3)(b).

(2) The methodology determination that applied to the project to which the transferring project area most recently belonged is the ***former determination*** for the transferring project area.

Meaning of ***continuing transferring project*** *and* ***restarting transferring project***

(3) In this determination:

continuing transferring project: a savanna sequestration project is a ***continuing transferring project*** if:

(a) when this determination first applied to the project, one of its project areas was a transferring project area; and

(b) the former determination was a savanna emissions avoidance determination; and

(c) the Regulator approved the application of this determination to the project under section 130 of the Act.

Note: A project cannot be a continuing transferring project until after the *Carbon Credits (Carbon Farming Initiative) Amendment Act 2018* commences. See subsections 11(3) and (4).

restarting transferring project: a savanna sequestration project is a ***restarting transferring project*** if:

(a) when the project was first declared eligible, one of its project areas was a transferring project area; and

(b) the former determination for the project area was a savanna emissions avoidance determination; and

(c) before declaring the project an eligible offsets project, the Regulator either revoked the section 27 declaration of the project to which the project area previously belonged, or amended it to remove the transferring project area.

25 Eligibility requirements for projects with transferring project areas

Eligibility requirements—all projects that have a transferring project area

(1) If one or more project areas of a savanna sequestration project are transferring project areas, for each such project area, the following must be consecutive years:

(a) the final calendar year for which the project area was reported on under the former determination for the project area;

(b) the first calendar year for which the project area was reported on under this determination.

Eligibility requirements—restarting transferring projects

(2) A savanna sequestration project is not an eligible offsets project if:

(a) the project is a restarting transferring project; and

(b) for each transferring project area identified on the section 27 declaration when the project was declared eligible, the former determination is not a savanna emissions avoidance determination.

(3) A savanna sequestration project is not an eligible offsets project if:

(a) the project is a restarting transferring project; and

(b) the project was not declared eligible in accordance with the process set out in section 30A or 30B of the CFI Rule.

Eligibility requirements—requirements relating to project areas

(4) When a relevant decision on a transferring project area is made, paragraph 14(2)(b) does not apply to an area of land within the transferring project area if the relevant application indicates either:

(a) that the area of land:

(i) would, apart from this subsection, fit the description of one of subparagraphs 14(2)(b)(i), (ii) or (iii); and

(ii) will be removed from the project area in accordance with subsection 14(3); or

(b) that:

(i) the area of land would, apart from this subsection, fit the description of subparagraph 14(2)(b)(i); and

(ii) the weeds will be permanently removed:

(A) as soon as practicable; and

(B) no later than the end of the first reporting period in which the transferring project area is reported on.

(5) In subsection (4):

relevant application means a section 22 application, a section 29 application or an application under section 128 of the Act.

relevant decision on a transferring project area means a decision on a relevant application that would result in a transferring project area becoming a project area, or part of a project area, of a project covered by this determination.

26 Baseline period—transferring project area

(1) This section specifies the baseline period for an area of land in a transferring project area.

Note: Section 8 specifies the baseline period for an area of land that is not in a transferring project area.

(2) If:

(a) the former determination for the transferring project area was the *Carbon Credits (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management) Methodology Determination 2015*; and

(b) the project area includes land in the high rainfall zone and land in the low rainfall zone;

then:

(c) the ***baseline period*** for an area of land in the project area is the period referred to in paragraph 8(1)(a) or (b), as appropriate; and

(d) the last year of the ***baseline period*** is:

(i) if the project area was first added to a project covered by a savanna emissions avoidance determination as a result of a section 29 application—the calendar year before the day on which the project area was added; and

(ii) otherwise—the calendar year before project commencement (within the meaning of the former determination).

Note: Subparagraph 26(2)(d)(i) is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) was met. See paragraph 21(3)(c).

(3) In any other case, the ***baseline period*** for the project area, or an area of land in the project area, is the same as the baseline period under the former determination for the project area.

27 Vegetation fuel type map for transferring project area

(1) This section applies if:

(a) a project area of a savanna sequestration project is a transferring project area; and

(b) a vegetation map or a vegetation fuel type map has been created and validated for the transferring project area in accordance with the former determination.

(2) The map is taken to be a vegetation fuel type map for the project area that has been created and validated in accordance with this determination, and the pixels of the map are taken to be mapping units.

(3) A reference to a vegetation class on a map that was created under a savanna emissions avoidance determination is taken to be a reference to the corresponding vegetation fuel type for the purposes of this determination in accordance with the savanna technical guidance document.

28 Crediting period for some projects that include transferring project areas

Note: Subsection 69(2) of the Act sets out the basic rule for the crediting period for a project that became an eligible offsets project after the commencement of Part 5 of the Act (13 December 2014). Generally, for such a project covered by this determination, the crediting period will be the period of 25 years given by paragraph 69(2)(a) of the Act.

Under paragraph 69(2)(b) of the Act, if another period is specified in the applicable methodology determination for the project, that period is the project's crediting period. Subsection (1) specifies a shorter period for certain restarting transferring projects.

Section 70 of the Act specifies the crediting period for certain projects that were eligible offsets projects immediately before the commencement of Part 5 of the Act, and will apply to some continuing transferring projects. Under section 70 of the Act, if a period is specified in the applicable methodology determination for the purposes of subparagraph 70(2)(b)(ii) of the Act, the project's second crediting period is that period, beginning on the commencement of Part 5 of the Act (13 December 2014). Subsection (4) specifies another period for the purposes of this subparagraph.

For restructured projects, see section 57 of the Act and section 53 of the CFI Rule for adjustments to the crediting period resulting from the restructure. In any other case, see section 69 of the Act for the crediting period.

Crediting period for some restarting transferring projects

(1) For paragraph 69(2)(b) of the Act, if:

(a) a savanna sequestration project is a restarting transferring project; and

(b) the section 22 application is made more than 5 years after the commencement of this determination;

the period of 25 – N years is specified, where N is the largest value of N_{TPA} for the transferring project areas.

(2) For a transferring project area, $\boldsymbol{N_{TPA}}$ is the sum of the following:

(a) the number of calendar years for which that project area was reported on while the former determination was the applicable methodology determination;

(b) the number of calendar years (if any) for which that project area was reported on while any other methodology determination was the applicable methodology determination.

Note: For a restarting transferring project for which the section 22 application is made within 5 years after the commencement of this determination, the crediting period will be the period of 25 years. See paragraph 69(2)(a) of the Act.

(3) For subsection (1), if a project to which the transferring project area previously belonged had 2 crediting periods as a result of subsection 70(4) of the Act, disregard the first crediting period.

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Crediting period for some continuing transferring projects

(4) For subparagraph 70(2)(b)(ii) of the Act, if:

(a) a savanna sequestration project is a continuing transferring project; and

(b) the project was an eligible offsets project immediately before the commencement of Part 5 of the Act;

the period of 25 years and 18 days is specified.

Note 1: Part 5 of the Act commenced on 13 December 2014.

Note 2: For continuing transferring projects that became eligible offsets projects after that date, see section 69 of the Act.

Part 4—Net abatement amount

Division 1—Preliminary

29 Operation of this Part

For paragraph 106(1)(c) of the Act, this Part specifies the method for working out the net abatement amount for a reporting period for a savanna sequestration project that is an eligible offsets project.

30 Simplified outline of this Part

This determination accounts for carbon abatement from undertaking savanna fire management in accordance with this determination, crediting abatement from the avoidance of emissions of greenhouse gases into the atmosphere, as well as abatement from carbon dioxide that is removed from the atmosphere and sequestered in dead organic matter in savannas.

A project covered by this determination is a sequestration offsets project, and as such is subject to the obligations under the Act that relate to the permanence period.

To ascertain the net abatement amount in relation to a reporting period for a savanna sequestration project under this determination, the project proponent calculates the adjusted contributions from emissions avoidance and from sequestration of carbon in dead organic matter for each calendar year that ends during the reporting period, and adds these together. These calculations may be performed using SavBAT 3, or in accordance with Schedules 1 and 2 respectively.

If the project has 2 or more project areas, adjusted contributions to the net abatement amount are calculated separately for each project area and added together.

When calculating the contribution to the net abatement amount from emissions avoidance, the calculations account for all fuel size classes (that is, shrub fuel, fine fuel, coarse fuel and heavy fuel). In contrast, when calculating the contribution to the net abatement amount from sequestration, the calculations account only for dead organic matter that consists of coarse fuel and heavy fuel. Sequestration calculations assume that there is no net change in carbon stored in fine and shrub fuels as a result of the project activity.

31 Use of SavBAT 3

If a calculation is undertaken using SavBAT 3 for the purposes of this determination, SavBAT 3 must be used in accordance with any guidance material on the SavBAT website.

Note: In 2018, the SavBAT website was https://savbat.net.au/.

33 Overview of gases accounted for in abatement calculations

The following table provides an overview of the emissions sources and carbon pools, and the associated greenhouse gases, that are relevant to working out the net abatement amount for a savanna sequestration project.

Overview of gases accounted for in abatement calculations			
Item	**Relevant carbon pool or emission source**		**Greenhouse gas**
1	Emission source	Fire	Methane (CH_4) Nitrous oxide (N_2O)
2	Carbon pool	Dead organic matter	Carbon dioxide (CO_2)

Division 2—Calculation of net abatement amount

34 The net abatement amount, *A*

(1) For paragraph 106(1)(c) of the Act, the net abatement amount for a reporting period, ***A***, in tonnes CO_2-e, is, subject to subsection (2), given by the following equation:

$A = \sum_{y=1}^{N} \left(A_{EA,adj,y} + A_{Seq,adj,y} \right)$	equation 1

where:

y is a calendar year that ends during the reporting period.

N is the number of calendar years that end during the reporting period (1, 2, 3, 4 or 5).

$A_{EA,adj,y}$ is the adjusted contribution to the net abatement amount from emissions avoidance for calendar year *y*, in tonnes CO_2-e, and:

(a) is calculated using SavBAT 3; or

(b) is given by the amount $A_{EA,adj}$ as calculated for calendar year *y* in accordance with Schedule 1.

Note: For paragraph (b), see section 2 of Schedule 1.

$A_{Seq,adj,y}$ is the adjusted contribution to the net abatement amount from sequestration of carbon in dead organic matter for calendar year *y*, in tonnes CO_2-e, and:

(a) is calculated using SavBAT 3; or

(b) is given by the amount $A_{Seq,adj}$ as calculated for calendar year *y* in accordance with Schedule 2.

Note: For paragraph (b), see section 2 of Schedule 2.

Adjustments to calculations—multiple project areas

(2) If a project includes more than one project area, the net abatement amount for the project is ascertained by:

(a) calculating a value of *A* in tonnes CO_2-e in accordance with equation 1 for each project area individually; and

(b) summing the values so calculated.

Documents on which calculations are based

(3) When calculating the adjusted contributions to the net abatement amount for a particular calendar year of the reporting period, if, as a result of paragraph 7(3)(a), later versions of either or both of the following:

(a) the Savanna Fire Management LDS Start Date spatial data layer;

(b) the Savanna Fire Management LDS End Date spatial data layer;

are applicable in relation to the calendar year, apply those later versions to each calendar year of the baseline period.

Note: Otherwise, calculations are based on instruments or writings (including the savanna technical guidance document, SavBAT 3, the National Inventory Report, and vegetation fuel type maps) as in force at the end of the reporting period. See subsection 10(1).

Part 5—Reporting, record-keeping and monitoring requirements

Division 1—Offsets report requirements

35 Operation of this Division

For paragraph 106(3)(a) of the Act, this Division sets out information that must be included in an offsets report about a savanna sequestration project that is an eligible offsets project.

Note: Other reporting requirements are set out in the CFI Rule.

36 Information that must be included in offsets reports

(1) For each project area reported on, the offsets report must include the following:

(a) a statement that the project area was not varied, and did not result from a project area that was varied, other than in accordance with section 15;

(b) if the project area was added to the project as the result of a variation to the section 27 declaration and is being reported on for the first time—a statement of that fact;

(c) if the project area is a subdivided project area that is first reported on during that reporting period:

(i) a statement of that fact; and

(ii) the date on which the relevant variation of the section 27 declaration took effect;

(d) if the project proponent used SavBAT 3 to calculate the net abatement amount for the project area—a copy of:

(i) each abatement report; and

(ii) if the project area is a subdivided project area that is first reported on during the reporting period—the subdivision report;

produced by SavBAT 3 for the reporting period;

(e) if the project proponent calculated the net abatement amount for the project area without using SavBAT 3:

(i) copies of each seasonal fire map prepared in accordance with the savanna technical guidance document; and

(ii) for each monthly fire map that the project proponent produced in accordance with the savanna technical guidance document—any ERF audit report relating to the validation of the seasonal fire map for which that monthly fire map was used; and

(iii) the value of each amount that was calculated in accordance with an equation set out in Schedules 1 and 2 for the purpose of calculating the net abatement amount; and

(iv) if the project area is a subdivided project area that is first reported on during the reporting period—the values of the variables used to calculate the amounts given by equation 13, equation 18 and equation 19 (in addition to those amounts);

(f) if the project proponent is required to monitor the project area in accordance with section 40—the results of the monitoring;

(g) if the project proponent is not required to monitor the project area in accordance with section 40—a statement as to whether, to the best of the project proponent's knowledge, any relevant weed species is present in the project area;

(h) a declaration to the effect that the density of livestock in the project area has not increased as a consequence of the project;

(i) if subsection 14(4) or paragraph 25(4)(b) applied to the project in relation to the reporting period—a map of the area impacted by relevant weed species and evidence that the weeds were permanently removed from that area.

(2) For subparagraph (1)(e)(i), if each fire season is uniquely identified, a single map may show the area burnt in both fire seasons in a calendar year.

(3) For each project area being reported on, and for each calendar year of the reporting period, the offsets report must include the following:

(a) if planned burning was undertaken:

(i) a statement of that fact; and

(ii) a description of the location, timing and extent of that planned burning; and

(iii) an indication of whether, and the extent to which, that planned burning satisfied section 16;

(b) if planned burning was not undertaken:

(i) a statement of that fact; and

(ii) the reasons why planned burning was not undertaken;

(c) a copy of:

(i) the project management plan that was prepared for the year; and

(ii) if the project management plan was revised or updated during the year—either the revisions or updates, or the revised or updated plan;

(d) the 10-year project equilibrium fuel load for that year, as calculated in accordance with:

(i) SavBAT 3; or

(ii) section 7 of Schedule 2.

(4) If the project proponent was required or elected, under Division 4 of Part 3, to create or revise a vegetation fuel type map during the reporting period, the offsets report must include the following:

(a) a statement of that fact;

(b) an indication of which map or maps were revised;

(c) for each such map:

(i) a copy of the map that was created and validated or revised and (if necessary) validated in accordance with that Division; and

(ii) if the map was created—a map combining that map and the spatial data layers referred to in section 6 showing in which rainfall zone or zones each area to which the map relates is located; and

(iii) if the map was revised—a statement of the reasons for which the map was revised; and

(iv) in either case—any ERF audit report relating to the validation of the map.

(5) If, during the reporting period, any project area (including a subdivided project area) was removed from the project as a result of subparagraph 14(2)(b)(i) or (ii), the offsets report must include, for each such project area:

(a) a statement of that fact; and

(b) the portion of the cumulative net abatement amount that was attributable to sequestration in the removed project area up to the end of the year before the project area was removed, as calculated in accordance with section 11 of Schedule 2.

(6) If, in the circumstances described in paragraph 10(2)(b), a factor or parameter is defined or calculated for a reporting period by reference to an instrument or writing as in force from time to time, the offsets report about the project for the reporting period must include the following information for the factor or parameter:
   (a) the versions of the instrument or writing used;
   (b) the start and end dates of each use;
   (c) the reasons why it was not possible to define or calculate the factor or parameter by reference to the instrument or writing as in force at the end of the reporting period.

(7) For this section, ***ERF audit report*** has the same meaning as it has in the *National Greenhouse and Energy Reporting Act 2007*.

Division 2—Record-keeping requirements

37 Operation of this Division

For paragraph 106(3)(c) of the Act, this Division sets out record-keeping requirements for a savanna sequestration project that is an eligible offsets project.

Note: Other record-keeping requirements are set out in the CFI Rule.

38 Record-keeping requirements

(1) If the project proponent used SavBAT 3 to calculate the net abatement amount, the project proponent must retain records of:
   (a) each SavBAT 3 record-keeping report; and
   (b) all data files that were used when calculating the net abatement amount.

(2) If the project proponent did not use SavBAT 3 to calculate the net abatement amount, the project proponent must retain records of all calculations that were undertaken in order to calculate that amount.

Division 3—Monitoring requirements

39 Operation of this Division

For paragraph 106(3)(d) of the Act, this Division sets out monitoring requirements for a savanna sequestration project that is an eligible offsets project.

Note: Other monitoring requirements are set out in the CFI Rule.

40 Monitoring requirements

The project proponent for a savanna sequestration project must comply with the monitoring requirements set out in the following table in accordance with the instructions given in the table.

Monitoring requirements			
Item	**Requirement**	**How monitoring must be done**	**Other instructions**
1	The project proponent must monitor for the presence of each relevant weed species in each project area.	The monitoring must be done: (a) using the methods specified in the savanna technical guidance document for the weed species; and (b) at the frequencies ascertained in accordance with either or both of the following (i) the savanna technical guidance document; (ii) the Relevant Weeds Risk spatial data layer; for the weed species and the area of land that constitutes the project area.	Monitoring of a particular weed species in accordance with this item is required only if the savanna technical guidance document specifies one or more methods for monitoring for the weed species for the purposes of this item.

Part 6—Partial reporting

41 Partial reporting

For section 77A of the Act, an overall project may only be divided into parts that consist of one or more whole project areas.

Schedule 1—Emissions avoidance—calculation of adjusted contribution to net abatement amount for a calendar year

Division 1—Preliminary

1 Simplified outline of this Schedule

If the project proponent elects to calculate the adjusted contribution to the net abatement amount for the project area from emissions avoidance for calendar year *y* of the reporting period, $A_{EA,adj,y}$ in equation 1, without using SavBAT 3, the amount is calculated as follows.

First, the contribution to the net abatement amount for the project area from emissions avoidance in the project area for the calendar year, A_{EA}, is calculated. This is calculated as the difference between the mean annual emissions from savanna burning over the baseline period, and the emissions from savanna burning during that year. The calculations are based on the vegetation fuel type map, factors taken from the National Inventory Report and the savanna technical guidance document, and various factors calculated from seasonal fire maps. Calculations of annual fuel loads in the project area take account of dead organic matter that accumulates each year in the project area as a result of undertaking the project.

Then, from A_{EA}, the adjusted contribution to the net abatement amount for the calendar year, $A_{EA,adj}$, is calculated. The adjustment manages the risk of the project containing some years in which emissions are higher than the mean annual baseline emissions, and involves apportioning the amount A_{EA} between the adjusted contribution $A_{EA,adj}$ and an 'uncertainty buffer'. Generally, the uncertainty buffer starts at zero (unless the project area is a transferring project area). The uncertainty buffer is capped at a maximum, $B_{U,Cap}$, which is equal to 5 per cent of the mean annual baseline emissions. The uncertainty buffer is subtracted from in years in which A_{EA} is less than zero. For years in which A_{EA} is greater than zero, the uncertainty buffer is generally added to, subject to its reaching the maximum, $B_{U,Cap}$.

The value of the uncertainty buffer cap, $B_{U,Cap}$, and values relating to the baseline period, are re-calculated each year, and will potentially change from year to year. Changes to these values might arise, for example, if documents that are referred to as in force from time to time are modified, if the vegetation fuel type map is revised, or if project areas are divided.

Division 2—Calculations

2 Calculation of adjusted contribution to net abatement amount from emissions avoidance for a calendar year, $A_{EA,adj}$

For paragraph (b) of the definition of $A_{EA,adj,y}$ in subsection 34(1) of this determination, the adjusted contribution to the net abatement amount from emissions avoidance for a particular project area and for a particular calendar year, $A_{EA,adj}$, in tonnes CO_2-e, is calculated by:

(a) calculating the previous year's uncertainty buffer for the project area, $\boldsymbol{B_{U,Prev}}$, in tonnes CO_2-e, in accordance with section 3 of this Schedule; and

(b) calculating the contribution to the net abatement amount from emissions avoidance for the project area for the calendar year, $\boldsymbol{A_{EA}}$, in tonnes CO_2-e, in accordance with section 4 of this Schedule; and

(c) calculating the uncertainty buffer cap for the project area for the calendar year, $\boldsymbol{B_{U,Cap}}$, in tonnes CO_2-e, in accordance with section 5 of this Schedule; and

(d) determining which set of conditions set out in the table below is satisfied in relation to the project area for the calendar year; and

(e) calculating, in accordance with the corresponding row of the table:

(i) the adjusted contribution to the net abatement amount from emissions avoidance for the project area and for the calendar year, $\boldsymbol{A_{EA,adj}}$, in tonnes CO_2-e; and

(ii) the current year's uncertainty buffer for the project area, $\boldsymbol{B_{U,Curr}}$, in tonnes CO_2-e.

Calculation of adjusted contribution to net abatement amount from emissions avoidance

Item	Conditions		$A_{EA,adj}$	$B_{U,Curr}$
1	$A_{EA} \leq 0$,	$A_{EA} + B_{U,Prev} < B_{U,Cap}$	0	$A_{EA} + B_{U,Prev}$
2	$A_{EA} \leq 0$,	$A_{EA} + B_{U,Prev} \geq B_{U,Cap}$	$A_{EA} + B_{U,Prev} - B_{U,Cap}$	$B_{U,Cap}$
3	$A_{EA} > 0$, $B_{U,Prev} < 0$, $A_{EA} + B_{U,Prev} < 0$		0	$A_{EA} + B_{U,Prev}$
4	$A_{EA} > 0$, $B_{U,Prev} < 0$, $A_{EA} + B_{U,Prev} \geq 0$, $0.1 \times (A_{EA} + B_{U,Prev}) < B_{U,Cap}$		$0.9 \times (A_{EA} + B_{U,Prev})$	$0.1 \times (A_{EA} + B_{U,Prev})$
5	$A_{EA} > 0$, $B_{U,Prev} < 0$, $A_{EA} + B_{U,Prev} \geq 0$, $0.1 \times (A_{EA} + B_{U,Prev}) \geq B_{U,Cap}$		$A_{EA} + B_{U,Prev} - B_{U,Cap}$	$B_{U,Cap}$
6	$A_{EA} > 0$, $B_{U,Prev} \geq 0$,	$(0.1 \times A_{EA}) + B_{U,Prev} < B_{U,Cap}$	$0.9 \times A_{EA}$	$(0.1 \times A_{EA}) + B_{U,Prev}$
7	$A_{EA} > 0$, $B_{U,Prev} \geq 0$,	$(0.1 \times A_{EA}) + B_{U,Prev} \geq B_{U,Cap}$	$A_{EA} + B_{U,Prev} - B_{U,Cap}$	$B_{U,Cap}$

Note 1: Division 3 of this Schedule sets out adjustments to these calculations, which apply:

- if a project area spans both rainfall zones (see section 10 of this Schedule); and
- if a project area is divided into 2 or more subdivided project areas (see section 12 of this Schedule).

Note 2: If, during a reporting period, the vegetation fuel type map is revised in accordance with section 19 of this determination, the version of the map as in force at the end of the reporting period is used for calculations for all years of the reporting period (including for the calculation of the current year's uncertainty buffer and the uncertainty buffer cap, and amounts that relate to the baseline period). See subsection 10(1) of this determination. However, a previous year's uncertainty buffer that was calculated on the basis of an earlier version of the vegetation fuel type map is not revised on the basis of the revised map.

3 The previous year's uncertainty buffer, $B_{U,Prev}$

(1) For paragraph 2(a) of this Schedule, and subject to section 12 of this Schedule (which deals with subdivided project areas), the previous year's uncertainty buffer for the project area, $B_{U,Prev}$, in tonnes CO_2-e, is:

(a) if, for the previous calendar year, an uncertainty buffer was calculated for the project area in accordance with the methodology determination that applied to the project to which the project area belonged in that year—equal to the value of the uncertainty buffer so calculated; and

(b) otherwise—equal to zero.

Note: For paragraph (a), the uncertainty buffer might have been calculated as the current year's uncertainty buffer $B_{U,Curr}$ under this determination or the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination*

2018, or as the amount R_y under the *Carbon Credits (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management) Methodology Determination 2015*.

(2) For paragraph (1)(a), if the project was reported on for that year, the relevant value is the value reported in the offsets report.

Note: Paragraph (1)(a) is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) of this determination was met. See subparagraph 21(3)(d)(i) of this determination.

4 The contribution to the net abatement amount from emissions avoidance for a calendar year, A_{EA}

For paragraph 2(b) of this Schedule, the contribution to the net abatement amount from emissions avoidance for a project area for a calendar year, A_{EA}, in tonnes CO_2-e, is given by the following equation:

$A_{EA} = \bar{E}_B - E_F$	equation 2

where:

$\bar{E}_B$ is the mean annual baseline fire emissions for the project area, in tonnes CO_2-e—from equation 4.

E_F is the fire emissions for the project area for the calendar year, in tonnes CO_2-e, and is given by the amount E_F as calculated in accordance with equation 5 for the calendar year.

5 The uncertainty buffer cap for a calendar year, $B_{U,Cap}$

For paragraph 2(c) of this Schedule, the uncertainty buffer cap for the project area for a calendar year, $B_{U,Cap}$, in tonnes CO_2-e, is given by the following equation:

$B_{U,Cap} = \frac{5}{100} \times \bar{E}_B$	equation 3

where:

$\bar{E}_B$ is the mean annual baseline fire emissions for the project area, in tonnes CO_2-e—from equation 4.

6 Mean annual baseline fire emissions

For sections 4 and 5 of this Schedule, the mean annual baseline fire emissions, $\bar{E}_B$, is given by the following equation:

$\bar{E}_B = \frac{1}{Y_B} \times \sum_{y=1}^{Y_B} E_{F,y}$	equation 4

where:

Y_B is the number of years in the baseline period for the project area (either 10 or 15).

y is a calendar year of the baseline period.

$\boldsymbol{E_{F,y}}$ is the fire emissions for the project area for calendar year *y*, in tonnes CO_2-e—calculated as $\boldsymbol{E_F}$ for that year using equation 5.

7 Fire emissions for a calendar year, $\boldsymbol{E_F}$

Fire emissions

(1) For the definitions of E_F in section 4 of this Schedule and $E_{F,y}$ in section 6 of this Schedule, the fire emissions for a project area in a particular calendar year is given by the following equation:

$E_F = \sum_{v} \sum_{s} \left(CE_{v,s} \times S_{FS,v,s} \times P_s \right)$	equation 5

where:

v is a vegetation fuel type on the vegetation fuel type map for the project area.

s is the fire season, and takes on the values early dry season and late dry season.

$\boldsymbol{CE_{v,s}}$ is the carbon emissions per hectare of a fire in the project area that burns a hectare of vegetation fuel type *v* in fire season *s* of the calendar year, in tonnes CO_2-e per hectare—from equation 6.

$\boldsymbol{S_{FS,v,s}}$ is the fire scar area for the project area, in hectares, for vegetation fuel type *v* in fire season *s* of the calendar year, and is calculated, using GIS software, by:

(a) overlaying the vegetation fuel type map with the seasonal fire map for fire season *s* of the calendar year; and

(b) from that combined map, for each vegetation fuel type *v*, calculating the area that was burnt during the fire season *s*.

Note: The savanna technical guidance document provides for how to create the seasonal fire maps.

$\boldsymbol{P_s}$ is the patchiness for fire season *s*, from the National Inventory Report.

Carbon emissions per hectare

(2) For subsection (1), the carbon emissions per hectare of a fire in the project area that burns a hectare of vegetation fuel type *v* in fire season *s* of a calendar year, in tonnes CO_2-e per hectare, $CE_{v,s}$, is given by the following equation:

$CE_{v,s} = \sum_{g} \sum_{f} \left(BE_{f,s} \times FL_{f,v,s} \times EF_{g,f,v} \times CC_{f,v} \times NC_{g,f,v} \times MR_g \times GWP_g \right)$	equation 6

where:

g is a greenhouse gas, and takes on the values methane (CH_4) and nitrous oxide (N_2O).

f is a fuel size class, and takes on the values of each of the fuel size classes.

$\boldsymbol{BE_{f,s}}$ is the burning efficiency of fuel of fuel size class *f* in fire season *s*—from the National Inventory Report.

$FL_{f,v,s}$ is the fuel load for the project area, in tonnes of biomass per hectare, of fuel size class *f* of vegetation fuel type *v* for fire season *s* of the calendar year, and is calculated in accordance with:

(a) for shrub fuel and fine fuel—section 8; and

(b) for coarse fuel and heavy fuel—section 9.

Note: The fuel load $FL_{f,v,s}$ for coarse fuel and heavy fuel will be the same for both fire seasons *s*.

$EF_{g,f,v}$ is the emission factor for greenhouse gas *g* for fuel size class *f* of vegetation fuel type *v*—from the National Inventory Report.

$CC_{f,v}$ is the carbon content for fuel size class *f* of vegetation fuel type *v*, in tonnes of carbon per tonne of biomass—from the National Inventory Report.

$NC_{g,f,v}$ is the nitrogen to carbon ratio in relation to greenhouse gas *g* for fuel size class *f* of vegetation fuel type *v*, and is:

(a) for methane (CH_4)—equal to 1; and

(b) for nitrous oxide (N_2O)—from the National Inventory Report.

MR_g is the ratio of the molecular mass to elemental mass for greenhouse gas *g*, and is equal to:

(a) for methane (CH_4)—1.3333; and

(b) for nitrous oxide (N_2O)—1.5714.

GWP_g is the global warming potential of greenhouse gas *g*, in tonnes of CO_2-e per tonne of carbon—from the *National Greenhouse and Energy Reporting Regulations 2008*.

8 Fuel loads—shrub fuel and fine fuel

(1) This section sets out how to calculate the fuel loads for the project area for a calendar year for shrub fuel and fine fuel for the definition of $FL_{f,v,s}$ for subsection 7(2).

(2) The project proponent must:

(a) in accordance with the savanna technical guidance document, produce or source a years-since-last-burnt (YSLB) map for the calendar year that covers the project area; and

(b) use that map to determine, for years-since-last-burnt values *YSLB* = 1 to 11, for the calendar year, and for each vegetation fuel type *v*, the area burnt, $S_{YSLB,v}$ for the project area, by comparing the YSLB map for the year with the vegetation fuel type map; and

(c) use those areas burnt to calculate the fuel load, $FL_{f,v,s}$ for the project area, in tonnes of biomass per hectare, for fuel size class *f* of vegetation fuel type *v*, for fire season *s* of the calendar year, in accordance with equation 7.

(3) For paragraph (2)(c), the equation is the following:

$$FL_{f,v,s} = \left(\sum_{YSLB=1}^{11} \left(S_{YSLB,v} \times FA_{YSLB,f,v,s}\right)\right) \Big/ \left(\sum_{YSLB=1}^{11} S_{YSLB,v}\right)$$	equation 7

where:

$S_{YSLB,v}$ is the area of the project area burnt in the calendar year, in hectares, for years-since-last burnt value *YSLB* and for vegetation fuel type *v*, from paragraph (2)(b).

$\boldsymbol{FA_{YSLB,f,v,s}}$ is the fuel accumulation value for years-since-last-burnt value *YSLB*, in tonnes of biomass per hectare, for fuel size class *f* of vegetation fuel type *v* for fire season *s*, as given by the savanna technical guidance document.

9 Fuel loads—coarse fuel and heavy fuel

(1) This section sets out how to calculate the fuel loads for the project area for a calendar year for coarse fuel and heavy fuel for the definition of $FL_{f,v,s}$ for subsection 7(2).

Outline

(2) The project proponent must:

(a) first, calculate the mean fire frequency in vegetation of each vegetation fuel type *v* in each fire season *s* for the project area and for the relevant calculation period (see section 5 of this determination), $\boldsymbol{FF_{v,s}}$, using equation 8, in years^{-1}; and

Note: See section 11 of this Schedule for adjustments to these calculations if some or all of these fire frequencies are equal to zero.

(b) secondly, using these amounts, calculate the mean fire return interval for each vegetation fuel type *v* for the project area and for the relevant calculation period, $\boldsymbol{FRI_v}$, using equation 9, in years; and

(c) thirdly, using the amounts calculated in paragraphs (a) and (b), calculate the mean proportion of fuel size class *f* that is of vegetation fuel type *v* that remains after a fire for the project area and for the relevant calculation period, $\boldsymbol{\overline{R}_{f,v}}$, using equation 10; and

(d) fourthly, using the amounts calculated in paragraphs (b) and (c), calculate the mean baseline and project fuel load amounts of biomass in the dead organic matter, $\boldsymbol{\overline{W}_{FRI,B,f,v}}$ and $\boldsymbol{\overline{W}_{FRI,P,f,v}}$, for fuel size class *f* of vegetation type *v* at the mean fire return interval for the project area and for the relevant calculation period, in tonnes of biomass per hectare, using equation 11; and

(e) finally, using the amounts calculated in paragraph (d), calculate the baseline and project fuel loads, $FL_{f,v,s}$, in tonnes of biomass per hectare in accordance with equation 12 for the calendar year for the project area.

Calculations

(3) For paragraph (2)(a), the equation is the following:

$$FF_{v,s} = \frac{1}{n} \times \sum_{y=1}^{n} \frac{S_{FS,v,s,y}}{S_{V,v}}$$	equation 8

where:

n is length, in years, of the relevant calculation period in relation to which $\bar{C}_{Seq,B,E}$ or $\bar{C}_{Seq,P,E}$ is being calculated.

y is a calendar year of the relevant calculation period.

$\boldsymbol{S_{FS,v,s,y}}$ is the fire scar area, in hectares, for vegetation fuel type *v* for fire season *s* of year *y* of the relevant calculation period for the project area, and has the same value as $S_{FS,v,s}$ as calculated for that year referred to in subsection 7(1).

$\boldsymbol{S_{V,v}}$ is the total area covered by vegetation of vegetation fuel type *v* in the project area, ascertained from the vegetation fuel type map for the project area, in hectares.

(4) For paragraph (2)(b), the equation is the following:

$FRI_v = 1 \Big/ \left(\sum_s FF_{v,s} \right)$	equation 9

where:

s is a fire season (either the early dry season or the late dry season).

$\boldsymbol{FF_{v,s}}$ is the mean fire frequency in vegetation of vegetation fuel type *v* in fire season *s* for the project area and for the relevant calculation period, in years^{-1}, from equation 8.

(5) For paragraph (2)(c), the equation is the following:

$\bar{R}_{f,v} = 1 - \left(FRI_v \times \sum_s \left(BE_{f,s} \times FF_{v,s} \times P_s \right) \right)$	equation 10

where:

s is a fire season (either the early dry season or the late dry season).

$\boldsymbol{FRI_v}$ is the mean fire return interval for vegetation of vegetation fuel type *v* for the project area and for the relevant calculation period, as calculated using equation 9, in years.

$\boldsymbol{BE_{f,s}}$ is the burning efficiency for fuel of fuel size class *f* in fire season *s*, from the National Inventory Report.

$\boldsymbol{FF_{v,s}}$ is the mean fire frequency in vegetation of vegetation fuel type *v* in fire season *s* for the project area and for the relevant calculation period, in years^{-1}, from equation 8.

$\boldsymbol{P_s}$ is the patchiness for fire season *s*, from the National Inventory Report.

(6) For paragraph (2)(d), the equation is the following:

$\bar{W}_{FRI,f,v} = \frac{L_{f,v}}{D_{f,v}} \times \left[1 - e^{\left(-D_{f,v} \times FRI_v\right)} \times \left(1 - \frac{1 - e^{\left(-D_{f,v} \times FRI_v\right)}}{\frac{1}{\bar{R}_{f,v}} - e^{\left(-D_{f,v} \times FRI_v\right)}} \right) \right]$	equation 11

where:

$\boldsymbol{L_{f,v}}$ is the annual rate of accumulation of fuel of fuel size class *f* that is of vegetation fuel type *v*, as given by the National Inventory Report, in tonnes of biomass per hectare per year.

$\boldsymbol{D_{f,v}}$ is the proportion of vegetation of fuel of fuel size class *f* that is of vegetation fuel type *v* that decomposes each year in a given area, as given by the National Inventory Report, in years^{-1}.

$\boldsymbol{FRI_v}$ is the mean fire return interval for vegetation of vegetation fuel type *v* for the project area and for the relevant calculation period, as calculated using equation 9, in years.

$\bar{R}_{f,v}$ is the mean proportion of fuel of fuel size class *f* that is of vegetation fuel type *v* that remains after a fire for the project area and for the relevant calculation period, as calculated using equation 10.

(7) For paragraph (2)(e), the equation is the following:

$FL_{f,v,s} = \bar{W}_{FRI,B,f,v} + \frac{L_{EA}}{L_{CP,EA}} \times \left(\bar{W}_{FRI,P,f,v} - \bar{W}_{FRI,B,f,v}\right)$	equation 12

where:

$\bar{W}_{FRI,B,f,v}$ is the amount for the project area calculated in accordance with equation 11 over the baseline period (paragraph (a) of the definition of relevant calculation period in section 5), in tonnes of biomass per hectare.

$\bar{W}_{FRI,P,f,v}$ is the amount for the project area calculated in accordance with equation 11 over the relevant calculation period (paragraph (b) of the definition of that term in section 5), in tonnes of biomass per hectare.

L_{EA}, for a particular calendar year, is equal to:

(a) for a year of the baseline period—zero; and

(b) otherwise—the smaller of:

(i) the length, in years, of the period between:

(A) the beginning of the calendar year in which this determination or the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination 2018* became the applicable methodology determination; and

(B) the end of the calendar year; and

(ii) the amount $L_{CP,EA}$.

$L_{CP,EA}$ is equal to:

(a) for a continuing transferring project—the difference, in years, between:

(i) the length of:

(A) the crediting period; or

(B) if the project has 2 crediting periods as a result of subsection 70(2) of the Act—the second crediting period; and

(ii) the length of the period for which the project was reported on under a methodology determination other than this determination or the *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Sequestration and Emissions Avoidance) Methodology Determination 2018*;

rounded down to the nearest whole number of calendar years; and

(b) otherwise—the length, in years, of:

(i) the crediting period; or

(ii) if the project has 2 crediting periods as a result of subsection 70(2) of the Act—the second crediting period.

Note: There will ordinarily be 25 years in the crediting period. For the crediting period of certain projects that include a transferring project area, see section 28 of this determination.

Division 3—Adjustments to calculations

10 Adjustments resulting from project area spanning rainfall zones

If a single project area has 2 project area parts, $A_{EA,adj}$ for the project area is instead calculated by:

(a) calculating a value of $A_{EA,adj}$ in tonnes CO_2-e in accordance with this Schedule for each project area part as if it were a separate project area; and

(b) summing the values so calculated.

11 Adjustments resulting from lack of fire activity

(1) This section applies if, when calculating $FL_{f,v,s}$ under section 9 of this Schedule for a particular calendar year after the baseline period, for any vegetation fuel type *v* on the vegetation fuel type map, the sum of the mean fire frequencies $FF_{v,s}$ as given by equation 8, over both fire seasons, is equal to zero.

(2) For that calendar year, $\overline{W}_{FRI,P,f,v}$ is taken to be equal to $\overline{W}_{FRI,B,f,v}$.

12 Adjustments resulting from subdivided project areas

If a project area is divided into 2 or more subdivided project areas, then $B_{U,Prev}$ for each subdivided project area immediately after the subdivision takes effect is equal to the amount $B_{U,Prev,Subdiv}$ given by the following equation:

$B_{U,Prev,Subdiv} = \frac{\bar{E}_{B,Subdiv}}{\bar{E}_{B,Orig}} \times B_{U,Prev,Orig}$	equation 13

where:

$\overline{\boldsymbol{E}}_{\boldsymbol{B,Subdiv}}$ is the mean annual baseline fire emissions for the subdivided project area, $\bar{E}_B$, in tonnes CO_2-e, as calculated in accordance with section 6 of this Schedule for the subdivided project area.

$\overline{\boldsymbol{E}}_{\boldsymbol{B,Orig}}$ is the mean annual baseline fire emissions for the original project area, $\bar{E}_B$, in tonnes CO_2-e, as calculated in accordance with section 6 of this Schedule, for the original project area.

$\boldsymbol{B}_{\boldsymbol{U,Prev,Orig}}$ is the previous year's uncertainty buffer for the original project area, $B_{U,Prev}$, as given by subsection 3(1) of this Schedule as if the project area had not been divided.

Schedule 2—Sequestration—calculation of adjusted contribution to net abatement amount for a calendar year

Division 1—Preliminary

1 Simplified outline of this Schedule

If the project proponent elects to calculate the adjusted contribution to the net abatement amount for the project area from sequestration of carbon in dead organic matter for calendar year *y* of the reporting period, $A_{Seq,adj,y}$ in equation 1, without using SavBAT 3, the amount is calculated as follows.

First, the contribution to the net abatement amount from sequestration in dead organic matter in the project area for the calendar year, A_{Seq}, is calculated. The amount of carbon sequestered in dead organic matter will generally reach a reasonably stable equilibrium level over time. During the baseline period, the equilibrium level will be relatively low. As a result of undertaking the project, a higher equilibrium level is expected to be reached over time. The determination calculates the equilibrium baseline level, and uses an averaging process to arrive at a value for the project equilibrium level. The amount A_{Seq} is based on the difference between these equilibrium levels, spreading the credits across the years of the crediting period (25 years unless it is reduced for a transferring project under section 28 of this determination).

The equilibrium levels themselves are calculated on the basis of the vegetation fuel type map, factors taken from the National Inventory Report, and various mean fire frequencies for the project area (which were calculated in Schedule 1). When calculating the amount A_{Seq}, only the fuel size classes ‘coarse fuel’ and ‘heavy fuel’ are taken into account.

Then, from the amount A_{Seq}, the adjusted contribution to the net abatement amount, $A_{Seq,adj}$, is calculated. This calculation involves decreasing A_{Seq} by any negative abatement that was carried over from the previous calendar year. The amount so calculated is further decreased by an amount that is applied in lieu of the risk of reversal buffer number and the permanence period discount number that ordinarily apply when the unit entitlement for a sequestration offsets project is calculated under section 16 of the Act. For projects that are covered by this determination, these numbers are equal to zero as a result of the CFI Rule. To compensate for this, the contribution to the net abatement amount from sequestration is adjusted using a sequestration buffer that corresponds to the risk of reversal buffer and the permanence period discount number that ordinarily apply to sequestration offsets projects under the Act. (The contribution to the net abatement amount from emissions avoidance is not adjusted.)

Values relating to the baseline period are re-calculated each year, and will potentially change from year to year. Changes to these values will arise, for example, if documents that are referred to as in force from time to time are modified, if the vegetation fuel type map is revised, or if project areas are divided.

Division 2—Calculations

2 Calculation of adjusted contribution to net abatement amount from sequestration of carbon in dead organic matter for a calendar year, $A_{Seq,adj}$

For paragraph (b) of the definition of $A_{Seq,adj,y}$ in subsection 34(1) of this determination, the adjusted contribution to the net abatement amount from sequestration for a particular project area and for a particular calendar year, $A_{Seq,adj}$, in tonnes CO_2-e, is calculated by:

(a) calculating the previous year's carry-over amount for the project area, $\boldsymbol{\Delta C_{Seq,Prev}}$, in tonnes CO_2-e, in accordance with section 3 of this Schedule; and

(b) calculating the contribution to the net abatement amount from sequestration for the project area for the calendar year, $\boldsymbol{A_{Seq}}$, in tonnes CO_2-e, in accordance with section 4 of this Schedule; and

(c) determining the sequestration buffer, $\boldsymbol{B_{Seq}}$, in accordance with section 5 of this Schedule; and

(d) determining which set of conditions set out in the table below is satisfied in relation to the project area for the calendar year; and

(e) calculating, in accordance with the corresponding row of the table:

(i) the adjusted contribution to the net abatement amount from sequestration for the project area and for the calendar year, $A_{Seq,adj}$, in tonnes CO_2-e; and

(ii) the current year's carry-over amount for the project area, $\boldsymbol{\Delta C_{Seq,Curr}}$, in tonnes CO_2-e.

Calculation of adjusted contribution to net abatement amount from sequestration

Item	Conditions	$A_{Seq,adj}$	$\Delta C_{Seq,Curr}$
1	$A_{Seq} + \Delta C_{Seq,Prev} \geq 0$	$(1 - B_{Seq}) \times (A_{Seq} + \Delta C_{Seq,Prev})$	0
2	$A_{Seq} + \Delta C_{Seq,Prev} < 0$	0	$A_{Seq} + \Delta C_{Seq,Prev}$

Note 1: Division 3 of this Schedule sets out adjustments to these calculations, which apply:

- if a project area spans both rainfall zones (see section 8 of this Schedule); and
- if, between the start of the crediting period and the end of the calendar year, there has been no relevant fire activity in the project area (see section 9 of this Schedule); and
- if a project area is divided into 2 or more subdivided project areas (see section 10 of this Schedule).

Note 2: If, during a reporting period, the vegetation fuel type map is revised in accordance with section 19 of this determination, the version of the map as in force at the end of the reporting period is used for calculations for all years of the reporting period (including for the calculation of amounts that relate to the baseline period). See subsection 10(1) of this determination. However, a previous year's carry-over amount, and a previous year's value for $C_{Seq,Prev}$, are not revised on the basis of the revised map.

3 The previous year's carry-over amount, $\Delta C_{Seq,Prev}$

Note: In some years, the contribution to the net abatement amount from sequestration in dead organic matter, A_{Seq}, might be a negative number, for example, if there has been a reversal of sequestration in the relevant year. Such negative amounts do not detract from the adjusted contribution to the net abatement amount, $A_{Seq,adj}$, nor from the net abatement amount A. However, they are carried over into the following year's calculations as the previous year's carry-over amount, $\Delta C_{Seq,Prev}$, and detract from any positive sequestration that might occur in future years. The previous year's carry-over amount will either be zero or a negative number.

(1) For paragraph 2(a) of this Schedule, and subject to section 10 of this Schedule (which deals with subdivided project areas), the previous year's carry-over amount for the project area, $\Delta C_{Seq,Prev}$, in tonnes CO_2-e, is:

(a) if, for the previous calendar year, the current year's carry-over amount ($\Delta C_{Seq,Curr}$) was calculated for the project area in accordance with this determination—equal to the amount so calculated; and

(b) otherwise—equal to zero.

(2) For paragraph (1)(a), if the project was reported on for that year, the relevant value is the value reported in the offsets report.

Note: Paragraph (1)(a) is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) of this determination was met. See subparagraph 21(3)(d)(ii) of this determination.

4 The contribution to the net abatement amount from sequestration for a calendar year, A_{Seq}

(1) For paragraph 2(b) of this Schedule, the contribution to the net abatement amount from sequestration for a project area for a calendar year, A_{Seq}, in tonnes CO_2-e, is given by the following equation:

$A_{Seq} = C_{Seq} - C_{Seq,Prev}$	equation 14

where:

C_{Seq} is the amount, in tonnes CO_2-e, calculated in accordance with section 6 of this Schedule (equation 15).

Note: See section 9 of this Schedule for an adjustment to this definition if all of the fire frequencies calculated as described in paragraph 9(2)(a) of Schedule 1 are equal to zero.

$C_{Seq,Prev}$ is, subject to section 10 of this Schedule (which deals with subdivided project areas):

(a) if, for the previous calendar year, the amount C_{Seq} was calculated for the project area in accordance with this determination, or deemed in accordance with subsection 9(3) of this Schedule—equal to the amount so calculated or deemed; and

(b) otherwise—equal to zero.

Note 1: If the project area is a transferring area and the former determination is a savanna emissions avoidance determination, $C_{Seq,Prev}$ is equal to zero for the first calendar year under this determination.

Note 2: Paragraph (b) of the definition of $C_{Seq,Prev}$ is modified in some cases if the requirement in lieu of the newness requirement set out in paragraph 21(2)(c) of this determination was met. See subparagraph 21(3)(d)(iii) of this determination.

(2) For paragraph (b) of the definition of $C_{Seq,Prev}$, if the project was reported on for that year, the relevant value is the value reported in the offsets report.

5 The sequestration buffer

For paragraph 2(c) of this Schedule, B_{Seq} is equal to:

(a) if the project is a 25-year permanence period project—0.25; and

(b) if the project is a 100-year permanence period project—0.05.

Note: The sequestration buffer, B_{Seq}, is a buffer that is applied in lieu of the risk of reversal buffer number and the permanence period discount number that would otherwise apply in relation to a sequestration offsets project under subsection 16(2) of the Act. This buffer accounts for the risk that carbon sequestered as a result of the project does not remain permanently in the landscape.

6 Calculation of C_{Seq}

(1) For section 4 of this Schedule, C_{Seq} is the portion of the difference between the project and baseline equilibrium fuel loads for a project area resulting from undertaking the project that is taken to have been achieved by the end of a particular calendar year, on the assumption that the equilibrium fuel loads increase or decrease linearly over the crediting period, and is given by the following equation:

$C_{Seq} = \frac{L_{Seq}}{L_{CP,Seq}} \times \left(\bar{C}_{Seq,P,E} - \bar{C}_{Seq,B,E}\right)$	equation 15

where:

$\boldsymbol{L_{Seq}}$ is equal to the smaller of:

(a) the length, in years, of the period between:

(i) the start of the year in which a savanna sequestration project first commenced in the project area; and

(ii) the end of the calendar year; and

(b) the amount $L_{CP,Seq}$.

$\boldsymbol{L_{CP,Seq}}$ is equal to:

(a) for a continuing transferring project—the difference, in years, between:

(i) the length of the crediting period; and

(ii) the length of the period for which the project was reported on under the former determination or any other methodology determination;

rounded down to the nearest whole number of calendar years; and

(b) otherwise—the length of the crediting period, in years.

Note: There will ordinarily be 25 years in the crediting period. For the crediting period of certain projects that include a transferring project area, see section 28 of this determination.

$\boldsymbol{\bar{C}_{Seq,P,E}}$ is the project equilibrium fuel load of carbon that is sequestered in dead organic matter for the project area, as calculated for the calendar year in accordance with section 7 of this Schedule, in tonnes CO_2-e.

$\boldsymbol{\bar{C}_{Seq,B,E}}$ is the baseline equilibrium fuel load of carbon that is sequestered in dead organic matter for the project area, as calculated for the calendar year in accordance with section 7 of this Schedule, in tonnes CO_2-e.

(2) For paragraph (a) of the definition of $L_{CP,Seq}$ in subsection (1), if the project to which the transferring project area previously belonged had 2 crediting periods as a result of subsection 70(2) of the Act, disregard the first crediting period.

7 Equilibrium fuel loads

(1) The following amounts:

(a) $\bar{C}_{Seq,B,E}$ for subsection 6(1) of this Schedule;

(b) $\bar{C}_{Seq,P,E}$ for subsection 6(1) of this Schedule;

(c) the 10-year project equilibrium fuel load for a particular calendar year for subparagraph 36(3)(d)(ii) of this determination;

are given by the amount $\bar{C}_{Seq,E}$ calculated in accordance with the following equation:

$\bar{C}_{Seq,E} = \frac{44}{12} \times \sum_{f} \sum_{v} \left(\bar{W}_{Seq,E,f,v} \times S_{V,v} \times CC_{f,v} \right)$	equation 16

where:

f is a fuel size class, and takes on the values of coarse fuel and heavy fuel.

v is a vegetation fuel type on the vegetation fuel type map for the project area.

$\bar{W}_{Seq,E,f,v}$ is:

(a) when calculating $\bar{W}_{Seq,B,E}$—the baseline equilibrium amounts of biomass in the dead organic matter, $\bar{W}_{Seq,B,E,f,v}$, for the project area calculated in accordance with equation 17 over the relevant calculation period given by paragraph (a) of the definition of that term in section 5, in tonnes of biomass per hectare; and

(b) when calculating $\bar{W}_{Seq,P,E}$—the project equilibrium amount of biomass in the dead organic matter, $\bar{W}_{Seq,P,E,f,v}$, for the project area calculated in accordance with equation 17 over the relevant calculation period given by paragraph (b) of the definition of that term in section 5, in tonnes of biomass per hectare; and

(c) when calculating the 10-year project equilibrium fuel load—the 10-year project equilibrium amounts of biomass in the dead organic matter, $\bar{W}_{Seq,P,E,f,v}$, for the project area calculated in accordance with equation 17 over the relevant calculation period given by paragraph (c) of the definition of that term in section 5, in tonnes of biomass per hectare.

$S_{V,v}$ is the total area covered by vegetation of vegetation fuel type *v* in the project area, ascertained from the vegetation fuel type map for the project area, in hectares.

$CC_{f,v}$ is the carbon content for fuel of fuel size class *f* of vegetation fuel type *v*, in tonnes of carbon per tonne of biomass—from the National Inventory Report.

Note: The factor 44/12 is measured in tonnes CO_2-e per tonne of carbon, and converts the amount in tonnes of carbon into an amount in tonnes of CO_2-e.

(2) For the definition of $\bar{W}_{Seq,E,f,v}$ in subsection (1), the equation is the following:

$\bar{W}_{Seq,E,f,v} = \frac{L_{f,v}}{D_{f,v}} \times \left[1 + \frac{\left(1 - \bar{R}_{f,v}\right) \times \left(e^{\left(D_{f,v} \times FRI_v\right)} - 1 \right)}{D_{f,v} \times FRI_v \times \left(\bar{R}_{f,v} - e^{\left(D_{f,v} \times FRI_v\right)} \right)} \right]$	equation 17

where:

$L_{f,v}$ is the annual rate of accumulation of fuel of fuel size class *f* that is of vegetation fuel type *v*, as given by the National Inventory Report, in tonnes of biomass per hectare per year.

$D_{f,v}$ is the proportion of vegetation of fuel of fuel size class *f* that is of vegetation fuel type *v* that decomposes each year in a given area, as given by the National Inventory Report, in years^{-1}.

$\bar{R}_{f,v}$ is the mean proportion of fuel of fuel size class *f* that is of vegetation fuel type *v* that remains after a fire for the project area and for the relevant calculation period, as calculated using equation 10 (in Schedule 1).

***FRI*$_v$** is the mean fire return interval for vegetation of vegetation fuel type *v* for the project area and for the relevant calculation period, as calculated using equation 9 (in Schedule 1), in years.

Division 3—Adjustments to calculations

8 Adjustments resulting from project area spanning rainfall zones

If a single project area has 2 project area parts, $A_{Seq,adj}$ for the project area is instead calculated by:

(a) calculating a value of $A_{Seq,adj}$ in tonnes CO_2-e in accordance with this Schedule for each project area part as if it were a separate project area; and

(b) summing the values so calculated.

9 Adjustments resulting from lack of fire activity

(1) This section applies if, when calculating $\bar{C}_{Seq,P,E}$ for a particular calendar year, for any vegetation fuel type *v* on the vegetation fuel type map, the sum of the mean fire frequencies $FF_{v,s}$ as given by equation 8 (in Schedule 1), over both fire seasons, is equal to zero.

(2) If the sum is equal to zero for some, but not all, such vegetation fuel types *v*, for section 7 of this Schedule, disregard each such vegetation fuel type when calculating $\bar{C}_{Seq,P,E}$ (but not $\bar{C}_{Seq,B,E}$) for the calendar year.

(3) If the values as summed are equal to zero for all such vegetation fuel types *v*, for section 4 of this Schedule, the amount C_{Seq} is taken to be equal to the amount $C_{Seq,Prev}$ for that calendar year.

10 Adjustments resulting from subdivided project areas

Adjustments relating to section 3 of this Schedule—previous year's carry-over amount, $\Delta C_{Seq,Prev}$

(1) If a project area is divided into 2 or more subdivided project areas, then $\Delta C_{Seq,Prev}$ for each subdivided project area immediately after the subdivision takes effect is equal to the amount $\Delta C_{Seq,Prev,Subdiv}$ given by the following equation:

$\Delta C_{Seq,Prev,Subdiv} = \frac{\bar{C}_{Seq,B,E,Subdiv}}{\bar{C}_{Seq,B,E,Orig}} \times \Delta C_{Seq,Prev,Orig}$	equation 18

where:

$\bar{C}_{Seq,B,E,Subdiv}$ is the baseline equilibrium amount of carbon sequestered in dead organic matter in the subdivided project area, in tonnes CO_2-e, and is calculated in accordance with section 7 of this Schedule over the baseline period and for the subdivided project area.

$\bar{C}_{Seq,B,E,Orig}$ is the baseline equilibrium amount of carbon sequestered in dead organic matter in the original project area, in tonnes CO_2-e, and is calculated in accordance with section 7 of this Schedule over the baseline period and for the original project area.

***ΔC*$_{Seq,Prev,Orig}$** is the previous year's carry-over amount for the original project area, $\Delta C_{Seq,Prev}$, as calculated in accordance with subsection 3(1) of this Schedule.

Adjustments relation to section 4 of this Schedule—$C_{Seq,Prev}$ in equation 14

(2) If a project area is divided into 2 or more subdivided project areas, then $C_{Seq,Prev}$ for each subdivided project area immediately after the subdivision takes effect is equal to the amount $C_{Seq,Prev,Subdiv}$ given by the following equation:

$C_{Seq,Prev,Subdiv} = \frac{\bar{C}_{Seq,B,E,Subdiv}}{\bar{C}_{Seq,B,E,Orig}} \times C_{Seq,Prev,Orig}$	equation 19

where:

$\bar{C}_{Seq,B,E,Subdiv}$ has the same value as in subsection (1).

$\bar{C}_{Seq,B,E,Orig}$ has the same value as in subsection (1).

$C_{Seq,Prev,Orig}$ is the portion of the increase in equilibrium fuel load for the original project area resulting from undertaking the project that is taken to have been achieved by the end of the year before the subdivision, $C_{Seq,Prev}$, as calculated in accordance with the definition of that term in subsection 4(1) of this Schedule.

11 Attribution of cumulative net abatement amount to a project area being removed from the project

(1) For subsection 36(5) of this determination, for the removed project area, the portion of the cumulative net abatement amount, $A_{Cumulative}$, is given by the following equation:

$A_{Cumulative} = C_{Seq,Cumulative} \times (1 - B_{Seq})$	equation 20

where:

$C_{Seq,Cumulative}$ is:

(a) for a project area other than a subdivided project area—equal to:

(i) if a positive value of C_{Seq} has been reported for the project area in a previous offsets report—the largest such value that has been reported; and

(ii) otherwise—zero; and

(b) for a subdivided project area—whichever of the following is larger:

(i) the largest positive value of C_{Seq} (if any) that has been reported for that subdivided project area in a previous offsets report;

(ii) the largest amount $C_{Seq,Cumulative,Subdiv}$ for the subdivided project area as calculated in accordance with equation 21 on the basis of all earlier project areas.

Example: For paragraph (b), the project area might have been subdivided in accordance with subsection 14(3) of this determination.

B_{Seq} is the sequestration buffer, determined in accordance with section 5 of this Schedule.

(2) For subparagraph (b)(ii) of the definition of $C_{Seq,Cumulative}$ in subsection (1), and for a particular earlier project area, equation 21 is as follows:

$C_{Sec,Cumulative,Subdiv} = \frac{\bar{C}_{Seq,B,E,Subdiv}}{\bar{C}_{Seq,B,E,Earlier}} \times C_{Seq,Earlier}$	equation 21

where:

$\overline{\boldsymbol{C}}_{\boldsymbol{Seq,B,E,Subdiv}}$ has the same value as in subsection 10(1) of this Schedule.

$\overline{\boldsymbol{C}}_{\boldsymbol{Seq,B,E,Earlier}}$ is the baseline equilibrium amount of carbon sequestered in dead organic matter in the earlier project area, in tonnes CO_2-e, and is calculated in accordance with section 7 of this Schedule over the baseline period and for the earlier project area.

$\boldsymbol{C}_{\boldsymbol{Seq,Earlier}}$ is equal to:

(a) if a positive value of C_{Seq} has been reported for the earlier project area in a previous offsets report—the largest such value that has been reported; and

(b) otherwise—zero.

*Meaning of **earlier project area***

(3) In this section:

earlier project area, in relation to a subdivided project area, means:

(a) the original project area that was divided to produce the subdivided project area; and

(b) any project area that was previously divided, however many times, to produce the original project area.