Carbon Credits (Carbon Farming Initiative—Plantation Forestry) Methodology Determination 2022

I, Angus Taylor, Minister for Industry, Energy and Emissions Reduction, make the following legislative instrument.

Dated 2 January 2022

Angus Taylor
Minister for Industry, Energy and Emissions Reduction

Contents

Part 1—Preliminary

1 Name

This is the *Carbon Credits (Carbon Farming Initiative—Plantation Forestry) Methodology Determination 2022*.

2 Commencement

This determination commences on 31 January 2022.

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(b) ends on the day before this instrument would otherwise be repealed under subsection 50(1) of the *Legislation Act 2003*.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 scenario simulation—see section 41.

C means carbon.

CEA (for ***carbon estimation area***)—see section 13.

CFI mapping guidelines means the guidelines of that name, as published on the Clean Energy Regulator's website, to be used for mapping project areas and CEAs, as in force from time to time.

Note: In 2021, the CFI mapping guidelines could be viewed on the Clean Energy Regulator's website (http://www.cleanenergyregulator.gov.au).

clearfell means the cutting down of all trees in a CEA or other area.

CO_2-e means carbon dioxide equivalent.

continuing plantation CEA—see subsection 14(3).

continuing plantation project activity—see clause 1 of Schedule 3.

controlled burn has a meaning affected by section 21.

conversion CEA—see subsection 14(3).

conversion project activity—see clause 2 of Schedule 2.

coppice means the epicormic shoots growing from stumps of trees that have been harvested.

coppicing means allowing a plantation to regenerate by relying on coppice after clearfelling to end a rotation.

current management regime—see section 26.

default baseline management regime, for the conversion project activity—see clause 8 of Schedule 2.

default management regime—see section 26.

disturbance event—see section 22.

eligibility date, for:

(a) land in a project area that was allocated to a project activity in an application in accordance with section 10; or

(b) a CEA on such land;

means the date of the application.

eligible land:

(a) for the new plantation project activity—see clause 2 of Schedule 1;

(b) for the conversion project activity—see clause 3 of Schedule 2;

(c) for the continuing plantation project activity—see clause 2 of Schedule 3;

(d) for the permanent planting project activity—see clause 2 of Schedule 4.

environmental planting means a planting that consists of species that:

(a) are native to the local area of the planting; and

(b) are sourced from seeds:

(i) from within the natural distribution of the species; and

(ii) that are appropriate to the biophysical characteristics of the area of the planting; and

(c) may be a mix of trees, shrubs, and understorey species where the mix reflects the structure and composition of the local native vegetation community.

ex-plantation CEA—see subsection 14(3).

forest cover: an area has ***forest cover*** if the vegetation on the land includes trees that:

(a) are 2 metres or more in height; and

(b) provide crown cover of at least 20% of the land.

forest development condition—see subsection 22(2).

forest management plan—see section 23.

forest start date means:

(a) for a new plantation CEA—the starting date for the first rotation; and

(b) for a conversion CEA on which a rotation was in progress on the eligibility date—the starting date for that rotation; and

(c) for a conversion CEA on which no rotation was in progress on the eligibility date—the starting date for the first rotation after the eligibility date; and

(d) for a continuing plantation CEA on which a rotation was in progress on the eligibility date—the starting date for that rotation; and

(e) for a continuing plantation CEA on which no rotation was in progress on the eligibility date—the starting date for the first rotation after the eligibility date.

(f) for an ex-plantation CEA on which a rotation was in progress on the eligibility date—the starting date for that rotation; and

(g) for an ex-plantation CEA on which no rotation was in progress on the eligibility date—the starting date for the permanent planting.

former determination, for a pre-existing project—see section 6.

FullCAM means the Full Carbon Accounting Model as in force from time to time.

Note: In 2021, FullCAM could be viewed on the Department's website (http://www.industry.gov.au).

FullCAM guidelines means the guidelines for the use of FullCAM for the purposes of this determination that are available on the Regulator's website, as in force from time to time.

Note: In December 2021, the FullCAM guidelines could be viewed on the Clean Energy Regulator's website (http://www.cleanenergyregulator.gov.au).

i^{th} CEA, for Division 4.3—see section 42.

landscape planting means a planting in an urban centre or locality as follows:

(a) in a residential place (for example, in a backyard, park or on a nature strip);

(b) on the grounds of a sporting facility, factory or other commercial facility;

(c) on the grounds of a hospital, school or other institution;

(d) in a car park or cemetery.

long-term project scenario simulation—see section 40.

LR species—see clause 1 of Schedule 2

management action—see section 21.

management record—see section 23.

management regime means:

(a) for a rotation—the management regime that is specified by the following:

(i) a choice of species to be used for the rotation;

(ii) the rotation period;

(iii) the management actions of:

(A) planting, seeding or coppicing to start the rotation; and

(B) clearfelling to end the rotation;

(iv) any other management actions or disturbance events that occur during the rotation, with their times of occurrence.

(b) for a permanent planting—the management regime that is specified by the following:

(i) the species to be used in the permanent planting;

(ii) any other management actions or disturbance events that occur during the permanence period, with their times of occurrence.

model point location means the location of a model point, identified by latitude and longitude, for use in FullCAM.

modelling period means:

(a) for a CEA other than an ex-plantation CEA—the 100-year period beginning on the day before the forest start date; and

(b) for an ex-plantation CEA—the period beginning on the day before the forest start date and ending at the end of the crediting period.

native forest means an area of land that:

(a) is dominated by trees that:

(i) are located within their natural range; and

(ii) have attained, or have the potential to attain, a crown cover of at least 20% of the area of land; and

(iii) have reached, or have the potential to reach, a height of at least 2 metres; and

(b) is not a plantation.

National Plantation Inventory means the inventory of plantations established primarily for timber production in Australia that is managed by the Department of Agriculture, Water and the Environment, as in force on the day this determination commences.

Note: In 2021, the National Plantation Inventory could be viewed at http://www.agriculture.gov.au.

national plantation inventory region means a region defined in the National Plantation Inventory on the day this determination commences.

net abatement amount, for a plantation forest project, means the carbon dioxide equivalent net abatement amount for the project in the reporting period for the purposes of paragraph 106(1)(c) of the Act (see also section 36).

new plantation CEA—see subsection 14(3).

new plantation project activity—see clause 1 of Schedule 1.

NGER Regulations means the *National Greenhouse and Energy Reporting Regulations 2008*.

non-forested land means land that does not have forest cover.

permanent planting means a planting:

(a) that is not harvested other than:

(i) for thinning for ecological purposes; or

(ii) to remove debris for fire management; or

(iii) to remove firewood, fruits, nuts, seeds, or material used for fencing or as craft materials, if those things are not removed for sale; or

(iv) in accordance with traditional indigenous practices or native title rights; and

(b) that is not a landscape planting.

Note: A permanent planting may not involve the planting of a species in an area where it is a known weed species. Such projects are excluded offsets projects under the *Carbon Credits (Carbon Farming Initiative) Regulations 2011*. A 'known weed species' is defined in the *Carbon Credits (Carbon Farming Initiative) Regulations 2011*.

permanent planting CEA—see subsection 14(4).

permanent planting (ex-commercial) CEA—see subsection 14(5).

permanent planting (environmental) CEA—see subsection 14(5).

permanent planting project—see subsection 8(3).

permanent planting project activity A—see clause 1 of Schedule 4.

permanent planting project activity B—see clause 1 of Schedule 4.

plantation forest means a plantation for the harvest of forest products:

(a) that is established by planting or seeding; and

(b) that is harvested by periodic clearfelling of the whole; and

(c) that can be expected, in the absence of a natural disturbance, to reach forest cover before clearfelling; and

(d) in which any management actions involving replanting, re-seeding or coppicing occur only after such a harvest; and

(e) that is managed in a way consistent with an intention to continue to comply with paragraphs (b), (c) and (d).

Note: A horticultural plantation is not a plantation forest.

plantation forest project—see subsection 8(2).

pre-existing project—see section 6.

product recovery means the removal from the project area of any product derived from the plantation.

project activity means:

(a) ***new plantation project activity***—see clause 1 of Schedule 1;

(b) ***conversion project activity***—see clause 2 of Schedule 2;

(c) ***continuing plantation project activity***—see clause 1 of Schedule 3;

(d) ***permanent planting project activity A***—see subclause 1(1) of Schedule 4; or

(e) ***permanent planting project activity B***—see subclause 1(2) of Schedule 4.

project scenario simulation—see section 39.

relevant application, in relation to land in a project area—see subsection 10(5).

remnant plantation CEA means a CEA:

(a) whose project activity under paragraph 14(1)(a) is the permanent planting project activity; and

(b) that contains only remnant plantation forest.

remnant plantation A CEA—see paragraph 14(6)(a).

remnant plantation B CEA—see paragraph 14(6)(b).

remnant plantation forest in relation to land in a project area that was allocated to a project activity in an application in accordance with section 10 means plantation forest that was present on the land on the date of the relevant application.

responsible landholder means any person who, whether by reason of ownership or otherwise, has operational control of the relevant land.

rotation, of a plantation forest, means a phase that lasts from the planting, seeding or coppicing for the rotation to the subsequent clearfelling.

rotation period means the length of time of a rotation.

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

section 29 application, in relation to a declaration of a project as an eligible offsets project made under section 27 of the Act, means an application, made under regulations or legislative rules made for the purposes of section 29 of the Act, to vary the declaration.

SR species—see clause 1 of Schedule 2.

starting date, for a rotation or permanent planting—see subsection 21(6).

UR species—see clause 1 of Schedule 2.

Note: Some of the terms above are the same as the corresponding terms in the *Carbon Credits (Carbon Farming Initiative) Regulations 2011*. These are:

environmental planting

landscape planting

native forest

permanent planting

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

applicable methodology determination

Australian carbon credit unit

crediting period

eligible offsets project

emission

greenhouse gas

natural disturbance

offsets project

offsets report

project

project area

project proponent

Regulator

reporting period

6 Meaning of pre-existing project and former determination

For this determination:

(a) a plantation forest project is a ***pre-existing project*** if:

(i) this determination applies to it because of an approval under section 130 of the Act; and

(ii) the determination that first applied to the project was not an earlier version of this determination; and

Note: This will have required a request under section 128 of the Act.

(b) the determination that applied to the project immediately before the application of this determination or an earlier version of this determination is the ***former determination*** for the project.

7 Factors and parameters from external sources

(1) If 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) this 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.

Part 2—Plantation forest projects and permanent planting projects

8 Plantation forest projects and permanent planting projects

(1) For paragraph 106(1)(a) of the Act, this determination applies to an offsets project if the project involves one or more of the following:
  (a) establishing new plantation forests; or
  (b) converting short-rotation plantation forests to long-rotation plantation forests; or
  (c) continuing existing plantation forests; or
  (d) the transition of existing plantation forests to permanent plantings;

each of which can reasonably be expected to result in eligible carbon abatement.

(2) A project covered by paragraph (1)(a), (b) or (c) is a ***plantation forest project***.

(3) A project covered by subsection (1)(d) is a ***permanent planting project***.

Note 1: Each of paragraphs (1)(a) to (d) is the basis of a project activity. A project can have more than one project activity, provided they are undertaken on separate CEAs. A project can therefore be both a plantation forest and a permanent planting project.

Note 2: Where a project has multiple project activities, the permanence period discount number that will apply to the project is the greatest permanence period discount number that applies to any of the project activities.

Part 3—Project requirements

Division 3.1—General

9 Operation of this Part

For paragraph 106(1)(b) of the Act, this Part sets out requirements that must be met for the following projects to be an eligible offsets project:
  (a) a plantation forest project;
  (b) a permanent planting project.

Division 3.2—Information required in application

10 Information required in application

(1) This section applies to the following applications:

(a) for a project other than a pre-existing project—the application under section 22 of the Act for the declaration of the project as an eligible offsets project;
(b) for a pre-existing project—the request under section 128 of the Act to approve the application of this methodology determination to the project;
(c) an application for a variation under section 29 of the Act that adds eligible land to the project area.

(2) The application must allocate one or more areas of land covered by the application to particular project activities.

(3) Subject to Schedule 5, the allocation is made by:
(a) specifying the area of land; and
(b) specifying the project activity for which it is reserved; and
(c) providing evidence that it is eligible land for the project activity.

Note 1: The requirements for land to be eligible land for a particular project activity are set out in the Schedule dealing with that project activity.

Note 2: Schedule 5 provides simplified requirements for certain CEAs in pre-existing projects.

(4) An area of land may be allocated to one project activity only.

Note: Different project areas or different parts of a project area may be allocated to different project activities; a CEA can be established only on land allocated to the relevant project activity.

(5) If such an allocation is made, the application is the ***relevant application*** for the area of land.

(6) The application must include time-stamped and geo-referenced remotely sensed imagery covering the period of 7 years before the eligibility date for the land.

Note: The Schedules include further requirements for evidence in relation to particular project activities.

(7) If a proponent proposes to establish a CEA as any of the following:
(a) a conversion CEA to which subsection 29(2) applies;
(b) a continuing plantation CEA;
(c) a permanent planting CEA;
(d) a remnant plantation A CEA;
(e) a remnant plantation B CEA;

then the application must:
(f) specify the proposed CEA and the project activity to be conducted; and
(g) include a forest management plan to the extent that it relates to the proposed CEA.

Division 3.3—Eligibility requirements

11 Certain forestry managed investment schemes excluded

(1) A project must be one in which no plantation forest is managed under a scheme:
(a) that is a forestry managed investment scheme; and
(b) that is designed in a way such that payments made by participants under the scheme could be deductible under section 394-10 of the ITAA.

(2) In this section:

ITAA means the *Income Tax Assessment Act 1997*.

scheme, ***forestry managed investment scheme***, and ***participant*** have the same meanings as in Division 394 of the ITAA.

12 Project must include project activity on eligible land

A project must be one in which one or more project activities are conducted, each on land which is eligible land for that project activity.

Note: There are four project activities, each with different eligibility requirements for the land on which they are conducted. They are, in summary:

(a) creating a new plantation on land which has not previously had a plantation on it (the ***new plantation project activity***—see Schedule 1);

(b) converting an existing short-rotation plantation forest into a long-rotation plantation forest (the ***conversion project activity***—see Schedule 2);

(c) continuing an existing plantation forest (the ***continuing plantation project activity***—see Schedule 3);

(d) transitioning an existing plantation forest to a permanent planting (the ***permanent planting project activity***—see Schedule 4).

The first two activities are essentially the same as the new plantation project activity and the conversion project activity under the *Carbon Credits (Carbon Farming Initiative—Plantation Forestry) Methodology Determination 2017* **(**the ***former determination***).

Where a plantation forest project under the former determination is brought under this determination as a result of a request under section 128 of the Act, an existing new plantation CEA or conversion CEA can continue as the corresponding type of CEA under this determination—see Schedule 5.

Division 3.4—Stratification

13 CEAs must be defined

(1) The project proponent must define one or more areas in the project area, in accordance with this Division and the appropriate Schedules for the project activities to be undertaken, as areas for which abatement will be calculated under this determination.

(2) Such an area is a ***CEA***.

(3) A CEA of a kind mentioned in subsection 10(7):

(a) may not be defined unless it is in accordance with the details specified in the relevant application; and

(b) subject to clause 7 of Schedule 2, must be included in the first offsets report after approval or declaration is given in relation to the application.

14 Requirements for CEAs

Basic requirements

(1) A CEA must consist only of land:

(a) that is within an area allocated to a project activity in accordance with section 10; and

(b) on which that project activity will be undertaken; and

(c) that has the same responsible landholders.

(2) A CEA on which the permanent planting project activity will be undertaken must either:

(a) contain no remnant plantation forest; or

(b) contain only remnant plantation forest.

Classification of CEAs

(3) A CEA is classified according to the project activity to be undertaken as follows:
  (a) a ***new plantation CEA***, for the new plantation project activity;
  (b) a ***conversion CEA***, for the conversion project activity;
  (c) a ***continuing plantation CEA***, for the continuing plantation project activity;
  (d) an ***ex-plantation CEA***, for the permanent planting project activity A or B.

(4) An ex-plantation CEA is classified as:
  (a) a ***permanent planting CEA*** if it contains no remnant plantation forest; and
  (b) a ***remnant plantation CEA*** if it contains only remnant plantation forest.

(5) A permanent planting CEA is classified as:
  (a) a ***permanent planting (environmental) CEA*** if:
    (i) all species planted are native to the local area; and
    (ii) the CEA contains a mix of trees, shrubs and understorey species that reflect the structure and composition of the local native vegetation community; or
  (b) a ***permanent planting (ex-commercial) CEA*** otherwise.

Note: A monoculture may satisfy subparagraph (a)(ii) where it can naturally occur within the local vegetation community.

(6) A remnant plantation CEA is classified as:
  (a) a ***remnant plantation A CEA*** for the permanent planting project activity A; or
  (b) a ***remnant plantation B CEA*** for the permanent planting project activity B.

Note: The project activity in a remnant plantation B CEA will consist of maintaining the plantation up to a clearfell. After that it will become a permanent planting (environmental) CEA—see section 17.

Additional requirements

(7) A CEA must have an area of at least 0.2 hectares.

(8) The whole of a new plantation CEA, a conversion CEA or a continuing plantation CEA must consist of a plantation forest that has a single forest start date, and has been under the same management regime at all times, with the same starting date for each rotation, since that date.

(9) An ex-plantation CEA must:
  (a) have uniform site characteristics in relation to the following:
    (i) soil type;
    (ii) aspect;
    (iii) slope; and
  (b) be planted with the same plant species, or the same mix of plant species, across the CEA.

(10) The whole of a remnant plantation CEA must consist of remnant plantation forest that has a single forest start date, and has been under the same management regime at all times since that date.

(11) The whole of a permanent planting CEA must consist of permanent planting that has a single forest start date, and has been under the same management regime at all times since that date.

(12) A CEA may consist of:

(a) a single area of land; or
(b) areas of land that are not separated by more than 250 metres.

(13) A CEA must contain a model point at the approximate centre of the CEA.

(14) The model point location must be within the boundaries of the CEA.

(15) The model point location must be representative of the CEA.

15 Boundaries and mapping

The geographic boundaries of each CEA must be defined in accordance with the CFI Mapping Guidelines.

16 No re-stratification unless permitted by this Division

A CEA must not be changed except in accordance with this Division and the appropriate Schedule for the project activity.

17 Conversion of a remnant plantation B CEA to a permanent planting (environmental) CEA

(1) This section applies to a remnant plantation B CEA when the project proponent conducts the first clearfell of the maintained plantation, in accordance with the forest management plan for the CEA.

(2) The CEA becomes a permanent planting (environmental) CEA at the conclusion of the clearfell and any resulting harvesting that is in accordance with the forest management plan for the CEA.

18 Re-stratification following disturbance event

(1) This section applies if:
(a) a disturbance event has affected part or the whole of a CEA; and
(b) as a consequence, the project proponent proposes to take different management actions in different parts of the CEA.

Example: A fire affects a portion of the area of land covered by a CEA, and the project proponent proposes to undertake the management action salvage harvesting in the portion of the CEA that was affected by the fire. As the management action would be taken in part only of the CEA, this section applies. In compliance with this section, the proponent might choose to re-stratify the original CEA into 2 CEAs; salvage harvesting would be undertaken across one of those re-stratified CEAs, but not in the other. Note that a re-stratification under this section must keep all the land in the CEA in one of the new CEAs. An area of land can be removed from being part of any CEA only under section 20.

(2) The project proponent must re-stratify the CEA so that each new CEA meets the requirements of section 14.

Note: Because of subsections 14(8), (10) and (11), each such CEA must be one that has been, and is expected to continue to be, subject to a single management regime. If an area with a single management regime has an area less than 0.2 hectares, it cannot be part of a CEA.

(3) The new CEAs are taken to have been created immediately before the disturbance event began.

19 Re-stratification due to change in management regime

(1) This section applies if:

(a) the project proponent proposes to undertake one or more management actions in one part of a CEA and not in another part; and
(b) section 17 does not apply; and
(c) section 18 does not apply; and
(d) the CEA has been reported on in an offsets report.

(2) The project proponent may undertake the actions as proposed only if:
(a) the proponent is permitted, under section 28, to change the management regime in order to undertake the proposed actions; and
(b) the proponent first creates new CEAs as proposed in accordance with subsection 28(5).

Note: The proponent is also required to update the forest management plan to reflect the new CEAs. See section 27.

(3) The new CEAs are taken to have been created immediately before a management action mentioned in subsection (1) is applied in any part of the CEA.

20 Re-stratification to remove area that is no longer suitable for plantation growth

(1) This section applies to a CEA other than an ex-plantation CEA if there is evidence that demonstrates that the growth of trees in the CEA, or in part of that CEA, has been, and is likely to remain, insufficient for the area to be a commercially viable part of the project's plantations.

(2) The project proponent may re-stratify the area of land covered by the CEA so that the land to which subsection (1) applies is no longer part of any CEA.

(3) The re-stratification must occur, or be taken to have occurred:
(a) at the beginning of a reporting period; or
(b) between rotations; or
(c) immediately before a disturbance event.

Note: Any carbon stored in the area removed from the CEA will no longer contribute to the project. This may impact upon abatement and crediting outcomes, depending on the area removed.

Division 3.5—Management regimes

Subdivision 3.5.1—General

21 Management actions and when they occur

Management actions

(1) For this determination, the following are the ***management actions***:
(a) planting;
(b) seeding;
(c) coppicing;
(d) fertilisation;
(e) weed control;
(f) pruning;
(g) thinning without harvest;
(h) thinning with harvest;

(i) controlled burn;
(j) salvage harvesting;
(k) clearfelling without harvest;
(l) clearfelling with harvest;
(m) chopper rolling;
(n) windrow and burn.

Note: The definitions of 'pruned' and 'thinned' in clause 1 of Schedule 2 do not apply in relation to the actions referred to in paragraphs (f), (g) and (h). The meanings of these terms, when used to refer to management actions, are set out in the FullCAM guidelines—see subsection (3).

In relation to paragraph (i), a fire that begins as a controlled burn (and so is not intended to kill trees), but has the effect of killing one or more trees, is not a controlled burn, and is not treated as a management action—see subsection (4). If the fire affects more than 5% of the area covered by the CEA, it is treated as a disturbance event—see paragraph 22(1)(a).

There will normally be a harvest after a clearfelling; however, paragraph (k) allows for the case where a rotation is ended so early in the rotation as to make harvesting uneconomic.

Note: For restrictions on actions that can be undertaken in ex-plantation CEAs, see section 31.

(2) For this determination, the application of a management action in a CEA or other area may be treated as a single management action only if the period of application is no longer than:
(a) for planting, seeding or coppicing—the period required to establish a rotation or permanent planting; and
(b) for any other management action—12 months.

(3) Subject to this determination, terms used in subsection (1) have the meaning given in the FullCAM guidelines.

(4) For subsection (1):
(a) thinning and clearfelling occur ***with harvest*** if there is any significant recovery of forest product; and
(b) ***clearfelling*** means the cutting down of all trees in the relevant area; and
(c) ***controlled burn*** does not include a fire that kills one or more trees; and
(d) ***salvage harvesting*** means harvesting that:
(i) is undertaken:
(A) after a disturbance event; and
(B) across the entire area that was affected by the disturbance event; and
(ii) results in forest product recovery.

(5) Salvage harvesting may be undertaken in a CEA only following a fire or natural disturbance that affects the whole of the CEA.

Note: For a fire or natural disturbance that affects only part of a CEA, it would be necessary first to re-stratify the CEA in accordance with section 18 before salvage harvesting could be carried out.

Salvage harvesting is not available in relation to a modelled natural disturbance in a baseline scenario simulation.

The starting date for a rotation or permanent planting

(6) The ***starting date*** for:
(a) a rotation of a plantation forest in a CEA or other area; or
(b) a permanent planting in a CEA or other area;

is the following:

(c) if the rotation or permanent planting was begun by planting or seeding—the planting date given by subsection (7);

(d) if the rotation or permanent planting was begun by coppicing—the date of the coppicing given by subsection (8).

When planting or seeding occurs

(7) The action of planting or seeding for a:

(a) rotation of a plantation forest; or

(b) permanent planting;

is taken to occur on the following date (the ***planting date***):

(c) if:

(i) the planting or seeding, for the rotation or permanent planting, of the entire area (the ***initial planting***) is completed within a 6-month period; and

(ii) at least 80% of trees survived the initial planting;

the date when the initial planting is completed (even if trees that do not survive the initial planting are replaced after that date, or after the end of that 6-month period);

(d) otherwise—the date when all planting or seeding of trees for the rotation or permanent planting, including replacement of those that do not survive, is completed.

When coppicing occurs

(8) The action of coppicing to:

(a) start a rotation in a CEA or other area; or

(b) commence a permanent planting in a CEA or other area;

is taken to occur 6 months after the previous clearfelling.

When salvage harvesting occurs

(9) The action of salvage harvesting in a CEA or other area is taken to occur:

(a) if the action follows a fire—30 days after the date the fire is taken to have occurred; and

(b) if the action follows another disturbance event—on the date the event is taken to have occurred.

Note: See paragraph 22(3)(a) for when fires and other disturbance events are taken to have occurred.

When other management actions occur

(10) A management action other than planting, seeding, coppicing or salvage harvesting is taken to occur as follows:

(a) if the management action occurs on a single date—on that date;

(b) if the management action occurs over 2 or more dates—the first of those dates.

Note: See also section 62.

22 Disturbance events and when they occur

(1) For this determination, the following are the ***disturbance events*** that apply to an area that is, or is part of, a CEA:

(a) a fire, other than a controlled burn, that affects more than 5% of the CEA (whether or not trees are killed);

(b) a natural disturbance, other than a fire, that:

(i) kills one or more trees; and

(ii) affects more than 5% of the CEA;

Note: ***Natural disturbance*** has the meaning given by the Act, and includes flood, drought, pest attack and disease.

(c) a failure of the CEA to satisfy the forest development condition at the end of a reporting period.

The forest development condition

(2) For this determination, a CEA satisfies the ***forest development condition*** at the end of a reporting period if, at the end of the period:

(a) the CEA has forest cover; or

(b) the CEA is between rotations; or

(c) for a reporting period that was wholly within a single rotation—the vegetation in the CEA has progressed towards achieving forest cover since the beginning of the reporting period; or

(d) for a reporting period during which a new rotation started:

(i) it is less than 6 months since the new rotation started; or

(ii) the vegetation in the CEA has progressed towards achieving forest cover during the new rotation; or

(e) for a reporting period during which a disturbance event mentioned in paragraphs (1)(a) or (b) occurred:

(i) it is less than 6 months since the disturbance event; or

(ii) the vegetation in the CEA has progressed towards achieving forest cover since the disturbance event.

When disturbance events occur

(3) A disturbance event is taken to occur as follows:

(a) for a fire, or a natural disturbance other than a fire:

(i) the day the fire or natural disturbance began, if known; or

(ii) otherwise—the day the fire or natural disturbance was identified;

(b) for a failure to satisfy the forest development condition in a reporting period—the latest of the following dates:

(i) the beginning of the reporting period;

(ii) if a new rotation started during the reporting period—the starting date of the rotation;

(iii) if another disturbance event occurred during the reporting period—the date of the disturbance event.

23 Requirements for a forest management plan

(1) For each project under this determination, the project proponent must create and maintain a forest management plan.

(2) The ***forest management plan*** is a document that sets out the following for each CEA, as at a specified date:

(a) the ***management record***, consisting of a record of each management action and disturbance event in the CEA since the forest start date (including actions and events occurring between rotations); and

(b) an explanation of how each management action has been or will be evidenced or documented;

(c) the current management regime (see section 26);

Note: This can be set out by referring to the management record entries for actions and events that have already occurred, and specifying the set of management actions and times, and the rotation period, that the project proponent proposes to apply in the remainder of the rotation.

(d) the default management regime (see section 26);

Note: This will be the same as the current management regime unless there has been a disturbance event during the rotation.

(e) if the default management regime is different from the default management regime in the forest management plan as at the end of the previous reporting period—the reasons for the change;

Note: This will reflect a change in the way it is planned to manage a rotation.

(f) if the CEA is a conversion CEA—the default baseline management regime (see clause 8 of Schedule 2);

(g) for each management action and disturbance event listed in the management record or in a management regime:

(i) the time of the action or event in relation to the starting date for the rotation; and

(ii) the appropriate FullCAM event type and FullCAM standard event as listed in the FullCAM guidelines; and

(iii) the parameter values entered, or expected to be entered, into FullCAM, where these are not the defaults;

(h) for each disturbance event listed in the management record—a description of the underlying natural disturbance or growth interruption;

(i) an explanation of how records are made and kept for paragraph (2)(b) and sections 59 and 60.

Note: The management record and the current and default baseline management regimes are used to model rotations in scenarios under Part 4. In the modelling, a period of 12 months is assumed between future rotations.

(3) The first forest management plan for a project must be created before the first scenario simulation is created in accordance with section 38.

(4) If the CEA is not an ex-plantation CEA, the rotation period under the current management regime and the default management regime must be:

(a) for an LR species for the land—not greater than the maximum clearfell age listed for the species in the FullCAM guidelines; and

(b) for any other species—not greater than 60 years.

Note 1: For the purposes of modelling, a period of 12 months between rotations is assumed—see sections 40 and 41.

Note 2: For a conversion CEA, there is also a minimum rotation period—see clause 2 of Schedule 2.

24 Updating a forest management plan

(1) Before modelling is undertaken in accordance with Part 4 for an offsets report, the project proponent must prepare or update the forest management plan for each CEA as at the end of the reporting period, in accordance with this Division.

(2) If the project proponent proposes to undertake an action that is inconsistent with the current management regime in the forest management plan for a CEA, the plan must be updated before the inconsistent action is taken, in accordance with this Division.

(3) If a management action is applied or a disturbance event occurs in a CEA, the management record must be updated as soon as practicable.

(4) For subsection (2), ***action*** includes the following:
   (a) undertaking a scheduled management action (such as thinning or harvest) at a different time to the time scheduled;
   (b) undertaking a management action not scheduled in the current management regime;
   (c) not undertaking a management action that is scheduled in the current management regime;
   (d) undertaking one or more management actions in one part of a CEA and not in another part.

(5) If a project proponent proposes to undertake, or has undertaken, an activity that is inconsistent with the forest management plan in relation to the requirements in section 33, the plan must be updated.

(6) For subsection (5), ***activity*** includes the following:
   (a) undertaking a planned management activity (such as weed management or pest control) at a different time to the time scheduled;
   (b) undertaking a management activity not set out in the forest management plan;
   (c) not undertaking a management activity that is set out in the forest management plan.

25 Requirement to provide a forest management plan to the Regulator

(1) This section applies in relation to the following:
   (a) a conversion CEA whose default baseline management regime or current management regime includes a UR species;
   (b) a permanent planting CEA.

(2) Where the forest management plan in relation to the CEA is updated to undertake an action that is inconsistent with the current management regime or an activity that is inconsistent with the forest management plan, a copy of the forest management plan, as updated, must be provided to the Regulator within 15 months.

(3) However, this section does not apply if the action or activity occurs as planned within 3 months of the scheduled date.

26 The *current management regime* and the *default management regime*

(1) For a permanent planting CEA, this section applies as if a reference to a rotation were a reference to the period beginning on the earlier of the forest start date and the eligibility date for the CEA and ending at the end of the permanence period for the project.

(2) At a time during a rotation for a CEA, the ***current management regime*** is the management regime consisting of:
   (a) the choice of species and the set of management actions already applied and disturbance events that have already occurred during the rotation; and
   (b) the set of management actions and their times, and the rotation period, that the project proponent proposes to apply in the remainder of the rotation.

(3) At a time during a rotation for a CEA the ***default management regime*** is:

(a) unless paragraph (b) applies—the same as the current management regime; and

(b) if the CEA has been subject to a disturbance event during the rotation—the same as the current management regime as it stood immediately before the first disturbance event of the rotation.

(4) At a time between rotations for a CEA the ***current management regime*** and the ***default management regime*** are both the same as the default management regime as it stood at the end of the previous rotation.

27 Forest management plan for a re-stratified CEA

(1) If a CEA is re-stratified in accordance with section 18, 19 or 20, the forest management plan must be updated in relation to each new CEA as soon as practicable, in accordance with this Division.

(2) For each new CEA, the revised forest management plan must set out the same details of management actions already undertaken and disturbance events that have occurred, up to the date of creation of the CEA.

(3) The default management regime for each new CEA in the new forest management plan must be the same as the default management regime for the original CEA immediately before the re-stratification.

Note: If the project proponent wishes to change the default management regime, the proponent must first update the forest management plan in accordance with this section, and then vary it in accordance with section 24.

(4) In applying paragraph 23(2)(e), the comparison is to be made with the default management regime in the forest management plan in relation to the original CEA for the end of the previous reporting period.

Note: For a conversion CEA, the default baseline management regime depends only on the situation at the eligibility date for the CEA, and so will be the same for the new CEA.

28 Assessing a proposed change to a management regime

(1) For a permanent planting CEA, this section applies as if a reference to a rotation were a reference to the period beginning on the later of the forest start date and the eligibility date for the CEA and ending at the end of the permanence period for the project.

(2) This section applies if:

(a) the project proponent proposes, during a rotation in a CEA, to undertake an action that is inconsistent with the current management regime for that CEA in the forest management plan; and

(b) the CEA has been reported on in an offsets report.

(3) For this section, ***action*** includes the following:

(a) undertaking a scheduled management action (such as thinning or harvest) at a different time to the time scheduled;

(b) undertaking a management action not scheduled in the current management regime;

(c) not undertaking a management action that is scheduled in the current management regime;

(d) undertaking one or more management actions in one part of a CEA and not in another part.

(4) However, if the CEA is affected by a disturbance event, this section does not apply for the remainder of the rotation.

Application of section 14

(5) If an action is of a kind referred to in paragraph (3)(d), the project proponent must, before taking the action, propose a division of the CEA into 2 or more CEAs, each of which meets the requirements of section 14.

Note: Because of subsections 14(8), (10) and (11), each such CEA must be one that has been, and is expected to continue to be, subject to a single management regime. If an area with a single management regime has an area less than 0.2 hectares, it cannot be part of a CEA.

Abatement requirement

(6) If the project proponent proposes to take more than one action to which this section applies during a reporting period (whether or not in the same CEA), the project proponent may treat the set of actions as a single action for the purposes of subsections (7) and (8).

(7) Before taking an action, or a set of actions, the project proponent must assess:
   (a) the net abatement amount for the project for the current reporting period that would be produced if the action, or set of actions, were taken, as calculated under Part 4 (the ***proposed abatement***); and
   (b) if the proposed abatement is less than zero—the net abatement amount for the project for the current reporting period that would be produced if the action, or set of actions, were not taken, as calculated under Part 4 (the ***default abatement***).

(8) The project proponent may take the action, or set of actions, only if:
   (a) the proposed abatement is greater than, or equal to, zero; or
   (b) the proposed abatement is greater than, or equal to, the default abatement; or
   (c) the long-term average net carbon stock as calculated when calculating the proposed abatement is greater than, or equal to, the long-term average net carbon stock as calculated when calculating the default abatement.

Note: In assessing the proposed abatement, the calculation under Part 4 would model the project and long-term project scenarios on the basis of a current regime and a default regime that both included the proposed CEAs and the proposed action or set of actions.

(9) For paragraph (8)(c), the ***long-term average net carbon stock*** is the amount given by equation 13 in section 46.

Note: The project proponent will have calculated the relevant long-term average net carbon stocks when calculating the proposed abatement and the default abatement.

Subdivision 3.5.2—Conversion CEAs

29 Additional requirements for a forest management plan for a conversion CEA

(1) This section applies to a forest management plan in relation to a conversion CEA.

(2) If either the default baseline management regime or the current management regime includes a UR species, the forest management plan must also:
   (a) outline how the management of the plantation forest will change or has changed since its establishment as a conversion CEA; and

(b) provide evidence that demonstrates that all management actions to be undertaken or that have been undertaken in relation to the CEA are consistent with the current management regime and default baseline management regime; and

(c) include a statement made by a qualified independent person that certifies that the person is of the opinion that the management actions and other management activities to be undertaken in relation to the CEA are consistent with paragraph (b).

Note: Where the forest management plan does not change in a reporting period, there is no requirement for a qualified independent person to provide additional certification.

(3) If thinning or pruning to which subparagraph 3(c)(ii) and clause 5(2) of Schedule 2 applied was undertaken within the CEA before the eligibility date, the forest management plan must include a statement by a qualified independent person that certifies that the person is of the opinion that the thinning or pruning conducted was necessary for ecological purposes or drought resilience purposes.

Note: Those provisions relate to thinning or pruning that would have made the land ineligible if it had not been conducted for the health of the plantation.

(4) If subparagraph 3(c)(iii) of Schedule 2 applied, the forest management plan must include the evidence and statements mentioned in clause 6 of that Schedule.

(5) For this section, a person is a ***qualified independent person*** if, at the time the statement is made, they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to provide an opinion for paragraph (2)(c); and

(b) have no financial interest in the project

Note: A person does not have a financial interest in the project merely because they are being paid to review the forest management plan.

Subdivision 3.5.3—Continuing plantation CEAs

30 Additional requirements for a forest management plan for a continuing plantation CEA

(1) This section applies to a forest management plan in relation to a continuing plantation CEA.

(2) The forest management plan must also:

(a) provide evidence that demonstrates that all management actions to be undertaken or that have been undertaken in relation to the CEA are consistent with that of a viable plantation forest with ongoing cycles of harvesting and planting over the permanence period; and

(b) include a statement made by a qualified independent person that certifies that the person is of the opinion that the management actions and other management activities to be undertaken in relation to the CEA are consistent with the matters in paragraph (a); and

Note: Where the forest management plan does not change in a reporting period, there is no requirement for a qualified independent person to provide additional certification.

(c) for the duration of the permanence period, require:

(i) 10 yearly reviews to be undertaken into whether the forestry management plan appropriately maintains the plantation forest; and

(ii) the plan to be updated, if necessary, to ensure that it continues to appropriately maintain a plantation forest; and

(d) include a statement signed by the project proponent and each responsible landholder agreeing to take reasonable steps to implement the forest management plan until the end of the permanence period.

(3) If, on the eligibility date, a rotation in progress in the CEA was of a species to which subclause 3(4) of Schedule 3 applies, the forest management plan must include a statement made by a qualified independent person that certifies that the person is of the opinion that the rotation was a short or a long rotation, as the case may be, for the purposes of paragraph 3(1)(b) or (2)(b) of that Schedule.

(4) For this section, a person is a ***qualified independent person*** if, at the time the statement is made, they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to provide an opinion for subsection (3); and

(b) have no financial interest in the project.

Note: A person does not have a financial interest in the project merely because they are being paid to review the forest management plan.

Subdivision 3.5.4—Ex-plantation CEAs

31 Restrictions on management actions in ex-plantation CEAs—general

(1) A management action must not be undertaken in an ex-plantation CEA, other than a remnant plantation B CEA, unless it is consistent with the purpose of establishing and maintaining a permanent planting.

(2) The following management actions may be applied subject to subsection (1):

(i) planting;

(ii) seeding;

(iii) coppicing:

(iv) fertilisation;

(v) weed control;

(vi) controlled burn.

(3) Other management actions not listed in subsection (2) must not be applied unless they also fulfil one of the following additional purposes:

(a) risk management;

(b) drought resilience;

(c) preventing, managing or recovering from pests or disease;

(d) promoting biodiversity;

(e) enhancing carbon stocks;

(f) fire prevention.

(4) Where a management action taken in accordance with subsection (3) produces biomass that could be removed from the CEA:

(a) for a remnant plantation CEA—biomass must not be removed other than as required for the relevant purpose in subsection (3);

(b) for permanent planting CEA—no more than 5% of the biomass thinned or pruned may be removed during the reporting period or in a calendar year, unless it is required for the relevant purpose in subsection (3).

(5) Where a remnant plantation B CEA has become a permanent planting (environmental) CEA under section 17, the cleared area must be replanted with only an environmental planting.

32 Management actions in remnant plantation B CEAs

A management action must not be undertaken in a remnant plantation B CEA unless it is consistent with the purpose of:

(a) maintaining the remnant plantation without harvest for a period; and

(b) then conducting a clearfell preparatory to creating an environmental planting.

33 Additional requirements for a forest management plan for an ex-plantation CEA—general

(1) For each ex-plantation CEA other than a remnant plantation B CEA, the forest management plan must also:

(a) provide evidence that demonstrates that all management actions and other management activities to be undertaken or that have been undertaken in relation to the CEA:

(i) will minimise the risk of adverse impacts from a permanent planting;

(ii) will ensure the ecological health and viability of the permanent planting over the permanence period; and

(iii) are consistent with the management of a permanent planting; and

(b) identify and assess the risks of adverse impacts arising from the permanent planting, including the risks associated with:

(i) weeds, pests, diseases and fire; and

(ii) trees in the CEA invading adjacent land; and

(c) outline all management actions and other management activities that will be undertaken or that have been undertaken in the CEA to mitigate those risks; and

(d) outline, with supporting evidence, how management actions will be undertaken or have been undertaken in the CEA in accordance with section 31; and

(e) where the CEA is a permanent planting (environmental) CEA—provide evidence that it satisfies subparagraph 14(5)(a)(ii); and

(f) where the CEA became a permanent planting (environmental) CEA under section 17 after being a remnant plantation B CEA—provide evidence that it is or will be an environmental planting;

(g) include a statement made by a qualified independent person that certifies that the person is of the opinion that:

(i) the management actions and other management activities to be undertaken in relation to the CEA will achieve the outcomes in paragraph (a); and

(ii) the risk assessment undertaken for paragraph (b) has considered all relevant risk factors in assessing the risks of adverse impacts arising from the permanent planting; and

Note: Where the forest management plan does not change in a reporting period, there is no requirement for a qualified independent person to provide additional certification. This includes planned re-stratifications in ex-plantation CEAs that are outlined in the forest management plan.

(h) for the duration of the permanence period, require:

(i) 10 yearly reviews to be undertaken into whether the forestry management plan appropriately maintains the permanent planting; and

(ii) the plan to be updated, if necessary, to ensure that it continues to appropriately maintain a permanent planting; and

(i) include a statement signed by the project proponent and each responsible landholder agreeing to take reasonable steps to implement the forest management plan until the end of the permanence period.

(2) For paragraph (1)(g), a person is a ***qualified independent person*** if, at the time the statement is made, they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to provide an opinion for paragraph (1)(g); and

(b) have no financial interest in the project.

Note: A person does not have a financial interest in the project merely because they are being paid to review the forest management plan.

34 Additional requirements for a forest management plan for remnant plantation B CEAs

For each remnant plantation B CEA, the forest management plan must also:

(a) set out the management actions that will be undertaken or have been undertaken to maintain the plantation for a period without harvest; and

(b) specify when the period will end (which must be no later than the end of the rotation period originally planned for the plantation), or the criteria that will be used to set the end; and

(c) set out the management actions for conducting a clearfell at the end of the period (with or without harvest); and

(d) set out, in accordance with section 33, the management actions that will be undertaken or that have been undertaken after conversion to a permanent planting (environmental) CEA under section 17; and

(e) provide evidence that the planting to be conducted after the conversion will result in or have resulted in an environmental planting that is a permanent planting.

Division 3.6—Newness and additionality

35 Newness requirement

(1) For subparagraph 27(4A)(a)(ii) of the Act, the requirement in lieu of the newness requirement for a plantation forest project or a permanent planting project is that the project has not begun to be implemented, with the exceptions set out in this section.

(2) Disregard the preparation of any forest management plan before a management action commences.

(3) Disregard the following activities in relation to the land allocated to the new plantation project activity under section 10:

(a) site preparation;

(b) planting;

(c) leasing or purchasing a tangible asset for the purposes of paragraph (a) or (b);

when undertaken:

(d) after the date of the section 22 application or section 29 application; but

(e) before the project is declared an eligible offsets project by the Regulator.

(4) Disregard the following activities in relation to the land allocated to the conversion project activity under section 10:

(a) site preparation;

(b) planting;

(c) leasing or purchasing a tangible asset for the purposes of paragraph (a) or (b);

(d) harvesting, clearing or thinning the short-rotation plantation forest;

when undertaken:

(e) after the date of the section 22 application or section 29 application; but

(f) before the project is declared an eligible offsets project by the Regulator.

(5) Disregard the following activities in relation to the land allocated to the continuing plantation project activity under section 10:

(a) site preparation;

(b) planting;

(c) leasing or purchasing a tangible asset for the purposes of paragraph (a) or (b);

(d) harvesting, clearing or thinning the remnant plantation forest;

when undertaken:

(e) after the date of the section 22 application or section 29 application; but

(f) before the project is declared an eligible offsets project by the Regulator.

(6) Disregard the following activities in relation to the land allocated to the permanent planting project activity under section 10:

(a) site preparation;

(b) planting;

(c) leasing or purchasing a tangible asset for the purposes of paragraph (a) or (b);

(d) maintaining, harvesting, clearing or thinning the remnant plantation forest;

when undertaken:

(e) after the date of the section 22 application or section 29 application; but

(f) before the project is declared an eligible offsets project by the Regulator.

(7) To avoid doubt, the leasing or purchase of land before the date of the section 22 application or section 29 application that allocates it to a particular plantation project activity in the application is also to be disregarded.

(8) For this section:

clearing includes clearfelling.

harvesting includes any removal of forest product.

planting includes purchasing seeds and seedlings, and planting, seeding or coppicing.

site preparation means an action taken to prepare land for planting, including windrow and burn, fertilisation, weed control, mounding and fencing.

Part 4—Net abatement amount

Division 4.1—Preliminary

36 Operation of this Part

For paragraph 106(1)(c) of the Act, this Part specifies the method for working out the carbon dioxide equivalent net abatement amount for a reporting period for a plantation forest project or permanent planting project that is an eligible offsets project.

Note: In this determination, this is called the ***net abatement amount*** for the project for the reporting period (see section 5).

37 Overview of gases accounted for in abatement calculations

The following table provides an overview of the greenhouse gases and emissions sources that are relevant to working out the net abatement amount for a plantation forest project or permanent planting project in a reporting period.

Greenhouse gases and emissions sources

	Emissions source	**Greenhouse gas**
Carbon pool or emissions source	Live above ground biomass	Carbon dioxide (CO_2)
	Live below ground biomass	Carbon dioxide (CO_2)
	Above ground forest debris	Carbon dioxide (CO_2)
	Below ground forest debris	Carbon dioxide (CO_2)
	Forest products	Carbon dioxide (CO_2)
	Fuel use	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Action or event	Fire—controlled burn and natural disturbance	Methane (CH_4) Nitrous oxide (N_2O)
	Fertilisation	Nitrous oxide (N_2O)
	Non-fire disturbances	Carbon dioxide (CO_2)
	Management actions other than controlled burn and fertilisation	Carbon dioxide (CO_2)

Division 4.2—FullCAM Modelling

Subdivision 4.2.1—General

38 Modelling scenarios in FullCAM

(1) For each offsets report, the project proponent must create and run, for each CEA in existence at the end of the reporting period:
  (a) the project scenario simulation; and
  (b) the long-term project scenario simulation.

(2) For a conversion CEA, continuing plantation CEA, or an ex-plantation CEA the project proponent must also model the baseline scenario.

(3) Each scenario simulation must be created and run as a FullCAM simulation, in accordance with this Division and the FullCAM guidelines.

Note: The FullCAM guidelines set out how a management action or disturbance event is to be modelled in terms of FullCAM events.

(4) Each scenario simulation must be created and run in the 90-day period before an offsets report is submitted to the Regulator.

39 Modelling project scenario

The ***project scenario simulation*** for a CEA in a reporting period is a FullCAM simulation that:

(a) begins on the day before the forest start date; and

(b) ends on the last day of the reporting period; and

(c) simulates all of the management actions and disturbance events recorded in the management record of the forest management plan as at the end of that reporting period.

40 Modelling long-term project scenario

(1) The ***long-term project scenario simulation*** for a CEA in a reporting period is a FullCAM simulation that:

(a) begins on the day before the forest start date; and

(b) ends on the last day of the modelling period; and

(c) simulates:

(i) up to the last day of the reporting period—all of the management actions and disturbance events recorded in the management record of the forest management plan as at the end of that period; and

(ii) after the last day of the reporting period:

(A) if a rotation is not underway at the end of the reporting period—the default management actions; and

(B) if a rotation is underway at the end of the reporting period—the management actions of the current management regime for the remainder of the rotation, followed by the default management actions.

Note: The simulation does not model any disturbance events, nor any management actions occurring between rotations, after the last day of the reporting period.

(2) For subparagraph (1)(c)(ii), the ***default management actions*** are the management actions of the default management regime, recurring with a period of 12 months between rotations.

41 Modelling baseline scenario

(1) The ***baseline scenario simulation*** for a conversion CEA at a particular time (either the forest start date or the end of a reporting period) is the FullCAM simulation that:

(a) begins on the day before the forest start date; and

(b) ends on the last day of the modelling period; and

(c) subject to subsection (4), simulates:

(i) the management actions of the default baseline management regime, recurring with a period of 12 months between rotations; and

(ii) any natural disturbance recorded in the management record of the forest management plan as at the time of the simulation, at the time that it occurred.

Note 1: The simulation does not model any management actions between rotations.

Note 2: For subparagraph (c)(ii), the simulation models only natural disturbances at the times that they actually occurred. Disturbance events are not modelled as recurring in future rotations.

(2) The ***baseline scenario simulation*** for a continuing plantation CEA at a particular time (either the forest start date or the end of a reporting period) is the FullCAM simulation that:

(a) begins on the day before the baseline rotation start date; and

(b) ends 100 years after the harvest event described in subparagraph (2)(c)(ii); and

(c) subject to subsection (4) simulates:

(i) the actions undertaken between the baseline rotation start date and the eligibility date; and

(ii) a single harvest event, undertaken at a time before the eligibility date, or no more than 24 months after the eligibility date; and

(iii) no subsequent planting, seeding or coppicing events.

(3) The ***baseline scenario simulation*** for an ex-plantation CEA at a particular time (either the forest start date or the end of a reporting period) is the FullCAM simulation that:

(a) begins on the day before the baseline rotation start date; and

(b) ends on the last day of the modelling period; and

(c) subject to subsection (4) simulates:

(i) the actions undertaken between the baseline rotation start date and the eligibility date; and

(ii) a single harvest event, undertaken at a time before the eligibility date, or no more than 24 months after the eligibility date; and

(iii) no subsequent planting, seeding or coppicing events.

(4) If a natural disturbance modelled in the simulation occurs at such a time in the rotation and is of such a character that it is reasonable to conclude that in practice it would result in an early end to the rotation, the simulation must include that early end.

(5) For subsection (4), only a thinning without harvest is able to be modelled to end the rotation. The project proponent is not able to model a salvage harvest following the natural disturbance.

(6) In this section:

baseline rotation start date means:

(a) for a continuing plantation CEA on which a rotation was in progress on the eligibility date—the starting date for that rotation; and

(b) for a continuing plantation CEA on which no rotation was in progress on the eligibility date—the starting date for the last rotation on the CEA prior to the eligibility date; and

(c) for an ex-plantation CEA on which a rotation was in progress on the eligibility date—the starting date for that rotation; and

(d) for an ex-plantation CEA on which no rotation was in progress on the eligibility date—the starting date for the last rotation on the CEA prior to the eligibility date.

Division 4.3—Calculations

Subdivision 4.3.1—Preliminary

42 Operation of Division

(1) This Division sets out the steps required to calculate the net abatement amount for a reporting period for a plantation forest project and a permanent planting project.

(2) A reference in this Division to the ***i*th CEA** is a reference to a CEA of the project that is in existence at the end of the reporting period.

Subdivision 4.3.2—Baseline net carbon stock

43 Baseline carbon stock and baseline emissions in a CEA

Note: The baseline carbon stock and emissions are re-calculated for each offsets report. They can change slightly as the baseline scenario simulation will include any disturbance events that have occurred since the last simulation.

(1) If the i^{th} CEA of the project is a new plantation CEA, the baseline carbon stock ($\bar{C}_{B,i}$) and baseline emissions from biomass burning ($E_{B,Fire,i}$) for the i^{th} CEA are equal to zero.

(2) If the i^{th} CEA of the project is a conversion CEA, or a continuing plantation CEA:
   (a) the baseline carbon stock for the CEA for the reporting period ($\bar{C}_{B,i}$) (in tonnes CO_2-e) is calculated using equation 1; and
   (b) the baseline emissions from biomass burning for the CEA for the reporting period ($E_{B,Fire,i}$) (in tonnes CO_2-e) is calculated using equation 2; and
   (c) the net baseline carbon stock for the CEA for the reporting period ($\bar{C}_{net,B,i}$) (in tonnes CO_2-e) is calculated using equation 3.

(3) If the i^{th} CEA of the project is an ex-plantation CEA:
   (a) the baseline carbon stock for the CEA for the reporting period ($\bar{C}_{B,i}$) (in tonnes CO_2-e) is calculated using equation 4; and
   (b) the baseline emissions from biomass burning for the CEA for the reporting period ($E_{B,Fire,i}$) (in tonnes CO_2-e) is calculated using equation 5; and
   (c) the net baseline carbon stock for the CEA for the reporting period ($\bar{C}_{net,B,i}$) (in tonnes CO_2-e) is calculated using equation 6.

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

$\bar{C}_{B,i} = \frac{44}{12} \times \sum_{k=1}^{1,200} \frac{(C_{BD,i,k} + C_{BT,i,k} + C_{BFP,i,k}) \times S_i}{1,200}$	**Equation 1**

where:

$\boldsymbol{C_{BD,i,k}}$ is the C mass in forest debris (in tonnes C per hectare) for the i^{th} CEA, taken at:
   (a) for a conversion CEA—the k^{th} month since the modelling start date from the baseline scenario simulation; and
   (b) for a continuing plantation CEA—the k^{th} month since the harvest event described in subparagraph 41(2)(c)(ii), from the baseline scenario simulation.

$C_{BT,i,k}$ is the C mass of trees (in tonnes C per hectare) for the i^{th} CEA, taken at:

(a) for a conversion CEA—the k^{th} month since the modelling start date, from the baseline scenario simulation, and

(b) for a continuing plantation CEA—the k^{th} month since the harvest event described in subparagraph 41(2)(c)(ii).

$C_{BFP,i,k}$ is the C mass in forest products (in tonnes C per hectare) for the i^{th} CEA, taken at:

(a) for a conversion CEA—the k^{th} month since the modelling start date, from the baseline scenario simulation, and

(b) for a continuing plantation CEA—the k^{th} month since the harvest event described in subparagraph 41(2)(c)(ii), from the baseline scenario simulation.

S_i is the area (in hectares) of the i^{th} CEA.

Note: The baseline management regime is modelled to determine the elements $C_{BD,i,k}$, $C_{BT,i,k}$ and $C_{BFP,i,k}$ of the baseline carbon stock for a CEA.

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

$E_{B,Fire,i} = \sum_{k=1}^{1,200} \sum_{g} \left(GWP_g \times E_{g,i,k} \times S_i \right)$	**Equation 2**

where:

g represents the greenhouse gases methane (CH_4) and nitrous oxide (N_2O).

GWP_g is the global warming potential for greenhouse gas g, as specified in the NGER Regulations as in force from time to time.

$E_{g,i,k}$ is the mass of greenhouse gas g (in tonnes per hectare) emitted due to biomass burning in the i^{th} CEA, taken at:

(a) for a conversion CEA—the k^{th} month since the modelling start date, from the baseline scenario simulation, and

(b) for a continuing plantation CEA—the k^{th} month since the harvest event described in subparagraph 41(2)(c)(ii), from the baseline scenario simulation.

S_i is the area (in hectares) of the i^{th} CEA.

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

$\bar{C}_{net,B,i} = \bar{C}_{B,i} - E_{B,Fire,i}$	**Equation 3**

where:

$\bar{C}_{B,i}$ is the baseline carbon stock (in tonnes CO_2-e) for the i^{th} CEA—from equation 1.

$E_{B,Fire,i}$ is the baseline emissions from biomass burning (in tonnes CO_2-e) for the i^{th} CEA—from equation 2.

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

$\bar{C}_{B,i} = \frac{44}{12} \times (C_{BD,i,k_{mp}} + C_{BFP,i,k_{mp}}) \times S_i$	**Equation 4**

where:

$\boldsymbol{C_{BD,i,k_{mp}}}$ is the C mass in forest debris (in tonnes C per hectare) for the i^{th} CEA in the final month of the modelling period—from the baseline scenario simulation.

$\boldsymbol{C_{BFP,i,k_{mp}}}$ is the C mass in forest products (in tonnes C per hectare) for the i^{th} CEA in the final month of the modelling period—from the baseline scenario simulation.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

Note: The baseline management regime is modelled to determine the elements $C_{BD,i,k_{mp}}$ and $C_{BFP,i,k_{mp}}$ of the baseline carbon stock for a CEA.

(8) For paragraph (3)(b), the equation is the following:

$E_{B,Fire,i} = \sum_{k=x}^{K} \sum_{g} (GWP_g \times E_{g,i,k} \times S_i)$	**Equation 5**

where:

$\boldsymbol{g}$ represents the greenhouse gases methane (CH_4) and nitrous oxide (N_2O).

$\boldsymbol{GWP_g}$ is the global warming potential for greenhouse gas g, as specified in the NGER Regulations as in force from time to time.

$\boldsymbol{E_{g,i,k}}$ is the mass of greenhouse gas g (in tonnes per hectare) emitted due to biomass burning in the i^{th} CEA in the k^{th} month since the modelling start date—from the baseline scenario simulation.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

$\boldsymbol{x}$ represents the first month of the project that is covered by the crediting period.

$\boldsymbol{K}$ is the number of months between the modelling start date and the end of the crediting period.

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

$\bar{C}_{net,B,i} = \bar{C}_{B,i} - E_{B,Fire,i}$	**Equation 6**

where:

$\bar{C}_{B,i}$ is the baseline carbon stock (in tonnes CO_2-e) for the i^{th} CEA—from equation 4.

$E_{B,Fire,i}$ is the baseline emissions from biomass burning (in tonnes CO_2-e) for the i^{th} CEA—from equation 5.

44 Baseline net carbon stock for a project area

Note: If the project only contains new plantation CEAs, the baseline net carbon stock will be equal to zero.

The baseline net carbon stock ($\bar{C}_{B,PA}$) (in tonnes CO_2-e) for a project area is calculated using the following equation:

$\bar{C}_{B,PA} = \sum_{i=1}^{I} (\bar{C}'_{net,B,i})$	**Equation 7**

where:

I is the number of CEAs in the project area.

$\bar{C}'_{net,B,i}$ is the net baseline carbon stock for the i^{th} CEA-from equation 3 or equation 6, as applicable.

Subdivision 4.3.3—Long-term net carbon stock

45 Predicted long-term carbon stock and project emissions in a CEA

Note: The predicted long-term average carbon stock or long-term project scenario carbon stock is re-calculated for each offsets report. It can change slightly as the long-term project scenario simulation will replace predicted events with actual events for the time since the last simulation.

Predicted long-term average carbon stock for a new plantation CEA, conversion CEA or a continuing plantation CEA

(1) If the i^{th} CEA of the project is a new plantation CEA, a conversion CEA or a continuing plantation CEA, the predicted long-term average carbon stock must be calculated in accordance with subsection (2).

(2) The predicted long-term average project carbon stock for the modelling period for the i^{th} CEA ($\bar{C}_i$) (in tonnes CO_2-e) is calculated using the following equation:

$\bar{C}_i = \frac{44}{12} \times \sum_{k=1}^{1,200} \frac{(C_{D,i,k} + C_{T,i,k} + C_{FP,i,k}) \times S_i}{1,200}$	**Equation 8**

where:

$C_{D,i,k}$ is the predicted C mass in forest debris (in tonnes C per hectare) for the i^{th} CEA in the k^{th} month since the modelling start date—from the long-term project scenario simulation.

$C_{T,i,k}$ is the predicted C mass of trees (in tonnes C per hectare) for the i^{th} CEA in the k^{th} month since the modelling start date—from the long-term project scenario simulation.

$C_{FP,i,k}$ is the predicted C mass in forest products (in tonnes C per hectare) for the i^{th} CEA in the k^{th} month since the modelling start date—from the long-term project scenario simulation.

S_i is the area (in hectares) of the i^{th} CEA.

Predicted long-term project scenario carbon stock for an ex-plantation CEA

(3) If the i^{th} CEA of the project is an ex-plantation CEA, the predicted long-term project scenario carbon stock must be calculated in accordance with subsection (4).

(4) The predicted long-term project scenario carbon stock for the modelling period for the i^{th} CEA ($\bar{C}_i$) (in tonnes CO_2-e) is calculated using the following equation:

$\bar{C}_i = \frac{44}{12} \times (C_{D,i,k_{mp}} + C_{T,i,k_{mp}} + C_{FP,i,k_{mp}}) \times S_i$	**Equation 9**

where:

$C_{D,i,k_{mp}}$ is the predicted C mass in forest debris (in tonnes C per hectare) for the i^{th} CEA at the end of the modelling period—from the long-term project scenario simulation.

$C_{T,i,k_{mp}}$ is the predicted C mass of trees (in tonnes C per hectare) for the i^{th} CEA at the end of the modelling period—from the long-term project scenario simulation.

$C_{FP,i,k_{mp}}$ is the predicted C mass in forest products (in tonnes C per hectare) for the i^{th} CEA at the end of the modelling period—from the long-term project scenario simulation.

S_i is the area (in hectares) of the i^{th} CEA.

Emissions from biomass burning for long-term project scenario simulation

(5) The emissions for the modelling period from biomass burning for the i^{th} CEA ($E_{P,Fire,i}$) (in tonnes CO_2-e) is calculated using the following equation:

$E_{P,Fire,i} = \sum_{k=1}^{k_m} \sum_{g} (GWP_g \times E_{g,i,k} \times S_i)$	**Equation 10**

where:

k_m represents a number of months, and is equal to:

(a) for a new plantation CEA, a conversion CEA or a continuing plantation CEA—1,200; and

(b) for an ex-plantation CEA—the 300 months in the crediting period.

g represents the greenhouse gases methane (CH_4) and nitrous oxide (N_2O).

GWP_g is the global warming potential for greenhouse gas g, as specified in the NGER Regulations as in force from time to time.

$\boldsymbol{E_{g,i,k}}$ is the mass of greenhouse gas g (in tonnes per hectare) emitted due to biomass burning in the i^{th} CEA in the k^{th} month since the modelling start date from the long-term project scenario simulation.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

Predicted emissions from fuel used to harvest for long-term project scenario simulation

(6) Predicted fuel emissions for the project for the i^{th} CEA for the modelling period ($E_{P,Fuel,i}$) (in tonnes CO_2-e) are calculated using the following equation:

$$E_{P,Fuel,i} = \frac{44}{12} \times \sum_{h=1}^{H} (C_{Harv,i,h} \times 0.035) \times S_i$$	**Equation 11**

where:

$\boldsymbol{H}$ is the number of harvest events in the modelling period—from the long-term scenario simulation

$\boldsymbol{C_{Harv,i,h}}$ is:

(a) if the i^{th} CEA is a conversion CEA—zero; and

(b) otherwise—the predicted C mass of forest products from harvest event h in the modelling period in the i^{th} CEA (in tonnes C per hectare)—from equation 12.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

(7) For paragraph (b) of the definition of $C_{Harv,i,h}$ in subsection (6), the equation is:

$$C_{Harv,i,h} = C_{FP,i,k} - C_{FP,i,k-1}$$	**Equation 12**

where:

$\boldsymbol{k}$ is the month of the modelling period in which harvest event h occurred—from the long-term project scenario simulation.

$\boldsymbol{C_{FP,i,k}}$ is the predicted mass of forest products (in tonnes C per hectare) for the i^{th} CEA and for the k^{th} month since the modelling start date—from the long-term project scenario simulation.

$\boldsymbol{C_{FP,i,k-1}}$ is:

(a) for the first month of the modelling period ($k = 1$)—zero; and

(b) for subsequent months ($k \geq 2$)—the predicted mass of forest products (in tonnes C per hectare) for the i^{th} CEA and for the $(k-1)^{th}$ month since the modelling start date—from the long-term project scenario simulation.

46 Predicted long-term average net carbon stock or long-term project scenario net carbon stock for project area

The predicted long-term average net carbon stock or predicted long-term project scenario net carbon stock for a project area ($\bar{C}_P$) (in tonnes CO_2-e) is calculated using the following equation:

$$\bar{C}_P = \frac{RC}{D} + \sum_{i=1}^{I} \left(\bar{C}_i - E_{P,Fire,i} - E_{P,Fuel,i} \right)$$	**Equation 13**

where:

RC is the total number of Australian carbon credit units:

(a) issued, before the end of the reporting period, in relation to each CEA that was removed from the project area before that time; and

(b) relinquished in relation to each CEA in the project area under sections 88, 90 or 91 of the Act before the end of the reporting period.

D is the aggregate of the permanence period discount number and the risk of reversal buffer number under section 16 of the Act associated with the Australian carbon credit units comprised in the definition of *RC* in this section.

Note 1: The value for $\frac{RC}{D}$ must be worked out separately for each issue or relinquishment of Australian carbon credit units comprised in the definition of *RC* in this section, and all such values must be aggregated to work out the value for $\frac{RC}{D}$ applied to equation 20.

Note 2: The aggregate of the permanence period discount number and the risk of reversal buffer number under section 16 of the Act for the purposes of working out the value for *D* under this section associated with the Australian carbon credit units comprised in the definition of *RC* in this section would be:

- if the project was a 100-year permanence period project at the time of the issue of the units—0.95;
- if the project was a 25-year permanence period project at the time of the issue of the units—0.75 or 0.7 as specified in the Rule.

I is the number of CEAs in the project area.

$\bar{C}_i$ is:

(a) if the i^{th} CEA is a new plantation CEA, a conversion CEA or a continuing plantation CEA—the predicted long-term average project carbon stock (in tonnes CO_2-e) for the i^{th} CEA—from equation 8; and

(b) if the i^{th} CEA is an ex-plantation CEA—the predicted long-term project scenario carbon stock (in tonnes CO_2-e) for the i^{th} CEA—from equation 9.

$E_{P,Fire,i}$ is the emissions from biomass burning for the modelling period for the i^{th} CEA (in tonnes CO_2-e)—from equation 10.

$E_{P,Fuel,i}$ is the predicted fuel emissions for the modelling period for the i^{th} CEA (in tonnes CO_2-e)—from equation 11.

Note: Where the project consists only of conversion CEAs, emissions from fossil fuel ($E_{P,Fuel,i}$) will be equal to zero.

Subdivision 4.3.4—Net carbon stock change in a reporting period

47 Calculating net carbon stock in a CEA at the end of reporting period

Carbon stock in i^{th} CEA at end of reporting period—new plantation CEA

(1) If the i^{th} CEA is a new plantation CEA, its carbon dioxide equivalent carbon stock at the end of the reporting period ($C_{P,i}$) (in tonnes CO_2-e) is calculated using the following equation:

$$C_{P,i} = \frac{44}{12} \times \left(C_{D,i} + C_{T,i}\right) \times S_i$$	**Equation 14**

where:

$\boldsymbol{C_{D,i}}$ is the C mass in forest debris (in tonnes C per hectare) for the i^{th} CEA in the last month of the reporting period—from the project scenario simulation.

$\boldsymbol{C_{T,i}}$ is the C mass of trees (in tonnes C per hectare) for the i^{th} CEA in the last month of the reporting period—from the project scenario simulation.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

Carbon stock in i^{th} CEA at end of reporting period—conversion CEA, permanent planting (environmental) CEA or continuing plantation CEA

(2) If the i^{th} CEA is a conversion CEA, continuing plantation CEA or a permanent planting (environmental) CEA, its carbon dioxide equivalent carbon stock at the end of the reporting period ($C_{P,i}$) (in tonnes CO_2-e) is calculated using the following equation:

$$C_{P,i} = \bar{C}_{net,B,i} + \frac{n}{180} \times \left(\bar{C}_i - \bar{C}_{net,B,i}\right)$$	**Equation 15**

where:

$\boldsymbol{\bar{C}_{net,B,i}}$ is:

(a) if the i^{th} CEA is a conversion CEA or a continuing plantation CEA—the net baseline carbon stock for the i^{th} CEA—from equation 3; and

(b) if the i^{th} CEA is a permanent planting (environmental) CEA—the net baseline carbon stock for the i^{th} CEA—from equation 6.

$\boldsymbol{n}$ is:

(a) if fewer than 180 months have been completed since the i^{th} CEA was defined—the number of months completed; and

(b) otherwise—180.

$\boldsymbol{\bar{C}_i}$ is:

(a) if the i^{th} CEA is a conversion CEA or a continuing plantation CEA—the predicted long-term average project carbon stock for the modelling period for the i^{th} CEA—from equation 8; and

(b) if the i^{th} CEA is a permanent planting (environmental) CEA—the predicted long-term project scenario carbon stock for the modelling period for the i^{th} CEA—from equation 9.

Note: Essentially, the effect of this equation is to credit the proponent with 1/15 of the expected increase in the quantity of sequestered carbon in the CEA in each of the first 15 years of the project. This increase is averaged for conversion and continuing plantation CEAs, and based on carbon stocks at the end of the reporting period for ex-plantation CEAs. In practice, the amounts credited are likely to vary slightly from one reporting period to the next because $\bar{C}_i$ and $\bar{C}_{B,i}$ are re-calculated for each reporting period, and the scenarios used in the calculations are modified to reflect events that occurred during the reporting period. This recalculation may continue to produce adjustments after the initial period of 15 years. The calculation is done monthly to facilitate reporting more frequently than yearly.

Carbon stock in i^{th} CEA at end of reporting period—remnant plantation CEA or permanent planting (ex-commercial) CEA

(3) If the i^{th} CEA is a remnant plantation CEA or a permanent planting (ex-commercial) CEA, its carbon dioxide equivalent carbon stock at the end of the reporting period ($C_{P,i}$) (in tonnes CO_2-e) is calculated using the following equation:

$C_{P,i} = \bar{C}_{net,B,i} + \frac{n}{180} \times \left(\bar{C}_i - \bar{C}_{net,B,i}\right) \times D_{PP}$	**Equation 16**

where:

$\bar{C}_{net,B,i}$ is the net baseline carbon stock for the i^{th} CEA—from equation 6.

n is:

(a) if fewer than 180 months have been completed since the i^{th} CEA was defined—the number of months completed; and

(b) otherwise—180.

$\bar{C}_i$ is the predicted long-term project scenario carbon stock for the modelling period for the i^{th} CEA—from equation 9.

D_{PP} is equal to:

(a) for a 25-year permanence period project—0.75; and

(b) for a 100-year permanence period project—1.

Note: Essentially, the effect of this equation is to credit the proponent with 1/15 of the expected increase in the quantity of sequestered carbon in the CEA in each of the first 15 years of the project. This increase is based on carbon stocks at the end of the modelling period for ex-plantation CEAs. In practice, the amounts credited are likely to vary slightly from one reporting period to the next because $\bar{C}_i$ and $\bar{C}_{B,i}$ are re-calculated for each reporting period, and the scenarios used in the calculations are modified to reflect events that occurred during the reporting period. This recalculation may continue to produce adjustments after the initial period of 15 years. The calculation is done on a monthly basis to facilitate reporting more frequently than yearly.

Emissions from biomass burning for i^{th} CEA at end of reporting period

(4) The emissions from biomass burning for the i^{th} CEA at the end of the reporting period ($E_{P,Fire,i}$) (in tonnes CO_2-e) is calculated using the following equation:

$$E_{P,Fire,i} = \sum_{k=1}^{K} \sum_{g} (GWP_g \times E_{g,i,k} \times S_i)$$	**Equation 17**

where:

$\boldsymbol{K}$ is the number of months between the modelling start date and the end of the reporting period.

$\boldsymbol{g}$ represents the greenhouse gases methane (CH_4) and nitrous oxide (N_2O).

$\boldsymbol{GWP_g}$ is the global warming potential for greenhouse gas g, as specified in the NGER Regulations as in force from time to time.

$\boldsymbol{E_{g,i,k}}$ is:

(a) if the i^{th} CEA is a conversion CEA—zero; and

(b) otherwise—the mass of greenhouse gas g per unit area (in tonnes per hectare) emitted due to biomass burning in the i^{th} CEA in the k^{th} month since the modelling start date from the project scenario simulation.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

Emissions from fuel used to harvest at end of reporting period

(5) The fuel emissions for the project for the i^{th} CEA for the modelling period ($E_{P,Fuel,i}$) (in tonnes CO_2-e) are calculated using the following equation:

$$E_{P,Fuel,i} = \frac{44}{12} \times \sum_{h=1}^{H} (C_{Harv,i,h} \times 0.035) \times S_i$$	**Equation 18**

where:

$\boldsymbol{H}$ is the number of harvest events that have occurred between the modelling start date and the end of the reporting period.

$\boldsymbol{C_{Harv,i,h}}$ is:

(a) if the i^{th} CEA is a conversion CEA—zero; and

(b) otherwise—the predicted C mass of forest products from harvest event h in the modelling period in the i^{th} CEA (in tonnes C per hectare)—from equation 19.

$\boldsymbol{S_i}$ is the area (in hectares) of the i^{th} CEA.

(6) For the definition of $C_{Harv,i,h}$ in subsection (5), the equation is:

$$C_{Harv,i,h} = C_{FP,i,k} - C_{FP,i,k-1}$$	**Equation 19**

where:

k is the month in which harvest event *h* occurred.

$\boldsymbol{C_{FP,i,k}}$ is the mass of forest products (in tonnes C per hectare) for the i^{th} CEA and for the k^{th} month—from the project scenario simulation.

$\boldsymbol{C_{FP,i,k-1}}$ is:

(a) for the first month since the modelling start date ($k = 1$)—zero; and

(b) for subsequent months ($k \geq 2$)—the mass of forest products (in tonnes C per hectare) for the i^{th} CEA and for the $(k-1)^{th}$ month since the start of the modelling period—from the project scenario simulation.

48 Net carbon stock at the end of reporting period for the project area

The net carbon stock in the project area at the end of the reporting period (C_P) (in tonnes CO_2-e) is calculated using the following equation:

$$C_P = \frac{RC}{D} + \sum_{i=1}^{I}\left(C_{P,i} - E_{P,Fire,i} - E_{P,Fuel,i}\right)$$	**Equation 20**

where:

RC is the total number of Australian carbon credit units:

(a) issued, before the end of the reporting period, in relation to each CEA that was removed from the project area before that time; and

(b) relinquished in relation to each CEA in the project area under sections 88, 90 or 91 of the Act before the end of the reporting period.

D is the aggregate of the permanence period discount number and the risk of reversal buffer number under section 16 of the Act associated with the Australian carbon credit units comprised in the definition of *RC* in this section.

Note 1: The value for $\frac{RC}{D}$ must be worked out separately for each issue or relinquishment of Australian carbon credit units comprised in the definition of *RC* in this section, and all such values must be aggregated to work out the value for $\frac{RC}{D}$ applied to equation 20.

Note 2: The aggregate of the permanence period discount number and the risk of reversal buffer number under section 16 of the Act for the purposes of working out the value for *D* under this section associated with the Australian carbon credit units comprised in the definition of *RC* in this section would be:

- if the project was a 100-year permanence period project at the time of the issue of the units—0.95;
- if the project was a 25-year permanence period project at the time of the issue of the units—0.75 or 0.7 as specified in the Rule.

I is the number of CEAs in the project area.

$\boldsymbol{C_{P,i}}$ is the carbon dioxide equivalent carbon stock in the i^{th} CEA at the end of the reporting period (in tonnes CO_2-e)—from equation 14, equation 15 or equation 16, as appropriate.

$\boldsymbol{E_{P,Fire,i}}$ is the emissions from biomass burning in the i^{th} CEA (in tonnes CO_2-e)—from equation 17.

$\boldsymbol{E_{P,Fuel,i}}$ is the emissions from fuel in the i^{th} CEA (in tonnes CO_2-e)—from equation 18.

49 Deemed net carbon stock for a project area at the end of reporting period

The deemed net carbon stock for a project area at the end of reporting period *RP*, C_{RP}, is whichever of the following the project proponent elects:

(a) the smaller of $\bar{C}_P$ (equation 13) and C_P (equation 20);

(b) another amount that is:

(i) less than the amount ascertained in accordance with paragraph (a); but

(ii) no less than an amount elected for any previous reporting period.

50 Net carbon stock change for a project area in first reporting period under this determination

(1) For a project that is not a pre-existing project, the net carbon stock change in a project area for the first reporting period ($\Delta C_{RP,PA}$) (in tonnes CO_2-e) is calculated using the following equation:

$\Delta C_{RP,PA} = C_{RP} - \bar{C}_B$	**Equation 21**

where:

$\boldsymbol{C_{RP}}$ is the deemed net carbon stock for the project area at the end of the reporting period (in tonnes CO_2-e)—from section 49.

$\boldsymbol{\bar{C}_B}$ is the baseline net carbon stock (in tonnes CO_2-e) for the project area—from equation 7.

Note: $\Delta C_{RP,PA}$ can be zero or less than zero because $\Delta C_{RP,PA}$ represents a net carbon stock change in a project area relative to the baseline ($\bar{C}_B$).

(2) For a pre-existing project, the net carbon stock change in a project area for the first reporting period under this determination ($\Delta C_{RP,PA}$) (in tonnes CO_2-e) is calculated using the following equation:

$\Delta C_{RP,PA} = C_{RP} - C_{FD}$	**Equation 22**

where:

$\boldsymbol{C_{RP}}$ is the deemed net carbon stock for the project area at the end of the reporting period (in tonnes CO_2-e)—from section 49.

$\boldsymbol{C_{FD}}$ is the sum of the carbon stocks for each CEA (however described) in the project area as reported in the most recent offsets report under the former determination.

Note: ΔC_{RP} can be zero or less than zero because ΔC_{RP} represents a net carbon stock change relative to the carbon stock at the end of the last reporting period under the former determination ($\bar{C}_{FD}$).

51 Net carbon stock change for a project area in later reporting periods

The net carbon stock change for a project area in a reporting period after the first reporting period ($\Delta C_{RP,PA}$) (in tonnes CO_2-e) is calculated using the following equation:

$\Delta C_{RP,PA} = (C_{RP} - C_{RP-1}) - (\bar{C}_{B,RP} - \bar{C}_{B,RP-1})$	**Equation 23**

where:

$\boldsymbol{C_{RP}}$ is the deemed net carbon stock in the project area at the end of the reporting period *RP* (in tonnes CO_2-e)—from section 49.

$\boldsymbol{C_{RP-1}}$ is the deemed net carbon stock in the project area at the end of the previous reporting period *RP* – 1 (in tonnes CO_2-e), as reported in the offsets report for the previous reporting period.

$\boldsymbol{\bar{C}_{B,RP}}$ is the baseline net carbon stock (in tonnes CO_2-e) for the project area for reporting period *RP*, and is equal to the amount $\bar{C}_B$ as calculated using equation 7 for the reporting period *RP*.

$\boldsymbol{\bar{C}_{B,RP-1}}$ is the baseline net carbon stock (in tonnes CO_2-e) for the project area for the previous reporting period, *RP* – 1, and is equal to the amount $\bar{C}_B$ as calculated using equation 7, and reported in the offsets report, for reporting period *RP* – 1.

Note: If ΔC_{RP} is less than or equal to zero, project carbon stocks are lower than baseline carbon stocks, or lower than the carbon stocks under the former determination (for a pre-existing project) which means that no abatement occurred.

52 Net abatement amount for a project area

The net abatement amount for a project area *PA* for a reporting period *RP* ($\boldsymbol{A_{PA}}$) is calculated using the following equation:

$A_{PA} = \Delta C_{RP,PA}$	**Equation 24**

where:

$\boldsymbol{\Delta C_{RP,PA}}$ is the net carbon stock change for project area at the end of the reporting period *RP* (in tonnes CO_2-e)—from equation 21, 22, or 23.

Subdivision 4.3.5—Calculation of the net abatement amount

53 Net abatement amount—general rule

(1) This section applies if:

(a) the reporting period *RP* is the first reporting period; or

(b) the reporting period *RP* is the second or later reporting period, and the net abatement amount for the project for the previous reporting period *RP* – 1 was zero or greater than zero.

(2) The net abatement amount for the reporting period (*A*) (in tonnes CO_2-e) for the whole project is calculated using the following equation:

$A = \sum_{PA} A_{PA}$	**Equation 25**

where:

A_{PA} is the net carbon stock change (in tonnes CO_2-e) in a project area *PA* for the reporting period *RP*—from equation 24.

54 Net abatement amount—where previous net abatement amount negative

(1) This section applies if the net abatement amount for the project for the previous reporting period *RP* – 1 was less than zero.

(2) The net abatement amount for the reporting period *RP* (*A*) (in tonnes CO_2-e) is calculated using the following equation:

$A = A_{RP-1} + \sum_{PA} A_{PA}$	**Equation 26**

where:

$\boldsymbol{A_{RP-1}}$ is the net abatement amount *A* (in tonnes CO_2-e) for the previous reporting period *RP* – 1, as reported in the previous offsets report (which is a negative number).

$\boldsymbol{A_{PA}}$ is the net carbon stock change (in tonnes CO_2-e) in a project area *PA* for the reporting period *RP*—from equation 24.

Part 5—Reporting, record-keeping and monitoring requirements

Note: The reporting, record-keeping and monitoring requirements in this Part supplement the general requirements relating to those matters set out in regulations and rules made under the Act.

Division 5.1—Reporting requirements

55 Operation of this Division

For paragraph 106(3)(a) of the Act, this Division sets out reporting requirements for a plantation forest project or permanent planting project that is an eligible offsets project.

56 Information required in offsets reports

(1) An offsets report for a reporting period must include:
  (a) a map showing each CEA in the project area; and
  (b) the forest management plan as at the end of the reporting period; and
  (c) for the first offsets report under this determination—the forest management plan as at:
    (i) for a project with at least one CEA whose forest start date was before the beginning of the crediting period—the beginning of the crediting period; and
    (ii) for any other project—the forest start date for the CEA.

(2) If, in modelling a management action or disturbance event in FullCAM in accordance with the FullCAM guidelines, the project proponent specified a portion of a CEA affected by a FullCAM event, the offsets report must describe how the portion was estimated.

(3) If, in the circumstances described in paragraph 7(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.

(4) If a CEA, or part of a CEA, was removed from the project during the reporting period in accordance with section 20, the offsets report must include a summary of the evidence mentioned in subsection 20(1).

Division 5.2—Record-keeping requirements

57 Operation of this Division

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

58 Records relating to salvage harvesting

If salvage harvesting was undertaken in a CEA during a reporting period, the project proponent must make and keep records that evidence the salvage harvesting and its extent, and any ensuing product recovery.

59 Records relating to monitoring of management actions, natural disturbances and forest development condition

(1) The project proponent must make and keep records that:
  (a) result from the monitoring of management actions (section 62) and evidence the actions that were undertaken in each CEA; and
  (b) result from the monitoring of natural disturbances (section 63) and evidence each such event and its effect on each CEA; and
  (c) result from the monitoring of the forest development condition (section 64).

(2) For paragraphs (1)(a) and (b), the records may include date-stamped and geo-referenced remotely sensed imagery.

(3) For paragraph (1)(c), the records must include:
  (a) date-stamped and geo-referenced time-series ground-based photography; or
  (b) date-stamped and geo-referenced time-series remotely sensed imagery; or
  (c) permanent plot data.

60 Records relating to monitoring of management activities

The project proponent must make and keep the following:
  (a) records that result from the monitoring of risks and management activities identified in the forest management plan; and
  (b) records that evidence the management activities that were undertaken in each CEA.

Division 5.3—Monitoring requirements

61 Operation of this Division

For paragraph 106(3)(d) of the Act, this Division sets out monitoring requirements for a plantation forest project or permanent planting project that is an eligible offsets project.

62 Monitoring management actions

The project proponent must monitor management actions required or permitted for each CEA under this determination.

63 Monitoring natural disturbances

The project proponent must monitor any natural disturbance event that affects a CEA.

64 Monitoring forest development

The project proponent must undertake sufficient monitoring to assess whether the forest development condition is satisfied.

Part 6—Dividing a plantation forest project

65 No division of carbon estimation area

For subsection 77A(2) of the Act, the division of the overall project must not result in the division of:

(a) a CEA; or

(b) an area that was formerly a CEA for the project.

Schedule 1—Establishing new plantation forests

Part 1—New plantation project activity and additional eligibility requirements

1 The new plantation project activity

The following constitutes the ***new plantation project activity*** for this determination:

(a) planting or seeding to establish the land as a new plantation forest after the eligibility date for the land; and

(b) maintaining the plantation forest; and

(c) ensuring that:

(i) no rotation is longer than 60 years duration; and

(ii) as far as reasonably practicable, the periods between rotations are not more than 24 months.

2 Eligible land for new plantation project activity

Note: See section 12.

(1) For this determination, land in the project area is ***eligible land*** appropriate for the new plantation project activity if, on the eligibility date:

(a) there had been no relevant plantation on the land within the previous 7 years; and

(b) there had been no native forest on the land within the previous 7 years.

(2) In this clause:

relevant plantation means a plantation for the harvest of forest products that satisfies paragraph (a) to (d) of the definition of "plantation forest" in section 5.

Part 2—Additional stratification requirements

Note: See section 13.

3 Additional requirements for defining new plantation CEAs

(1) A new plantation CEA must be defined for the offsets report relating to the reporting period in which the planting or seeding for the first rotation occurs.

Note: See subsection 21(7) for when planting or seeding occurs.

(2) Subclause (1) does not apply in relation to a CEA created by re-stratification of an existing CEA.

Schedule 2—Converting an existing plantation forest from a short rotation to a long rotation

Part 1—Conversion project activity and additional eligibility requirements

1 Definitions for this Schedule

For this Schedule:

baseline rotation period, in relation to an area of land that is eligible land for the conversion project activity, is:

(a) if paragraph 3(c) of this Schedule applies (rotation underway)—the longer of:
  (i) the age of the rotation on the eligibility date; and
  (ii) the rotation period of the last rotation that was completed before the eligibility date; and
  (iii) for an SR species for the land—the default clearfell age shown in the table in Part 1 of Schedule 6 for that species; and
  (iv) for any other species—15 years;

(b) if paragraph 3(d) of this Schedule applies (no rotation underway)—the longer of:
  (i) the rotation period of the last rotation that was completed before the eligibility date; and
  (ii) for an SR species for the land —the default clearfell age shown in the table in Part 1 of Schedule 6 for that species; and
  (iii) for any other species—15 years.

inner tree, on an area of land in a rotation of a plantation forest, means a tree that is not at the edge of the area that was planted, seeded or coppiced for that rotation.

long rotation: a rotation in a plantation forest on a particular area of land is a ***long rotation*** if:

(a) the plantation forest is thinned or pruned after the starting date for the rotation; and
(b) the rotation period is at least 10 years longer than the baseline rotation period for the area of land.

Note: Subsection 23(4) imposes a maximum rotation period.

LR species (for "long rotation species"), for land in a national plantation inventory region, means a species listed in Part 2 of Schedule 6 for that region.

pruned: an area of land in a rotation of a plantation forest is ***pruned*** if:

(a) all branches from the tree stem up to a minimum height of 2 metres are removed from a number of inner trees across the area; and
(b) that number is more than 15% of the number of inner trees that existed in the area after the planting, seeding or coppicing that commenced the rotation.

Note: Branches may be removed from the trees growing around the edge of the area that was planted, seeded or coppiced for the rotation without the area being ***pruned*** within this meaning.

Note: This is a restrictive definition for the purposes of eligibility for conversion only. The management action 'pruning' includes a wider range of actions —see paragraph 21(1)(f) and subsection 21(3).

qualified independent person: a person who makes a statement for this Schedule is a ***qualified independent person*** if, at the time the statement is made, they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to provide an opinion for paragraph 6(a)(iii) or 6(b)(ii) of this Schedule; and

(b) have no financial interest in the project.

Note: A person does not have a financial interest in the project merely because they are being paid to review the forest management plan.

short rotation: a rotation in a plantation forest on a particular area of land is a ***short rotation*** at a particular date if:

(a) the following apply:

(i) the rotation used an SR species for the land; and

(ii) neither of the following exceeds the maximum clearfell age for the species given in Part 1 of Schedule 6:

(A) for a rotation that is underway at that date—the age of the rotation at that date;

(B) for a rotation that has been completed before that date—length of the rotation; or

(b) the following apply:

(i) the rotation used a UR species for the land;

(ii) neither of the following exceeds the maximum clearfell age for any species given in Part 1 of Schedule 6:

(A) for a rotation that is underway at that date—the age of the rotation at that date;

(B) for a rotation that has been completed before that date—length of the rotation.

SR species (for "short rotation species"), for land in national plantation inventory region, means a species listed in Part 1 of Schedule 6 for that region.

thinned:

(a) an area of land in a rotation of a plantation forest that was started by planting or seeding is ***thinned*** if:

(i) a number of trees (whether or not inner trees) have been felled or removed from across the area since the completion of the planting or seeding; and

(ii) that number is more than 15% of the number of trees in the area at the time of that completion; and

(b) an area of land in a rotation of a plantation forest that was started by coppicing is ***thinned*** if:

(i) for a number of coppiced trees across the area (whether or not inner trees), either:

(A) all stems were removed at a time less than 4 years after the start of the rotation; or

(B) stems have been removed at a time 4 years or more after the start of the rotation; and

(ii) that number is more than 15% of the original number of coppiced trees in the area.

Note: This is a restrictive definition for the purposes of eligibility for conversion only. The management action 'thinning' has the meaning given in the FullCAM guidelines—see subsection 21(3).

UR species (for "undetermined rotation species"), for land in national plantation inventory region, means a species not listed in either Part 1 or Part 2 of Schedule 6 for that region.

2 The conversion project activity

The following constitutes the ***conversion project activity*** for this determination:

(a) doing one of the following:
  (i) where no rotation was in progress on the eligibility date—making the first rotation after the eligibility date a long rotation;
  (ii) where a short rotation was underway on the eligibility date:
    (A) completing that rotation, and making the following rotation a long rotation; or
    (B) making that rotation instead into a long rotation; and

(b) maintaining the plantation forest; and

(c) ensuring that:
  (i) every subsequent rotation is a long rotation using a LR or UR species; and
  (ii) as far as reasonably practicable, the periods between rotations are not more than 24 months.

(d) if, for subparagraph (c)(i), a UR species is used, the requirements in clause 6 are met.

3 Eligible land for conversion project activity

Note: See section 12.

For this determination, an area of land in the project area is ***eligible land*** appropriate for the conversion project activity if, on the eligibility date:

(a) the land was not part of the project area of an eligible offsets project; and

(b) either:
  (i) the land was within a national plantation inventory region; or
  (ii) no part of the land was further than 100km from the nearest national plantation inventory region; and

(c) if a rotation of a plantation forest was underway on the land:
  (i) the rotation was a short rotation; and
  (ii) the plantation forest had not been thinned or pruned during the rotation, other than where subclause 5(1) or (2) applies; and
  (iii) if the species was a UR species for the land, the requirements in clause 6 are met; and

(d) if no rotation of a plantation forest was underway on the land:
  (i) in the 7 years prior to the eligibility date, a rotation of a plantation forest had been completed on the land; and
  (ii) that rotation was a short rotation; and

(e) during the 7 years prior to the eligibility date, the land had not been used other than:
  (i) as a plantation forest with a short rotation; or
  (ii) as land with no plantation forest; and

(f) the following applied:
  (i) the land had not, within the previous seven years, been cleared of native forest; and

(ii) native forest would not need to be cleared for a project to be conducted.

4 Evidence required in application

For paragraph 10(3)(c) of this determination, the evidence to be provided in the application must include management records of any rotation underway on the eligibility date and any previous rotation relied on under paragraph 3(d) of this Schedule or clause 6.

5 Requirements for thinning or pruning

(1) For subparagraph 3(c)(ii) of this Schedule, this subclause applies if, while the thinning or pruning was being undertaken, the land was within a region:

(a) declared to be a drought affected region by a state or territory body; or

(b) recorded on the Bureau of Meteorology's 24-month recent and historical rainfall map as having a rainfall percentile ranking as:

(i) serious deficiency; or

(ii) severe deficiency; or

(iii) lowest on record.

Note: As of December 2021, the Bureau of Meteorology's 24-month drought map was available at: http://www.bom.gov.au/jsp/awap/rain/index.jsp?colour=colour&time=latest&step=0&map=drought&period=24month&area=nat

Note: As of December 2021, the Bureau of Meteorology's website included the following definitions:
Serious rainfall deficiency: rainfall lies above the lowest five per cent of recorded rainfall but below the lowest ten per cent (decile range 1) for the period 1900-present,
Severe rainfall deficiency: rainfall is among the lowest five per cent for the period 1900-present.

(2) For subparagraph 3(c)(ii) of this Schedule, this subclause applies if the thinning or pruning conducted was necessary for ecological purposes or drought resilience purposes.

6 Requirements for UR species

(1) This clause sets the requirements for paragraph 2(d) and subparagraph 3(c)(iii) of this Schedule.

(2) For subparagraph 3(c)(iii), if a rotation of a UR species has been completed or is underway, one of the following requirements must be met:

(a) spatially explicit data demonstrates that, within the previous 10 years, at least one rotation of a plantation forest has been completed on the land using the same species and that rotation was a short rotation; or

(b) spatially explicit data demonstrates that:

(i) the same species has been harvested from a plantation forest within 100km of the land within the previous 10 years; and

(ii) the rotation for that plantation forest was a short rotation; or

(c) a qualified independent person certifies in a statement that the person is of the opinion that growing a long rotation of that species is not commercially viable in the baseline scenario.

(3) For paragraph 2(d), if the project proponent proposes to utilise a UR species in a following rotation, one of the following requirements must be met:

(a) spatially explicit data demonstrates that:

(i) the same species has been harvested from a plantation forest within 100km of the land within the previous 10 years; and

(ii) the rotation for that plantation forest was a long rotation; or

(b) a qualified independent person certifies in a statement that the person is of the opinion that growing a long rotation of that species is not commercially viable in the baseline scenario.

(4) If paragraph (2)(b) or (c) or (3)(a) or (b) applies—the chief executive officer or chief financial officer (however described) of the project proponent must also provide a signed declaration confirming their intended management regime for the default baseline management regime and current management regiment, as applicable, which is using a UR species.

Part 2—Additional stratification requirements

7 Additional requirements for defining conversion CEAs

Note: See section 13.

No rotation underway on eligibility date

(1) If no rotation was under way on the eligibility date, a conversion CEA must be defined for the offsets report relating to the first reporting period during which planting, seeding or coppicing for a new rotation occurs, but not for an earlier offsets report.

(2) The planting, seeding or coppicing must use:

(a) an LR species for the land; or

(b) a UR species for the land.

Rotation underway on eligibility date

(3) If a rotation was under way on the eligibility date, a conversion CEA must be defined for the offsets report relating to the first reporting period.

Part 3—Management regimes

8 The default baseline management regime (conversion CEA)

(1) For this determination, the ***default baseline management regime*** for a conversion CEA is the management regime for the CEA that is specified by the elements indicated in the following table:

		Default baseline management regime	
Item	**Element of management regime**	**If a rotation was not in progress on the eligibility date:**	**If a rotation was in progress on the eligibility date:**
1	Choice of species	The choice of species that was applied in the last rotation that was completed before the eligibility date (the ***completed*** rotation)	The choice of species that was applied, prior to the eligibility date, in the rotation that was in progress on the eligibility date (the ***ongoing*** rotation)
2	Rotation period	The baseline rotation period	The baseline rotation period

Default baseline management regime			
Item	**Element of management regime**	**If a rotation was not in progress on the eligibility date:**	**If a rotation was in progress on the eligibility date:**
3	Management actions	Whichever of the following applies: (a) if there were no disturbance events in the completed rotation—the management actions that were applied in the completed rotation; (b) if there were one or more disturbance events in the completed rotation—the management actions that would have been applied in the normal course of the completed rotation	Whichever of the following applies: (a) if, before the eligibility date, there were no disturbance events in the ongoing rotation—the following: (i) the management actions that were applied in the rotation before the eligibility date; (ii) the management actions that would have been applied in the normal course of the rotation after the eligibility date; (b) if, before the eligibility date, there were one or more disturbance events in the ongoing rotation—the management actions that would have been applied in the normal course of the ongoing rotation
4	Disturbance events	None	None.

(2) For this clause, a set of management actions is taken to be one that would have been applied in the normal course of a rotation if it can be demonstrated that:

(a) the actions were taken at the corresponding stages of previous rotations of the plantation, in circumstances that were not unusual; or

(b) they are commonly taken in such plantations in the region at those stages of the rotation.

Schedule 3—Avoiding conversion of a plantation to non-forested land by continuing plantation project activity

Part 1—Eligibility requirements for project activity

1 The continuing plantation project activity

The following constitutes the ***continuing plantation project activity*** for this determination:

(a) conducting one of the following activities:

(i) planting, seeding or coppicing to establish the land as an ongoing plantation forest after the eligibility date for the land; or

(ii) managing an existing plantation forest until harvest and planting, seeding or coppicing to establish that land as an ongoing plantation forest; and

(b) maintaining the plantation forest; and

(c) ensuring that:

(i) no rotation is longer than 60 years duration; and

(ii) as far as reasonably practicable, the periods between rotations are not more than 24 months.

2 Eligible land for continuing plantation project activity

Note: See section 12.

(1) Subject to subclause 2, for this determination, land in the project area is ***eligible land*** for the continuing plantation project activity if, on the eligibility date:

(a) it satisfies a plantation forest requirement in clause 3; and

(b) it satisfies a non-continuation requirement in clause 4; and

(c) it satisfies the native forest requirement in clause 5; and

(d) no part of the land is further than 50km from the nearest national plantation inventory region.

(2) Land in the project area is not ***eligible land*** for the continuing plantation project activity if:

(a) the crediting period for the project began before 31 January 2022; and

(b) the eligibility date for the land is on or after 31 January 2022.

3 Plantation forest requirements

(1) The first ***plantation forest requirement*** is that:

(a) there is plantation forest on the land; and

(b) within 2 years, it will be older than the relevant default clearfell age.

(2) The second ***plantation forest requirement*** is that:

(a) there was plantation forest on the land within the previous 7 years that was harvested before 26 October 2021; or

(b) there was plantation forest on the land within the previous 7 years that:

(i) was harvested after 26 October 2021; and

(ii) at the time of harvest was older than the relevant default clearfell age for that species and region less 2 years.

(3) For this clause, the ***relevant default clearfell age*** is:

(a) if the relevant species is listed for the region in whichever of Part 1 or Part 2 of Schedule 6 is appropriate in relation to the rotation under the current management regime—the clearfell age listed; and

(b) otherwise—the clearfell age listed for that species and region in Part 3 of Schedule 6.

(4) For this clause, if the table in Part 3 of Schedule 6 lists both a "default clearfell age – short rotation" and "default clearfell age-long rotation" for a species, the applicable default clearfell age is:

(a) if the rotation under the current management regime for the species is a short rotation within the meaning of clause 1 of Schedule 2—the "default clearfell age – short rotation" listed for that species; and

(b) if the rotation under the current management regime for the species is a long rogation within the meaning of clause 1 of Schedule 2—the "default clearfell age – long rotation" for that species.

4 Non-continuation requirement

(1) The first ***non-continuation requirement***, which may apply if:

(a) the land satisfies the first plantation forest requirement; and

(b) there has been no change in the ownership of the land in the previous 12 months;

is that if the land were not part of the project, it would be converted to a viable non-forested land use within 24 months.

(2) The second ***non-continuation requirement***, which may apply if:

(a) the land satisfies the second plantation forest requirement; and

(b) there has been no change in the ownership of the land in the previous 12 months;

is that if the land were not part of the project, forest would not be re-established on the land.

(3) The third ***non-continuation requirement***, which may apply if:

(a) the land satisfies the first or second plantation forest requirement; and

(b) there has been a change in the ownership of the land in the previous 12 months;

is that the new owner made the change with the intention of changing the land use of the project relative to the previous owners or tenants.

(4) For this clause:

(a) a reference to a change in ownership includes a change in tenancy where the new lessee has a lease whose duration is no less than the project's permanence period; and

(b) a reference to the new owner includes a reference to the new lessee in the case covered by paragraph (a).

5 Native forest requirement

The native forest requirement is that the land:

(a) has not, within the previous seven years, been cleared of native forest; and

(b) native forest would not need to be cleared for a project to be conducted.

6 Evidence relating to non-continuation requirement

(1) For paragraph 10(3)(c) of this determination, if the first, second or third non-continuation requirement is relied on, the evidence to be provided must include:

(a) a declaration by the chief executive officer or chief financial officer (however described) of the project proponent that the land satisfies the relevant requirement; and

(b) if the first or second non-continuation requirement is relied on, a statement detailing how the requirement is satisfied, including an explanation of:

(i) why the land will be converted to a viable non-forest land use within 24 months or forest would not be re-established on the land, as applicable; and

(ii) the land use that would apply to the land if it were not part of the project; and

(iii) how financial and other broader strategic considerations have influenced subparagraphs (i) and (ii); and

(iv) why the plantation would not have been converted to a plantation with a long rotation within the meaning of clause 1 of Schedule 2, even if revenue from Australian carbon credit units from undertaking a conversion project is taken into account; and

(c) if the third non-continuation requirement is relied on, a statement detailing how the requirement is satisfied, including an explanation of:

(i) how the new tenant or owner intends to change the land use relative to what it would have been under the previous owner or tenant; and

(ii) how financial and other broader strategic considerations have influenced subparagraph (i).

(2) The statement and declaration must be informed by a financial assessment prepared or reviewed by a qualified independent person within 12 months of the relevant application, which is also attached to the statement, that:

(a) demonstrates that in the absence of the scheme, the plantation forest is likely to convert to a feasible non-forest land use that is financially attractive relative to continuing the plantation; and

(b) demonstrates that with projected revenue from Australian carbon credit units and harvesting, the proponent expects to receive enough revenue to continue the continuing plantation project activity for the entirety of the permanence period; and

(c) is informed by a discounted cash flow analysis of continuing the plantation that extends for at least 25 years; and

(d) if the first or second non-continuation requirement is relied on—is informed by a land valuation made by a qualified independent valuer within 12 months of the relevant application, which is also attached to the statement; and

(e) if the third non-continuation requirement is relied on—is informed by the sale price or cost of the lease, which is also attached to the statement.

(3) For subclause (2), a person is a ***qualified independent person*** if they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to prepare or review a financial assessment for subclause (2); and

(b) have no financial interest in the project.

Note: A person does not have a financial interest in the project merely because they are being paid to prepare or review the financial assessment.

(4) For paragraph (2)(d), a person is a ***qualified independent valuer*** if they:

(a) hold qualifications, determined by the Regulator to be necessary to hold, to prepare land valuations for paragraph (2)(d); and

(b) have no financial interest in the project.

Note: A person does not have a financial interest in the project merely because they are being paid to prepare a land valuation.

Part 2—Additional stratification requirements

Note: See section 13.

7 Additional requirements for defining continuing CEAs

(1) A continuing plantation CEA must be defined for the offsets report relating to the first reporting period after the eligibility date.

(2) Subclause (1) does not apply in relation to a CEA created by re-stratification of an existing CEA.

Schedule 4—Transitioning to a permanent planting

Part 1—Eligibility requirements for project activity

1 The permanent planting project activity

(1) The following, which may apply whether or not there is plantation forest on the land at the eligibility date, constitutes the ***permanent planting project activity A*** for this determination:

(a) planting, seeding or coppicing as necessary to establish the land as a permanent planting with a stocking density of at least 200 stems per hectare; and

(b) maintaining the permanent planting.

Note: Planting, seeding or coppicing may not be necessary on areas of remnant plantation forest.

(2) The following, which may apply only if there was plantation forest on the land at the eligibility date, constitutes the ***permanent planting project activity B*** for this determination:

(a) maintaining the plantation for a period; and

(b) conducting, before the end of the crediting period for the project, a clearfell, with or without harvest; and

(c) planting, seeding or coppicing as necessary to establish the land as an environmental planting with a stocking density of at least 200 stems per hectare; and

(d) maintaining the environmental planting as a permanent planting.

2 Eligible land for permanent planting project activity

Note: See section 12.

(1) For this determination, land in the project area is ***eligible land*** for the permanent planting project activity A if, on the eligibility date:

(a) it satisfies a plantation forest requirement in clause 3; and

(b) it satisfies a non-continuation requirement in clause 4; and

(c) it satisfies the native forest requirement in clause 5.

(2) For this determination, land in the project area is ***eligible land*** for the permanent planting project activity B if, on the eligibility date:

(a) it satisfies the first plantation forest requirement in clause 3; and

(b) it satisfies a non-continuation requirement in clause 4; and

(c) it satisfies the native forest requirement in clause 5.

3 Plantation forest requirements

(1) The first ***plantation forest requirement*** is that there is plantation forest on the land.

(2) The second ***plantation forest requirement*** is that there was plantation forest on the land within the previous 7 years.

(3) The third ***plantation forest requirement*** is that, in the 7 years before the eligibility date:

(a) there had previously been plantation forest on the land; and

(b) the plantation had ceased to satisfy paragraph (e) of the definition of plantation forest; and

(c) there had been no other use of the land since the plantation ceased to satisfy that paragraph.

Note: Paragraph (e) of the definition of plantation forest requires the land to be managed in a way consistent with an intention to maintain a plantation forest.

4 Non-continuation requirements

(1) The first ***non-continuation requirement***, which may apply if:

(a) the land satisfies the first plantation forest requirement; and

(b) there has been no change in the ownership of the land in the previous 12 months;

is that if the land were not part of the project, it would be converted to a viable non-forested land use within 24 months.

(2) The second ***non-continuation requirement***, which may apply if:

(a) the land satisfies the second or third plantation forest requirement; and

(b) there has been no change in the ownership of the land in the previous 12 months;

is that if the land were not part of the project, forest would not be re-established on the land.

(3) The third ***non-continuation requirement***, which may apply if:

(a) the land satisfies the first, second or third plantation forest requirement; and

(b) there has been a change in the ownership of the land in the previous 12 months;

is that the new owner made the change with the intention of changing the land use of the project relative to the previous owners or tenants.

(4) The fourth ***non-continuation requirement***, which may apply in any case, is that:

(a) the land is unable to be continued as, or to be replanted and used as a plantation forest as a result of a Federal, State or Territory government regulation; and

(b) an environmental planting is permitted to be planted but not required to be planted on that land; and

(c) the land is unlikely to regenerate to forest cover.

(5) For this clause:

(a) a reference to a change in ownership includes a change in tenancy where the duration of the new lessee has a lease whose duration is no less than the project's permanence period; and

(b) a reference to the new owner includes a reference to the new lessee in the case covered by paragraph (a).

5 Native forest requirement

The native forest requirement is that the land:

(a) has not, within the previous seven years, been cleared of native forest; and

(b) native forest would not need to be cleared for a project to be conducted.

6 Evidence relating to non-continuation requirement

(1) For paragraph 10(3)(c) of this determination, if the first, second or third non-continuation requirement is relied on, the evidence to be provided must include:

(a) a declaration by the chief executive officer or chief financial officer (however described) of the project proponent declaring that the land satisfies the relevant requirement; and

(b) if the first or second non-continuation requirement is relied on—a statement detailing how the requirement is satisfied, including an explanation of:
  (i) why the land will be converted to a viable non-forest land use within 24 months or forest would not be re-established on the land, as applicable; and
  (ii) the land use that would apply to the land if it were not part of the project; and
  (iii) how financial and other broader strategic considerations have influenced subparagraphs (i) and (ii); and
(c) if the third non-continuation requirement is relied on—a statement detailing how the requirement is satisfied, including an explanation of:
  (i) how the new owner intends to change the land use relative to the previous owner or tenant; and
  (ii) how financial and other broader strategic considerations have influenced subparagraph (i); and
(d) if the fourth non-continuation requirement is relied on:
  (i) a letter from a State or Territory government agency confirming the circumstances set out in paragraph 4(4)(c) of this Schedule; and
  (ii) a statement detailing why the requirement in paragraph 4(4)(c) is met.

(2) The statement and declaration must be informed by a financial assessment prepared or reviewed by a qualified independent person within 12 months of the relevant application, which is also attached to the statement, that:
(a) demonstrates that in the absence of the scheme, the plantation forest is likely to convert to a feasible non-forest land use that is financially attractive relative to continuing the plantation; and
(b) demonstrates that with projected revenue from Australian carbon credit units and harvesting, the proponent expects to receive enough revenue to continue the permanent planting project activity for the entirety of the permanence period; and
(c) is informed by a discounted cash flow analysis of continuing the plantation that extends for at least 25 years; and
(d) if the first or second non-continuation requirement is relied on—is informed by a land valuation made by a qualified independent valuer within 12 months of the relevant application, which is also attached to the statement; and
(e) if the third non-continuation requirement is relied on—is informed by the sale price or cost of the lease, which is also attached to the statement.

(3) For this clause, a person is a ***qualified independent person*** if they:
(a) hold qualifications, determined by the Regulator to be necessary to hold, to prepare or review a financial assessment for subclause (2); and
(b) have no financial interest in the project.
Note: A person does not have a financial interest in the project merely because they are being paid to prepare or review the financial assessment.

(4) For paragraph (2)(d), a person is a ***qualified independent valuer*** if they:
(a) hold qualifications, determined by the Regulator to be necessary to hold, to prepare land valuations for paragraph (2)(d); and
(b) have no financial interest in the project.
Note: A person does not have a financial interest in the project merely because they are being paid to prepare a land valuation.

Part 2—Additional stratification requirements

Note: See section 13.

7 Additional requirements for defining ex-plantation CEAs

(1) An ex-plantation CEA must be defined for the offsets report relating to the first reporting period after the eligibility date.

(2) Subclause (1) does not apply in relation to a CEA created by re-stratification of an existing CEA.

Schedule 5—CEAs transferring unchanged from former determination

1 Application of Schedule

(1) This Schedule applies in relation to a project:
  (a) that was a plantation forest project to which the former determination applied; and
  (b) to which this determination applies because of a declaration under section 130 of the Act.

(2) For this Schedule:
  (a) the ***former determination*** is the *Carbon Credits (Carbon Farming Initiative—Plantation Forestry) Methodology Determination 2017*; and
  (b) the ***declaration day*** for the project is the day on which the relevant section 130 declaration took effect; and
  (c) ***existing***, of a CEA of the project, means that:
    (i) it was a new plantation CEA or a conversion CEA of the project under the former determination; and
    (ii) it was in existence immediately before the declaration day.

2 Allocation of existing CEA to continue the previous project activity

For subsection 10(3) of this determination, the allocation of:
  (a) an existing new plantation CEA to the new plantation project activity under this determination; or
  (b) an existing conversion CEA to the conversion project activity under this determination;

may be made by:
  (c) specifying the CEA; and
  (d) specifying that it will remain a CEA of that type under this determination.

3 Effect of allocation

(1) Where an allocation is made in accordance with this Schedule, the CEA is taken to have been established on eligible land in accordance with this determination, with the:
  (a) eligibility date; and
  (b) baseline rotation period; and
  (c) management record;

that it had under the former determination.

(2) Where this determination imposes a requirement in relation to the CEA by reference to a species listed, or not listed, in relation to the land in Part 1 or Part 2 of Schedule 6, the proponent may choose to comply with the requirement as if it referred instead to a species listed, or not listed, in relation to the land in Part 1 of Schedule 1, or Schedule 2, of the former determination respectively.

Schedule 6—Species lists

Part 1—Species presumed to have a short rotation

Note: This Part is relevant to the definitions of ***short rotation*** and ***SR species*** (see clause 1 of Schedule 2) and to the plantation forest requirements in clause 3 of Schedule 3.

National plantation inventory region	Species	Maximum clearfell age (years)	Default clearfell age (years)
East Gippsland - Bombala	*Eucalyptus nitens*	21	12
East Gippsland - Bombala	*Eucalyptus globulus*	21	12
Central Gippsland	*Eucalyptus regnans*	21	12
Central Gippsland	*Eucalyptus nitens*	21	12
Central Gippsland	*Eucalyptus globulus*	21	12
Central Victoria	*Eucalyptus nitens*	21	12
Central Victoria	*Eucalyptus globulus*	21	12
Green Triangle	*Eucalyptus globulus*	21	12
Mount Lofty Ranges and Kangaroo Island	*Eucalyptus globulus*	21	12
Murray Valley	*Eucalyptus globulus*	21	13
Northern Territory	*Santalum album*	21	15
Northern Territory	*Pinus caribaea*	21	13
Northern Territory	*Callitris intratropica*	21	12
Northern Territory	*Acacia mangium*	21	8
North Queensland	*Santalum album*	21	15
South East Queensland	*Eucalyptus dunnii*	21	12
Tasmania	*Eucalyptus globulus*	21	10
Western Australia	*Santalum album*	21	15
Western Australia	*Eucalyptus astringens*	21	12
Western Australia	*Eucalyptus loxophleba*	21	12
Western Australia	*Eucalyptus globulus*	21	12

Part 2—Species presumed to have a long rotation

Note: This Part is relevant to the definition of ***LR species*** (see clause 1 of Schedule 2) and to the plantation forest requirements in clause 3 of Schedule 3.

National plantation inventory region	Species	Default clearfell age (years)
East Gippsland –	*Pinus radiata*	30

National plantation inventory region	Species	Default clearfell age (years)
Bombala		
East Gippsland – Bombala	*Pinus pinaster*	30
Central Gippsland	*Pinus radiata*	30
Central Gippsland	*Pinus pinaster*	30
Central Tablelands	*Pinus radiata*	30
Central Tablelands	*Pinus pinaster*	30
Central Victoria	*Pinus radiata*	30
Central Victoria	*Pinus pinaster*	30
Central Victoria	*Eucalyptus cladocalyx*	27
Green Triangle	*Pinus radiata*	30
Green Triangle	*Pinus pinaster*	30
Mount Lofty Ranges and Kangaroo Island	*Pinus radiata*	30
Mount Lofty Ranges and Kangaroo Island	*Pinus pinaster*	30
Murray Valley	*Pinus radiata*	30
Murray Valley	*Pinus pinaster*	30
North Coast	*Eucalyptus pilularis*	45
North Coast	*Corymbia maculata*	45
North Coast	*Eucalyptus grandis*	45
North Coast	*Eucalyptus aggregata*	45
North Coast	*Eucalyptus cloeziana*	45
North Coast	*Eucalyptus lavaeopinea*	45
North Coast	*Eucalyptus saligna*	45
North Coast	*Araucaria cunninghamii*	50
North Coast	*Pinus radiata*	30
North Coast	*Pinus pinaster*	30
North Coast	*Pinus taeda*	30
North Coast	*Pinus elliottii*	30
North Coast	*Pinus caribaea x Pinus elliottii*	30
North Queensland	*Araucaria cunninghamii*	50
North Queensland	*Pinus elliottii*	30
North Queensland	*Pinus caribaea*	30
North Queensland	*Pinus Caribaea x Pinus elliottii*	30
Northern Tablelands	*Pinus elliottii*	30
Northern Tablelands	*Pinus radiata*	30
Northern Tablelands	*Pinus pinaster*	30
Northern Territory	*Khaya senegalensis*	25

National plantation inventory region	Species	Default clearfell age (years)
South East Queensland	*Araucaria cunninghamii*	50
South East Queensland	*Eucalyptus argophloia*	45
South East Queensland	*Eucalyptus cloeziana*	45
South East Queensland	*Pinus caribaea*	30
South East Queensland	*Pinus elliottii*	30
South East Queensland	*Pinus Caribaea x Pinus elliottii*	30
South East Queensland	*Corymbia citriodora*	30
Southern Tablelands	*Pinus radiata*	30
Northern Tablelands	*Pinus pinaster*	30
Western Australia	*Pinus pinaster*	30
Western Australia	*Pinus radiata*	30

Part 3—Clearfell ages for plantation forest requirements

Note: This Part is relevant to the plantation forest requirements in clause 3 of Schedule 3.

NPI Region(s)	Species	Default clearfell age – short rotation	Default clearfell age – long rotation
All	*Acacia mangium*	13	
All	*Araucaria cunninghamii*		48
All	*Callitris intratropica*	15	40
All	*Corymbia citriodora*		41
All except Western Australia	*Corymbia maculata*		33
Western Australia	*Corymbia maculata*	15	33
All	*Corymbia variegata*		45
All	*Eucalyptus aggregata*		35
All	*Eucalyptus argophloia*		30
All	*Eucalyptus astringens*	13	
All	*Eucalyptus botryoides*	13	
All	*Eucalyptus camaldulensis*	13	35
All	*Eucalyptus cladocalyx*	13	45
All	*Eucalyptus cloeziana*		35
All	*Eucalyptus dunnii*	15	35
All	*Eucalyptus globulus*	12	25
All	*Eucalyptus grandis*		45
All	*Eucalyptus lavaeopinea*		35
All	*Eucalyptus nitens*	12	25

NPI Region(s)	Species	Default clearfell age – short rotation	Default clearfell age – long rotation
All	*Eucalyptus obliqua*	13	
All	*Eucalyptus pilularis*		35
All	*Eucalyptus regnans*	15	50
All except Western Australia	*Eucalyptus saligna*	13	35
Western Australia	*Eucalyptus saligna*	15	35
All	*Eucalyptus spp.*	13	35
All	*Khaya senegalensis*		25
All	*Pinus caribaea*		30
All	*Pinus elliottii*		30
All	*Pinus elliottii x Pinus caribaea*		30
All	*Pinus pinaster*		40
All except Tasmania	*Pinus radiata*		30
Tasmania	*Pinus radiata*	20	30
All	*Pinus taeda*		33
All	*Santalum album*	*15*	