



# **Carbon Credits (Carbon Farming Initiative—Tidal Restoration of Blue Carbon Ecosystems) Methodology Determination 2022**

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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

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# Part 1—Preliminary

## 1 Name

This is the *Carbon Credits (Carbon Farming Initiative—Tidal Restoration of Blue Carbon Ecosystems) Methodology Determination 2022*.

## 2 Commencement

This determination commences on the day after it is registered.

## 3 Authority

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

## 4 Duration

This determination remains in force for the period that:

- (a) begins when this instrument commences; and
- (b) unless this determination is sooner revoked, ends on the day before this instrument would otherwise be repealed under subsection 50(1) of the *Legislation Act 2003*.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:

***acid sulfate soils management plan***, in relation to a tidal restoration project, means a plan that:

- (a) is:
  - (i) required by any applicable State, Territory or Commonwealth laws; or
  - (ii) recommended by any State, Territory or Commonwealth government body or agency or any local government authority; and
- (b) outlines the actions to be taken to manage the risks arising from disturbance of land containing acid sulphate soils by any eligible project activities for the project.

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

***aquaculture activities*** means the cultivation of freshwater, brackish and saltwater populations of animals or algae under controlled conditions, but excludes the wild catching of marine and freshwater animals.

Note: This definition excludes recreational line fishing and crabbing for personal use, but includes the cultivation of animals or algae in fish, shrimp, farm or stock ponds or tanks.

***baseline period*** means the 7 years immediately before the section 22 application or section 29 application relating to a project area.

***BlueCAM*** means the ‘Blue Carbon Accounting Model’ that is available from the Regulator’s website, as in force from time to time.

Note: In January 2022, BlueCAM could be viewed on the Clean Energy Regulator’s website (<http://www.cleanenergyregulator.gov.au>).

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

Note: In January 2022, the BlueCAM guidelines could be viewed on the Regulator’s website (<http://www.cleanenergyregulator.gov.au>)

**BlueCAM region** means a region defined in the BlueCAM guidelines, for which BlueCAM provides modelled estimates of greenhouse gases and carbon stock for above and below ground live biomass and soil for coastal wetland ecosystems located within that region.

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

**carbon estimation area** or **CEA** means an area of land in a project area, that meets the requirements in section 22.

**clearing** means:

- (a) the conversion, caused by people, of land with forest cover to land without forest cover; or
- (b) the conversion, caused by people other than by planting or seeding, of land with a coastal wetland ecosystem to a land type other than the coastal wetland ecosystem that existed immediately prior to the conversion.

**coastal wetland vegetation** means the vegetation of a coastal wetland ecosystem.

**coastal wetland ecosystem** means any of the following:

- (a) supratidal forest;
- (b) saltmarsh;
- (c) sparsely vegetated saltmarsh (saltflats);
- (d) mangroves;
- (e) seagrass;
- (f) other coastal wetland ecosystem.

Note: A coastal wetland ecosystem can be vegetated or unvegetated.

**crediting period tidal inundation map**, in relation to a tidal restoration project, means a map that:

- (a) identifies the projected spatial extent of land that will become impacted land for the project, as at the end of 32 years from a date which is not more than 24 months before the date of the section 22 application for the project; and
- (b) is prepared in accordance with the Supplement; and
- (c) is part of a hydrological assessment for the project.

**cropping land** means land that is used to grow crops.

**drainage channels** means brackish or freshwater drains or ditches created for the drainage of land for agricultural purposes, such as growing sugarcane.

**drainage infrastructure** means a drain, channel or ditch on any land that serves as a passageway for water moving from one area of land to another area of land.

Note: A drainage infrastructure that is used, removed, modified, installed or constructed for a tidal restoration project must be taken into account in the preparation or revision of a map forming part of a hydrological assessment for the project.

**ecosystem transition** means a change in a land type that occurs due to changes in the hydrology of the landscape, including because of sea level rise.

Note: Examples of ecosystem transition include grassland transitioning to saltmarsh, mangrove or saltflats; supratidal forest transitioning to mangroves or saltmarsh.

**eligible land**—see section 9.

**eligible project activities**—see subsection 7(2).

**environmental coastal wetland planting** means seeding or planting of plants or propagules that consist of:

- (a) species that are:
  - (i) native to the local area of the seeding or planting; and
  - (ii) sourced from the natural resource management region or regions of the project area for a tidal restoration project in which the seeding or planting occurs; and
- (b) a mix of species that reflects the structure and composition of the local native community for the type of coastal wetland ecosystem being established by the project.

**excavation activities** means the excavation or disturbance of soil.

**existing drainage infrastructure** means drainage infrastructure that has been installed or constructed on any land before the baseline period for the land has ended.

**existing infrastructure** means an object, device or structure on any land that:

- (a) is not a drainage infrastructure; and
- (b) has been installed or constructed during the baseline period for the land; and
- (c) impedes, reduces, restricts or prevents inundation of other land by tidal flows, when used for that purpose.

**fertiliser** means any synthetic or non-synthetic substance that supplies key chemical elements to plants and soils to enhance plant growth and the fertility of soils.

**flooded agricultural land, managed wet meadow or pasture** means land that is:

- (a) flooded for all or part of a year; and
- (b) used for agricultural or pastoral purposes; and
- (c) meets the requirements of the BlueCAM guidelines.

**forest cover**: land has **forest cover** if:

- (a) the land has an area of at least 0.2 of a hectare; and
- (b) the land has trees that:
  - (i) are 2 metres or more in height; and
  - (ii) provide crown cover over at least 20% of the land.

**forest land** means land with forest cover that is not a supratidal forest or mangrove.

**fuel emissions**, in relation to a tidal restoration project, means emissions of carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) arising from the use of fossil fuels in relation to:

- (a) carrying out eligible project activities for the project; or
- (b) monitoring the project.

**grazing land** means land that is used for grazing of production livestock.

**highest astronomical tide mark** means the highest tide level which can be predicted to occur under average meteorological conditions and any combination of astronomical conditions.

**hydrological assessment**, in relation to a tidal restoration project, means an assessment of the hydrological consequences of the eligible project activities implemented or to be implemented for the project that includes:

- (a) a project start tidal inundation map; and
- (b) a permanence period tidal inundation map; and
- (c) if the project is a 100-year permanence period project—a crediting period tidal inundation map.

**impacted land**, in relation to a tidal restoration project, means land that experiences tidal introduction relating to the eligible project activities implemented for the project.

**intertidal zone** means an area between an ocean or sea and dry land that is between:

- (a) the highest astronomical tide mark; and
- (b) the lowest astronomical tide mark.

**land type**: each of the following is a land type:

- (a) cropping land;
- (b) drainage channels;
- (c) flooded agricultural land, managed wet meadow or pasture;
- (d) forest land;
- (e) grazing land;
- (f) mangroves;
- (g) other coastal wetland ecosystem;
- (h) other use land;
- (i) ponds and other constructed water bodies;
- (j) saline water bodies;
- (k) saltmarsh;
- (l) seagrass;
- (m) sparsely vegetated saltmarsh (saltflats);
- (n) sugarcane land;
- (o) supratidal forest;
- (p) tidally restricted fresh and brackish wetlands.

**lowest astronomical tide mark** means the lowest tide level which can be predicted to occur under average meteorological conditions and any combination of astronomical conditions.

**mangroves** means an ecosystem comprised of trees and shrubs which:

- (a) occupy the intertidal zone of floodplains, including marine and estuarine areas; and
- (b) grow in saline or brackish water.

**mosquito management plan**, in relation to a tidal restoration project, means a plan that:

- (a) is:
  - (i) required by any applicable State, Territory or Commonwealth laws; or
  - (ii) recommended by any State, Territory or Commonwealth government body or agency or any local government authority; and
- (b) outlines the actions to be taken to manage the risks arising from increased mosquito hazard arising from the project.

**necessary infrastructure** means an object, device or structure on any land that:

- (a) is not a tidal restriction mechanism or drainage infrastructure; and

- (b) impedes, reduces, restricts or prevents inundation of other land by tidal flows, when used for that purpose; and
- (c) is taken into account in the preparation or revision of a map forming part of a hydrological assessment for a tidal restoration project.

**net abatement amount**, for an eligible offsets project in relation to a reporting period, means the carbon dioxide equivalent net abatement amount for the project in relation to the reporting period, calculated in accordance with section 28.

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

**other coastal wetland ecosystem** means an ecosystem on impacted land that is not any of the other land types.

Note: Impacted land with other coastal wetland ecosystem on it can be unvegetated land.

**other use land** means land that is used at the end of the baseline period for the land in some way for human activities that is not covered by any of the other land types.

**permanence obligation period**, in relation to a tidal restoration project, means the period from the declaration of the project as an eligible offsets project until the last day the Regulator could issue a notice requiring relinquishment of Australian carbon credit units under Division 3 of Part 7 of the Act.

**permanence period tidal inundation map**, in relation to a tidal restoration project, means a map that:

- (a) identifies the projected spatial extent of land that will become impacted land for the project, as at the end of:
  - (i) if the project is a 25-year permanence period project—32 years from a date which is not more than 24 months before the date of the section 22 application for the project; or
  - (ii) if the project is a 100-year permanence period project—107 years from a date which is not more than 24 months before the date of the section 22 application for the project; and
- (b) is prepared in accordance with the Supplement; and
- (c) is part of a hydrological assessment for the project.

**personal use**, of a thing, means use of the thing that does not involve a sale, or other commercial use, of the thing.

**ponds and other constructed water bodies** means freshwater or brackish ponds, dams or reservoirs that have been created by people.

**production livestock** means livestock managed for production purposes and from which commercial products or services are derived.

**project extent map** means a map for land identified as impacted land for a tidal restoration project in a current map in a hydrological assessment for the project made under section 15, which meets the following requirements:

- (a) the map includes the following information for the land, as required by the Supplement:
  - (i) project area and cadastral boundaries, Ramsar and nationally important wetland boundaries and marine reserve boundaries;
  - (ii) geographic features;
  - (iii) land and water features;



- (iv) the location of any tidal restriction mechanism, necessary infrastructure, existing infrastructure and drainage infrastructure (including any existing drainage infrastructure), relating to the project; and
- (b) the map includes any other information required by the Supplement; and
- (c) the map meets any requirements contained in the Supplement.

Note: A project extent map will identify land features, including (but not limited to) location and extent of acid sulfate soils.

***project operations and maintenance plan***, in relation to a tidal restoration project, means a plan containing the following information:

- (a) in relation to each tidal restriction mechanism that is or is to be removed or modified as part of the eligible project activities for the project:
  - (i) its location; and
  - (ii) detailed specifications about it, including specifications about its removal or modification, that are sufficient for the purposes of the following persons:
    - (A) the qualified person when preparing or revising a hydrological assessment for the project;
    - (B) if the tidal restriction mechanism is to be modified as part of the eligible project activities—the qualified engineer when preparing the relevant confirmation for the hydrological assessment; and
  - (iii) if the tidal restriction mechanism is or is to be modified as part of the eligible project activities—detailed information about the maintenance it requires to ensure its ongoing intended function during the permanence obligation period for the project;
- (b) in relation to each necessary infrastructure or drainage infrastructure that is or is to be used, removed, modified, installed or constructed as part of the eligible project activities:
  - (i) its location; and
  - (ii) detailed specifications about it that are sufficient for the purposes of the following persons:
    - (A) the qualified person when preparing or revising a hydrological assessment for the project;
    - (B) the qualified engineer when preparing the relevant confirmation for the hydrological assessment; and
  - (iii) if the necessary infrastructure or drainage infrastructure is or is to be used, modified, installed or constructed as part of the eligible project activities—detailed information about the maintenance it requires to ensure its ongoing intended function during the permanence obligation period for the project;
- (c) any additional information required by the Supplement.

***project start tidal inundation map***, in relation to a tidal restoration project, means a map that:

- (a) identifies the projected spatial extent of land that will become impacted land for the project, as at the completion of the eligible project activities for the project; and
- (b) is prepared in accordance with the Supplement; and
- (c) is part of a hydrological assessment for the project.

***qualified engineer***, in relation to a tidal restoration project, means a person who:

- (a) has knowledge of and experience in assessing the functional performance of objects, devices, structures, drains, channels and ditches of the kind used by the project to modify or manage tidal flows; and

(b) meets any requirements in the Supplement.

Note: The qualified engineer can be the same person as the qualified person.

**qualified person**, in relation to a tidal restoration project, means a person who:

- (a) has knowledge of tidal hydrodynamics and floodplain inundation; and
- (b) has experience in the provision of floodplain inundation services; and
- (c) has knowledge of the limitations and applicability of numerical modelling in shallow coastal environments; and
- (d) meets any requirements in the Supplement.

Note 1: Paragraph (c) would include experience in provision of flood management services.

Note 2: The qualified person can be the same person as the qualified engineer.

**relevant confirmation**, in relation to a hydrological assessment for a tidal restoration project, means a confirmation in writing given to the project proponent by a qualified engineer that the design specifications contained in the project operations and management plan for the project on which the hydrological assessment is based can reasonably be expected to manage tidal flows in the manner shown in maps forming part of the hydrological assessment.

**relevant landholder** means any person, other than the project proponent, who, whether by reason of ownership or otherwise, has operational control of land.

**saline water bodies** means saline or hypersaline ponds or waterbodies that have been created by people, including for aquaculture activities.

**saltmarsh** means an ecosystem that:

- (a) is comprised of salt tolerant plants that are herbaceous as well as some woody shrubs; and
- (b) occurs on floodplains and in estuaries and can be flushed with water from a combination of water sources including rainfall, rivers, groundwater and seawater; and
- (c) meets the requirements of the BlueCAM guidelines.

**seagrass** means an ecosystem that:

- (a) is comprised of grass-like plants that grows in shallow (including intertidal zones) to deep coastal waters; and
- (b) meets the requirements of the BlueCAM guidelines.

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

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

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

**sparsely vegetated saltmarsh (saltflats)** means an ecosystem that:

- (a) is a sparsely vegetated saline or hypersaline (more saline than seawater) ecosystem; and
- (b) meets the requirements of the BlueCAM guidelines.

**Supplement** means the document entitled ‘Supplement to the *Carbon Credits (Carbon Farming Initiative—Tidal Restoration of Blue Carbon Ecosystems) Methodology*

*Determination 2022*, as in force from time to time and available from the Regulator’s website.

Note: In January 2022, the Supplement could be viewed on the Regulator’s website (<http://www.cleanenergyregulator.gov.au>).

***supratidal forest*** means an ecosystem that:

- (a) is comprised of woody vegetation that occupies land adjacent to the intertidal zone and comprised of plants in the genera *Casuarina*, *Melaleuca* and other associated species; and
- (b) meets the requirements of the BlueCAM guidelines.

***thinning*** means the selective killing of vegetation for ecological purposes, including to maintain species diversity or ground cover, that does not:

- (a) amount to clearing; or
- (b) result in a reduction of estimated abatement below that already credited under this determination.

***tidal introduction*** means the introduction of, or increase or changes in, tidal flows over land, but does not include permanent exclusion of tidal flows over land.

***tidal restoration project***—see subsection 7(3).

***tidal restriction mechanism*** means an object, device or structure on any land that:

- (a) has been installed or constructed before the commencement of the baseline period for the land; and
- (b) impedes, reduces, restricts or prevents inundation of other land by tidal flows.

Note: A tidal restriction mechanism can be a drainage infrastructure.

***tidally restricted fresh and brackish wetlands*** means a type of ecosystem that is not affected by tidal flows because its hydrology has been modified by people.

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

*25-year permanence period project*  
*100-year permanence period project*  
*Australian carbon credit unit*  
*crediting period*  
*carbon dioxide equivalent*  
*eligible carbon abatement*  
*eligible interest*  
*eligible offsets project*  
*emission*  
*greenhouse gas*  
*offsets project*  
*offsets report*  
*project*  
*project area*  
*project proponent*  
*Regulator*  
*reporting period*

## 6 References to 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—Tidal restoration projects

### 7 Tidal restoration project

- (1) For paragraph 106(1)(a) of the Act, this determination applies to an offsets project that:
  - (a) involves tidal introduction over some or all of a project area for the project to support the establishment of coastal wetland ecosystems within the area, by carrying out the eligible project activities for the project; and
  - (b) can reasonably be expected to result in eligible carbon abatement; and
  - (c) has its project area or project areas within Australia, excluding the external territories.
- (2) For this determination, the *eligible project activities* for an offsets project are:
  - (a) removing or modifying one or more tidal restriction mechanisms; and
  - (b) at the option of the project proponent—using, removing, modifying, installing or constructing one or more necessary infrastructures or drainage infrastructures; in relation to the project.
- (3) A project covered by subsection (1) is a *tidal restoration project*.

## Part 3—Project requirements

### Division 1—General

#### 8 Operation of this Part

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

#### 9 Eligible land

Land is *eligible land* if:

- (a) it meets the following requirements:
  - (i) during at least the baseline period in relation to the land, tidal flows were excluded from or impeded, reduced or restricted on the land by one or more tidal restriction mechanisms relating to the project;
  - (ii) the carrying out of the eligible project activities for the project would lead to the land becoming impacted land for the project, as evidenced by a current project start tidal inundation map for the project made under section 15; or
- (b) it meets the following requirements:
  - (i) during at least the baseline period in relation to the land, it did not experience tidal flows for reasons other than the operation of one or more tidal restriction mechanisms relating to the project;
  - (ii) during at least the baseline period in relation to the land, the tidal restriction mechanism or, as the case may be, tidal restriction mechanisms were in operation;
  - (iii) the carrying out of the eligible project activities for the project would lead to the land becoming impacted land for the project by the end of the crediting period for the project, as evidenced by:
    - (A) if the project is a 25-year permanence period project—a current permanence period tidal inundation map for the project made under section 15;
    - (B) if the project is a 100-year permanence period project—a current crediting period tidal inundation map for the project made under section 15.

Note: Land that will become impacted land due to sea level rise during the crediting period for the project will be eligible land under paragraph (b).

#### 10 Project area

- (1) All land identified in a current project start tidal inundation map for the project made under section 15, as land that will become impacted land for the project, must be, or be part of, a project area for the project.
- (2) A project area for the project must include eligible land.
- (3) A project area for the project may include land which is not eligible land only if that land will not be, or not be part of, a CEA for the project.

## 11 Duty to disclose information relating to project to owners and relevant landholders

- (1) The project proponent must give a written notice that complies with the requirements of subsection (2) to each person who, on the date the notice is given, is an owner or relevant landholder of land that is identified by a current permanence period tidal inundation map made under section 15, as land that will become impacted land for the project.
- (2) The notice under subsection (1) must:
  - (a) be given between 30 and 45 days before the commencement of the removal or modification of a tidal restriction mechanism as part of the eligible project activities for the project; and
  - (b) include the following information:
    - (i) the date when the removal or modification is expected to commence;
    - (ii) the location and particulars about the removal or modification of the tidal restriction mechanism proposed to be removed or modified;
    - (iii) the current hydrological assessment for the project made under section 15 of which the permanence period tidal inundation map forms a part.
- (3) After the notice under subsection (1) is given and until the end of the permanence obligation period for the project, the project proponent must take reasonable actions to inform themselves of each person:
  - (a) who is an owner or relevant landholder of land that:
    - (i) is identified by a current permanence period tidal inundation map made under section 15, as land that will become impacted land for the project; and
    - (ii) is not included in the project area for the project; and
  - (b) who did not receive the notice.
- (4) Within 30 days of becoming aware of a person described in subsection (3), the project proponent must provide the person with information about the project including the current hydrological assessment for the project made under section 15 of which the permanence period tidal inundation map forms a part.

## 12 Activities not to be conducted

The following activities must not be conducted on land that is part of a CEA for the project during the period commencing on the day the land becomes impacted land for the project and ending at the end of the permanence obligation period for the project:

- (a) growing crops;
- (b) grazing by production livestock;
- (c) aquaculture activities;
- (d) applying fertiliser.

## 13 Restricted activities

- (1) This section applies to activities commencing on the day the project is declared an eligible offsets project and ending at the end of the permanence obligation period for the project on land that is, or is to be, part of a CEA for the project.
- (2) Above and below ground biomass of coastal wetland vegetation or forest cover vegetation on the land may be thinned or removed only as follows:
  - (a) vegetation of up to 5% of total above and below ground biomass in a CEA may be thinned in a reporting period to promote the growth of vegetation, but any resulting biomass must not be removed from the CEA;

- (b) vegetation of up to 5% of total above and below ground biomass in a CEA may be thinned in a reporting period to promote biodiversity, but any resulting biomass must not be removed from the CEA;
  - (c) vegetation of up to 5% of total above and below ground biomass in a CEA may be removed from the CEA in a calendar year for field sampling of carbon;
  - (d) up to 10% of fallen timber may be removed from a CEA in a calendar year for personal use;
  - (e) thinning of vegetation may be conducted in a CEA if required by any applicable regional natural resource management plan, Commonwealth, State or Territory or local government law, but any resulting biomass must not be removed from the CEA unless the thinning has been conducted for the purpose of weed control;
  - (f) harvesting in accordance with traditional Indigenous practices or native title rights.
- (3) The cumulative amount of biomass in a CEA that is dealt with under paragraphs (2)(a), (b) and (c) in a calendar year must not exceed 5% of the total above and below ground biomass in the CEA.
  - (4) The cumulative amount of biomass in a CEA that is removed under paragraphs (2)(c) and (d) in a calendar year must not exceed 5% of the total about and below ground biomass in the CEA.
  - (5) Planting or seeding of plants or propagules may be conducted on the land only if the planting or seeding is an environmental coastal wetland planting.
  - (6) Boardwalks are permitted in a CEA if no more than 5% of total above and below ground biomass in the CEA is removed from the CEA in a calendar year resulting from construction or the effects of placement of all boardwalks in the CEA.
  - (7) Excavation activities may only be conducted in a CEA if undertaken:
    - (a) in connection with carrying out eligible project activities for the project; or
    - (b) in accordance with a current acid sulfate soils management plan for the project made under section 17, to prevent adverse impacts to acid sulfate soils.

## 14 Project operations and maintenance plan

- (1) Before making a section 22 application for the project, the project proponent must prepare one or more project operations and maintenance plans for the project and provide them to:
  - (a) the qualified person for preparation or review of the initial hydrological assessment or assessments for the project; and
  - (b) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—the qualified engineer for preparation of the relevant confirmation or confirmations in connection with the initial hydrological assessment or assessments.
- (2) Before making a section 29 application for the project that seeks a variation to the section 27 declaration for the project, the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more project operations and maintenance plans for the project that covers the variation;
  - (b) prepare one or more project operations and maintenance plans for the project that covers the variation;
 and provide them to:



- (c) the qualified person for revision or preparation of the hydrological assessment or assessments for the project in relation to the section 29 application; and
  - (d) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—the qualified engineer for preparation of the relevant confirmation or confirmations in connection with the hydrological assessment or assessments.
- (3) Before the project proponent makes a change to any of the eligible project activities for the project, the project proponent must satisfy either or both of the following requirements:
- (a) revise one or more project operations and maintenance plans for the project that reflect the change;
  - (b) prepare one or more project operations and maintenance plans for the project that reflect the change;
- and provide them to:
- (c) the qualified person for revision or preparation of the hydrological assessment or assessments for the project in relation to the change; and
  - (d) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—the qualified engineer for preparation of the relevant confirmation or confirmations in connection with the hydrological assessment or assessments.
- (4) The project proponent and each relevant landholder of land on which the eligible project activities for the project are to be carried out must, in relation to each project operations and maintenance plan relevant to the eligible project activities to be carried out on the land which is the basis of a current hydrological assessment for the project made under section 15:
- (a) sign and agree to implement each such plan; and
  - (b) take reasonable steps to implement each such plan until the end of the permanence obligation period for the project.
- (5) The project proponent must review, and if necessary revise, each project operations and maintenance plan for the project:
- (a) at least once every 5 years until the end of the crediting period for the project; and
  - (b) at least once every 10 years until the end of the permanence obligation period for the project; and
  - (c) within 30 days of the project proponent becoming aware that:
    - (i) a current project operations and maintenance plan for the project made under this section, needs any material correction; or
    - (ii) any tidal restriction mechanism, necessary infrastructure or drainage infrastructure relating to the project fails to operate in a way that, but for that failure, any land would not have been impacted land for the project; or
    - (iii) any material changes to a current operations and maintenance plan for the project made under this section, are necessary.
- (6) If revisions are made to a project operations and maintenance plan for the project under subsection (5), the project proponent must give a copy of the revised plan to:
- (a) the qualified person for revision or preparation of the hydrological assessment or assessments for the project in relation to the revisions to the plan; and
  - (b) if the revisions relate to managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—the

qualified engineer for preparation of the relevant confirmation or confirmations in connection with the hydrological assessment or assessments.

- (7) If revisions are made to a project operations and maintenance plan for the project under paragraph (5)(c), the project proponent must give a copy of the revised plan to the Regulator within 9 months of revising the plan.

## 15 Hydrological assessment

- (1) Before the project proponent makes the section 22 application for the project, one or more initial hydrological assessments for the project must be prepared that:
- (a) take into account information about the eligible project activities for the project contained in each project operations and maintenance plan prepared by the project proponent under subsection 14(1) in relation to the application; and
  - (b) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
  - (c) meet the requirements of subsection (6).
- (2) Before the project proponent makes a section 29 application for the project that seeks a variation to the section 27 declaration for the project, either or both of the following requirements must be satisfied:
- (a) one or more existing hydrological assessments for the project must be revised that:
    - (i) take into account information about the eligible project activities for the project contained in each project operations and maintenance plan revised or prepared by the project proponent under subsection 14(2) in relation to the application; and
    - (ii) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iii) meet the requirements of subsection (7);
  - (b) one or more new hydrological assessments for the projects must be prepared that:
    - (i) take into account information about the eligible project activities for the project contained in each project operations and maintenance plan revised or prepared by the project proponent under subsection 14(2) in relation to the application; and
    - (ii) if the eligible project activities for the project involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iii) meet the requirements of subsection (6).
- (3) Before the project proponent makes a change to any of the eligible project activities for the project, either or both of the following requirements must be satisfied:
- (a) one or more existing hydrological assessments for the project must be revised that:
    - (i) reflect changes in tidal flows as a consequence of the change in the eligible project activities; and
    - (ii) take into account information about the eligible project activities for the project contained in each project operations and maintenance plan revised or prepared by the project proponent under subsection 14(3) in relation to the change in the eligible project activities; and

- (iii) if the eligible project activities involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iv) meet the requirements of subsection (7);
  - (b) one or more new hydrological assessments for the project must be prepared that:
    - (i) reflect changes in tidal flows as a consequence of the change in the eligible project activities; and
    - (ii) take into account information about the eligible project activities for the project contained in each project operations and maintenance plan revised or prepared by the project proponent under subsection 14(3) in relation to the change in tidal flows; and
    - (iii) if the eligible project activities involve managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iv) meet the requirements of subsection (6).
- (4) Within 30 days of a project operations and maintenance plan for the project being revised under subsection 14(5), either or both of the following requirements must be satisfied:
  - (a) one or more existing hydrological assessments for the project must be revised that:
    - (i) take into account the revisions to the project operations and maintenance plan; and
    - (ii) take into account information about the eligible project activities for the project contained in the project operations and maintenance plan; and
    - (iii) if the revisions relate to managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iv) meet the requirements of subsection (7);
  - (b) one or more new hydrological assessments for the project must be prepared that:
    - (i) take into account the revisions to the project operations and maintenance plan; and
    - (ii) take into account information about the eligible project activities for the project contained in the project operations and maintenance plan; and
    - (iii) if the revisions relate to managing tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—are supported by one or more relevant confirmations; and
    - (iv) meet the requirements of subsection (6).
- (5) Within 30 days of the project proponent becoming aware that an existing hydrological assessment for the project contains a material error that may relate to introduction, increase, reduction, modification or exclusion of tidal flows over any land, the hydrological assessment must be revised in a way that:
  - (a) accounts for the error; and
  - (b) if the revision relates to the movement of tidal flows through the use of any tidal restriction mechanism, necessary infrastructure or drainage infrastructure—it is supported by one or more relevant confirmations; and
  - (c) meets the requirements of subsection (7).
- (6) A hydrological assessment must:
  - (a) be prepared or reviewed by a qualified person; and
  - (b) meet any requirements contained in the Supplement.

- (7) If an existing hydrological assessment is revised, the revision must be:
  - (a) prepared or reviewed by a qualified person; and
  - (b) meet any requirements in the Supplement.
- (8) If a hydrological assessment for the project is revised or prepared under subsections (4) or (5), the project proponent must give a copy of the revised or prepared assessment to the Regulator within 9 months of revising or preparing the assessment.

## **16 Project extent mapping**

- (1) Before making the section 22 application for the project, the project proponent must prepare one or more project extent maps for all land that is identified as impacted land for the project in maps forming part of hydrological assessments for the project prepared under subsection 15(1) in relation to the application.
- (2) Before making a section 29 application for the project that seeks a variation to the section 27 declaration for the project, the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more existing project extent maps;
  - (b) prepare one or more project extent maps;
 so that all land that may be identified as impacted land for the project in maps forming part of hydrological assessments that are prepared or revised under subsection 15(2) in relation to the variation is covered by one or more of the revised or new project extent maps.
- (3) Within 30 days of a hydrological assessment for the project being prepared or revised under subsections 15(3), (4) or (5), the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more existing project extent maps;
  - (b) prepare one or more new project extent maps;
 so that all land that may be identified as impacted land for the project in maps forming part of hydrological assessments that are prepared or revised under subsections 15(4) or (5) is covered by one or more of the revised or new project extent maps.
- (4) Within 30 days of the project proponent becoming aware that an existing project extent map contains a material error, the project proponent must revise the project extent map to account for the error.

## **17 Acid sulfate soils management plan**

- (1) Before making the section 22 application for the project, the project proponent must prepare one or more acid sulfate soils management plans for the project for all land within a project area of the project containing acid sulfate soils identified in a project extent map prepared under subsection 16(1), that may be disturbed by any eligible project activities for the project.
- (2) Before making a section 29 application for the project that seeks a variation to the section 27 declaration for the project, the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more acid sulfate soils management plans for the project;
  - (b) prepare one or more acid sulfate soils management plans for the project;
 so that all land within a project area of the project containing acid sulfate soils identified in a project extent map prepared under subsection 16(2) in relation to the application that

may be disturbed by any eligible project activities for the project, is covered by one or more acid sulfate soils management plans.

- (3) Within 30 days of a project extent map being prepared or revised under subsections 16(3) or (4), the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more acid sulfate soils management plans for the project;
  - (b) prepare one or more acid sulfate soils management plans for the project;so that all land within a project area of the project containing acid sulfate soils identified in a project extent map prepared under those subsections that may be disturbed by any eligible project activities for the project, is covered by one or more acid sulfate soils management plans.
- (4) Within 30 days of the project proponent becoming aware that an existing acid sulfate soils management plan contains a material error, the project proponent must revise the plan to account for the error.
- (5) An acid sulfate soils management plan must:
  - (a) be prepared or revised in accordance with any applicable State, Territory or Commonwealth laws; and
  - (b) take into consideration any applicable State, Territory, Commonwealth or local government guidance in relation to acid sulfate soils management plans; and
  - (c) be prepared or revised in accordance with the requirements of the Supplement.
- (6) The project proponent and each relevant landholder of land containing acid sulfate soils that is identified in a project extent map must:
  - (a) sign and agree to implement each acid sulfate soils management plan relating to the land; and
  - (b) take reasonable steps to implement, until the end of the permanence obligation period for the project, each current acid sulfate soils management plan relating to the land made under this section;in accordance with any applicable State, Territory or Commonwealth laws and after having taken into consideration any applicable State, Territory, Commonwealth or local government guidance in relation to acid sulfate soils management plans.
- (7) The project proponent must review, and if necessary revise, each acid sulfate soils management plan:
  - (a) at least once every 5 years until the end of the crediting period for the project; and
  - (b) at least once every 10 years until the end of the permanence obligation period for the project; and
  - (c) within 30 days of the project proponent becoming aware that:
    - (i) a current acid sulfate soils management plan for the project made under this section, needs any material correction; or
    - (ii) any material changes to a current acid sulfate soils management plan for the project made under this section, are necessary; or
    - (iii) disturbance to acid sulfate soils changes materially from that envisaged in a current acid sulfate soils management plan for the project made under this section.

## 18 Mosquito management plan

- (1) Before making the section 22 application for the project, the project proponent must prepare one or more mosquito management plans for the project for all land within a project area of the project.

- (2) Before making a section 29 application for the project that seeks a variation to the section 27 declaration for the project, the project proponent must satisfy either or both of the following requirements:
  - (a) revise one or more mosquito management plans for the project;
  - (b) prepare one or more mosquito management plans for the project;
 so that all land within a project area of the project is covered by one or more mosquito management plans.
- (3) Within 30 days of the project proponent becoming aware that an existing mosquito management plan contains a material error, the project proponent must revise the plan to account for the error.
- (4) A mosquito management plan must:
  - (a) be prepared or revised in accordance with any applicable State, Territory or Commonwealth laws; and
  - (b) take into consideration any applicable State, Territory, Commonwealth or local government guidance in relation to mosquito management plans; and
  - (c) be prepared or revised in accordance with the requirements of the Supplement.
- (5) The project proponent and each relevant landholder of land within a project area of the project must:
  - (a) sign and agree to implement each mosquito management plan relating to the land; and
  - (b) take reasonable steps to implement, until the end of the permanence obligation period for the project, each current mosquito management plan relating to the land made under this section;
 in accordance with any applicable State, Territory or Commonwealth laws and after having taken into consideration any applicable State, Territory, Commonwealth or local government guidance in relation to mosquito management plans.
- (6) The project proponent must review, and if necessary revise, each mosquito management plan:
  - (a) at least once every 5 years until the end of the crediting period for the project; and
  - (b) at least once every 10 years until the end of the permanence obligation period for the project; and
  - (c) within 30 days of the project proponent becoming aware that:
    - (i) a current mosquito management plan for the project made under this section, needs any material correction; or
    - (ii) any material changes to a mosquito management plan for the project prepared or revised under this section, are necessary; or
    - (iii) the mosquito hazard changes materially from that envisaged in a current mosquito management plan for the project made under this section.

## **19 Information to be included in applications relating to the project**

A section 22 application or section 29 application for the project must include the following information and documents:

- (a) evidence that eligible land in each project area meets the requirements of section 9;
- (b) a description of the land types within the project area or project areas of the project immediately prior to the date of the application, including any land types that are, in accordance with the BlueCAM guidelines, dominant land types;

- (c) a description of each tidal restriction mechanism which will be the subject of the eligible project activities for the project and when it was first constructed;
- (d) if such evidence has not previously been provided to the Regulator—evidence that each such tidal restriction mechanism was legally installed or constructed under the relevant Commonwealth, State or Territory or local government laws, when first installed or constructed;
- (e) each project operations and maintenance plan, project extent map, acid sulfate soils management plan and mosquito management plan prepared or revised for the project;
- (f) each hydrological assessment prepared or revised for the project together with each relevant confirmation provided by a qualified engineer in support of the hydrological assessment;
- (g) if a current permanence period tidal inundation map for the project made under section 15 identifies any land as impacted land for the project that is not, or is not included in, a project area for the project:
  - (i) if evidence of consent under this subparagraph has not previously been provided to the Regulator in relation to the land—evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the land to become impacted land for the project, given in writing by each person (other than the project proponent for the project) whose agreement in relation to the land would have been required for the project proponent to be the project proponent for the project if the land had been, or had been part of, a project area for the project; and
  - (ii) if evidence of an undertaking under this subparagraph has not previously been provided to the Regulator in relation to the land—an undertaking signed by each landholder of the land that they will pass on to any potential purchasers of the land details about the eligible project activities for the project:
    - (A) that were provided to the landholder in connection with obtaining their consent under subparagraph (i) above; or
    - (B) if the landholder is the project proponent—that are available to the project proponent.

## 20 Information to be included in a section 29 application

- (1) Subsection (2) applies if:
  - (a) a section 29 application for the project is made; and
  - (b) the project is a 25-year permanence period project; and
  - (c) a current permanence period tidal inundation map for the project made under section 15 identifies any land (*section 29 relevant period impacted land*) as impacted land for the project that is not, or is not included in, a project area for the project; and
  - (d) evidence of consent under subsection (2) has not previously been provided to the Regulator in relation to the section 29 relevant period impacted land.
- (2) A section 29 application for the project must include evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the section 29 relevant period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds an eligible interest in the section 29 relevant period impacted land.
- (3) Subsection (4) applies if:
  - (a) a section 29 application for the project is made; and

- (b) the project is a 100-year permanence period project; and
  - (c) a current crediting period tidal inundation map for the project made under section 15 identifies any land (*section 29 crediting period impacted land*) as impacted land for the project that is not, or is not included in, a project area for the project; and
  - (d) evidence of consent under subsection (4) has not previously been provided to the Regulator in relation to the section 29 crediting period impacted land.
- (4) A section 29 application for the project must include evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the section 29 crediting period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds an eligible interest in the section 29 crediting period impacted land.
- (5) Subsection (6) applies if:
- (a) a section 29 application for the project is made; and
  - (b) the project is a 100-year permanence period project; and
  - (c) a current permanence period tidal inundation map for the project made under section 15 identifies any land (*section 29 permanence period impacted land*) as impacted land for the project that:
    - (i) is not, or is not included in, a project area for the project; and
    - (ii) is not identified as impacted land for the project in a current crediting period tidal inundation map for the project made under section 15; and
  - (d) evidence of consent under subsection (6) has not previously been provided to the Regulator in relation to the section 29 permanence period impacted land.
- (6) A section 29 application for the project must include evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the section 29 permanence period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds an eligible interest in the section 29 permanence period impacted land that could extend beyond the end of the crediting period for the project.

## 21 Consent for land not in the project area becoming impacted land

- (1) Subsection (2) applies if:
- (a) the project is a 25-year permanence period project; and
  - (b) at the end of the first reporting period for the project, a current permanence period tidal inundation map for the project made under section 15 identifies any land (the *relevant period impacted land*) as impacted land for the project that is not, or is not included in, a project area for the project.
- (2) The project proponent must obtain, before giving the Regulator an offsets report for the project for the first reporting period, evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the relevant period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds, at the end of the first reporting period, an eligible interest in the relevant period impacted land.
- (3) Subsection (4) applies if:
- (a) the project is a 100-year permanence period project; and
  - (b) at the end of the first reporting period for the project, a current crediting period tidal inundation map for the project made under section 15 identifies any land (the



*crediting period impacted land*) as impacted land for the project that is not, or is not included in, a project area for the project.

- (4) The project proponent must obtain, before giving the Regulator an offsets report for the project for the first reporting period, evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the crediting period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds, at the end of the first reporting period, an eligible interest in the crediting period impacted land.
- (5) Subsection (6) applies if:
  - (a) the project is a 100-year permanence period project; and
  - (b) at the end of the first reporting period for the project, a current permanence period tidal inundation map for the project made under section 15 identifies any land (the *permanence period impacted land*) as impacted land for the project that:
    - (i) is not, or is not included in, a project area for the project; and
    - (ii) is not identified as impacted land for the project in a current crediting period tidal inundation map for the project made under section 15.
- (6) The project proponent must obtain, before giving the Regulator an offsets report for the project for the first reporting period, evidence satisfactory to the Regulator of consent for the eligible project activities for the project to be undertaken and for the permanence period impacted land to become impacted land for the project, given in writing by each person (other than the project proponent) who holds, at the end of the first reporting period, an eligible interest in the permanence period impacted land that could extend beyond the end of the crediting period for the project.
- (7) In this section, the *first reporting period* means the reporting period under subsection 76(1) of the Act.

## Division 2—Operation of tidal restoration projects

### 22 Defining carbon estimation areas in the project area

- (1) The project proponent must stratify land within the project areas for the project into one or more carbon estimation areas, such that:
  - (a) all land included in a CEA is eligible land; and
  - (b) all land included in a CEA is of a single or dominant land type in accordance with the requirements of the BlueCAM guidelines at the following times:
    - (i) at the end of the baseline period for the land;
    - (ii) at the end of the current reporting period;
    - (iii) at the end of the immediately preceding reporting period; and

Note: The land type within a CEA can change between the end of the baseline period, the end of the current reporting period and the end of the immediately preceding reporting period.

- (c) for a CEA comprising supratidal forest or mangroves, vegetation within the CEA meets the age requirements of the Supplement;
- (d) all areas of land in a project area where excavation activities have occurred are included in a CEA in the project area in the reporting period during which the excavation activities occurred; and
- (e) all land within a CEA is located within one BlueCAM region; and
- (f) all requirements in the Supplement are met in stratifying a CEA.

Note: Not all land in a project area must be stratified into a CEA.

- (2) The project proponent may map non-contiguous parts of a project area as a single CEA in accordance with the Supplement.
- (3) Before the end of a reporting period the project proponent may:
  - (a) stratify a new CEA; or
  - (b) move land from one CEA to another CEA.
- (4) During a reporting period for the project, land cannot be part of:
  - (a) more than one CEA; or
  - (b) more than one project area.
- (5) Any impacted land within a project area must be included in a CEA at the latest in the reporting period during which the land first became impacted land.
- (6) Any impacted land included in a CEA in a reporting period pursuant to subsection (5) must be included in a new CEA established in that reporting period.
- (7) For so long as any land which is, or is part of, a CEA during a reporting period is or is part of a project area for the project, the land must remain, or remain part of, a CEA for the project during each succeeding reporting period.
- (8) All CEAs must be included in calculations of the net abatement amount for each reporting period.

## Part 4—Net abatement amount

### Division 1—Preliminary

#### 23 Operation of this Part

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

#### 24 Simplified outline of this Part

This determination accounts for carbon abatement from undertaking a tidal restoration project in accordance with this determination, crediting abatement from the avoidance of emissions of greenhouse gases into the atmosphere, as well as abatement from carbon dioxide that is removed from the atmosphere and sequestered in coastal wetland ecosystems.

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

The main equation for the net abatement amount for a tidal restoration project for a reporting period is equation 2. This equation calculates the net abatement amount for a reporting period for each project area, adjusted by the sequestration buffer, subtracting emissions from fuel used during the reporting period (equation 13) and adding any Australian carbon credit units that have been relinquished.

To calculate the net abatement amount for a project area, the project proponent must first ascertain the carbon stock change for each CEA (equation 4), including any emissions from the loss of soil carbon due to excavation activities (equation 5). The change in carbon stock for each CEA is calculated and aggregated for the project area using equation 3. The avoided emissions of CH<sub>4</sub>, N<sub>2</sub>O and CO<sub>2</sub> are calculated, comparing the baseline (calculated in equations 7 to 9) and emissions during the reporting period (equations 10 to 11), including emissions of CO<sub>2</sub> from ecosystem transition (equation 12), for each CEA. These are aggregated for the project area in equation 5.

The net abatement amount for each project area is adjusted where necessary by any carryover of negative abatement from the previous reporting period in equation 2. If the resulting number  $A_r$  is zero or greater than zero, it represents the net abatement amount for the project area for the reporting period. If  $A_r$  is a negative number, the net abatement amount for the project area for the reporting period is instead equal to zero, and the negative number is carried over into the next reporting period and becomes  $A_{r-1}$  for that reporting period.

The change in carbon stocks and the emissions from soil and water must be calculated using the outputs of BlueCAM.

## 25 Use of BlueCAM

Where a calculation is undertaken using BlueCAM for the purpose of this determination, BlueCAM must be used in accordance with the BlueCAM Guidelines as available from time to time.

## 26 Overview of gases accounted for in abatement calculations

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

<b>Overview of gases accounted for in abatement calculations</b>			
<b>Item</b>	<b>Carbon pool or emission source</b>		<b>Greenhouse gas</b>
1	Carbon pool	Live above-ground biomass	Carbon dioxide (CO <sub>2</sub> )
2	Carbon pool	Live below-ground biomass	Carbon dioxide (CO <sub>2</sub> )
3	Carbon pool	Soil	Carbon dioxide (CO <sub>2</sub> )
4	Emission source	Flooded agricultural land, managed wet meadow or pasture	Methane (CH <sub>4</sub> ) Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
5	Emission source	Ponds and other constructed water bodies	Methane (CH <sub>4</sub> ) Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
6	Emissions source	Saline water bodies	Nitrous oxide (N <sub>2</sub> O)
7	Emissions source	Sugarcane land	Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
8	Emissions source	Cropping land	Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
9	Emissions source	Grazing land	Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
10	Emissions source	Other use land	Nitrous oxide (N <sub>2</sub> O)
11	Emissions source	Tidally restricted fresh and brackish wetlands	Methane (CH <sub>4</sub> ) Nitrous oxide (N <sub>2</sub> O) Carbon dioxide(CO <sub>2</sub> )
12	Emissions source	Forest land	Nitrous oxide (N <sub>2</sub> O) Carbon dioxide (CO <sub>2</sub> )
13	Emission source	Ecosystem transition (ETR)	Carbon dioxide (CO <sub>2</sub> )
14	Emission source	Soil carbon from excavation activities	Carbon dioxide (CO <sub>2</sub> )
15	Emission source	Fuel use	Methane (CH <sub>4</sub> ) Nitrous oxide (N <sub>2</sub> O) Carbon dioxide (CO <sub>2</sub> )

## Division 2—Calculation of net abatement amount—general

### 27 Steps to calculate net abatement amount

- (1) BlueCAM must be used to make the calculations in this Part for a reporting period for each CEA in a project area for the project.
- (2) Subsection (3) applies if:
  - (a) a reporting period is the first reporting period for the project; or
  - (b) a CEA includes land that has not previously been included in a CEA for a reporting period for the project.
- (3) The project proponent for the project must calculate the following for a CEA and for the land type for land in the CEA that existed at the end of the baseline period:
  - (a) CH<sub>4</sub> emissions for the end of the baseline period;
  - (b) CO<sub>2</sub> and N<sub>2</sub>O emissions for the end of the baseline period;
  - (c) aboveground live biomass and belowground live biomass carbon stock for the end of the baseline period;
  - (d) soil carbon stock for the end of the baseline period.
- (4) Subsection (5) applies to a CEA if:
  - (a) a reporting period is not the first reporting period; and
  - (b) the CEA only includes land that has been included in a CEA for a previous reporting period for the project.
- (5) The project proponent for the project must calculate the following for a CEA and for the land type for land in the CEA that existed at the end of the previous reporting period:
  - (a) CH<sub>4</sub> emissions for the previous reporting period;
  - (b) CO<sub>2</sub> and N<sub>2</sub>O emissions for the previous reporting period;
  - (c) aboveground live biomass and belowground live biomass carbon stock for the previous reporting period;
  - (d) soil carbon stock for the previous reporting period.
- (6) The project proponent for the project must calculate the following for a CEA and for the land type for land in the CEA that existed at the end of the reporting period:
  - (a) CH<sub>4</sub> emissions for the reporting period;
  - (b) CO<sub>2</sub> and N<sub>2</sub>O emissions for the reporting period;
  - (c) aboveground live biomass and belowground live biomass carbon stock for the reporting period;
  - (d) soil carbon stock for the reporting period;
  - (e) CO<sub>2</sub> emissions associated with live biomass loss from ecosystem transition (ETR) that occurred during the reporting period;
  - (f) CO<sub>2</sub> emissions associated with loss of soil carbon stocks due to excavation activities that occurred during the reporting period ( $E_d$ );
  - (g) emissions from fuel use to conduct the eligible project activities for the project during the reporting period ( $E_{fk}$ ).
- (7) The project proponent must use the following information for each CEA, in the units, manner and form specified by the BlueCAM Guidelines or Supplement, as input data for BlueCAM when using it to make calculations for the CEA:
  - (a) the area of the CEA;
  - (b) the project area as a proportion of impacted land;

- (c) land type;
- (d) for coastal wetland ecosystems covered by this determination and established following the eligible project activities for the project, the age of the vegetation in the coastal wetland ecosystems;
- (e) mean elevation relative to the relevant Australian Height Datum published by Geoscience Australia (or any of its successors);
- (f) the reporting period duration;
- (g) the permanence period for the project;
- (h) the area of the CEA where excavation activities occurred during the reporting period.

### Division 3—The net abatement amount

#### 28 The net abatement amount, $A$

The net abatement amount for a reporting period,  $A$ , in tonnes CO<sub>2</sub>-e, is worked out using the following equation:

$$A = \sum_{PA} A_r \quad \text{equation 1}$$

where:

$A_r$  is the net abatement amount for the reporting period for a project area (PA) for the project, in tonnes CO<sub>2</sub>-e, worked out under subsection 30(1).

#### 29 Calculating the net abatement amount for a reporting period for a project area

- (1) The net abatement amount, in tonnes CO<sub>2</sub>-e, for a reporting period for a project area for the project,  $A_r$ , is:
  - (a) if  $A_r$  for the reporting period for the project area, as worked out using equation 2, is zero or greater than zero—equal to  $A_r$ ; and
  - (b) if  $A_r$  for the reporting period for the project area, as worked out using equation 2, is less than zero—equal to zero.
- (2) For subsection (1),  $A_r$  for a reporting period  $r$  for a project area for the project, in tonnes CO<sub>2</sub>-e, is worked out using the following equation:

$$A_r = \Delta C_r \times (1 - B_{Seq}) + A_{r-1} + E_r - E_{fk,r} + RC \quad \text{equation 2}$$

where:

$\Delta C_r$  is the carbon stock change, in tonnes CO<sub>2</sub>-e, for the project area for the reporting period, worked out using equation 3.

$B_{Seq}$  is the sequestration buffer for the project, ascertained in accordance with subsection (4).

$A_{r-1}$  is the carryover net abatement amount for the project area for the reporting period, in tonnes CO<sub>2</sub>-e, worked out in accordance with subsection (3).

$E_r$  is the total emissions of greenhouse gases avoided, in tonnes CO<sub>2</sub>-e, for the project area for the reporting period, worked out using equation 6.

$E_{fk,r}$  is the total fuel emissions for the project area for the reporting period, worked out using equation 13.

$RC$  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 during the reporting period.
- (3) For subsection (2), the carryover net abatement amount for a project area for a reporting period  $r$ ,  $A_{r-1}$ , is worked out as follows:
- (a) if, for the project:
    - (i) a reporting period  $r-1$  immediately preceded the reporting period; and
    - (ii) the value of  $A_r$  worked out for the purposes of determining the net abatement amount for that preceding reporting period for the project area was a negative number;
 then  $A_{r-1}$  is equal to that negative number;
  - (b) otherwise— $A_{r-1}$  is equal to zero.
- (4) For subsection (2), the sequestration buffer for the project,  $B_{Seq}$ , is:
- (a) if the project is a 25-year permanence period project—0.25; or
  - (b) if the project is a 100-year permanence period project:
    - (i) if the area of land within all the project areas for the project includes 80-100 per cent by area of all land identified as impacted land for the project in each current permanence period tidal inundation map for the project made under section 15—0.05;
    - (ii) if the area of land within all the project areas for the project includes less than 80 per cent by area of all land identified as impacted land for the project in each current permanence period tidal inundation map for the project made under section 15—0.25.

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

## Division 4—Calculation of carbon stock change

### 30 Calculating sequestration abatement for a project area for a reporting period

- (1) The carbon stock change, in tonnes CO<sub>2</sub>-e, for a project area for reporting period  $r$ ,  $\Delta C_r$ , is worked out using the following equation:

$$\Delta C_r = \sum_i (CP_{i,r} - CP_{i,r-1}) \quad \text{equation 3}$$

where:

$CP_{i,r}$  is the carbon stock for the  $i^{\text{th}}$  CEA in the project area at the end of the reporting period, in tonnes CO<sub>2</sub>-e, worked out using equation 4.

$CP_{i,r-1}$  is, subject to subsection (2):

- (a) if the reporting period is the first reporting period for the project area under this determination—equal to the baseline carbon stock for the  $i^{\text{th}}$  CEA in the project area; or
- (b) otherwise—equal to the carbon stock for the  $i^{\text{th}}$  CEA in the project area at the end of reporting period  $r-1$  that immediately preceded the reporting period  $r$ , in tonnes CO<sub>2</sub>-e, worked out for the purposes of determining the net abatement amount for that preceding reporting period.

Note: The amount  $CP_{i,r-1}$  accounts for carbon stock that has been sequestered in the project area as the result of tidal introduction before the reporting period  $r$ , and that has been reported on in a previous offsets report.

$i$  is a CEA in the project area.

*Calculation of carbon stock for  $i^{\text{th}}$  CEA*

- (2) The carbon stock for the  $i^{\text{th}}$  CEA in a project area at the end of reporting period  $r$ ,  $CP_{i,r}$ , in tonnes CO<sub>2</sub>-e, is worked out using the following equation:

$$P_{i,r} = (C_{s,i,r} + C_{v,i,r} - C_{a,i,r} + C_{l,i,r}) \times ACEA_{i,r} - E_{d,i,r} \quad \text{equation 4}$$

where:

$C_{s,i,r}$  is the C mass of soil, in tonnes CO<sub>2</sub>-e per hectare, for the  $i^{\text{th}}$  CEA in the project area in the reporting period, at the end of the reporting period, determined using BlueCAM.

$C_{v,i,r}$  is the C mass of vegetation in above and below ground live biomass, in tonnes CO<sub>2</sub>-e per hectare, for the  $i^{\text{th}}$  CEA in the project area in the reporting period, at the end of the reporting period, determined using BlueCAM.

$C_{a,i,r}$  is the avoided accumulation of soil carbon in the baseline, in tonnes CO<sub>2</sub>-e per hectare, for the  $i^{\text{th}}$  CEA in the project area, determined using BlueCAM.

$C_{l,i,r}$  is the avoided loss of soil carbon in the baseline, in tonnes CO<sub>2</sub>-e per hectare, for the  $i^{\text{th}}$  CEA in the project area, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{\text{th}}$  CEA in the project area.

$E_{d,i,r}$  is the emissions from the loss of soil carbon due to excavation activities that occurred during the reporting period, in tonnes CO<sub>2</sub>-e, for the  $i^{\text{th}}$  CEA in the project area:

- (a) if excavation activities have occurred in the  $i^{\text{th}}$  CEA in the project area during the reporting period—worked out using equation 5;
- (b) otherwise—zero.

$i$  is a CEA in the project area.

*Calculation of emissions from the loss of soil carbon due to excavation activities for  $i^{\text{th}}$  CEA*

- (3) The emissions from the loss of soil carbon due to excavation activities that occurred during the reporting period for the  $i^{\text{th}}$  CEA in a project area,  $E_{d,i,r}$ , in tonnes CO<sub>2</sub>-e, is worked out using the following equation:



$$E_{d,i,r} = C_d \times C_l \times ACEA_d \quad \text{equation 5}$$

where:

$C_d$  is the C mass of soil, in tonnes CO<sub>2</sub>-e per hectare, for the area where excavation activities occurred in the  $i^{\text{th}}$  CEA in the project area in the reporting period during the reporting period, determined using BlueCAM.

$C_l$  is the soil carbon loss rate due to excavation activities, and is equal to 0.5.

$ACEA_d$  is the area, in hectares, of the  $i^{\text{th}}$  CEA in the project area where excavation activities occurred during the reporting period.

## Division 5—Calculation of emissions

### 31 Calculating emissions avoidance abatement for a project area for a reporting period

- (1) The total emissions of greenhouse gases avoided for a project area in a reporting period  $r$ ,  $E_r$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$(E_{B,CH_4,i} + E_{B,N_2O,i} + E_{B,CO_2,i}) - (E_{r,CW,CH_4,i} + E_{r,CW,N_2O,i} + E_{r,CO_2,i} + E_{r,TR,C}) \quad \text{equation 6}$$

where:

$E_{B,CH_4,i}$  is the baseline emissions of CH<sub>4</sub> for the baseline for the  $i^{\text{th}}$  CEA in the project area, in tonnes CO<sub>2</sub>-e, worked out using equation 7.

$E_{B,N_2O,i}$  is the baseline emissions of N<sub>2</sub>O for the baseline for the  $i^{\text{th}}$  CEA in the project area, in tonnes CO<sub>2</sub>-e, worked out using equation 8.

$E_{B,CO_2,i}$  is the baseline emissions of CO<sub>2</sub> for the baseline for the  $i^{\text{th}}$  CEA in the project area, in tonnes CO<sub>2</sub>-e, worked out using equation 9.

$E_{r,CW,CH_4,i}$  is the emissions of CH<sub>4</sub> for the  $i^{\text{th}}$  CEA in the project area in the reporting period, in tonnes CO<sub>2</sub>-e, worked out using equation 10.

$E_{r,CW,N_2O,i}$  is the emissions of N<sub>2</sub>O for the  $i^{\text{th}}$  CEA in the project area in the reporting period, in tonnes CO<sub>2</sub>-e, worked out using equation 11.

$E_{r,CO_2,i}$  is the emissions of CO<sub>2</sub> for the  $i^{\text{th}}$  CEA in the project area in the reporting period, in tonnes CO<sub>2</sub>-e:

- (a) if the land type in the CEA has not changed since the baseline—has the same value as the value for  $E_{B,CO_2,i}$  worked out using equation 9;
- (b) otherwise—0.

$E_{r,TR,CO_2,i}$  is the transition emissions of CO<sub>2</sub> released from changes in live vegetation biomass for the  $i^{\text{th}}$  CEA in the project area in the reporting period, in tonnes CO<sub>2</sub>-e, worked out using equation 12.

$i$  is a CEA in the project area.

- (2) The emissions of CH<sub>4</sub> for the  $i^{\text{th}}$  CEA in a project area for the baseline,  $E_{B,CH_4,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{B,CH_4,i} = GWP_{CH_4} \times E_{MB,CH_4,i} \times ACEA_{i,r} \quad \text{equation 7}$$

where:

$GWP_{CH_4}$  is the global warming potential of methane, specified in the NGER Regulations.

$i$  is a CEA in the project area.

$E_{MB,CH_4,i}$  is the mass of CH<sub>4</sub>, in tonnes per hectare, emitted from the  $i^{\text{th}}$  CEA in the project area from baseline land types, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{\text{th}}$  CEA in the project area in the reporting period.

- (3) The emissions of N<sub>2</sub>O for the  $i^{\text{th}}$  CEA in a project area for the baseline,  $E_{B,N_2O,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{B,N_2O,i} = GWP_{N_2O} \times E_{MB,N_2O,i} \times ACEA_{i,r} \quad \text{equation 8}$$

where:

$GWP_{N_2O}$  is the global warming potential of nitrous oxide, specified in the NGER Regulations.

$i$  is a CEA in the project area.

$E_{MB,N_2O,i}$  is the mass of N<sub>2</sub>O, in tonnes per hectare, emitted from the  $i^{\text{th}}$  CEA in the project area from baseline land types, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{\text{th}}$  CEA in the project area in the reporting period.

- (4) The emissions of CO<sub>2</sub> for the  $i^{\text{th}}$  CEA in a project area for the baseline,  $E_{B,CO_2,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{B,CO_2,i} = E_{MB,CO_2,i} \times ACEA_{i,r} \quad \text{equation 9}$$

where:

$i$  is a CEA in the project area.

$E_{MB,CO_2,i}$  is the mass of CO<sub>2</sub>, in tonnes per hectare, emitted from the  $i^{th}$  CEA in the project area from baseline land types, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares of the  $i^{th}$  CEA in the project area in the reporting period.

- (5) The emissions of CH<sub>4</sub> for the  $i^{th}$  CEA in a project area for reporting period  $r$ ,  $E_{r,CW,CH_4,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{r,CW,CH_4,i} = GWP_{CH_4} \times E_{Mr,CW,CH_4,i} \times ACEA_{i,r} \quad \text{equation 10}$$

where:

$GWP_{CH_4}$  is the global warming potential of methane, specified in the NGER Regulations.

$i$  is a CEA in the project area.

$E_{Mr,CW,CH_4,i}$  is the mass of CH<sub>4</sub>, in tonnes per hectare, emitted from the  $i^{th}$  CEA in the project area for the reporting period, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{th}$  CEA in the project area in the reporting period.

- (6) The emissions of N<sub>2</sub>O for the  $i^{th}$  CEA in a project area in reporting period  $r$ ,  $E_{r,CW,N_2O,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{r,CW,N_2O,i} = GWP_{N_2O} \times E_{Mr,CW,N_2O,i} \times ACEA_{r,i} \quad \text{equation 11}$$

where:

$GWP_{N_2O}$  is the global warming potential of nitrous oxide, specified in the NGER Regulations.

$i$  is a CEA in the project area.

$E_{Mr,CW,N_2O,i}$  is the mass of N<sub>2</sub>O, in tonnes per hectare, emitted from the  $i^{th}$  CEA in the project area for the reporting period, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{th}$  CEA in the project area in the reporting period.

- (7) The emissions of CO<sub>2</sub> for the  $i^{th}$  CEA in a project area in reporting period  $r$  from changes in live vegetation during a transition following tidal introduction or disturbance events,  $E_{TR,CO_2,i}$ , in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{r,TR,CO_2,i} = E_{MTR,CO_2,i} + E_{DE,CO_2,i} \times ACEA_{i,r} \quad \text{equation 12}$$

where:

$i$  is a CEA in the project area.

$E_{MTR,CO_2,i}$  is the mass of CO<sub>2</sub>, in tonnes per hectare, emitted from the  $i^{th}$  CEA in the project area for the reporting period, from changes in live vegetation during a transition following tidal introduction in the reporting period, determined using BlueCAM.

$E_{DE,CO_2,i}$  is the mass of CO<sub>2</sub>, in tonnes per hectare, emitted from the  $i^{th}$  CEA in the project area for the reporting period, from the loss of live vegetation due to disturbance events in the reporting period, determined using BlueCAM.

$ACEA_{i,r}$  is the area, in hectares, of the  $i^{th}$  CEA in the project area in the reporting period.

- (8) The total fuel emissions for a project area for a reporting period, in tonnes CO<sub>2</sub>-e, are worked out using the following equation:

$$E_{fk,r} = \sum_f \sum_k \frac{Q_f \times e_f \times F_{fk}}{1000} \quad \text{equation 13}$$

where:

$E_{fk,r}$  is the fuel emissions for fuel type  $f$  and greenhouse gas  $k$  for the reporting period for the project area.

$Q_f$  is the quantity of fuel type  $f$  combusted in the reporting period for the project area, in kilolitres.

$e_f$  is the energy content factor for fuel type  $f$ , specified in the NGER Regulations, in gigajoules per kilolitre.

$F_{fk}$  is the emission factor for gas type  $k$  for fuel type  $f$ , in kilograms per CO<sub>2</sub>-e per gigajoule, specified in the NGER Regulations.

$f$  is a fuel type combusted in the reporting period for the project area.

$k$  is a greenhouse gas type.

## **Part 5—Reporting, record-keeping, notification and monitoring requirements**

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

### **Division 1—Offsets report requirements**

#### **32 Operation of this Division**

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

#### **33 Information that must be included in offsets reports**

- (1) Each offsets report for a tidal restoration project must include the following for the project:
  - (a) a description of the eligible project activities for the project that were undertaken during the reporting period, including an explanation of how and to what extent they were undertaken;
  - (b) copies of each of the following prepared or revised for, or applicable to, the project during the reporting period:
    - (i) each hydrological assessment for the project, together with each map forming part of it and each relevant confirmation supporting it provided by a qualified engineer;
    - (ii) each project extent map;
    - (iii) each acid sulfate soils management plan;
    - (iv) each project operations and maintenance plan for the project;
    - (v) each notice given by the project proponent under section 11;
    - (vi) each mosquito management plan;
  - (c) the location and boundaries of each CEA for the project;
  - (d) the variables inputted to BlueCAM and the related BlueCAM outputs used for each calculation that under this determination is used to work out the net abatement amount for the project for the reporting period;
  - (e) digital time and date stamped, geolocated images for land in each CEA evidencing the land type, and any changes occurring during the reporting period;
  - (f) if activities are undertaken in the reporting period that may be restricted under section 13—evidence that those requirements are met;
  - (g) for each thinning or vegetation removal event during the reporting period—a record of the following:
    - (i) each CEA in which the thinning or removal event occurred;
    - (ii) the date on which each thinning or removal event occurred;
    - (iii) for each CEA in which a thinning or removal event occurred—an estimate of the proportion of the vegetation that was thinned or removed in the event;
    - (iv) evidence justifying the estimate of the proportion of vegetation thinned or removed;
    - (v) digital time and date stamped, geolocated images of the location of each thinning or removal event;

- (h) a description of the actions outlined in each current acid sulfate soils management plan made under section 17 that were envisaged in the plan to be undertaken in the reporting period, including an explanation of how and to what extent those actions were undertaken, together with evidence that they were undertaken;
  - (i) a description of the actions outlined in each current project operations and maintenance plan which was the basis of a current hydrological assessment for the project made under section 15, that were envisaged in the plan to be undertaken in the reporting period, including an explanation of how and to what extent those actions were undertaken, together with evidence that they were undertaken;
  - (h) a description of the actions outlined in each current mosquito management plan made under section 18 that were envisaged in the plan to be undertaken in the reporting period, including an explanation of how and to what extent those actions were undertaken, together with evidence that they were undertaken.
- (2) If an offsets report is the first report after the declaration of the project as an eligible offsets project, or after an additional area of land was included in a project area for the project, or after additional tidal introduction occurs over land in the project area, it must include the following:
- (a) the date that tidal introduction began, and evidence of this occurring;
  - (b) evidence of all regulatory approvals sought and granted at the local, State, Territory and Commonwealth levels required to undertake all eligible project activities for the project within the jurisdictions that it is located.
- (3) If an offsets report is the first report after the declaration of the project as an eligible offsets project, it must include evidence of each consent obtained by the project proponent under section 21.
- (4) If an offsets report is the first report after the declaration of the project as an eligible offsets project, or after an additional area of land was included in a project area for the project, it must include information which evidences the land type in the project area or areas at the end of the baseline period, in accordance with the Supplement.

## **Division 2—Notification requirements**

### **34 Operation of this Division**

For paragraph 106(3)(b) of the Act, this Division sets out requirements to notify the Regulator of one or more matters relating to a tidal restoration project that is an eligible offsets project during the permanence obligation period for the project.

### **35 Notification requirements**

- (1) The project proponent must notify the Regulator within 60 days of becoming aware that:
- (a) an activity contrary to section 12 or 13 has occurred; or
  - (b) a tidal restriction mechanism, necessary infrastructure or drainage infrastructure relating to the project fails to operate in a way that, but for that failure, any land would not have been impacted land for the project; or
  - (c) a change has occurred to any tidal flows over any land such that the flows may be introduced, increased, reduced, modified or excluded over land in a way not envisaged in a current hydrological assessment for the project made under section 15; or

- (d) a disturbance has occurred to any acid sulfate soils that is different to that envisaged in a current acid sulfate soils management plan for the project made under section 17;
  - (e) the mosquito hazard exceeds that envisaged in a current mosquito management plan for the project made under section 18.
- (2) The project proponent must notify the Regulator within 60 days after any of the following events occur:
- (a) a change occurs to any of the eligible project activities;
  - (b) an existing project operations and maintenance plan for the project is revised, or a new project operations and maintenance plan for the project is prepared;
  - (c) an existing hydrological assessment for the project is revised, or a new hydrological assessment is prepared;
  - (d) an existing project extent map is revised, or a new project extent map is prepared;
  - (e) an existing acid sulfate soils management plan is revised, or a new acid sulfate soils management plan is prepared;
  - (f) an existing mosquito management plan is revised, or a new mosquito management plan is prepared.

## **Division 3—Record-keeping requirements**

### **36 Operation of this Division**

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

### **37 Record-keeping requirements**

The project proponent must keep records of the following:

- (a) records which demonstrate that the requirements of this determination and the Supplement have been met;
- (b) if the project proponent has conducted activities restricted under section 13—evidence that the requirements of section 13 have been met;
- (c) all inputs and calculations used to determine the net abatement amounts for the project for each reporting period;
- (d) records such as invoices or evidence of contractual arrangements, of each fuel type and quantity consumed for undertaking project activities in a reporting period;
- (e) material and evidence supporting the carrying out of any eligible project activities for the project;
- (f) information about the eligible project activities for the project that has been taken into account in the preparation or revision of any project operations and maintenance plan for the project;
- (g) the area of land, in hectares, in each project area of the project, in which excavation activities take place in a reporting period;
- (h) the results of monitoring the establishment of coastal wetland ecosystems in accordance with section 39;
- (i) the results of monitoring natural disturbance events in accordance with section 40.

## Division 4—Monitoring requirements

### 38 Operation of this Division

For paragraph 106(3)(d) of the Act, this Division sets out:

- (a) monitoring requirements for a tidal restoration project that is an eligible offsets project; and
- (b) certain consequences if the project proponent fails to monitor the project as required.

### 39 Monitoring for establishment of a coastal wetland ecosystem

- (1) For the duration of the crediting period for the project, the project proponent must monitor each project area for the project to identify and record the year that a coastal wetland ecosystem began to establish and its location.
- (2) The project proponent must use one or more of the following to monitor each coastal wetland ecosystem within each project area of the project:
  - (a) on-ground observation, evidenced with time, date and geolocated photographic imagery;
  - (b) digital date and time stamped, geolocated imagery;
  - (c) derived vegetation cover data.

### 40 Monitoring for natural disturbance

- (1) The project proponent must monitor each project area for the project for natural disturbance for the duration of the permanence obligation period for the project.
- (2) The project proponent must use one or more of the following to monitor for disturbances:
  - (a) on-ground observation, evidenced with time, date and geolocated photographic imagery;
  - (b) digital date and time stamped, geolocated imagery;
  - (c) derived vegetation cover data.

### 41 Consequences of not meeting requirement to monitor certain parameters

- (1) If, during a particular period (the *non-monitored period*) in a reporting period, the project proponent fails to monitor fuel use as required for equation 12 for a project area, the value of  $A_r$  in equation 2 for that reporting period and that project area is taken to be zero.
- (2) Subsection (1) does not apply if the Regulator determines that:
  - (a) either:
    - (i) the failure to monitor the parameter is likely to have only a minor or trivial impact on the value of  $A_r$ ; or
    - (ii) alternative means have been applied to monitor the parameter consistently with the monitoring requirements in subsequent reporting periods; and
  - (b) the project proponent is taking steps to monitor the parameter consistently with the monitoring requirements in subsequent reporting periods.
- (3) The project proponent must make all practicable efforts to minimise the non-monitored period during a reporting period.



- (4) If the project proponent fails to monitor a project area for the project to identify and record the year that a coastal wetland ecosystem began to establish in the project area, the value of  $A_r$  in equation 2 for that project area for each reporting period is taken to be zero.
- (5) Subsection (4) does not apply if the Regulator determines that:
- (a) the failure to monitor a project area for the project to identify and record the year that a coastal wetland ecosystem began to establish in the project area, is likely to have only a minor or trivial impact on the value of  $A_r$ ; or
  - (b) alternative means have been applied to identify and record the year that a coastal wetland ecosystem began to establish in the project area consistently with the monitoring requirements.
- (6) If, during a particular period of at least 12 months (the *unmonitored period*) in a reporting period, the project proponent fails to monitor a project area for the project for natural disturbance, the value of  $A_r$  in equation 2 for that reporting period and that project area is taken to be zero.
- (7) Subsection (6) does not apply if the Regulator determines that:
- (a) either:
    - (i) the failure to monitor the parameter is likely to have only a minor or trivial impact on the value of  $A_r$ ; or
    - (ii) alternative means have been applied to monitor the parameter consistently with the monitoring requirements in subsequent reporting periods; and
  - (b) the project proponent is taking steps to monitor the parameter consistently with the monitoring requirements in subsequent reporting periods.
- (8) The project proponent must make all practicable efforts to minimise the unmonitored period during a reporting period.
- (9) To avoid doubt, this determination does not prevent the Regulator from taking action under the Act, or regulations or rules made under the Act, in relation to the project proponent's failure to monitor a parameter as required by the determination.

Note: Examples of action that may be taken include the following:

- (a) if the failure constitutes a breach of a civil penalty provision in section 194 of the Act (which deals with project monitoring requirements), the Regulator may apply for a civil penalty order in respect of the breach;
- (b) if false or misleading information was given to the Regulator in relation to the failure, the Regulator may revoke the project's section 27 declaration under regulations or rules made for the purposes of section 38 of the Act;
- (c) if the giving of false or misleading information in relation to the failure led to the issue of Australian carbon credit units, the Regulator may require all or some of those units to be relinquished under section 88 of the Act.

## **Part 6—Partial reporting**

### **42 Partial reporting**

For section 77A of the Act, the division of the overall project must not result in the division of a project area.