Land Restoration FUND

Land Restoration Fund Co-benefits Standard

Version 1.2

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Queensland Government

Contents

1. Introduction

The Queensland Government's Land Restoration Fund is a $500 million initiative focused on growing a new industry - carbon farming.

The Land Restoration Fund's objectives are to:

- Facilitate a pipeline of qualifying Queensland based carbon offset projects, including through private sector investment
- Pursue environmental, economic, cultural and social co-benefits, and
- Invest in research and development into emerging carbon farming areas where Queensland has a comparative advantage.

This document, the Land Restoration Fund Co-benefits Standard, is the framework that specifies how co-benefits are to be identified, measured, reported, and verified for the purposes of projects contracted through the Land Restoration Fund.

This framework also exists in the context of the Government's *Advancing Queensland* priorities to create jobs in a strong economy, and protect the Great Barrier Reef. It is also being delivered in the context of action on climate change, which includes Queensland's commitment to reduce the state's emissions by at least 30 percent on 2005 levels on the way to zero net emissions by 2050.

2. The LRF Co-benefits Standard

The primary objective of the Land Restoration Fund Co-benefits Standard (the LRF Co-benefits Standard) is to ensure there is rigour and a strong-evidence base for the identifying, measuring, monitoring, and reporting of co-benefits that attach to projects contracted by the Land Restoration Fund.

In the context of the LRF Co-benefits Standard, a project:

- is a set of activities consistent with an approved carbon method (a land sector carbon method listed in Appendix 1)
- meets the eligibility requirements for registration with the Clean Energy Regulator as a declared project under the *Carbon Farming Initiative (Carbon Credits) Act 2011* or are already registered (but not yet commenced, or in the process of being registered
- meets the requirements for funding under the Land Restoration Fund which includes being located in Queensland and the delivery of co-benefits (environmental, social, and/or economic) alongside carbon abatement in the form of Australian Carbon Credit Units (ACCUs).

The LRF Co-benefits Standard sets out how land managers can identify, measure, and report the co-benefits that attach to ACCUs from a project. It also outlines the how the co-benefits will be verified and transparently reported.

There are three main categories of co-benefits that the Land Restoration Fund is seeking to support:

- Environmental – biodiversity, habitat for threatened species, and healthier soils, wetlands, and water systems
- Social and Economic – improving the resilience and strength of regional communities by supporting direct and indirect jobs, and more money flowing into Queensland's regions
- First Nations – providing on-country business opportunities as well as new service delivery businesses and supporting cultural and customary connections

Projects supported by the Land Restoration Fund may seek to claim co-benefits from one, two, or all of the main co-benefit categories.

2.1. How to use the LRF Co-benefits Standard

2.1.1. Co-benefit categories

The LRF Co-benefits Standard sets out how priority co-benefits for projects are to be identified, measured, and verified for each of the following three primary categories:

- **Environmental co-benefits**:
  - the classes of environmental co-benefits and eligible outcomes
  - the approach to assurance for environmental co-benefits
  - identifying environmental assets
  - data collection and reporting mechanisms
  - how project proponents can provide assurance or confidence in the co-benefits being delivered
- **Social and economic co-benefits:**
  - classes of socio-economic co-benefits
  - how to identify and report on social and economic co-benefit outcomes
  - how project proponents can provide assurance in the co-benefit outcomes
- **First Nations co-benefits:**
  - the cultural, customary, social and economic co-benefits associated with First Nations-led carbon farming projects, carbon farming projects that involve First Nations people or carbon farming projects that deliver co-benefits to a First Nations community
  - the assurance options that project proponents may wish to select

2.1.2. Structure of the LRF Co-benefits Standard

Each section is designed to provide more information on the process for identifying, measuring, monitoring and reporting co-benefits attached to a project and is structured as follows:

- Section 2 addresses overarching concepts including what are co-benefits, regulatory context, and what is meant by assurance.
- Section 3 provides definitions of key terms and concepts.
- Section 4 addresses environmental co-benefits.
- Section 5 addresses socio-economic co-benefits
- Section 6 addresses First Nations co-benefits
- Section 7 outlines the procedural and other administrative matters associated with projects including reporting and information management.

2.1.3. Version to use

Project proponents are to use the latest published version of the LRF Co-benefits Standard when the project is first registered.

As the LRF Co-benefits Standard is updated, project proponents may elect to move to the latest version. Requirements for projects that wish to move between LRF Co-benefits Standards will be specified in future versions.

Projects can continue to use the same version of the standard under which they have been registered for co-benefits for so long as their contract to sell ACCUs with co-benefits to the Land Restoration Fund is current, or for five years, whichever is longer. The LRF Co-benefits Standard will be updated via a consultative process. There will be an annual review of the effectiveness and efficiency of the LRF Co-benefit Standard.

2.2. Co-benefits

Co-benefits for the Land Restoration Fund are the positive environmental, social, economic, cultural and customary benefits that can be generated by projects.

A key barrier to realising the value of co-benefits associated with carbon offsets has been the lack of applicable frameworks to identify, measure, report, and verify those co-benefits. New frameworks are needed across the carbon offset value chain for market confidence in co-benefits.[1].

To extend the coverage and evidence base for environmental co-benefits, the Land Restoration Fund is using the *Accounting for Nature* Framework[2] as a basis for the measuring, reporting, and third party certification of environmental outcomes to verify environmental co-benefits under the LRF Co-benefits Standard. Future LRF Co-benefits Standards may specify other frameworks as the range of verification and assurance options increases.

The Queensland Government also funded the Aboriginal Carbon Foundation to develop its *Core Benefits Verification Framework*[3] (the Core Benefits Framework) for verifying the cultural, social and environmental value of Aboriginal carbon farming projects – the first work of its kind for Traditional Owners in Australia. The Core Benefits Framework is one way of documenting and providing evidence of First Nations co-benefits from Land Restoration Fund projects (see Section 6).

2.3. Climate change

Climate change is a cross cutting issue for all co-benefits under the LRF Co-benefits Standard. The co-benefit classes identified in the LRF Co-benefits Standard are all priorities because of increasing pressure on natural, agricultural and social systems from climatic change, plus other drivers. When preparing monitoring reports for co-benefits, climate change considerations are to be factored in. For environmental co-benefits, project proponents should consider the benefits of the activity for providing:

- refugia for species impacted by climate change
- nature based climate adaptation outcomes
- climate change resilience in agricultural systems (e.g. improving biodiversity and soil health)
- climate change resilience in natural systems (e.g. improving condition of threatened ecosystems and species)

For socio-economic co-benefits, project proponents should consider how the project may contribute to climate adaptation and community resilience to climate change impacts such as drought or heat waves.

Project proponents also need to take into consideration how climate change will impact on the feasibility of the activity, particularly in terms of future water availability, evaporation rates, and bushfire risk.

The Queensland Government Future Climate Dashboard can assist project proponents to identify how climate change considerations interact with the delivery of a project's co-benefits.

2.4. Scope and application

This LRF Co-benefits Standard applies to the environmental, socio-economic, and First Nations co-benefits that attach to carbon farming projects funded under the Land Restoration Fund program. It outlines the approaches for identifying, measuring, reporting, and verifying the co-benefits delivered by Land Restoration Fund projects.

Projects that are funded by the Land Restoration Fund must use this LRF Co-benefits Standard. Projects may generate more carbon credits (ACCUs) than they choose to sell to the Land Restoration Fund.

A project proponent can claim any of the co-benefit classes for which it satisfies the eligibility criteria and assurance level specified under the LRF Co-benefits Standard for the co-benefit class selected.

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[1] Energetics, 2017, *Unlocking value for the Queensland economy with land and agriculture offsets*, Sydney. https://www.qld.gov.au/__data/assets/pdf_file/0017/67310/unlocking-value-qld-from-offsets.pdf , accessed December 2019.

[2] Wentworth Group of Concerned Scientists, 2016. *Accounting for Nature: A scientific method for constructing environmental asset condition accounts*, Sydney, https://wentworthgroup.org/wp-content/uploads/2017/07/Wentworth-Group-2016-Accounting-for-Nature.pdf, accessed December 2019.

[3] Aboriginal Carbon Foundation, 2019, *Core benefits verification framework: for the environmental, social and cultural values of Aboriginal carbon farming*, Cairns, Queensland, https://www.qld.gov.au/__data/assets/pdf_file/0018/105750/core-benefits-verification-framework.pdf, accessed December 2019.

2.5. Land Restoration Fund framework

The LRF Co-benefits Standard should be read in conjunction with:

- The Land Restoration Fund's Priority Investment Plan, which documents the range of co-benefits the Queensland Government is prioritising for investment
- Land Restoration Fund application guidance for relevant funding rounds
- Approved external frameworks supporting third party assurance of co-benefit verification, listed under Appendix 2
- Information about the Commonwealth's framework for ACCUs (the Climate Solutions Fund - Emission Reduction Fund) including the legislative methods for carbon farming projects.

2.6. Assurance

Assurance in the context of the LRF Co-benefits Standard refers to confidence in the integrity of co-benefits. In other words, assurance that the co-benefits are real. It is a result of the combined requirements for co-benefit eligibility, verification and reporting that are set out in this document.

Regular reporting that includes data to substantiate claims is fundamental to managing the quality of the co-benefits delivered and providing assurance that co-benefits are genuine.

The Land Restoration Fund will keep a register of its projects to provide summary information suited to high-level third party assessment of project performance (the LRF Register). The LRF Register will also identify verified co-benefits and the relevant assurance approach being used.

Other measures to ensure the quality of co-benefits verified in accordance with the LRF Co-benefits Standard include:

a. Eligibility requirements that clearly articulate the types of land use change that are eligible under this framework
b. Identification of potential for negative impacts on Matters of State and National Environmental Significance
c. Frameworks for determining social and economic co-benefits
d. Risk-based requirements for independently certified information to verify delivery of co-benefit outcomes (third party assurance)

There are two levels of assurance for documenting, monitoring, and ultimately verifying co-benefits under this LRF Co-benefits Standard:

1. **Third party assurance**: co-benefits are verified based on evidence certified by an approved third party framework, and project reports to the Land Restoration Fund.

   Currently, approved third party frameworks for assurance for co-benefits are the *Core Benefits Verification Framework* for First Nations projects, and certified environmental accounts under the *Accounting for Nature* Framework.

   Third party assurance provides greater confidence in the outcomes being claimed both in terms of quality and quantity. It would be expected that projects using third party assurance are considered more commercially attractive than those providing proponent assurance, all other things being equal, due to reduced risks associated with non-delivery of co-benefits.

   Third party assurance is more likely to be used or required where the dollar value of the co-benefit premium agreed between the project proponent and the Land Restoration Fund is higher, or where there is a higher degree of uncertainty associated with the delivery of the co-benefits seeking to be claimed.

2. **Proponent assurance**: co-benefits are verified on the basis of project reports to the Land Restoration Fund.

   This option is only available for carbon methods assessed as having clear links to specific co-benefits as outlined in Appendix 3.

   Proponent assurance is a lower level of assurance than third party assurance. It would be expected that projects using proponent assurance may be less commercially attractive than those providing third party assurance, all other things being equal, due to less rigorous reporting reducing transparency of outcomes.

Co-benefit claims by projects using proponent level assurance will be assessed by a pool of independent experts providing advice to the Land Restoration Fund.

Appendix 3 provides further information on the relationship between carbon methods, environmental co-benefits, and proponent assurance.

2.7. The LRF Register

2.7.1. Purpose of the LRF Register

The purpose of the LRF Register is to provide a public record of the verified co-benefits classes a project delivers to the Land Restoration Fund in addition to ACCUs. The LRF Register is maintained and published by the Land Restoration Fund. Project proponents must agree to the Land Restoration Fund publishing the project information listed below in the LRF Register, unless that information is classed as sensitive, such as cultural or personal details. In such circumstances, the information can be withheld from publication.

2.7.2. Content of the LRF Register

The LRF Register lists individual carbon farming projects. To ensure correct geographic representation of the co-benefits in the register, portfolios of projects that are not co-located cannot be combined under a single registration. This is because the co-benefits associated with the ACCUs generated from a project are not transferable to other projects.

The LRF Register will publish a description of funded projects (the project description) that includes:

- Project summary of up to 600 words that briefly outlines the project activity, assets affected, and the project's co-benefits.
- Lot(s) on Plan(s).
- Project boundary.
- Any mechanisms in place providing confidence that the outcomes of the project will be long-term and sustained, such as perpetual covenants or nature refuge agreements that support delivery of environmental co-benefits. The information will indicate the timing of when the mechanism was put in place, for example, declaration of a nature refuge agreement after the registration of a project with the Clean Energy Regulator.
- Carbon estimation area boundaries.
- Specific co-benefit classes being claimed and the applicable level of assurance for monitoring and verification.
- Accounting approach being used, if any, to monitor project outcomes.
- Emissions Reduction Fund project number/identifier (following registration with the Clean Energy Regulator).
- level of assurance to which those co-benefits are verified and the methods used.
- applicable version of the LRF Co-benefits Standard.

A participant can request information in writing from the Land Restoration Fund that certain information is be withheld from publication.

The majority of the information contained in the LRF Register will be provided by project proponents.

Relevant lists and data sources are taken to be those that apply as at the time a project is registered on the LRF Register.

Projects will be required to report annually noting that the timing of the annual reporting cycle will vary from project to project.

2.7.3. Updates to the LRF Register

Updates to the LRF Register will be made at least twice each year by the Land Restoration Fund on the basis of project reports provided by project proponents. Project proponents will not be directly updating the LRF Register.

2.7.4. LRF Register information use

The primary uses of the data collected via project reports and third party certification frameworks will be to verify co-benefits, and to report publicly on the Land Restoration Fund's investments, consistent with expectations on the use of government funding.

If project proponents are shown to have made false or misleading claims in a project report or in the original application, corrective action will be managed in accordance with existing legislative provisions and any contractual agreement between the project proponent and the Land Restoration Fund.

The LRF Co-benefits Standard will be reviewed regularly and may be updated in the future based to improve performance and manage the relative costs, benefits and other implications of verification for particular co-benefit classes.

Additionally, in the future, evidence of the co-benefits contained in the LRF Register may enable proponents of eligible projects to market their ACCUs to the broader market as a higher value product with verified co-benefits.

The information contained in the LRF Register can only be used for the purposes of administering projects and contracts.

2.8. Regulatory context

2.8.1. Commonwealth Government Framework

The Commonwealth Government's Climate Solutions Fund - Emissions Reduction Fund (ERF) is established under and enabled by the *Carbon Credits (Carbon Farming Initiative) Act 2011* (the CFI Act) and the *Clean Energy Regulator Act 2011*. The CFI Act provides for the declaration of eligible carbon offsets projects and the issuance of ACCUs, as well as the development and approval of carbon farming methodologies.

Each ACCU represents one tonne of carbon dioxide equivalent of greenhouse gas abatement delivered by eligible activities in accordance with a carbon method.

ACCUs are also tradable financial products for the purposes of the *Corporations Act 2001* (Cth).

Projects delivering carbon credits with co-benefits to the Land Restoration Fund must use the Commonwealth Government's regulatory framework for calculating and verifying ACCUs.

2.8.2. Matters of State or National Environmental Significance

Projects using the LRF Co-benefits Standard are required to identify and manage risk of likely negative environmental outcomes. Carbon projects, like many land use change activities, have the potential for negative outcomes for particular environmental matters. For example, restoring a wetland to its formerly wooded state may impact on its existing value as habitat for threatened species of waterbirds.

Therefore, projects will be required to apply the standard frameworks for environmental assessment to determine any significant residual impacts on Matters of State Environmental Significance (MSES) or Matters of National Environmental Significance (MNES) under the *Environmental Protection and Biodiversity Conservation Act 1999*. Project proponents will be required to assess whether there are significant impacts on MSES or MNES as part of the applications process.

3. Definitions

Accounting for Nature: a framework created by the Wentworth Group of Concerned Scientists[4] for building a set of accounts that describe the condition of environmental assets. The common measure, an *Econd*, is an index between 0 and 100 that describes the condition of the asset relative to its un-degraded reference state. In principle, the *Accounting for Nature* Framework can be used to describe the condition of any environmental asset (native

[4] Wentworth Group of Concerned Scientists, 2016. *Accounting for Nature: A scientific method for constructing environmental asset condition accounts.* Sydney, https://wentworthgroup.org/wp-content/uploads/2017/07/Wentworth-Group-2016-Accounting-for-Nature.pdf, accessed December 2019.

vegetation, soil, rivers, fauna, estuaries, etc.), at any scale, over time. For this LRF Co-benefits Standard, accounts are relevant for native vegetation and soil assets.

Accounting for Nature Pty Ltd: An independent not-for-profit organisation established to operationalise environmental accounting in Australia and internationally. Accounting for Nature provides expert advice, training and accreditation services related to environmental accounting.

Accounting for Nature Standard: The Accounting for Nature Standard outlines the framework for preparing environmental accounts.

Accounting for Nature Standards and Accreditation Committee: The Accounting for Nature's committee for accrediting other organisation's standards, protocols and methods.

Assurance: Assurance, in the context of the LRF Co-benefits Standard, refers to confidence in the integrity of co-benefits. In other words, assurance that the co-benefits are real. It is a result of the combined requirements for co-benefit eligibility, verification and reporting that are set out in this document. There are two levels of assurance: proponent and third-party.

Australian Carbon Credit Unit (ACCU): a tradable financial product that represents one tonne of carbon dioxide equivalent abated. ACCUs are issued and regulated by the Clean Energy Regulator.

Carbon method: carbon methods for the purposes of the LRF Co-benefits Standard are legislative instruments made under the *Carbon Credits (Carbon Farming Initiative) Act 2011.* Carbon methods detail eligibility and other requirements for how a Clean Energy Regulator registered project can generate ACCUs. Eligible methods for Land Restoration Fund projects are listed in Appendix 1.

Cardinal directions: each of the four main points of a compass: north, south, east and west.

Certification: in the context of this document, certification is a process for third party assurance of data related to co-benefit verification. For example, under the Accounting for Nature framework, certification means an environmental account is fit-for-purpose, scientifically robust, based on quality data, and contains appropriate measures of environmental condition.

Climate Solutions Fund: The Climate Solutions Fund is a Commonwealth Government initiative that will provide a further $2 billion to continue the Emissions Reduction Fund

Coastal ecosystem: Coastal ecosystems are defined as pre-clearing Regional Ecosystems on land zones 1, 2 or 3 within the biogeographic subregions of Queensland listed in Appendix 4.

Co-benefit: the environmental, social, economic or First Nations benefits arising from a carbon offset project in addition to greenhouse gas abatement.

Condition: a measure of both the quantity and quality of an environmental asset. For example, the area of a forest and the diversity of plant and animal species that inhabit that forest.

Counterfactual scenario: The scenario (for example, an asset condition trajectory) expected to occur in the absence of some defined action or set of actions. A 'counterfactual' scenario is a hypothetical state of the world, used to assess the impact of an action or project. In carbon and co-benefit projects the relevant counterfactual scenario should describe the most likely outcome in the absence of a specific activity or the project. The default position for verification of co-benefits under this LRF Co-benefits Standard will be to apply a counterfactual scenario (or baseline) for condition trends that is consistent with the baseline applied in the carbon method being used by the project.

Econd: a scientific measure, metric or model, accredited against agreed standards that describes the current biophysical condition of an environmental asset as an index between 0 and 100, where 100 is a measure of the asset in its appropriate un-degraded reference state.

Emissions Reduction Assurance Committee (ERAC): An independent, expert committee that assesses whether methodology determinations (methods) meet the requirements of the ERF. The ERAC helps ensure the ongoing integrity of methods under the ERF.

Emissions Reduction Fund (ERF): The Australian Government's framework for *crediting* ACCUs, *purchasing* ACCUs through reverse auctions, and *safeguarding* the emissions reductions achieved.

Environmental account: Under the *Accounting for Nature* Framework, an environmental account is a compilation of consistent and comparable data and indicators for policymaking, analysis and research. Environmental accounts keep track of the condition and trend of environmental assets

Environmental asset: naturally occurring living and non-living components of Earth that provide benefits to humanity. An environmental asset can be any biophysical feature in nature that provides benefits to society. It can be an ecosystem such as a forest, a river or an estuary; a natural resource that contributes directly to economic

activities such as a fish stock, agricultural soil, or a groundwater resource; it can be an individual species of mammal or bird; or it can be any other feature in nature.

Environmental co-benefit: environmental co-benefits are positive outcomes associated with improving the condition of an environmental asset.

Estuarine wetland: Estuarine ecosystems are those with oceanic water that is diluted with freshwater run-off from the land. The "Wetland" field in the Regional Ecosystem (RE) description database can be used as a guide to identify regional ecosystems that are, or contain, estuarine wetlands.

First Nations: 'First Nations' is the preferred term to refer to Indigenous or Aboriginal and Torres Strait Islander people. By using the term First Nations, recognition is given to Aboriginal and Torres Strait Islander people as the sovereign people of Australia. Further, it recognises various language groups as separate and unique sovereign nations.

First Nations co-benefit: First Nations co-benefit is a positive outcome for a First Nations person, people or community recognising culture, custom, environment, country, and social connection.

Indicator: a quantitative or qualitative variable that provides a simple and reliable means to measure a particular phenomenon or attribute.

Land zone: areas with significant differences in geology and associated landforms, soils, and physical processes. They generally correspond to broad geological categories or groupings. Land zones are generally determined by amalgamating a range of geological, land system and/or soil mapping units. There are twelve different land zones in Queensland[5].

Land Restoration Fund methods (LRF methods): Land Restoration Fund (LRF) methods contain indicators that are aggregative, that is, can be combined with other indicators to produce single reports. For environmental co-benefits, a LRF method will be a document that is endorsed by Accounting for Nature detailing the processes for measuring, reporting, and verifying co-benefit claims for an environmental asset class (e.g. vegetation or soil).

Methods: Under the *Accounting for Nature* Framework, methods contain the detailed measurement, reporting and verification requirements for specific environmental assets. A method can be at different scales (regional, ecosystem, sub-region).

MNES, Matters of National Environmental Significance: MNES encompass certain environmental values protected under Australian Commonwealth legislation, for example, but not limited to, threatened ecological communities and threatened species listed under the *Environment Protection and Biodiversity Conservation Act 1999.*

MSES, Matters of State Environmental Significance: MSES encompass certain environmental values protected under Queensland legislation, for example, but not limited to, regulated vegetation under the *Vegetation Management Act 1999*, and protected areas under the *Nature Conservation Act 1992*.[6]

Native vegetation: native vegetation is all indigenous terrestrial or aquatic plants in an area, incorporating all living and non-living components. This includes Australia's diverse natural vegetation and permanent native plantings for biodiversity and sustainable land management purposes.[7]

Palustrine wetland: Palustrine wetlands are vegetated, non-riverine or non-channel systems. They include billabongs, swamps, bogs, springs, soaks etc. and have more than 30% emergent vegetation. The "Wetland" field in the Regional Ecosystem (RE) description database[8] can be used as a guide to identify regional ecosystems that are, or contain, palustrine wetlands.

Project: is a set of activities consistent with an approved carbon method that meet the eligibility requirements for registration with the Clean Energy Regulator and meets the requirements for funding under the Land Restoration Fund.

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[5] Queensland Government, 2016, *Landzone definitions*, Brisbane. https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions/land-zones, accessed December 2019.

[6] Queensland Government, 2019, *Matters of state environmental significance—mapping method*, Brisbane. https://environment.des.qld.gov.au/management/planning-guidelines/method-mapping-mses, accessed December 2019.

[7] COAG Standing Council on Environment and Water, 2012, *Australia's Native Vegetation Framework*, Australian Government, Canberra. https://www.environment.gov.au/land/publications/australias-native-vegetation-framework, accessed December 2019.

[8] Queensland Government, 2019, *Regional ecosystem description database*, Brisbane, https://apps.des.qld.gov.au/regional-ecosystems/, accessed December 2019.

Project proponent: the entity with the legal right to undertake a project under the Land Restoration Fund.

Protocols: Under the *Accounting for Nature* Framework, protocols contain guidance on the detailed technical requirements associated with method development. This guidance covers indicator selection, monitoring, data compilation and account construction for condition of environmental assets. A protocol document must be read in conjunction with the LRF Co-benefits Standard rules and procedures that govern the development of methods for specific environmental asset classes. The rules and procedures in the Protocols share common elements but are tailored to each asset type. This is necessary to account for the differences in the characteristics of environmental asset classes. These differences mean different indicators, measurement techniques and aggregation procedures are needed to cost-effectively assess their condition.

Proponent assurance: Proponent assurance involves direct reporting by a project proponent and verification by the Land Restoration Fund. It is available for all socio-economic and First Nations co-benefit classed but is only available for environmental co-benefits involving carbon methods where there is sufficient evidence of a direct correlation between the activity and the impact being claimed.

Regional ecosystem: Regional ecosystems (REs) are vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil (*Vegetation Management Act 1999*). REs are the primary ecosystem classification for planning and regulation in Queensland. Pre-clearing and remnant RE mapping is available statewide including through Queensland Globe[9]. Descriptions for REs can be accessed through the Regional Ecosystem (RE) description database (REDD)[10].

Relevant assets: In the context of environmental co-benefits under this Standard, relevant assets are environmental assets included in the LRF Register against which the co-benefits are claimed (e.g. the specific threatened regional ecosystem for which a threatened ecosystem co-benefit is claimed.

Riverine wetland: Riverine wetlands are wetlands contained within a channel (e.g. river, creek or waterway) and their associated streamside vegetation. The "Wetland" field in the Regional Ecosystem (RE) description database can be used as a guide to identify regional ecosystems that are, or contain, riverine or 'fringing riverine' wetlands.

Socio-economic co-benefit: A socio-economic co-benefit is a positive direct or indirect outcome for a person, community, or regional economy from a project located close to that community or within that region.

SRI, Significant residual impact guideline: Significant residual impact guidelines set out processes to determine whether a project is likely to have a significant impact on matters of state[11] (MSES) or national[12] (MNES) environmental significance.

Standard: A standard, in the context of this document, is something set up and established by authority as a rule for the measure of quantity, weight, extent, value, or quality. The LRF Co-benefit Standard is a document that outlines the overarching process and requirements for measuring, monitoring, verifying and reporting co-benefits for the purposes of the Land Restoration Fund.

Third party assurance: Third party assurance involves third party verification of the co-benefits being claimed. It is specifically required for projects where there is not a direct correlation between the carbon method being used and the environmental co-benefit being claimed.

Validation: refers to the checking and evaluation of a project design prior to its implementation, to ensure the project is eligible and meets all requirements as laid out in applicable Standard and Method documents.

Vegetation management watercourse and drainage feature map:

Verification: refers to the process of ensuring that the emission reductions and/or co-benefits delivered by project are genuine, and are as reported by the proponent in the project monitoring reports.

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[9] Queensland Government, 2019, *Queensland Globe*, Brisbane, https://qldglobe.information.qld.gov.au/, accessed December 2019.

[10] Queensland Government, 2019, *Regional Ecosystem Description Database*, Brisbane, https://apps.des.qld.gov.au/regional-ecosystems/, accessed December 2019.

[11] Queensland Government, 2014, *Significant residual impact guideline (for MSES and prescribed activities assessable under SPA),* Brisbane. http://www.dlgrma.qld.gov.au/resources/guideline/planning/dsdip-significant-residual-impact-guideline.pdf, accessed December 2019.

[12] Australian Government, 2013, *Significant impact guideline 1.1. – Matters of national environmental significance*. http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance, accessed December 2019.

4. Environmental co-benefits

4.1. Assurance specific to environmental co-benefits

In the context of environmental co-benefits, this LRF Co-benefits Standard outlines where proponent level assurance will be an option. Third party (independent) certified evidence is an option for all projects to verify eligible environmental co-benefits (third party assurance).

Proponent assurance without third party certified evidence is only an option for projects using a carbon method with clear links to the relevant environmental co-benefit outcome.

For example, many studies indicate that native vegetation restoration is likely to provide a native vegetation benefit. Therefore, projects involving native vegetation restoration, such as environmental plantings or avoided clearing, have the option to verify native vegetation co-benefits through proponent assurance.

By comparison, a project using the beef herd management method has a far wider range of likely outcomes for vegetation condition, depending on the project's specific mechanism. Therefore, a claim that a beef herd project will benefit vegetation is more contestable. As a result, beef herd projects need third party assurance for environmental co-benefit claims to verify the outcome.

Further information on the relationships between carbon methods and co-benefits, and the requirements for proponent assurance is in Appendix 3.

4.2. Environmental Assets

Environmental assets are naturally occurring living and non-living components of Earth that provide benefits to humanity.

An environmental asset can be any biophysical feature in nature that provides benefits to society, for example:

b) An ecosystem such as a forest, a river or an estuary
c) A natural resource that contributes directly to economic activities such as a fish stock, agricultural soil, or a groundwater resource
d) An individual species or population
e) Any other feature in nature

For this LRF Co-benefit Standard, monitoring focusses on condition of native vegetation and soil assets, but project eligibility for co-benefit classes is defined in terms of other asset types including wetlands, catchments and species distributions.

4.3. Environmental co-benefit classes

There are seven environmental co-benefit classes that can be claimed and verified under this version of the LRF Co-benefits Standard: soil, the Great Barrier Reef, wetlands, coastal ecosystems, threatened ecosystems, threatened wildlife (including plants), and native vegetation.

The co-benefit classes are not mutually exclusive. It may be possible for projects to claim co-benefits under all seven classes. Project reporting will focus on condition of vegetation and soil and the same information types underpin verification for all environmental co-benefit classes.

4.3.1. Soil health

Eligibility: For a verified soil health co-benefit, the project must result in an improvement to soil condition.

Assurance: Proponent assurance for soil health co-benefits is an option only for projects employing a soil carbon method (see Appendix 3).

All projects using other carbon methods will require third party certified accounts of the condition of soil assets for soil health co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.3.2. The Great Barrier Reef

Eligibility: For a verified Great Barrier Reef co-benefit, projects must either:

a) Improve native vegetation in pre-clearing wetlands in Great Barrier Reef catchments,

or

b) Improve native vegetation condition and improve soil condition within a reef catchment with a sediment target in the Reef Water Quality Improvement Plan[13].

Pre-clearing wetlands are Regional Ecosystems (REs) that are estuarine, palustrine or riverine wetlands within the catchment of the Great Barrier Reef [14]. Riverine wetlands include riparian vegetation within 50 metres of drainage lines shown on the vegetation management watercourse and drainage feature map on land zone 3 (riverine wetlands). The vegetation management watercourse and drainage feature map for land zone 3 can be accessed by creating a watercourse identification map using Queensland Globe or QSpatial.

Assurance: Proponent assurance for Great Barrier Reef co-benefits is an option only for projects using carbon methods for Human-Induced Regeneration of a Permanent Even-Aged Native Forest 1.1 (Human Induced Regeneration), Native Forests from Managed Regrowth, Reforestation by Environmental or Mallee Plantings – FullCAM (Environmental Plantings) or Avoided Clearing of Native Regrowth (Avoided Clearing) (see Appendix 3).

All projects using other carbon methods will require third party certified accounts of condition of vegetation and soil assets for Great Barrier Reef co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.3.3. Wetlands

Eligibility: For a verified Wetlands co-benefit, projects must either:

a) Improve the condition of wetland native vegetation

or

b) Improve the condition of non-wetland vegetation and soil within 100m of a wetland in an Aquatic Conservation Assessment[15] rated as natural or near natural, and high or very high significance.

Wetland native vegetation includes pre-clearing Regional Ecosystems that are palustrine, estuarine or riverine wetlands[16]. Riverine wetlands include riparian vegetation fringing watercourses on land zone 3 and all areas within 50m of drainage lines shown on the Vegetation Management watercourse and drainage map.

Assurance: Proponent assurance for Wetland co-benefits is an option only for projects using carbon methods for Human Induced Regeneration, Native Forests from Managed Regrowth, Environmental Plantings, or Avoided Clearing.

All projects using other carbon methods will require third party certified accounts of condition for vegetation and soil assets for wetland co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

[13] Reef water quality improvement plan current at time of Land Restoration Fund project registration

[14] Queensland Government, 2018, *What are* wetlands, Brisbane. https://wetlandinfo.des.qld.gov.au/wetlands/what-are-wetlands/, accessed December 2019.

[15] Queensland Government, 2013, *Aquatic Conservation Assessments (ACA) and AquaBAMM,* WetlandInfo. https://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca/, accessed December 2019.

[16] Queensland Government, 2018, *What are* wetlands, Brisbane. https://wetlandinfo.des.qld.gov.au/wetlands/what-are-wetlands/, accessed December 2019.

4.3.4. Coastal Ecosystems

Eligibility: For a verified Coastal Ecosystem co-benefit, projects must improve native vegetation condition in coastal Regional Ecosystems (REs).

Coastal REs are pre-clearing Regional Ecosystems on land zones 1, 2 or 3 in a coastal sub-bioregion (Appendix 4).

Assurance: Proponent assurance for Coastal Ecosystem co-benefits is an option only for projects using carbon methods for Human Induced Regeneration, Native Forests from Managed Regrowth, Environmental Plantings, or Avoided Clearing.

All projects using other carbon methods will require third party certified accounts of condition for vegetation and soil assets for Coastal Ecosystem co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.3.5. Threatened Ecosystems

Eligibility: To verify Threatened Ecosystem co-benefits, projects must either:

a) improve native vegetation condition in a Regional Ecosystem with a biodiversity status of "of-concern" or "endangered"[17]

or

b) improve native vegetation condition in a Regional Ecosystem listed as containing threatened ecological communities under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

Regional Ecosystem (RE) biodiversity status is listed in the Regional Ecosystems Description Database (REDD). REs must be of-concern or endangered either at project registration or in the current version of REDD for threatened ecosystem co-benefits to be verified.

A list of REs that contain listed threatened ecological communities under the EPBC Act is available on the Department of Environment and Science website.

Assurance: Proponent assurance for threatened ecosystem co-benefits is an option only for projects using carbon methods for Human Induced Regeneration, Native Forests from Managed Regrowth, Environmental Plantings, or Avoided Clearing.

All projects using other carbon methods will require third party certified accounts of condition for vegetation and soil assets for threatened ecosystem co-benefit verification.

These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.3.6. Threatened wildlife (including plants)

Eligibility: To verify threatened wildlife (which includes plants) co-benefits, projects must either:

a) improve native vegetation condition within areas that meet the definitions of matters of state (MSES) as wildlife habitat or national environmental significance (MNES) for threatened species[18]

or

b) improve native vegetation condition of REs that are potential habitat[19] for threatened species other than highly mobile fauna.

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[17] RE biodiversity status is listed in the Regional Ecosystems (REs) Description Database (https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions). REs must be of-concern or endangered either at project registration or in the current version of REDD for threatened ecosystem co-benefits to be claimed.

[18] See mapping rules for "Wildlife habitat" in https://environment.des.qld.gov.au/management/planning-guidelines/pdf/mses-methodology.pdf. Restrictions on MSES mapping to remnant or regrowth vegetation do not apply for this standard.

[19] Potential habitat means an area indicated as potential habitat for one or more species in the collection "*Modelled potential habitat for selected threatened species – Queensland*" published by the Department of Environment and Science (https://data.qld.gov.au/dataset/modelled-potential-habitat-for-selected-threatened-species-queensland), or an area identified as "high risk" on the protected plant flora survey trigger map.

Matters of state or national environmental significance for threatened wildlife include habitat for:

a) Threatened wildlife under *Nature Conservation Act 1992* (NCA)
b) Threatened wildlife under the EPBC Act
c) Special least concern animals under the NCA including the echidna and platypus
d) Special least concern animals under the NCA and EPBC Act[20] - migratory birds under international agreements including:
   - Japan-Australia Migratory Birds Agreement (JAMBA)
   - China-Agreement Migratory Agreement (CAMBA)
   - Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA)
   - Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
   - Ramsar Convention on Wetlands
   - Agreement on the Conservation of Albatrosses and Petrels (ACAP)

Potential habitat means:

a) an area indicated as potential habitat for one or more threatened species (NCA or EPBC Act) in the Department of Environment and Science collection, Modelled potential habitat for selected threatened species – Queensland.

or

b) an area identified as "high risk" on the protected plant flora survey trigger map administered by the Queensland Department of Environment and Science.

Assurance: Proponent assurance for threatened wildlife co-benefits is an option only for projects using carbon methods for Human Induced Regeneration, Native Forests from Managed Regrowth, Environmental Plantings, or Avoided Clearing.

All projects using other carbon methods will require third party certified accounts of condition for vegetation and soil assets for Threatened Wildlife co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.3.7. Native Vegetation

Eligibility: To verify Native Vegetation co-benefits, projects must improve native vegetation condition.

Assurance: Proponent assurance for native vegetation co-benefits is an option only for projects using the carbon methods for Savanna Fire Management 2018 (Emissions Avoidance) (Savanna Burning – Emissions Avoidance) and Savanna Fire Management 2018 (Emissions Avoidance and Sequestration) (Savanna Burning – Emissions Avoidance and Sequestration), Human Induced Regeneration, Native Forests from Managed Regrowth, Environmental Plantings, or Avoided Clearing.

All projects using other carbon methods will require third party certified accounts of condition of vegetation and soil assets for Native Vegetation co-benefit verification. These accounts must be certified under the *Accounting for Nature* Framework. A certified account must be provided at least once every five years.

4.4. Project reporting for all environmental co-benefit projects

All projects seeking to claim environmental co-benefits under this LRF Co-benefit Standard must submit annual project reports for publication in the LRF Register.

[20] Department of Environment and Energy, 2019, *Migratory Birds*, Australian Government, Canberra, https://www.environment.gov.au/biodiversity/migratory-species/migratory-birds, accessed December 2019.

The reports are to include:

- A map, showing property boundaries, project boundaries, carbon estimation area boundaries, and locations for photopoints.
- A map for each environmental co-benefit class being verified showing the location of key assets relevant to each co-benefit class
- Electronic copies of the Queensland Government's Environmental Report for Matters of State Ecological Significance for each year from commencement[21]
- Electronic copies of the Queensland Government's Forage Report for Ground Cover[22] for each March and October from project commencement
- Ground-based photo points: four frames per record, one for each cardinal direction, to provide an annual time-series of images, from at least three locations within each carbon estimation area, which must be plotted on a map. Photographs are to be taken in October.

For proponent assurance, these reports are the basis for verifying co-benefits. Projects required to provide third party assurance for verification of environmental co-benefits must also provide electronic copies of environmental accounts certified by *Accounting for Nature*. These accounts must be generated and submitted at an interval not longer than five years.

A proponent can elect to provide additional evidence specific to each of the co-benefit classes being claimed as considered appropriate.

Proponents are responsible for warranting that the information provided in the project report to the Land Restoration Fund is true and correct to the best of their knowledge.

Under proponent assurance, project reports will be reviewed by independent external assessors appointed by the Land Restoration Fund to verify the environmental co-benefits. The Land Restoration Fund will also undertake a formal evaluation of a sample of projects providing proponent assurance in order to assess the performance of proponent reporting at the portfolio scale, using the more rigorous third party procedures.

Under third party assurance, third party certification of environmental accounts involves third party audits as detailed in the *Accounting for Nature Standard*. The certified environmental accounts and project reports will be reviewed by independent external assessors appointed by the Land Restoration Fund to verify environmental co-benefits.

4.5. Environmental accounting for third party assurance

Under the LRF Co-benefits Standard, the verification of co-benefits with third party assurance will require third party certified environmental accounts. The Land Restoration Fund is working with *Accounting for Nature* to enable projects to meet this requirement from the program's commencement.

The *Accounting for Nature* Framework enables measurement and reporting on the condition of environmental assets (e.g vegetation, water, soil, fauna) through a consistent, credible and auditable system of accounts. For this first version of the LRF Co-benefits Standard, methods for measuring vegetation and soil will be available to project proponents. Project proponents may elect to use the *Accounting for Nature* Framework for measuring and reporting on the condition of other environmental assets such as water and fauna.

Projects using this LRF Co-Benefits Standard (Version 1.2) will use *Accounting for Nature* – an independent, not-for-profit organisation – to certify environmental accounts. These accompanying certified environmental accounts may also assist carbon farming projects to sell ACCUs into the voluntary market.

[21] Queensland Government, 2018, *Environment reports online*, Brisbane. https://apps.des.qld.gov.au/report-request/environment/, accessed December 2019.

[22] Queensland Government, 2019, *Request reports, The Long Paddock.* Brisbane. https://www.longpaddock.qld.gov.au/forage/, accessed December 2019.

To ensure the LRF Co-benefits Standard remains flexible, additional certification approaches may be approved in future versions.

4.5.1. Meaning of 'improving condition'

Condition is assessed under this LRF Co-benefits Standard for environmental assets at a point in time by comparing indicators of the asset's current state with benchmark values indicative of the un-degraded state of that asset.

This approach is consistent with the *Accounting for Nature* Framework and environmental condition assessment more generally. For example, Queensland's BioCondition tool[23], which is used to assess ecosystem condition for environmental offsets and impact assessments, also applies the un-degraded state as the reference state.

Condition improvement can be a long term prospect for many ecological and soil assets. When using an environmental account to verify co-benefits that depend on 'improving' condition, the data generated must be assessed in terms of whether it is consistent with reasonable expectations for a 'successful' project. This assessment is to be made in the context of:

- project duration
- external influences such as recent weather impacts and projected climate change (information about these external influences can be accessed through websites such as the Long Paddock and Queensland Future Climate Database)
- relevant counterfactual (baseline) scenarios including condition trends for similar assets outside the project area.

Carbon methods explicitly specify relevant counterfactual scenarios. The baseline for assessment of 'improvement' in environmental condition for an environmental co-benefit under the LRF Co-benefits Standard will be guided by the carbon method. Therefore, most projects will need to show ongoing improvements in environmental condition through time, rather than basing benefits on avoided degradation or avoided loss.

As a project progresses, the Land Restoration Fund will expect to see increasingly clear evidence of improvement in project reports for co-benefits to continue to be verified as 'delivered'.

4.5.2. Avoidance of significant negative environmental outcomes

Projects that could directly affect a Matter of State Environmental Significance (MSES) must undertake assessment against criteria in the current significant residual impact[24] (SRI) guideline for MSES. The SRI is a policy tool developed to support Queensland's Environmental Offset Policy[25].

A project directly affects MSES if its footprint intersects MSES mapping[26]. When applying the SRI criteria, projects that would in the course of successful implementation remove the MSES value are treated as 'clearing' the MSES. For example, commencing a reforestation project on a grassland that is a MSES in regulated vegetation, such as an endangered or of concern RE, would alter its character and would be treated as clearing when applying the SRI criteria. Similarly, changing an MSES wetland into a dryland should be treated as clearing when applying the SRI criteria.

Potential for negative outcomes for Matters of National Environmental Significance must be assessed using the current guidelines for MNES.

[23] Queensland Government, 2019, *Biocondition,* Brisbane. https://www.qld.gov.au/environment/plants-animals/biodiversity/biocondition, accessed December 2019.

[24] Queensland Government, 2019, *What is an environmental offset and when is it required?* Brisbane. https://www.qld.gov.au/environment/pollution/management/offsets/what-when, accessed December 2019.

[25] Queensland Government, 2014, *Significant residual impact guideline (for MSES and prescribed activities assessable under SPA),* Brisbane. http://www.dlgrma.qld.gov.au/resources/guideline/planning/dsdip-significant-residual-impact-guideline.pdf, accessed December 2019.

[26] Queensland Government, 2019, *Matters of state environmental significance—mapping method*, Brisbane. https://environment.des.qld.gov.au/management/planning-guidelines/method-mapping-mses, accessed December 2019.

5. Social and economic co-benefits

Growing the carbon market and valuing environmental benefits offers new economic avenues for Queensland's land managers. Land Restoration Fund projects can verify social and/or economic co-benefits through this LRF Co-benefit Standard.

5.1. Socio-economic co-benefit classes

Socio-economic co-benefits are positive direct or indirect outcomes for a person, community, or regional economy from a project located close to that community or within that region. Three social and economic co-benefit classes are identified as relevant to the Land Restoration Fund:

a) Employment and skills benefits
b) Community socio-economic resilience and environmental connectivity benefits
c) Diversity and human rights benefits

5.1.1. Employment and skills benefits

This co-benefit is demonstrated where undertaking the project directly or indirectly contributes to maintaining a job, creates new jobs, and/or demonstrates the application of new skills and/or training in the undertaking of an existing enterprise. The co-benefit needs to be delivered in Queensland with greater weight given to projects that can demonstrate regional location of jobs created or skills/training delivered; improved job security; and fair wages and conditions.

5.1.2. Community socio-economic resilience and environmental connectivity benefits

Strong communities rely on people who are connected, healthy, and have access to goods and services, as well as the ability to pay for those goods and services through meaningful employment or activities.

Other aspects of this benefit are to include: well-being, connection to place, social connectivity, and local identity.

Additional aspects of this co-benefit class are:

- participating in carbon farming is part of a community vision for its surrounding environment as evidence through local environmental or NRM plans.
- participating in carbon farming results in improved environmental justice for a community such as addressing urban heat island effects, and enhanced mental health and well-being.

To claim co-benefits against this class, the project needs to be located in an area broadly defined as an area of relative socio-economic disadvantage taking into account people's access to material and social resources, and their ability to participate in society.

5.1.3. Diversity and human rights benefits

Recognising the importance of human rights and in the interests of diversity and equal opportunity, projects can provide evidence through the project report on how they contribute to increasing the participation of women, First Nations people, people with disabilities, people from non-English speaking backgrounds, or LGBTIQA people in carbon and environmental markets.

No personal information provided to support a co-benefits claim under this class will be publicly disclosed or used for any other purpose outside the Land Restoration Fund.

5.2. Assurance

Proponent level assurance is required for projects claiming social and economic co-benefits. Projects seeking to claim social and economic co-benefits against these three classes of benefits will be required to provide the following evidence (as applicable) in the project's annual report:

- Evidence that the project is located in an area of relative socio-economic disadvantage. This is determined by whether the project is located in a local government area identified within levels 1 and 2 on the Australian Bureau of Statistics Index of Relative Socio-Economic Disadvantage[27].
- Evidence of training or upskilling of local workers, use of local manufacturers or other local businesses in the supply chain. This could include receipts, certificates, or signed statements.
- Assessment against the local benefits test.
- Statements by project participants regarding project benefits to employment or skills, community resilience, or diversity and human rights.
- Receipts of goods and services provided by local businesses such as supply of fencing materials, pest and weed maintenance materials, or irrigation equipment suppliers.

Project proponents can also use a 'local benefits' test to evaluate the benefits that the project could bring to the local area. A local area is defined as the area around the project within a 125 kilometre radius or within the boundaries of the local government area, whichever is the larger. The supplier need not be from the local area, but could still provide a local benefit by using a local workforce or by using local businesses in the supply chain.

Claims for social and economic co-benefits will be verified by independent external assessors appointed by the Land Restoration Fund.

Any information provided to claim social and/or economic co-benefits that is of a personal nature will not be published in the LRF Register.

6. First Nations co-benefits

The Land Restoration Fund also seeks to ensure that the important co-benefits that carbon farming projects can support or provide for First Nations peoples are recognised and valued. These co-benefits encompass all aspects ranging from customary and cultural, through to economic and business development opportunities.

Two types of scenarios are identified as eligible for claiming First Nations co-benefits:

1. **Indigenous carbon based on location:** the carbon farming project takes place on Indigenous land including**:**
   - Aboriginal freehold
   - land with a native title determination
   - land that is subject to a registered native title claim
   - land where there is an Indigenous Land Use Agreement (ILUA) in place, including where there is and there is a benefit assigned for the use of the land for a carbon farming project. For example, where there is a project being run by a pastoral leaseholder on land subject to a native title interest and under the ILUA the traditional owners receive a benefit or share of the ACCUs generated.
2. **Indigenous carbon based on participation:** these are projects where the project owners are First Nations peoples or the project directly involves First Nations participation such as through the provision of fire management services or Indigenous Rangers are the managers of the project.

Co-benefits may also arise through a combination of these elements. The way in which co-benefits may be recorded could differ from community to community, and we have a commitment to ensuring that First Nations voices shape policy that materially affects them.

[27] Australian Bureau of Statistics, 2016, *Socio-Economic Indexes for Areas (SEIFA)*, Canberra. https://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/756EE3DBEFA869EFCA258259000BA746/$File/SEIFA%202016%20Technical%20Paper.pdf , accessed December 2019.

Accordingly, ongoing input from First Nations people and organisations with suggestions on how these verification models may be improved or expanded are welcomed.

6.1. Assurance

Claiming First Nations co-benefits requires proponent assurance. For verification purposes by a Land Restoration Project external panel, project reports will need to provide evidence of:

- Linkage to First Nations people – this may be determined by evidence of Title deeds to project land, Native Title Determination or claim, the project is led by a Prescribed Body Corporate, registration of a native title claim, and ILUA, as examples
- Photographic evidence of Indigenous participation
- Statement that the project contributes to achieving priorities of Healthy Country Plans
- Statements by First Nations project owners, participants or beneficiaries of:
  - what the carbon farming project means for the community
  - how funding is being used for the benefit of an Indigenous community (for example payroll records, business investments, sponsorships)
  - cultural benefits associated with delivering a carbon farming project.

Land Restoration Fund project proponents can also choose to use the Aboriginal Carbon Foundation's *Core Benefit Verification Framework* to provide third party assurance of First Nations co-benefits (Appendix 2).

7. General project requirements and processes

The use of this LRF Co-benefit Standard requires project proponents to provide information about the project to the Land Restoration Fund so that the co-benefits can be verified. Some information (project description, project reports) will also be published in the LRF Register.

7.1. Project location

Land Restoration Fund projects must be located in Queensland. Land Restoration Fund projects can be undertaken in any suitable location in the Queensland landscape, subject to meeting requirements of the carbon method selected, eligible interest holder consent, or other conditions under a Land Restoration Fund agreement.

7.2. Project plan

All projects will require a project plan that describes the project and includes: the co-benefits being claimed; the assurance approach; activities; and monitoring and reporting approach including reporting schedules.

7.3. Project proposal and project report

A project proposal is to include the following:

- Project summary of up to 600 words that:
  - briefly outlines the project activity
  - provides an overview of the assets affected
  - provides an overview of the project's co-benefits
- Lot(s) on Plan(s)
- Project boundary
- Any mechanisms in place providing confidence that the outcomes of the project will be long-term and sustained, such as perpetual covenants or nature refuge agreements that support delivery of environmental co-benefits
- Carbon estimation area boundaries
- Specific co-benefit classes being claimed and the applicable level of assurance for monitoring and verification
- The approach for monitoring and measuring the co-benefits being claimed
- Account methods being used, if any, to monitor project outcomes
- Emissions Reduction Fund project number/identifier

The annual project report is to provide:

- For projects claiming environmental co-benefits:
  - A map, showing property boundaries, project boundaries, carbon estimation area boundaries, and locations for photopoints.
  - A map for each environmental co-benefit class being verified showing the location of key assets relevant to each co-benefit class.
  - Electronic copies of the Queensland Government's Environmental Report for Matters of State Ecological Significance for each year from commencement.
  - Electronic copies of the Queensland Government's Forage Report for Ground Cover for each March and October from project commencement.
  - Ground-based photo points: four frames per record, one for each cardinal direction, to provide an annual time-series of images, from at least three locations within each carbon estimation area, which must be plotted on a map. Photographs are to be taken in October.
- For projects claiming socio-economic co-benefits (as relevant to the project):
  - Evidence that the project is located in an area of relative socio-economic disadvantage. This is determined by whether the project is located in a local government area identified within levels 1 and 2 on the Australian Bureau of Statistics Index of Relative Socio-Economic Disadvantage[28].
  - Evidence of training or upskilling of local workers, use of local manufacturers or other local businesses in the supply chain. This could include receipts, certificates, or signed statements.
  - Assessment against the local benefits test.
  - Statements by project participants regarding project benefits to employment or skills, community resilience, or diversity and human rights.
  - Receipts of goods and services provided by local businesses such as supply of fencing materials, pest and weed maintenance materials, or irrigation equipment suppliers.
- For projects claiming First Nations co-benefits (as appropriate):
  - Photographic evidence of Indigenous participation
  - Statement that the project contributes to achieving priorities of Healthy Country Plans
  - Statements by First Nations project owners, participants or beneficiaries of:
    - what the carbon farming project means for the community
    - how funding is being used for the benefit of an Indigenous community (for example payroll records, business investments, sponsorships)
    - cultural benefits associated with delivering a carbon farming project.

All projects seeking to claim environmental co-benefits under this LRF Co-benefit Standard must submit annual project reports for publication in the LRF Register.

A co-benefit project report must be submitted annually. Projects using third party certified environmental accounts to provide third party assurance of environmental co-benefits should generate accounts at the same time points as making a claim to the Clean Energy Regulator for ACCU delivery. Auditing of the ACCU project component and the co-benefits may be aligned to reduce audit costs.

7.4. Crediting period

Land Restoration Fund projects can claim co-benefits under this LRF Co-benefits Standard throughout their crediting period as nominated in the carbon method being used.

[28] Australian Bureau of Statistics, 2016, *Socio-Economic Indexes for Areas (SEIFA)*, Canberra. https://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/756EE3DBEFA869EFCA258259000BA746/$File/SEIFA%202016%20Technical%20Paper.pdf , accessed December 2019.

The crediting period is the period of time over which a project can create ACCUs. Generally, emissions avoidance projects have a crediting period of seven (7) years and sequestration projects have a crediting period of twenty-five (25) years.

At the end of the crediting period, a project area may no longer generate ACCUs but may still be subject to a long term permanence requirement (up to 100 years for sequestration projects).

7.5. Validation of project plan

The Land Restoration Fund will undertake basic validation of the monitoring and reporting approach proposed in by a project proponent when the project is submitted for registration under this LRF Co-benefits Standard (the project plan). That is, the Land Restoration Fund will review a monitoring and reporting plan proposed by a project proponent for the co-benefit classes involved. Validation occurs when a proposed monitoring and reporting plan for a Land Restoration Fund project is accepted as sufficient for the purposes of Land Restoration Fund. Basic elements of the monitoring and reporting plan will be entry into the LRF Register.

Information required for validation may include co-benefit estimates (under baseline and project scenarios), spatial mapping of the project site, and a monitoring and reporting plan.

To be valid, a proposal must provide the information as outlined in Section 7.3.

Where a proposal is not initially considered valid, the project proponent will be invited to amend the application through an information request.

If the revised proposal is also invalid the project cannot be registered and any new proposal will not be considered again for six months from the date of the second rejection. Co-benefits cannot be verified without the project's monitoring and reporting plan being validated.

7.6. Monitoring and reporting

There will be shared responsibility for monitoring and reporting a project's activities and outcomes as follows:

- Project proponents will be responsible for submitting reports (project reports) on outcomes in accordance with an agreed monitoring plan, reporting schedule, and against the selected assurance level.
- The Land Restoration Fund will use remote sensing data (for environmental co-benefits), project reports, and other data sources (including new technologies) to keep track of outcomes and identify risks to co-benefits delivery if detected.

Project proponents must retain records underpinning their reporting for the term of their project's crediting period.

7.7. Verification of co-benefit delivery

Verification will take place after a project has commenced, and will draw on a range of data sources to ensure the carbon farming project has genuinely delivered the benefits it reports to deliver. All co-benefits will be verified by independent assessors appointed by the Land Restoration Fund. If the assessors approve the co-benefits report as demonstrating the outcomes required for each specific co-benefit, the LRF Register will be updated to show the project's status for those specific co-benefits as 'verified'.

The LRF Register will include the date of the most recently verified project report.

Where the Land Restoration Fund is concerned about a project's delivery of co-benefits, it may request an independent audit of the project.

7.8. Requests for further information

Where the Land Restoration Fund has concerns regarding the evidence provided to verify co-benefits it can request further information consistent with the evidence requirements outlined in the LRF Co-Benefits Standard. All requests for further information will be made in writing.

Project proponents will be offered two opportunities to rectify gaps in information before further action is undertaken under a project contract.

7.9. Compliance and dispute resolution

Project compliance and dispute resolution will be in accordance with the terms and conditions of a Land Restoration Fund contract.

7.10. Provisions for privacy and sensitive information

Participation in carbon farming and the Land Restoration Fund program involves collection of private information and the public disclosure of certain types of information.

Information will be managed in accordance with the *Information Privacy Act 2009* and provisions in the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

The project reports provided to the LRF Register will be publicly reported and published, except if that information is of a private or commercial-in-confidence nature.

Project reports will not require disclosure of financial data, personal details, or detailed location data regarding threatened or confidential species that the Queensland Government or landholder wishes to supress. The information published will be consistent with the information that is published by the Clean Energy Regulator in its project and contract registers.

The content of Land Restoration Fund project reports is a balance between transparency and the right to privacy. The use of independent audits and certified accounts offers a confidential pathway for project proponents to provide assurance without sharing detailed data with the Queensland Government. Auditors and independent certifiers can view sensitive information in confidence, and pass along generalised recommendation.

Appendix 1 – Eligible land sector methods

Eligible land sector methods are legislated carbon methods under the *Carbon Credits (Carbon Farming Initiative) Act 2011* as follows:

Agricultural methods

Livestock

- Reducing greenhouse gas emissions by feeding nitrates to beef cattle
- Beef cattle herd management
- Reducing greenhouse gas emissions by feeding dietary additives to milking cows

Cropping

- Reducing greenhouse gas emissions from fertiliser in irrigated cotton

Soil

- Measurement of soil carbon sequestration in agricultural systems method
- Estimating sequestration of carbon in soil using default values (model-based soil carbon)

Savanna burning methods

- Savanna fire management 2018 – emissions avoidance
- Savanna fire management 2018 – sequestration and emissions avoidance

Vegetation methods

- Human-induced regeneration of a permanent even-aged native forest 1.1
- Avoided clearing of native regrowth
- Native forest from managed regrowth
- Plantation forestry
- Measurement based methods for new farm forestry plantations
- Avoided deforestation 1.1
- Reforestation and afforestation 2.0
- Reforestation by environmental or mallee plantings FullCAM method

Further information on opportunities for the land sector is available from the Clean Energy Regulator.

Appendix 2 – Third Party Assurance Providers

1. **Environmental co-benefits:** Accounting for Nature Pty Ltd
2. **First Nations co-benefits:** Aboriginal Carbon Foundation's *Core Benefit Verification Framework*

Appendix 3 – Methods, co-benefits, and proponent assurance

Information on carbon activities and monitoring sourced from the Australian Government's Department of Environment and Energy.

Carbon method: Soil carbon default (Estimating sequestration of carbon in soil using default values)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Soil carbon is primarily made up of decomposing organic material. In agricultural systems, the roots, stems and leaves of crops or pasture grasses can be cycled into the soil and broken down, where some remains as soil carbon. Management practices that increase the amount of biomass incorporated into the soil, and/or reduce the amount of organic matter that is released from soils, can lead to improvements in soil carbon levels. • For this method, landholders may undertake one or more project management activities: • Increasing biomass yields (sustainable intensification) on crop or pasture areas by optimising fertiliser, applying lime, introducing irrigation, or pasture renovation (pasture only). - Converting land under crops to pasture (conversion to pasture). - Retaining crop residue in field rather than burning or baling it (stubble retention). • The following requirements need to be met to ensure a project is eligible under this method: - The project must take place on agricultural land that has been cropped, grazed or bare fallowed at least once in the five years before the project application date. Eligible agricultural land can be identified using the sequestration values maps. - The land for the project must be divided into one or more carbon estimation areas (CEA). One of the three project management activities may be undertaken on each CEA. - For sustainable intensification, the relevant CEA must have deficient soil that can be improved by undertaking two of the management actions. - For conversion to pasture, the relevant CEA must be under crops and/or bare fallowed for five years before the land is established as pasture. - For stubble retention, no burning or baling can occur in the relevant CEA more than once every five years while the area is under crops. • Project management activities must be undertaken for the nominated	• This method requires monitoring of soil and emission sources to ensure that the activities are undertaken in accordance with the method. • CEAs must also be monitored every six months to ensure that vegetation ground cover is maintained. • Section 89 of the method provides that a carbon estimation area must not have more than 30% bare soil, or less than 70% vegetation groundcover, for more than three consecutive soil monitoring periods during the project. • A soil monitoring period is three months. Failing to meet this requirement could impact upon the allocation of carbon credits for the project. • Project records are critical because they will be used to calculate the abatement that has been achieved by the project. • Projects are required to submit a report to the Clean Energy Regulator every six months to five years. • Projects must be audited by a registered greenhouse and energy (NGERS) auditor. A list of registered auditors is available on the Clean Energy Regulator website	• Projects using this method can verify soil health co-benefits through proponent assurance. • Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. • The link between the method and co-benefit classes selected for proponent assurance is based on soil carbon as an integrative indicator of soil health. • Monitoring of carbon outcomes supplements project reports as evidence of soil health benefits. • Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits

Carbon method: Soil carbon default (Estimating sequestration of carbon in soil using default values)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
permanence period (25 or 100 years). Landholders have the flexibility to move between different management actions in recognition of the changing conditions on agricultural land. • Landholders should seek expert advice before undertaking any Emissions Reduction Fund project to understand which activities suit their land and which method best fits their business needs.		

Carbon method: Soil carbon - measured (*Measurement of soil carbon sequestration in agricultural systems*)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Within broad parameters, landholders have a choice of which land management activities to implement to build soil carbon within cropping, grazing or horticultural production systems. Activities must be new or materially different from the land management activity conducted during the 10 year baseline period, and must reasonably be expected to sequester carbon in the soil. • The land must have been used throughout the 10 year baseline period for pasture, cropping, or bare fallow and must not have been forest land at any point during the baseline period. It cannot currently be forest land. The baseline period must also have not involved drainage of a wetland. • Some activities, such as permanent destocking and addition of coal or coal based products, are specifically excluded. • Eligible activities include: - re-establishing or rejuvenating a pasture by seeding; - establishing, and permanently maintaining, a pasture where there was previously no pasture, such as on cropland or bare fallow; - retaining stubble after a crop is harvested • Proponents should seek professional guidance on best approaches to improve soil condition.	• Projects must measure the soil carbon stocks at the project site before the new management actions are implemented and at regular intervals during the project to estimate carbon sequestration. • Emissions from other sources that have changed as a result of the project such as emissions from livestock, tillage events and applications of lime or synthetic fertiliser must be factored in to the abatement calculations. • Projects are subject to permanence obligations. This means the project must be maintained for a nominated period of either 100 or 25 years. • Projects nominating a 25-year permanence period are subject to a 20 per cent discount on the number of credits they receive	• Projects using this method can verify **soil health co-benefits** through proponent assurance. • Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. • The link between the method and co-benefit classes selected for proponent assurance is based on soil carbon as an integrative indicator of soil health. • Monitoring of carbon outcomes supplements project reports as evidence of soil health benefits. • Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Carbon method: Environmental plantings (*Reforestation by Environmental or Mallee Plantings – FullCAM*)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Establish forest through planting tree species local to the project area. • The plantings must include tree or mallee species native to the local area. • Mallee species must only be planted where annual rainfall is under 600 mm. • The project area must have been clear of forest cover for at least five years prior to project commencement. • Projects are subject to permanence obligations. This means the project must be maintained for a nominated period of either 100 or 25 years. • The plantings must have the potential to reach forest cover (20 per cent crown cover consisting of trees that are at least two metres tall). • The trees may not be harvested except for in very limited circumstances such as hazard reduction. • Tree products such as firewood, fruits and nuts cannot be commercially harvested from the planting. • If the land has been lawfully cleared in the past, it must have occurred more than seven years ago, or five years ago if the land was cleared by previous holders. • Projects cannot be established on land that has been cleared unlawfully.	• Project area monitored for growth of seedlings and disturbances such as fire. • Projects require regular reporting (at least once every five years) to demonstrate project requirements are being met, and to report on carbon abatement. • Projects must also be audited by a registered national greenhouse and energy reporting (NGER) auditor.	The following co-benefit classes are compatible with proponent assurance for projects using this method: • **Great Barrier Reef co-benefit** - if project plants pre-clearing wetland in the Great Barrier Reef or plants within catchment targeted for sediment reduction • **Wetlands co-benefit** - if project plants pre-clearing wetland • **Coastal Ecosystems co-benefit** - if project plants pre-clearing coastal ecosystem • **Threatened Ecosystems co-benefit** - if project plants pre-clearing threatened ecosystem • **Threatened species co-benefit** - if project in potential habitat for specified species • **Native vegetation co-benefit** - Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. The link between the method and co-benefit classes selected for proponent assurance is based on established values of native species plantings as a pathway to ecosystem repair. Monitoring of carbon outcomes supplements project reports as evidence of ecosystem recovery. Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Carbon method: Human-induced regeneration (*Human-induced regeneration of a permanent even-aged native forest*)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Change land management practices to facilitate regeneration of a native forest through activities such as excluding livestock from the project area, managing the timing and extent of grazing, managing feral animals and non-native plants in the project area and stopping activities such as mechanical destruction of natural regrowth. • The method uses the Full Carbon Accounting Model (FullCAM) to work out the carbon captured by the project. Impacts of disturbances such as fires as also accounted for. • Projects are subject to permanence obligations. This means the project must be maintained for a nominated period of either 100 or 25 years. • Projects need to meet the following requirements to be eligible: - The project area has not had forest cover (20% crown cover consisting of trees of at least two metres in height) over the ten years before project commencement due a suppression mechanism (i.e. grazing, mechanical destruction). - the area of regeneration must have the potential to attain forest cover. - the regrowth may only be grazed by livestock if the grazing does not materially impact the carbon stocks. - the project must establish forest cover through the promotion of natural regrowth of vegetation, and not through direct seeding or tree planting. - Since the method was varied in 2016, conservation land can be eligible for projects under a limited set of conditions. Projects on conservation land must undertake weed or feral animal control and demonstrate that management goes above and beyond what would occur under standard practice. - The regrowth must not be harvested except for in very limited circumstances such as hazard reduction. - Projects cannot be established on land that has been cleared unlawfully.	• Projects required to monitor regeneration of vegetation and attainment of forest cover and to account for disturbances such as fire. • Projects must report regularly (at least once every five years) to demonstrate method requirements are being met, including progress to and eventual attainment of forest cover, and to report on carbon abatement. • Projects are required to: - follow the requirements of the Carbon Farming Initiative Mapping Guidelines and - take into account guidance on stratification, evidence and records for projects under Human-Induced Regeneration and Native Forest from Managed Regrowth methods (published by the Clean Energy Regulator). • Projects must also be audited by a registered national greenhouse and energy reporting (NGER) auditor.	The following co-benefit classes are compatible with proponent assurance for projects using this method: • **Great Barrier Reef co-benefit** - if the project is regenerating pre-clearing wetlands in the Great Barrier Reef, or is regenerating native vegetation within a catchment targeted for sediment reduction • **Wetlands co-benefit** - if the project regenerating native vegetation in a pre-clearing wetland • **Coastal Ecosystems co-benefit** - if the project is regenerating native vegetation in a pre-clearing coastal ecosystem • **Threatened Ecosystems co-benefit** - if the project is regenerating native vegetation in a pre-clearing threatened ecosystem • **Threatened species co-benefit** - if the project is regenerating native vegetation within an area of potential habitat for a threatened species • **Native vegetation** Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. The link between the method and co-benefit classes selected for proponent assurance is based on the established value of natural regeneration and regrowth as a low cost pathway to ecosystem repair. Monitoring of carbon outcomes supplements project reports as evidence of ecosystem recovery. Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Carbon method: Native forests from managed regrowth		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Projects under this method capture carbon by changing land management practices to regrow native forest on land where vegetation has been removed for grazing or cropping purposes. • Landholders promote regrowth of native forest by ceasing clearing of aboveground vegetation. In addition, landholders may exclude livestock, change the timing and extent of grazing, or manage non-native plant species or feral animals. • The method uses the Full Carbon Accounting Model (FullCAM) to work out the carbon captured by the regenerating forest. Impacts of disturbances such as fires are also accounted for. • Projects are subject to permanence obligations. This means the project must be maintained for a nominated period of either 100 or 25 years. • Projects need to meet the following requirements to be eligible under this method: - The land must have been subject to at least one comprehensive vegetation clearing for grazing or cropping use. - The land must not have had forest cover in the 10 years before commencing the project. - Before the clearing occurred, there must have been forest cover (20% crown cover consisting of trees that are at least two metres tall) on the land. - The regrowth must have the potential to reach forest cover. - The regrowth may only be grazed by livestock if the grazing does not prevent the vegetation reaching or maintaining forest cover. - The regrowth cannot be harvested except in very limited circumstances such as hazard reduction. - The project must establish forest cover only through the promotion of natural regrowth of vegetation. Projects cannot direct seed or plant trees. • Projects cannot be established on land that has been cleared unlawfully.	• Project proponents are required to monitor regrowth of vegetation and account for disturbances such as fire. • Projects must report regularly (at least once every five years) to demonstrate method requirements are being met and to report on carbon abatement. • Projects are required to: - follow the requirements of the Carbon Farming Initiative Mapping Guidelines and - take into account guidance on stratification, evidence and records for projects under Human-Induced Regeneration and Native Forest from Managed Regrowth methods (published by the Clean Energy Regulator). • Projects must also be audited by a registered national greenhouse and energy reporting (NGER) auditor.	The following co-benefit classes are compatible with proponent assurance for projects using this method: • **Great Barrier Reef co-benefit** - if the regrowth is native vegetation in a pre-clearing wetland in the Great Barrier Reef or is within catchment targeted for sediment reduction • **Wetlands co-benefit** - if the regrowth is native vegetation in a pre-clearing **wetland** • **Coastal Ecosystems co-benefit** - if the regrowth is native vegetation in a pre-clearing coastal ecosystem • **Threatened Ecosystems co-benefit** - if the regrowth is native vegetation in a pre-clearing threatened ecosystem • **Threatened species co-benefit** - if the regrowth is an area of potential habitat for specified species • **Native vegetation co-benefit** – if the regrowth is native vegetation Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. The link between the method and co-benefit classes selected for proponent assurance is based on established values of regrowth as a pathway to ecosystem repair. Monitoring of carbon outcomes supplements project reports as evidence of ecosystem recovery. Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Carbon method: Avoided clearing of native regrowth		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• Landholders that have historically cleared native forest can instead maintain the forest. Emissions are avoided by not clearing the forest and carbon is stored in trees as they grow. • To calculate the amount of emissions that would be avoided by not clearing the forest, the method compares a projected baseline in which the project area is regularly cleared with the scenario in which the forest is protected. Emissions from fires and other natural disturbances are also accounted for when modelling emissions avoidance. • The method uses the Full Carbon Accounting Model (FullCAM) to work out the avoided emissions resulting from the project. • Projects are subject to permanence obligations. This means the project must be maintained for a nominated period of either 100 or 25 years. • Requirements for eligibility include: - The land on which the project will be carried out must have native forest cover (20% crown cover consisting of trees that are at least two metres tall). - There must be evidence that the land was cleared at least twice in the past. - The project proponent must have the right to clear the land again without restriction. - The project proponent must be able to demonstrate an intention to clear the land again in the absence of participating in the Emissions Reduction Fund (or register a carbon project with the Clean Energy Regulator).	• Projects must monitor forest health in the project area and check for disturbances to forest cover such as fire. • Projects require regular reporting (at least once every five years) to demonstrate that project requirements are being met and to report on emissions avoidance. • Projects must also be audited by a registered national greenhouse and energy reporting (NGER) auditor.	The following co-benefit classes are compatible with proponent assurance for projects using this method: • **Great Barrier Reef (GBR) co**-benefit - if regrowth is native vegetation in a pre-clearing wetland in a GBR catchment, or if regrowth is native vegetation within a GBR catchment targeted for sediment reduction • **Wetlands co-benefit** - if regrowth is native vegetation in a pre-clearing wetland • **Coastal Ecosystems co-benefit** - if regrowth is native vegetation in a pre-clearing coastal ecosystem • **Threatened Ecosystems co-benefit** - if regrowth is native vegetation in a pre-clearing threatened ecosystem • **Threatened species co-benefit** - if regrowth is native vegetation in an area of potential habitat for threatened species, other than highly mobile species • **Native vegetation co-benefit** – if the regrowth is native vegetation Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. The link between the method and co-benefit classes selected for proponent assurance is based on established values of regrowth as a pathway to ecosystem repair. Monitoring of carbon outcomes supplements project reports as evidence of ecosystem recovery. Projects are encouraged to undertake third-

Carbon method: Avoided clearing of native regrowth		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
		party assurance if they aim to provide high reliability co-benefits.

Carbon method: Savanna burning (*Savanna fire management 2018 (Emissions Avoidance)*)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• This method is the oldest approach for savanna burning projects. It does not result in permanence of carbon storage obligations because it is an emissions avoidance model. • Greenhouse gas abatement is achieved by avoiding emissions of methane and nitrous oxide, by reducing the frequency and extent of area burnt, particularly in the late dry season, compared with the average over a baseline period. • In northern Australian savannas, higher intensity fires that release large quantities of greenhouse gases predominate late in the dry season when vegetation is very dry and is almost completely burnt when a fire occurs. • Lower intensity fires are more common early in the dry season when vegetation still contains some moisture from the wet season. In the absence of good fire management, fires tend to occur in the late dry season. • The method requires participants to undertake appropriate fire management in their projects to avoid emissions of methane and nitrous oxide from the burning of savanna. • Emissions reductions are calculated by comparing the emissions produced in each project year, with the average annual emissions produced during the baseline years for the project. • The method covers two geographic areas or rainfall zones. To be eligible, project areas must be located in one or both of these rainfall zones and contain vegetation fuel types defined in the method. The rainfall zones are defined by maps available on the Department of Environment and Energy's website.	• Savanna project owners must provide copies of the vegetation fuel type and fire maps used for calculating net emissions reductions. • Project owners must also provide: - validation results for the projects' vegetation fuel type map - a description of project activities - a declaration that domestic stock numbers in the project area are maintained following usual business practices and are not impacting emissions - evidence of calculations performed either using SavBAT 3 or manually • Projects must be audited by a registered greenhouse and energy (NGER) auditor. A list of registered auditors is available on the Clean Energy Regulator website.	• Savanna burning projects may verify co-benefits for **native vegetation** via proponent assurance. • Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change. • Savanna burning is linked to a native vegetation co-benefit because the activity demonstrably reduces the extent of late-dry season fires that impact fire sensitive species and habitats, and also tends to increase the extent of long unburnt vegetation. • Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Carbon method: Savanna burning (*Savanna fire management 2018 (sequestration and emissions avoidance)*)		
Carbon method activity requirements	**Carbon method monitoring requirements**	**Co-benefit classes available via proponent assurance (summary)**
• This method, published in 2018, is a new approach to crediting savanna fire management activities. This sequestration and emissions avoidance method credits projects for carbon sequestered in dead organic matter in addition to credits received for emissions avoided. • One particularly important aspect of all sequestration methods is the requirement for sequestered carbon to be stored permanently. This means that projects must continue to store carbon in the landscape for at least the duration of their permanence period (either 25 or 100 years). There are a number of additional obligations with which project proponents must comply. • The method requires participants to undertake appropriate fire management in their projects so carbon dioxide is removed from the atmosphere by sequestering carbon in dead organic matter and to avoid emissions of methane and nitrous oxide from the burning of savanna. • Emissions reductions are calculated by comparing the emissions produced in each project year, with the average annual emissions produced during the baseline years for the project. • Sequestered carbon is accounted for in addition to emissions avoidance. • Sequestration is calculated by comparing the equilibrium level of carbon stored in dead organic matter during the baseline period, with the equilibrium stored carbon achieved during the project. The method then credits the difference between these equilibrium levels and spreads the credits over the crediting period. • A revised version of the Savanna Burning Abatement tool (SavBAT 3) calculates both emissions avoidance and sequestration abatement. • The change in net abatement resulting from the project (sequestration and emissions avoidance) may be calculated either manually or using SavBAT 3. Calculations account for variations in vegetation fuel types, fire seasons, fuel loads and regional rainfall.	• Savanna project owners must provide copies of the vegetation fuel type and fire maps used for calculating net emissions reductions. • Project owners must also provide: - validation results for the projects' vegetation fuel type map - a description of project activities - a declaration that domestic stock numbers in the project area are maintained following usual business practices and are not impacting emissions - evidence of calculations performed either using SavBAT 3 or manually. • Projects must be audited by a registered greenhouse and energy (NGER) auditor. A list of registered auditors is available on the Clean Energy Regulator website.	Savanna burning projects may verify co-benefits for **native vegetation** via proponent assurance. Proponent assurance enables co-benefit verification through project reports without third-party certified accounts of asset condition change Savanna burning is linked to a **native vegetation co-benefit** because the activity demonstrably reduces the extent of late-dry season fires that impact fire sensitive species and habitats, and also tends to increase the extent of long unburnt vegetation. Projects are encouraged to undertake third-party assurance if they aim to provide high reliability co-benefits.

Appendix 4 – Coastal ecosystems

Coastal ecosystems are defined as pre-clearing Regional Ecosystems on land zones 1, 2 or 3 within the biogeographic subregions of Queensland listed below.

Bioregion	Subregion number	Subregion name
Gulf Plains	2.1	Karumba Plains
Gulf Plains	2.2	Armraynald Plains
Gulf Plains	2.3	Woondoola Plains
Gulf Plains	2.4	Mitchell - Gilbert Fans
Gulf Plains	2.7	Doomadgee Plains
Gulf Plains	2.8	Donors Plateau
Gulf Plains	2.10	Wellesley Islands
Cape York Peninsula	3.1	Coen - Yambo Inlier
Cape York Peninsula	3.2	Starke Coastal Lowlands
Cape York Peninsula	3.3	Cape York - Torres Strait
Cape York Peninsula	3.4	Jardine - Pascoe Sandstones
Cape York Peninsula	3.5	Battle Camp Sandstones
Cape York Peninsula	3.6	Laura Lowlands
Cape York Peninsula	3.7	Weipa Plateau
Cape York Peninsula	3.8	Northern Holroyd Plain
Cape York Peninsula	3.9	Coastal Plains
Wet Tropics	7.1	Herbert
Wet Tropics	7.2	Tully
Wet Tropics	7.3	Innisfail
Wet Tropics	7.6	Kirrama - Hinchinbrook
Wet Tropics	7.7	Bellenden Ker - Lamb
Wet Tropics	7.8	Macalister
Wet Tropics	7.9	Daintree - Bloomfield
Central Queensland Coast	8.1	Whitsunday
Central Queensland Coast	8.2	Proserpine - Sarina Lowlands
Central Queensland Coast	8.3	Clarke - Connors Ranges
Central Queensland Coast	8.4	Byfield
Central Queensland Coast	8.5	Manifold
Central Queensland Coast	8.6	Debella
Brigalow Belt	11.1	Townsville Plains
Brigalow Belt	11.2	Bogie River Hills
Brigalow Belt	11.14	Marlborough Plains
Brigalow Belt	11.18	Mount Morgan Ranges
Southeast Queensland	12.2	Moreton Basin
Southeast Queensland	12.3	Burringbar - Conondale Ranges
Southeast Queensland	12.4	Sunshine Coast - Gold Coast Lowlands
Southeast Queensland	12.7	Gympie Block
Southeast Queensland	12.8	Burnett - Curtis Coastal Lowlands
Southeast Queensland	12.9	Great Sandy
Southeast Queensland	12.10	Burnett - Curtis Hills and Ranges
Southeast Queensland	12.12	Southern Great Barrier Reef