Australian Government
Department of Climate Change, Energy, the Environment and Water

EMISSIONS REDUCTION ASSURANCE COMMITTEE

ACCU SCHEME
Expression of interest (EOI) template

The Great Western Woodlands Wildfire Management Method

Woodside Energy

July 2024

Using this template

Please use this template if you wish to submit an expression of interest (EOI) for a method or method variation proposal under the Australian Carbon Credit Unit (ACCU) Scheme. Your method proposal will be assessed by the Emissions Reduction Assurance Committee (ERAC). The ERAC is an independent statutory committee who assess the compliance of methods against the legislated Offsets Integrity Standards.[1] Its assessment will inform prioritisation by the Australian Government of EOIs that should be developed into a method. You should refer to the *Guide for submitting an expression of interest* (EOI Guide), available on the Department's website when filling out this template.

Please complete all sections of this template to the best of your ability. Please acknowledge any unresolved issues in your submission as this will assist the ERAC to understand outstanding work required to further develop your proposal, and any challenges you anticipate in developing the proposed method.

A completed EOI template should not exceed 20 pages. This excludes the cover page, introduction page and the appendices and declaration page. The page limit does not include any attachments that you submit. In the interest of accessibility please do not change the font or formatting beyond expanding the answer boxes as needed.

Method EOIs are to be submitted via the Have Your Say page website.

Supporting information

Supporting information is requested throughout the EOI. If you are referencing publications, please provide a reference list. Any reference style can be used.

Documents may be attached where appropriate and additional space can be created in the answer boxes if required. Additional information included in a separate document should be labelled with the item number it relates to.

You are encouraged to include the names and affiliations of technical experts consulted in the development of the EOI. You must have permission from the individual or organisation to include their names prior to submitting the EOI.

Please be aware that your submission is likely to be published on the ERAC Secretariat's webpage. Please DO NOT include any confidential material in your submission. If you have confidential information that you believe is essential to your submission, please contact the ERAC Secretariat on methodproposal@dcceew.gov.au to discuss how this can be managed. Where possible, information should be made publicly available.

[1] Section 133 of the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

Section 1: Method developer contact details

1.1 Method developer contact details	
Title of proposed method/variation, 10 words:	The Great Western Woodlands Wildfire Management Method (**Woodlands Method**)
Contact name:	
Email:	carbon@woodside.com
Phone:	+61 08 9348 4000
Position:	Principal Carbon Scientist
Organisation name:	Woodside Energy
Organisation type:	Private Industry
Public facing name and contact details:	Carbon@woodside.com

Section 2: Eligibility

2.1 Registering your idea with the ERAC Secretariat

Have you registered your method idea on the Method Development Tracker?

☐ Yes – please provide details below.

Date of registration:

Registration ID:

☒ No – You are encouraged to submit an idea before an EOI. Please visit the department's website or email methodproposal@dcceew.gov.au to find out how to register your idea.

2.2 Eligibility of proposed carbon abatement

Appendix A to the EOI Guide lists the categories for which greenhouse gas emissions and removals are included in Australia's National greenhouse gas inventory. Following consultation with the Secretariat, indicate which of the below is correct. If you have not consulted with the Secretariat, please mark as unconfirmed.

Is the abatement described in your method proposal eligible carbon abatement under the ACCU Scheme? Which categories will your proposal impact? Please refer to Section 2 of the EOI Guide.

Please note that if it becomes clear proposed abatement is not eligible abatement, the Secretariat may not assess the remainder of your proposal.

☒ Unconfirmed – the Woodlands Method could impact emissions estimated under the category "Forest land remaining forest land". The eligibility of the abatement was discussed with members of DCCEEW's National Inventory team on 24 June 2024. This discussion indicated that although emissions from fire are accounted in "forest land remaining forest land", it is likely that improvement to the fire emission calculation process should be implemented in parallel with the method development process.

Section 3: Experience and consultation

3.1 Your skills and expertise

Provide a description of your skills, expertise and experience and their relevance to the method proposal. Please list any organisations involved in/collaborating on development of the proposed method.

Woodside Energy established a carbon business in 2018 to develop an offsets portfolio in support of its climate aspirations. Woodside Energy Carbon Services Pty Ltd has registered five Australian Carbon Credit Unit (ACCU) projects under the *Reforestation by Environmental or Mallee Planting – FullCAM Methodology Determination 2014.* More than 10,000 hectares of native trees and shrubs have been planted to date.

3.2 Expert consultation

Provide names and organisations of experts consulted in developing this EOI. You must have consent from them to include their names prior to submitting this proposal.

Name	Organisation	Will you continue to engage with this expert if your proposal is progressed to be developed into a method?
Dr Lachlan McCaw	McCaw Consulting: Dr Lachlan McCaw is an expert in bushfire science and management with a focus on forest, woodland, and shrubland ecosystems of southern Western Australia. He has been consulted to help develop the fire management strategies that may be employed under the Woodlands Method.	Yes
Commonwealth Scientific and Industrial Research Organisation	Data analysis and modelling undertaken by Commonwealth Scientific and Industrial Research Organisation (**CSIRO**) has been used to inform the development of the Woodlands Method.	Yes
Department of Biodiversity, Conservation and Attractions	Data analysis and modelling undertaken by the Department of Biodiversity, Conservation and Attractions (**DBCA**) was used to inform the development of the Woodlands Method.	Yes

3.3 Community, organisations, and individuals

Please provide the names, communities, and organisations you have included, or engaged with on the development of this EOI including Aboriginal and Torres Strait Islander peoples and communities. You must have permission from the individual or organisation to include their names prior to submitting this proposal.

Name	Organisation	Will you continue to engage with this person or organisation if your proposal is progressed? If yes, what role will they play in the method development process?
Leslie Schultz	Leslie Schultz is a Ngadju elder and a member of the	Yes

	National Native Title Aboriginal Corporation (**NNTAC**). He was also one of the founders of the Ngadju Conservation Aboriginal Corporation.	
Valma Schultz	Valma Schultz is a Ngadju elder and a member of NNTAC.	Yes
Valma Saunders	Valma Saunders is a Ngadju elder and a member of NNTAC.	Yes
Ngadju Native Title Aboriginal Corporation	NNTAC has been engaged on the development of the Woodlands Method. The provision of a letter of support for the Woodlands Method from NNTAC may follow this submission.	Yes

3.3.1 First Nations opportunities

Does the proposed method idea apply to areas with a recognised Aboriginal or Torres Strait Islander peoples' rights or interests including Native Title interests or claims? What opportunities have you identified for Aboriginal or Torres Strait Islander participation? This includes during the method development process (such as recognition of Traditional ecological knowledge), at the project-level (through First Nations-led projects), or benefit sharing.

It is intended for the Woodlands Method to be applied in areas with recognised Indigenous peoples' rights and interests. The Woodlands Method may enhance Indigenous people's ability to care for Country by providing possible employment opportunities and potential revenue from the crediting of ACCUs.

Development of the Woodlands Method is intended to recognise and include traditional ecological and cultural knowledge, which extends tens of thousands of years, in conjunction with contemporary fire management practices to inform the proposed fire management activities.

Possible financial benefits generated from ACCUs could be reinvested back into project activities to cover the financial costs of conducting fire management, and to provide economic agency for Indigenous communities. Potential benefits for Indigenous communities may include:

- the ability to be on, and care for, Country;
- protect areas of high cultural and economic importance, including the old growth woodlands themselves, and elements within them including water trees;
- local employment – the generation of ACCUs could be used to fund fire management practices in the Woodlands; and
- facilitating the exchange of inter-generational cultural knowledge.

A detailed study of the potential opportunities and benefits will be undertaken if the Woodlands Method progresses.

Section 4: Similarity to existing or other proposed methods

EOIs should be drafted to be broadly applicable. EOIs that are substantially similar may be referred back to proponents, with a recommendation that a joint proposal be submitted instead. Registering

your idea on the method development tracker will enable you to identify other, similar proposals under development, and help you to collaborate with proponents with similar ideas.

4.1 Similar methods under development

Are you aware of another method under development or method proposal which is similar to your proposal?

☒ There are no comparable methods under development.

☐ There are comparable methods under development – please list them below and explain why you are submitting a separate EOI.

4.2 Existing methods

Is this EOI adapting an existing ACCU method or method from another offsets scheme?

☒ No, this is a new method.

Section 5: Activities and eligibility

5.1 Project activity

Describe the processes that would be involved in implementing the project activity/activities so it is possible to understand what would be required to conduct the applicable projects. Please identify whether projects using the proposed method would remove and/or avoid emissions. Provide supporting evidence when possible. (Note that details on how the baseline and project emissions are calculated are requested in Section 6.)

To undertake an activity recognised under the Woodlands Method, proponents would implement a Project Management Plan that specifies the actions they will take to manage fire and reduce area burnt in the Great Western Woodlands, a vast area covering ~16 million hectares in the southeast of Western Australia (**Woodlands**). This process could be similar to the savanna burning ACCU methodology (ERF 2018: 35 -36). Project Management Plans would be designed for the local context within the Woodlands where the project is being conducted, i.e., where proponents conduct their fire management. Project activities may involve (and this list is not limited to):

- identifying priority areas for fire management – such as consolidated areas of mature woodlands that currently store significant quantities of carbon, and areas that are of greater risk of fire due to their vegetation characteristics or proximity to human-caused ignition;
- outlining systems of early fire detection and implementing a rapid response, such as subsequent aerial water-bombing (a level of preparedness may be required to implement the response strategies of the Project Management Plan);
- maintenance of low fuel loads through mechanical removal and/or prescribed burning in adjoining vegetation types with an ecology amenable to this management practice; and
- improved access to the project area within the Woodlands to facilitate ground management of fire.

This approach is similar to the savanna burning ACCU method, for which the determination, does "not prescribe a particular type or amount of planned burning… So, project proponents have a degree of flexibility as to how they conduct their savanna sequestration projects" (ERF 2018: 31).

Please see also the supporting information within Appendix 1, section *Project Activity*.

5.2 Project eligibility requirements

Clearly set out the requirements for projects to be eligible. The proposed eligibility criteria must describe the circumstances and conditions in which a project would be allowed to occur. Requirements may relate to ensuring newness, baseline setting and project boundaries.

The requirements set out in this section describe the circumstances and conditions in which a project could be allowed to be confirmed as an eligible ACCU project. Requirements stated are in addition to those set out in existing legislation, such as the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth).

Location requirements

Eligible project area under the Woodlands method would need to be within areas of land located in the Great Western Woodlands, which covers 160,000 km^2 in southern Western Australia (Watson *et al* 2008: 03):

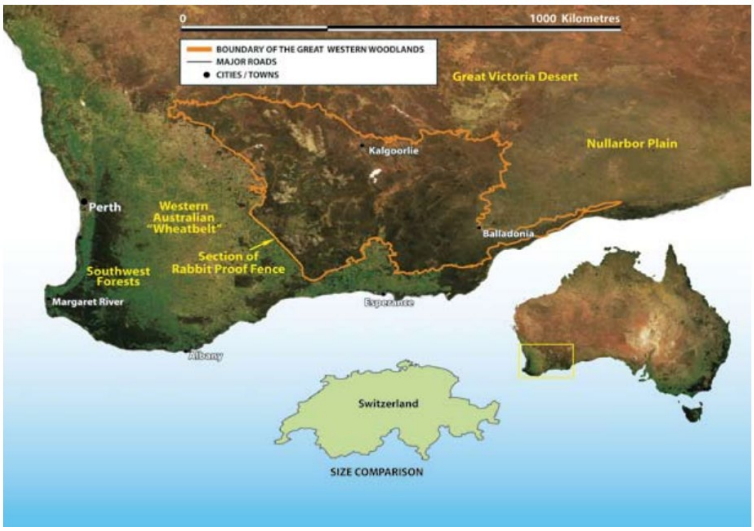

Figure 11. Map of southern Western Australia showing the boundary of the Great Western Woodlands. A map of Switzerland is also shown to illustrate the relative size of the region (Source of figure - **(Watson *et al* 2008: 03))**.

About 60% of this area features obligate-seeder woodlands, in mosaic with shrublands, mallee and other vegetation types (Watson *et al* 2008, Prober *et al* 2012). The woodland areas demonstrate a common relationship between time since fire and carbon stocks: fire results in a loss of carbon stocks through direct consumption of biomass in fire and then subsequent loss as trees die and decompose, with stocks then recovering gradually over time (Gosper *et al* 2018; Gosper *et al* 2024).

Requirements for an approved Project Management Plan

Project proponents under the Woodlands Method would need to submit their Project Management Plan to the ACCU Scheme regulator. In each Project Management Plan, proponents define a project's fire management activities, being the set of strategies and actions that are expected to reduce the area burned (such as those listed in section 5.1). A Project Management Plan should nominate a target expected reduction in large uncontrolled fire frequency due to the fire management outlined (for example, see Appendix 1 section 6.6). Achievement of this target can be established at checkpoints during the implementation of the project, which may help to ensure conservative and accurate measurement of abatement.

5.3 Potential for double counting

Is there a risk of double counting associated with the proposed method? Are relevant emissions counted in other contexts? Please describe how you propose to account for any potential for double counting in the method.

There is no risk of double counting because the carbon pools which are the subject of the Woodlands Method are not accounted for under any other ACCU Scheme method.

Section 6: Calculating net abatement

6.1 Baseline scenario

Identify and describe the baseline scenario or scenarios for the proposed method.

Provide a description and evidence of current industry practice and how baseline emissions can be quantified and calculated. Provide supporting evidence.

The baseline within Woodlands Method assumes the continuance of fire management to date in the Woodlands, which is presently minimal, and focused on the preservation of human life and assets (Department of Environment and Conservation 2010), and given this, that the Woodlands continue to burn as modelled from the historical fire records. Ultimately, this could result in a continued loss of existing carbon stocks.

For further discussion of why the carbon stocks could be lost under the baseline scenario, please see also the supporting information within Appendix 1 sections 6.1, 6.2, and 6.4, *Calculating Baselines*.

6.2 Baseline scenario over time

Please indicate whether, and to what extent, the baselines should change over time. This may help ensure the activities under the proposed method remain additional. Provide supporting evidence.

The modelling that underpins this methodology assumes that area burned per year will continue based on a rate recently experienced. The effects of climate change, which may be represented in measures like the Forest Fire Danger Index, are forecast to become more severe over time. Therefore, the annual area burned is expected to increase. Effectively, this increases the projected carbon loss within the baseline scenario, making the projected abatement more additional, not less. It is intended that the Woodlands Method will consider whether the modelled effects of climate change should be built into the baseline, which may increase abatement over time.

Please see also the supporting information within Appendix 1, section 6.1, 6.2, and 6.4, *Calculating Baselines*.

6.3 Project activity emissions

Describe how you will calculate remaining emissions (in the project boundary) once the project has been carried out. This should include accounting for new emissions that may result from carrying out activities. Provide supporting evidence when possible.

It is intended that the process of calculating project emissions will focus on fuel use and other sources of emissions such as prescribed burning. Project emissions are also contingent on the exact nature of the fire management practices that would be conducted in the Woodlands.

6.4 Account for periodic variation

Describe how the method proposal would account for periodic variations that may occur in the amount of carbon stored or avoided (if applicable). Provide supporting evidence when possible.

The baseline within the Woodlands Method is based on modelling that provides a long-run estimate of expected carbon stock loss within the Woodlands. This approach yields an average of carbon stocks over time, i.e the average carbon stock is a result of running a number of simulations. This results in an averaged-out, smoothed decrease in carbon stock over time, which does not reflect the more likely periodic variation in carbon stock change from possible fire events year-to-year, i.e., a jagged change in carbon stock from one year to the next.

The crediting system proposed in the Woodlands Method is intended to account for such periodic variation. It is intended to contain an ex-ante and ex-post component of ACCU issuance. Proponents implement their project management

activities from year one and some conservative, ex-ante issuance is made assuming that a percentage of area burnt is achieved, based on the Project Management Plan. Then, after a number of years as appropriate for the modelled approach, ex-post issuance is generated from an observed rate of carbon stock change proxied from observed area burnt within the Project area.

Please see also the supporting information within Appendix 1, section 6.6 *Calculating abatement*.

6.5 Account for carbon leakage

Provide detail on whether – and to what extent – the proposed method may result in carbon leakage and how that has been or could be accounted for in the proposed method's design. Provide supporting evidence when possible.

The Woodlands Method will likely not result in any carbon leakage. Protecting one area from fire is not expected to result in another area becoming more at risk at being burned. In fact, the inverse is more likely, where minimising fire spread in one area of the Woodlands will result in a decreased risk of an adjacent area being burned (for example, see "Shadow Areas" in Climate Forward's (2023: 17) Reduced Emissions from Megafires Methodology).

6.6 Calculating net abatement

Describe how the net abatement will be calculated and how the uncertainty of the net abatement will be calculated. Provide supporting evidence.

You are encouraged to provide a diagram which clearly shows the baseline relative to the proposed abatement over the life of projects conducted under the proposed method.

Net abatement will be calculated by calculating the difference between modelled baseline carbon stocks and modelled project carbon stocks based on validation from observed fire management efficacy, minus project emissions.

Projects under the Woodlands Method would be credited for the management of fire, which promotes ecological succession, i.e., allowing young stands to grow into mature and old growth (the removal component of the abatement) and prevents the death and subsequent loss of carbon from fire (the avoidance component of the abatement). The Woodlands Method would credit for both avoidance and removal of greenhouse gas emissions. This can be represented as follows:

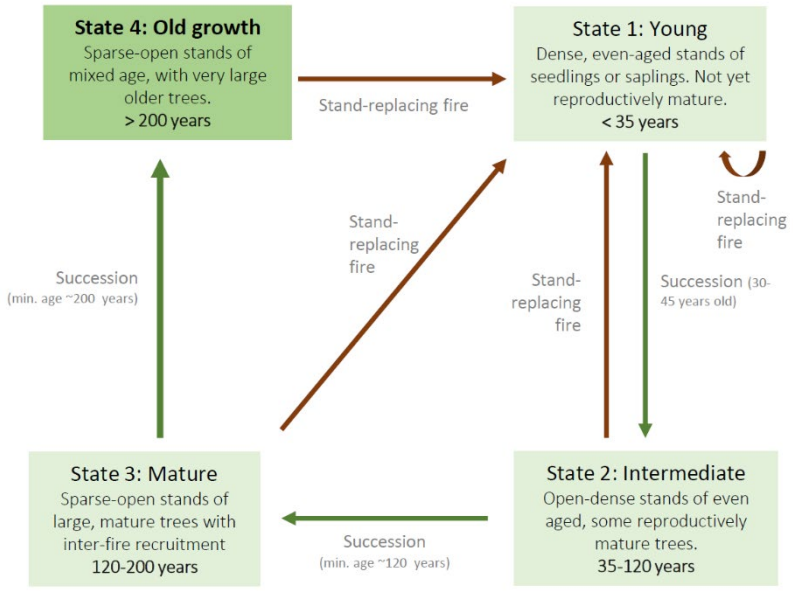

Figure 22. Representative state-and-transition model of the Great Western Woodlands transition between young, intermediate, mature, and old growth woodlands (Gosper et al 2018).

Fire management in the Woodlands promotes the green arrow pathway from State 1 (young) to State 2 (intermediate), then from to State 3 (Mature) to State 4 (Old Growth), while also potentially preventing the pathway of the brown arrows: the transition from States 2, 3, 4 back to State 1. In short, fire management promotes sequestration and prevents carbon stock loss.

The removal component of the Woodlands Method is represented below (Figure 3) as the distance between present carbon stocks and project scenario carbon stocks. The avoidance component of the Woodlands Method is represented as the distance between the present carbon stocks and baseline scenario. The shaded area represents the uncertainty associated with the proposed modelled approach, i.e., that there is uncertainty associated with a modelled baseline generated from simulation of carbon stocks given fire.

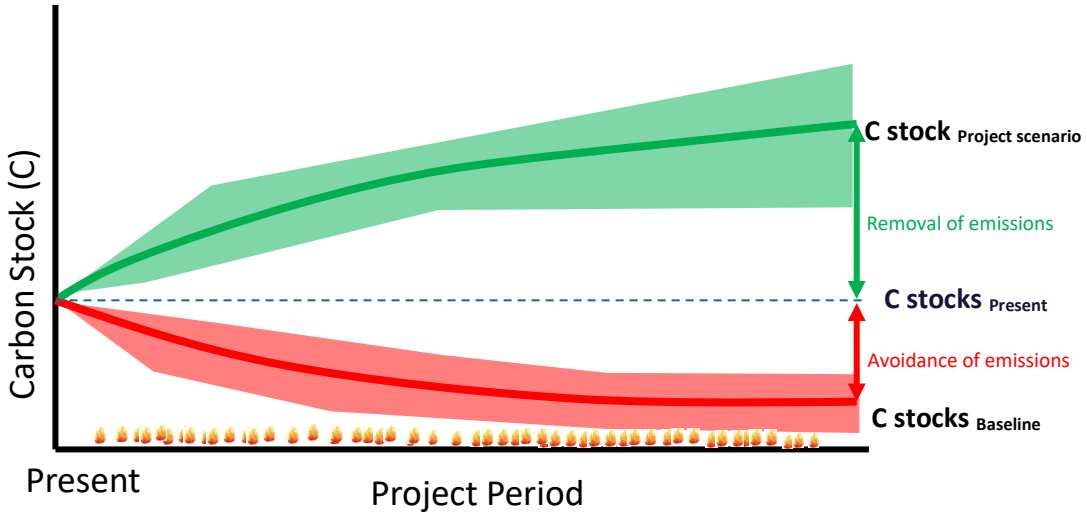

Figure 3. Representative diagram of abatement calculation

For supporting information on the modelling approach please see Appendix 1 section 6.3.

Section 7: Offsets Integrity Standards

The Offsets Integrity Standards are legislated in section 133 of the *Carbon Credits (Carbon Farming Initiative) Act 2011* that methods must meet.

7.1 How will your proposed method be additional to business-as-usual practice?

Provide supporting evidence when possible.

Fire management in the Woodlands has been resource constrained and focused on the protection of human life and valued assets, resulting in many large fires that have burnt uncontained over long periods in the paster 30 years (see baseline section). In addition, the historical fire regime does not capture the likely increase (given the effects of climate change) in area burned in the future.

7.2 How will your proposed method be measurable and verifiable?

Provide supporting evidence when possible.

Abatement will be quantified by calculating the difference in carbon stock given the observed total area burned and unburned relative to the counterfactual baseline derived from modelling (with modelling being underpinned by substantial ground-based and remotely-sensed data sets). The scientific work undertaken in recent years has significantly advanced knowledge of the Woodland's eucalypt woodlands age structure, quantified carbon stocks represented in

eucalypt woodlands of the Great Western Woodlands, and its relationship with past and expected future fire regimes (Berry *et al* 2010, Jucker *et al* 2023, Gosper *et al* 2024, CSIRO & DBCA unpublished.).

For further information, please see section 6.4, and Appendix 1 section 6, *Calculating Abatement*.

7.3 What evidence will your proposed method be based on?

Provide a summary of the type of evidence your method proposal draws on and describe any uncertainties or limitations associated with it.

Baseline evidence: modelled carbon stocks associated with continued (business-as-usual) rates of fire management in the Woodlands, were based on historical fire dynamics using metrics from the known fire history (1969-2022). This includes probability distributions of fire size, area burnt per year, and probabilities of burning that are specific to each vegetation and vary with age (time since fire).

- Extensive measured data inputs:
  - 300+ on-ground plots of measured tree size and density data;
  - very high-resolution UAV-based LiDAR coverage targeting 128 field-based plots (5-6 ha per plot);
  - high resolution airborne LiDAR: targeted acquisition covering 2380 km^2;
  - satellite-based LiDAR (from the GEDI satellite https://gedi.umd.edu/) covering 93% of the region at 1 km^2 spatial resolution;
  - landsat-based mapped fire history (1969-2022); and
  - climate datasets.
- Well-established methods:
  - state and transition simulation models (STSM) provide a well-established framework for modelling and forecasting landscape dynamics and change and has been extensively used in North America for conservation and management planning and monitoring (Daniel *et al*, 2016, 2017; Provencher *et al*, 2016, 2023); and
  - methods and models used to link carbon stocks to woodland age, fire probabilities to woodland type and age (survival analysis) and climate (SEA and gamma regression), which are all well established and used in fire and climate research (e.g., (Moritz *et al* 2009, O'Donnell *et al* 2011a, 2011b, Guo *et al* 2015))

Uncertainties and limitations

The STSM base model is built on best available data on woodland age, biomass and fire history. However, the known fire history of the Woodlands is short (53 years) compared to the typical length of fire intervals and limits what can be interpreted of recent behaviours and trends in fire activity. There is also large inherent variability in carbon stocks and fire probabilities which leads to uncertainties in models of e.g., C stock with age, fire probabilities and the influence of climate on fire activity. These uncertainties are incorporated into the STSM and the outputs of the model are presented as means with 90% prediction intervals to express these uncertainties. There are large uncertainties around potential future changes in climate – these could be improved and updated with updated climate model outputs.

Project evidence: As described in Section 6.4, issuance should be both ex-ante and ex-post, recognising the need for early project revenue in order to undertake the Project Management Plan, but with periodic validation of fire management success. The ex-ante issuance should be based on conversative rates of fire management efficacy associated with the implementation of Project Management Plans, i.e., what is the lower bound of estimated success in limiting the frequency and size of wildfires. The ex-post issuance should require evidence in the form of fire scar mapping, via a product like the DBCA's Fire History dataset, to demonstrate a reduction in area burnt which would then result in issuance. A record of all project activities carried out under the Project Management Plan, including the use of resources, would assist in demonstrating a causal link between project activity and decreased area burnt.

7.4 How will your proposed method be conservative?

Provide supporting evidence when possible.

A range of plausible climate scenarios were investigated, and baselines determined for each, leading to a range of outcomes and error bands that likely capture the true outcome somewhere within this range.

The STSM method is flexible and can be updated to incorporate any updates or improvements to input data (i.e., updated climate scenario data or with additional data on fire activity or vegetation structure).

The appropriate baseline climate scenario can be selected and adjusted as necessary based on observed climatic patterns or updated pathway likelihoods from climatic models. Net abatement can be verified and adjusted every 5-10 years after the fact using remotely sensed measurements of fire area.

There is conservatism built into the proposed practice of minimising ex-ante issuance, and periodic ex-post issuance based on observed fire management success. An uncertainty buffer may also be applied to the final abatement calculation for further conservatism.

Section 8: Method proposal triage criteria

In addition to considering whether a method proposal has the potential to meet the legislated Offsets Integrity Standards, the ERAC assesses method proposals against the triaging criteria.

8.1 Total abatement potential, including likely uptake

Describe the possible <u>total</u> abatement potential of the proposed method, including:

- Likely uptake, including justification and evidence for your estimate and factors likely to influence the uptake.
- Possible locations of projects (i.e. particular regions/jurisdictions).
- Accessibility of the proposed method to all stakeholders.
- Given the above, the likely abatement in the short and longer-term from the method.

Provide supporting evidence when possible.

A large amount of research has been conducted on the Woodlands' carbon storing potential (Berry *et al* 2010; Jucker *et al* 2023; Gosper *et al* 2024). It is well understood that without the disturbance of fire, as in the project management scenario, the Woodlands has the capacity to store vast quantities of carbon. Empirical estimates include those by:

- Berry *et al* (2010: 9), "The estimated total carbon stock of the soil and vegetation in the GWW as of January 2008 was 950 Mt C [3483 M CO_2te]. Under the hypothetical 'no-disturbance' condition, the total carbon stock is estimated at 1550 Mt C [5683 M CO_2te] Mt C";
- Gosper *et al* (2024: 11) gave per hectare biomass carbon estimates (not CO2 equivalent) "…obligate-seeder eucalypt woodlands in the GWW store and sequester significant quantities of biomass carbon, beyond ~ 65 Mg (t) C ha−1 in mature woodlands (~54 Mg C ha−1 in live vegetation, ~52 Mg C ha−1 in above-ground biomass), excluding soil carbon. These estimates are somewhat higher than the mean of ~44 Mg C ha−1 in GWW woodland sites in Berry *et al* (2010)*";*
- CSIRO & DBCA (current project): estimated the current carbon stock in live tree biomass of the eucalypt woodlands of the GWW as ~265 Mt C (972 Mt CO_2-e), with *potential* C stocks (under a hypothetical 'no-disturbance' scenario) in the order of ~467 Mt C or 1,715 Mt CO_2-e.

The total abatement potential for the Woodlands method will depend on the uptake of the method, and the success of the fire management by proponents. Project proponents will likely be those with large land rights within the Woodlands, and the size of a project would depend on, amongst other things, coordination with others who have land tenure. Even with conservative estimates for the uptake and success of fire management, the abatement potential is likely substantial.

Please see also the Appendix 1, section 6.6 *Calculating Abatement*.

8.2 Proposal complexity

Describe the complexity of the method proposal, including how difficult it may be, and how much time it may take, to develop, maintain, and regulate.

One aspect that reduces the complexity and task of developing the Woodlands Method is that there is already an existing fire management method in the ACCU Scheme, which has led to considerable expertise and experience that can be drawn upon. The carbon stock of the Woodlands has been well studied, and the effects of fire on carbon stocks in the Woodlands is well understood (Berry et a; 2010; Gosper *et al* 2018; Gosper *et al* 2019; Gosper *et al* 2024). One area of complexity associated with implementing the Woodlands Method will be focused on the design of an effective fire management plan. Another area of complexity is land tenure and overlapping land rights and claims.

See also the limitations in Section 7.3 for more discussion of method complexity.

8.3 Broader positive outcomes

Describe any positive environmental, economic, social and/or cultural outcomes and benefits, including for Aboriginal and Torres Strait Islander peoples, that might occur from the uptake of the proposed method. Provide a clear rationale for each proposed outcome, with supporting evidence where possible.

See also Appendix 1, *Background to the project* section.

Managing wildfire in the Woodlands could help to protect human infrastructure**,** notably the Eyre Highway, a major east/west trade route. This road has been closed twice in recent times because of the presence of fire, once in 2019-20 season for 12 days and then again for three days in 2024 (Smith & Lucas 2024). Present annual funding for managing fire in the Dundas Shire, situated within the Woodlands boundary, where the road closures occurred is $23,300. This is likely insufficient resourcing to effectively manage fire in the area. The Woodlands Method could help to prevent future road closures through the management of fire within the at-risk areas.

There are also potentially significant environmental benefits associated with managing fire in the Woodlands, a highly biodiverse area. For example, analysis conducted by Watson *et al* (2008: 9 -12) highlight the large number of identified tree species and vertebrates found in the Woodlands.

The Western Australian Herbarium has records of 3314 flowering plant species from 119 families in the Great Western Woodlands and over 4200 different 'taxa'(which is a list that includes undescribed species as well as subspecies, hybrids, and varieties). It is estimated that almost half of these species are endemic to south-western Australia1,5,6. This is more than one-fifth of Australia's estimated 15 000 flowering plant species, and more than twice the number of species than occur in the whole of the United Kingdom (1500 species).

The Western Australia Museum (Biological Survey of the Goldfields and FaunaBase) and Birds Australia (the Australian Ornithological Club) atlas database has recorded 49 species of mammals, 138 reptile species, 14 frog species and 215 species of bird in the region.

Studies have indicated that mature woodlands have greater biodiversity conservation value for birds and plants than recently-burnt woodlands (Gosper *et al* 2013a, 2019a). Furthermore, understanding of the Woodlands' biodiversity is not yet complete with further potential to conduct surveys to understand the full extent of possible benefits for other species.

Potential cultural co-benefits are also expected, see section 3.3.1.

8.4 Innovation

Briefly describe how the method proposal could foster innovation in the relevant sectors.

The ability to generate ACCUs from fire management presents an opportunity to implement and trial innovative fire management systems – where traditional and contemporary fire management practices are integrated. For example, a mixed process of early prescribed burning, based on Indigenous cultural knowledge (e.g. see Prober et al 2013, 2016, as well as early detection and rapid response. This could set a novel example for large-scale fire management.

8.5 Preliminary risk assessment and any potential adverse impacts

Please indicate what, if any potential adverse or negative environmental, economic, social and/or cultural impacts could result from the method. Consider the circumstances under which the risks or outcomes might arise and any method requirements that could avoid or minimise the risks.

The frequency and intensity of wildfires burning within the Woodlands under current management leads to widespread risks and impacts including the areas of cultural, environmental, health and safety, and economic risk. The Woodlands Method encourages the suppression and management of the wildfires that introduce these risks and impacts. Therefore, there is a range of possible benefits from undertaking the project activity, to be weighed against any additional introduced risks and impacts. Perhaps the most significant of the potential benefits that have been considered to date is the health and safety risks for personnel implementing the Project Management Plan. Fire management is hazardous and, to help minimise the risk, the health and safety best practices for this industry should be built into Project Management Plans. Knowledge sharing and collaboration between other bodies involved in fire management in Western Australia would also be a foundational aspect of the Woodlands Method.

Section 9: Method tools

9.1 Method tools (optional)

If applicable, describe any tools that would be used as part of the method, for example to model or calculate abatement under the method. Please provide information outlined in the EOI Guide.

Landscape simulation modelling is necessary for the calculation of baseline and project abatement.

Please see Appendix 1, *Project Activity* and *Calculating Net Abatement* sections.

Section 10: Method Development Project Plan

10.1 Project plan for method development

Provide a high-level project plan for developing your proposal. The plan can take any form and be submitted as an attachment. Please provide the information outlined in the EOI Guide.

To date, work has been focused on developing the scientific basis that underpins the Woodlands Method. This work is substantially complete and, consequently, method development can now commence, alongside engagement with all stakeholders, inclusive of Indigenous groups with an interest in the Woodlands. Initial engagement with DCCEEW's National Inventory team also highlighted that method development could occur in parallel with refining the calculation of emissions from the forest land represented in the Woodlands.

Further detail, including a timeline, on developing the project plan can be provided once input has been received from other stakeholders.

Section 11: References

11.1 References

Provide a full citation for all reports, papers and journal articles cited in the method proposal.

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Section 12: Appendices

12.1 Appendices

List and attach all relevant documentation to support an assessment of the proposal including cited reports, papers and journal articles that are not publicly available.

Appendix 1: CSIRO (2024) *EOI Supporting Evidence.* Please note that the content of Appendix 1 is currently under internal review and, consequently, is strictly **confidential** and may not be shared, or in any other way disclosed, by the DCCEEW without the prior written consent of CSIRO and Woodside Energy Carbon Services Pty Ltd. Any reliance on statements, claims, or estimations of abatement contained within Appendix 1, and Woodside's use thereof herein, is entirely at DCCEEW's risk.

Section 13: Declaration

This application must be signed by a duly authorised representative of the proponent. The person signing should read the following declaration and sign below.

Division 137 of the Criminal Code makes it an offence for a person to give information to a Commonwealth entity if the person providing the information knows that the information is false or misleading. The maximum penalty for such an offence is imprisonment up to 12 months.

By signing below, the signatory acknowledges that he or she is an authorised representative of the proponent, and that all of the information contained in this application is true and correct. The signatory warrants that they own or have a licence to use all of the relevant intellectual property rights in the application submitted. The signatory also warrants that they have read, and agreed to all information on the submission portal for this EOI, including the important information, privacy notice, public disclosure statement, intellectual property agreement, and declaration.

Full name of the person signing as representative of the proponent	

Position			
Signature		Date	