

Gold Standard for the Global Goals
Transition Annex
*(To be used by all GS CDM/VER stand alone projects and PoAs,
Micro Scale stand alone projects and Micro PoAs)*



Version 1 – September 2017

KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	- Auscarbon Biodiversity Project - PoA – Establishment Program commenced 2008 for long term Carbon Sequestration through Vegetation. - Activity – Carbon Sequestration through Afforestation.
GS ID of the project/PoA/activity:	GS 3039
GS Version:	GS Version 0.9 A/R
Brief description of Project:	Establish biodiverse native vegetation on former farmland in low rainfall area of Central West Region of Western Australia.
Project type: Energy/Land Use	Land Use (Afforestation)
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	
GS Stream (CDM/VER):	VER (likely conversion to PER)
Scale (large/scale/micro):	Large scale (current net established area 11,223 ha established between 2008 and 2017 over 9 large properties).
GS Registration Date:	2015
GS Crediting period start date:	2008 – 50 years crediting period
CDM Registration Date:	
CDM Crediting period start date:	
Project Developer:	Auscarbon Pty Ltd
Project Representative:	Geoffrey M. McArthur – Resources Manager Kent P. Broad – Business Manager
Project Participants and any communities involved:	Auscarbon Pty Ltd – wholly-owned private company and subsidiaries own all land, trees and manages the properties.
Host Country/Location:	- Australia - State = Western Australia - Region = Midwest
Methodologies applied:	Systematic Random Sampling of Biomass Resource with Direct Measurement of Vegetation Parameters with CO ₂ -e conversion through researched allometric relationships
SDG Impacts:	#6. Clean Water (groundwater impacts) #13. Climate Action (Carbon sequestration) #15. Life on Land (Biodiversity)
Estimated amount of SDG Impact (GSVERs and others)	2016 Inventory/Audit for previous 12 months delivered 17,811 tonnes CO₂-e GSVERs - A 2018 proposed Audit is estimated to deliver approximately 25,000 tonnes CO₂-e GSVERs
For Land-use & Forest Projects only – delete if irrelevant	
Size of the Project Area and Planting Area [submit shape file]:	- Gross property area = 19,608 ha - Established area = 11,223 ha incl. 2017 establishment - Established over 8 properties

Risk of change to the Project Area and/or land title during Project Certification Period:	1. Legal Carbon Covenants lodged over all land (current in perpetuity) – very low risk; land use cannot be changed. 2. Project has continued to expand with establishment in 2008, 2009, 2010, 2011, 2012, 2014, 2015, 2016 and most recently in 2017. 3. The 2018 establishment plans have been prepared. 4. Auscarbon has the capability (through internal and external specialist resources) to manage and maintain the land and the vegetation resource. 5. Auscarbon maintains a fire control preparedness with attack resources and maintains protection firebreaks within and around all properties (as is required by law). 6. Losses of area could result following a severe fire (partial or total losses possible). No damaging fires have occurred on the properties since the Project commenced. 7. Auscarbon insures the resource which would cover the cost of re-establishment after fire damage. 8. Overall, the risk of losses of Project area are low.
Risk of change to the Project activities during Project Certification Period:	1. Auscarbon has been managing these Carbon resources since 2008 and is fully aware of the annual, periodic and protection requirements necessary. 2. Auscarbon has professional and technical persons available to provide advice and carry out the necessary work associated with a long-term vegetation project. 3. All areas are established on the expectation of a long-term (i.e. 50+ years) project. 4. Once properties are established all monitoring, maintenance, management and land administration are undertaken on an annual basis.
Land-use history and current status of Project Area:	Broadly all land had the following general history: 1. Properties cleared during period 1900's to 1950's and converted to farmland. 2. Arable areas were rotationally farmed for cropping and grazing. 3. Auscarbon purchased large-scale properties (i.e. 1,000+ ha) progressively from 2008. Project area only considered land that had been cleared prior to 1990. 4. After land purchase Auscarbon commenced vegetation establishment only on previously-cleared land. 5. After establishment Auscarbon manages Carbon vegetation resource.

Socio-Economic history:	On a regional basis the following is a generally applicable: 1. Initial land ownership commenced in 1890's. 2. Agri-business dominated region – progressively increased through 1900's and peaked around 1970's. 3. Several towns developed in the region once the agricultural sector grew. Towns increasingly became broad community and regional service centres offering a range of employment. 4. Small Iron Ore open-cut mining commenced in the region during the 1960's . At various times mines closed, opened or re-opened depending on ore quality and commodity prices. Four medium-sized ventures currently remain in the region and add significant economic activity to the region. 5. Agriculture currently is the dominant land-use and economic activity for the region – grain crops predominantly (wheat, oats, barley, canola) together with grazing (sheep and cattle).
Forest management applied (past and future)	Once land has been designated for re-establishment with native vegetation the following activities are undertaken: 1. Land suitable for vegetation establishment is determined. The key areas eliminated from establishment include riparian zones, saline-affected land, upper-profile very shallow (rock) sites. 2. The establishment comprises 2 levels: a. Direct seeding at time of site preparation, and b. Seedling establishment later in the site preparation line. 3. Seed from regional native species is collected in advance – certain species are stored for use in direct seeding whilst other (particularly Eucalypt species) are allocated for seedlings. The seedlings are established in nursery approximately 6-months before field establishment. 4. Vermin control is undertaken in advance (and after establishment) where necessary – principally for rabbits). 5. Site establishment is undertaken (furrow and ripping on a contour-basis). This physical furrowing acts as a weed control measure. 6. Direct seeding and hand planting is undertaken with suitable seasonal conditions . 7. Established areas are precisely mapped (GPS). 8. External and internal fire protection access routes are established around and within the properties (as required by law). 9. Vegetation survival and growth is monitored after 6 months and then annually.

	- Where applicable, some supplemental establishment takes place in 2nd year. - Growth monitoring continues periodically and commonly in association with inventory activities. - No specific tending is carried out on vegetation – trees and shrubs are permitted to naturally grow and compete. - Fire protection measures are maintained over all properties.
Forest characteristics (including main tree species planted)	- Establishment configuration comprises twin establishment lines (furrowed and ripped) at 3 metre spacing and then with a 10 metre inter-row gap. Establishment is done on the contour. - All species established for Carbon are regionally endemic native species. Seed is collected from the region. - Direct seeding comprises up to 30 species – Acacia (A. acuminata, A. Murrayana, A. saligna, A. tetragonophylla, A. hemiteles, A. neurophylla), Hakea spp., Melaleuca spp.. - Planted species include Eucalypts (E. loxophleba, E. Horisties, E. Ewartiana, E. ebbonensis, E. leptopoda), Saltbush (Atriplex sp.), Rhagodia spp. and Melaleucas (M. thiodies, M. atroviridis, M. brevifolia) – up to 10 species.
Main social impacts (risks and benefits)	Risks: - Re-vegetation is seen by some members of community as antagonistic to the principal agricultural activity of the region (i.e. takes agricultural land out of the sector). In general, most land acquired by Auscarbon has been put up for sale as the original owners considered these areas as low agricultural producing-land. - Local employment is sometimes not optimal as the establishment process is specialised and there is limited local expertise available. For a range of other general landuse activities, local labour and contractors are commonly employed. Benefits: - Auscarbon offers to purchase land – this is an option that farmers periodically consider (i.e. leaving the agricultural sector). - Local employment (individuals and contractors) - Indigenous employment – some full-time and casual. - Local equipment and service suppliers – financial benefits. - Auscarbon's fire protection resources are made available for local/regional fire protection use. - Auscarbon's establishment is on a large-scale scale and is seen as a regional environmental

	enhancement, particularly linking nature reserves and remnant vegetation areas on private land (including on Auscarbon's land).
Main environmental impacts (risks and benefits)	Risks: • Poor establishment (Auscarbon does carry out some remedial establishment). • Vermin can attack young seedlings (rabbits, mice) – Auscarbon carries out vermin control before and after establishment. • Once established, it is possible that the established areas could permit a build-up of either vermin (i.e. rabbits) or native herbivores (e.g. kangaroo's which are antagonistic to many farmers with crops). Auscarbon does carry out rabbit control when populations expand. Kangaroo control is only considered at establishment time. Benefits: • Restoration of large scale areas to native vegetation • Connection of established areas (native species) with Nature Reserves – dramatically improving the links between and the extent of native vegetation areas. • Auscarbon facilitates additional environmental surveys – increases knowledge of flora, birds, insects and animals regionally. This has been assisted through collaboration with Universities and CSIRO.
Financial structure	• Auscarbon Pty Ltd is a private company that has been specifically developing carbon sink projects since 2008. All land is wholly-owned by Auscarbon Pty Ltd or closely-connected subsidiary companies. • Land has been directly purchased through a formal contract to purchase. • Auscarbon Pty Ltd carries out all the management over all the properties. • All establishment has been paid for by the company. • All past and on-going management activities have been paid for by the company. • Auscarbon's subsidiary companies are: ○ AC Midwest Pty Ltd (3 properties) ○ AC Central West Pty Ltd (1 property) ○ AC Pine Ridge Pty Ltd (1 property) ○ Auscarbon Pty Ltd (4 properties)
Project Area:	• The following details are as at March 2017 (the last Gold Standard Certification Audit): Project Area = 10,196 ha • As part of the 2017 establishment - an additional 1,543 ha will be added in the April 2018 Certification Audit. • Total Area to date: 11,739 ha

Planting Area:	• In March 2017 the establishment area was 10,192 ha • The 2017 establishment areas is 1,543 ha • Total Established area to date: 11,735 ha
Eligible Planting Area:	• In March 2017 the Eligible Planting area was 9,680 ha (approx. 515 ha excluded due to insufficient stocking). • In April 2018 an additional 1,543 ha will be added • Currently Eligible area will be 11,223 ha
Modelling Units:	Modelling Units are based on property and establishment year. • Tomora property (or Canna) = CA 2008 • Pine Ridge = PR 2009, PR 2010 • Bowgada Hills = BH 2009, BH 2010, BH 2011, BH 2015 • Hillview = HV 2010, HV 2011, HV 2014 • Terra Grata = TG 2010, TG 2011, TG 2015 • Preston Waters = PW 2012 • Hughes Block = HB 2016 (add HB 2017) • Colganatta = CG 2016 (add CG 2017) • (add for 2017) Mulloncoola = ML 2017
Infrastructure (roads/houses etc):	All properties are served by public roads. Within each property there are the following: • Internal access tracks and roads • External firebreaks (perimeter tracks that are trafficable) • Internal firebreaks (which are trafficable) Some properties have maintained/occupied houses and sheds: • Pine Ridge • Bowgada Hills • Preston Waters • Colganatta • Mulloncoola One property has an unoccupied house/sheds: • Terra Grata Three properties have no managed buildings: • Tomora • Hillview • Hughes Block
Water bodies:	There are no permanent water bodies on any property. There are several water channels that run through properties. These periodically flow after rains. No establishment takes place within the riparian zone.
Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:	Only 3 sites of significance exist over the properties: 1. Bowgada Hills – “Cave Hill” is a registered indigenous heritage site. Auscarbon consulted with the Aboriginal Affairs Department (AAD) before establishment. No establishment is on the site and Auscarbon’s activities are respectful of the heritage status.

	2. Terra Grata – a broad “Mythological Zone” exists over portion of the property. Auscarbon consulted with the AAD before establishment. Establishment was permitted on portion of the area as it is not in conflict with the heritage status. 3. Hillview – an area within remnant vegetation exists – Auscarbon’s establishment activities do not extend into this area. There are 2 other areas that are known for “indigenous interest” but are either not registered or within remnant vegetation areas. No impact on Auscarbon’s establishment.
Where indigenous people and local communities are situated:	Indigenous communities are now largely integrated into current towns. There is no indigenous community on Auscarbon land – none are known to exist there within the last century. There is one indigenous community that is approximately 50km from Auscarbon’s northern properties. There are no communities that have special rights to carry out activities on any Auscarbon land.
Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:	Whilst 3 cultural sites are within Auscarbon’s properties (see above), there are no known specific cultural activities that area carried out on those sites or any other sites on Auscarbon land. Indigenous peoples are free to visit these sites if necessary (although permission to enter Auscarbon properties is necessary).
Evidence that Project Boundary is clearly distinguishable in the field:	All properties have a perimeter boundary track/road – this is mandatory for at least fire protection purposes although those tracks/roads may have other uses – e.g. farm access, fencelines, water point access or other access.

NOTE: This Annex shall be used for all PoAs if the sustainable development assessment is conducted at PoA level. In case sustainable development assessment is conducted at activity level, then this Annex shall be filled for each of the activities.

SECTION A Sustainable Development Goals (SDG) outcomes

A.1 Relevant target for each of the three SDGs

>> (Specify the relevant SDG target for at least each of three SDGs addressed by the project. Refer most recent version of targets [here](#). Contribution to SDG 13 is mandatory to be demonstrated for all projects and activities. Contribution to SDG 7 is recommended to be demonstrated for all community service projects and activities)

SDG # 6 Clean Water

Target: Improve the ecosystem through the reduction of salinity reaching natural water drainage lines – i.e. improve water quality in natural streams.

SDG # 13 Climate Action

Target: Increase the uptake of atmospheric Carbon Dioxide – through vegetation establishment.

SDG # 15 Life on Land

Target: Increase vegetation biodiversity – through broadscale re-vegetation using endemic native plant species.

A.2 Explanation of methodological choices/approaches for estimating the SDG outcome

>> (Explain how the methodological steps in the selected methodology(ies) or proposed approach for calculating baseline and project outcomes are applied. Clearly state which equations will be used in calculating net benefit.)

SDG # 6 Clean Water

Target: Improve the ecosystem through the reduction of salinity reaching natural water drainage lines – i.e. improve water quality in natural streams.

Method/Steps used:

1. Identify drainage lines that show salinity in the water course or riparian zones.
2. Identify land that fringes these zones and determine if additional establishment is possible using salt-tolerant species.
3. Carry out site establishment of these zones using contour establishment lines and the long-term growth of more salt-tolerant but deep rooted species.
4. Progressively monitor survival in these areas.
5. The objective is to establish deep-rooted trees and shrubs over these sites to progressively reduce the sub-soil salt-table and increase freshwater infiltration into the landscape.
6. After approximately 10 years if the plants are surviving and growing, the objective is being achieved.
7. After 25 years there is likely to be a noticeable effect on the amount of vegetation growing in the riparian zone.

SDG # 13 Climate Action

Target: Increase the uptake of atmospheric Carbon Dioxide – sequestration through vegetation establishment.

Methods/Steps used:

1. Cleared land, formerly used for broadscale farming is selected for native species re-vegetation.
2. Establishment takes place of native species – shrubs, mid-sized trees and large tree species are randomly established on a broadscale basis.
3. Survival and growth is periodically monitored.
4. Inventories are periodically undertaken (systemic random plot sampling using tree/plant measurement parameters). These are commonly done in association with Carbon Certification Audits.
5. Significant research involving vegetation destructive sampling has resulted in the development of above-ground dry biomass allometrics. Additional research also developed below-ground allometrics.
6. Inventory measurements involve the collection of stem diameters (Eucalypts and tree species) and for shrubs and small trees a crown volume index (CVI) involving plant height and crown width measurements. The inventory results in the calculation of above-ground dry biomass on a stratified site basis using the established allometrics.
7. A calculation of project CO₂-e sequestered ex-ante is done as follows (results in CO₂-e/ha):
 - a. Plots are established using a random systematic grid over the project area.
 - b. Sample sites are delineated by site quality strata.
 - c. Plot (tree/shrub) measurements converted to dry weight biomass through allometrics
 - d. Plot data amalgamated by MU.
 - e. Above-ground dry weight converted to CO₂-e as follows:
 - i. Dry weight to Carbon = multiply by 50%
 - ii. Carbon to CO₂-e = multiply by 3.6667 (=44/12)
 - f. Above-ground biomass converted to above- and below-ground CO₂-e = multiply by 1.33 (i.e. use 33% and the below-ground factor for the project area).
 - g. Multiply CO₂-e/ha by area (ha) for each MU.
 - h. Calculations incorporate reductions due to Baseline and Other Emissions or special reductions due to area variations.
 - i. Net result is the current CO₂-e Fixation over the project area.

SDG # 15 Life on Land

Target: Increase vegetation biodiversity – through broadscale re-vegetation using endemic native plant species.

Method/Steps used:

1. Seed collection of native species from the region. Woody shrubs and trees targeted.
2. Certain seed is stored for use in direct seeding establishment component.
3. Certain seed is provided to nurseries to grow quality seedlings for the coming winter (July-August).
4. Vermin control (mainly rabbits) is applied before (and after) establishment.
5. During winter (after rainfall commences), establishment takes place – initially site preparation combined with mechanical direct seeding then followed by a (manual) hand planting of seedlings.
6. Survival of direct seeded and hand planted stock is monitored through the next few years.
7. During inventory periods, the mix of species is noted.
8. Progressively through natural seeding some natural regeneration takes place (i.e. of native species).

9. After 10 years the survival of 10 native species would be considered a successful improvement of biodiversity over the previous farming land which was largely devoid of native species and was dominated by monoculture cereal crops (and weeds).

A.3 Data and parameters fixed ex ante for monitoring contribution to each of the three SDGs

(Include a compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the design certification and remain fixed throughout the crediting period like IPCC defaults and other methodology defaults. Copy this table for each piece of data and parameter.)

Relevant SDG Indicator	#6 Clean Water
Data/parameter	Saline influenced natural drainage areas within establishment area
Unit	Area (hectares)
Description	Areas which are established using salt-tolerant species
Source of data	Mapping
Value(s) applied	Blocks or compartment areas
Choice of data or Measurement methods and procedures	Aerial photography mapping at the time of establishment. Later appraisal of aerial photo showing established area Later appraisal of success of ground establishment (stocking and species mix)
Purpose of data	To determine whether saline-affected land has been successfully re-vegetated.
Additional comment	This parameter can only be assessed over a long period – at least 10 years.

Relevant SDG Indicator	#13 Climate Action (increased uptake of CO ₂ -e)
Data/parameter	Uptake of CO ₂ -e – below-ground component
Unit	tonnes of CO ₂ -e/hectare
Description	The below-ground biomass (i.e. roots and root crown) are not sampled during inventory activities.
Source of data	Significant research incorporating destructive sampling of a range of species of various ages and on different sites has enabled the development of a strong relationship between above- and below-ground biomass.
Value(s) applied	An extensive research program developed the below-ground biomass component to be a composite 33% of the assessed above-ground biomass component.
Choice of data or Measurement methods and procedures	Sample plot above-ground (dry) biomass is determined through the measurement of stem diameter and crown dimensions applied to researched-established allometrics. These calculations are then extended into broad areas (MU's). After applying biomass-to-CO ₂ -e conversions to the above-ground biomass, this is multiplied by 1.33 to obtain the gross above- & below-ground CO ₂ -e.
Purpose of data	To determine the overall Carbon sequestration of each property and the project as a whole.
Additional comment	After doing considerable research on the below-ground portion, Auscarbon has had the Gold Standard TAC accept the use of 33% as the project below-ground portion.

Relevant SDG Indicator	#15 Life on Land (Biodiversity)
Data/parameter	Species survival
Unit	Number of surviving species
Description	Auscarbon can establish up to 30 native species through direct seeding and the hand-planting of seedlings.
Source of data	Prior to establishment a species-mix is determined for each establishment area. A record of that is kept as part of the Initial Establishment Report.
Value(s) applied	A minimum of 10 species survival is considered acceptable.
Choice of data or Measurement methods and procedures	During inventory species survival is recorded. This is done on a sample plot basis.
Purpose of data	This increase in native species on a broad-area basis would constitute an improvement in biodiversity.
Additional comment	The establishment species mix varies with each MU and in some cases for different sites within an MU. Accordingly there will be different species survivals across the whole project area.

SECTION B Safeguarding Principles Assessment

B.1 Analysis of social, economic and environmental impacts

>> (Refer the GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out this assessment. The assessment of following Safeguarding Principles Assessment is required to be carried out by GS Version 2.0, 2.1 and 2.2 projects. GS v1.0 projects will carry out assessment of all the safeguarding principles discussed in the GS4GG Safeguarding Principles and Requirements document.)

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/potentially/no)	Justification	Mitigation measure (if required)
3.2 Gender Equality and Women's Rights	(a) Women able to be involved in Project (b) Gender data collected by Project. (c) Special needs across Project. (d) Gender equality targets. (e) Women's groups consulted.	(a) Potentially (b). Potentially (c) Potentially (d) No – women have been involved on an on-going basis. (e) Yes	(a) There are a range of activities that can be done by all sexes. (b) Recording gender mix in company. (c) There maybe some tasks where high physical capability is a constraint. (d) Availability and experience to work in country areas is more a constraint than setting gender	(a) None required (b) An active record to be established. (c) Identify extreme physical tasks that may not be suitable for women. (d) No gender targets to be set (e). Active consultation of

			targets. (e) Women's views of the project are valued.	women and women's groups to be sought in 2018 Audit.
3.4.3 Land Tenure and Other Rights	(a) Legal Rights (b) Customary Rights (c) Special Cultural Significant Sites	(a) Yes (b) Potentially (c) Yes	(a) Land and Carbon ownership are defined. (b) There are few customary activities which are constrained (c) Several significant sites identified – those are located and activities on/around are carefully considered.	(a) Already done through Government Land Agency. (b) NAN – there are no customary activities prevented on properties. (c) NAN – these areas are formally recorded, identified and activities managed.
3.6.2 Negative Economic Consequences	(a) Company financial sustainability. (b) Economic impact	(a) Yes (b) Yes	(a) Company has paid for all land and activities and maintains a capable workforce. (b) Project creates a need for services and material that does not discriminate against any particular service type.	(a) Company continues to be solvent. (b) NAN – company used wide range of services from the community.
4.1.1 Emissions	Increase emissions above baseline	No	The objective behind the project is to absorb emissions and convert into permanent vegetation.	NAN
4.1.2 Energy Supply	Use significant power or fuel resource	No	Project does not require any power except for periodic use of vehicles.	NAN
4.2.1 Impact on natural water patterns and flow	Project affect water courses/water bodies/ground	No	No establishment in water courses or water bodies. Project has the	NAN – other than to continue establishing broadscale

	water		potential to reduce sub-soil salinity through deep-rooted vegetation establishment.	vegetation which improves water quality
4.2.1 Erosion and/or water body stability	Project affect surface water erosion	Yes – it will reduce surface erosion.	Vegetation carried out on the contour and the physical barrier plus additional vegetation reduces surface water flow.	NAN – continue with project design which reduces surface water erosion.
4.2.3 Landscape modification and soil	Is land used for other purposes.	Yes - Low intensity sheep grazing.	Grazing periodically takes place largely for fire protection purposes (i.e. grass fuel reduction)	NAN
4.3.2 Vulnerability to Natural Disaster	Susceptibility to disaster?	Yes	(a) Fires can occur and result in substantial vegetation damage/kill. (b) Climate change may reduce seasonally important rainfall affecting survival &/or vegetation growth.	(a) Normal action is to establish firebreaks and have fire-fighting equipment available. This is already done. (b) By establishing native species there is natural tolerance to seasonally dry conditions. The company will continue to source local native plant species.
4.3.3 Genetic Resources	Genetically modified material?	No	GM material not used.	NAN – GM material is not applicable to native species.
4.3.4 Release of pollutants	Release of pollutants?	No	No polluting material is produced by project	NAN
4.3.5 Hazardous and Non-hazardous Waste	Use of hazardous material?	Yes	Chemicals are required to control some Vermin (e.g. rabbits, mice and wild dogs).	Special permits are required for the special use of vermin-controlling chemicals.
4.3.6 Pesticides	Chemical usage	Yes	(a) Some insecticide	(a) When insecticide

and fertilizers			is applied when plagues of insects attack young seedlings. (b) Fertiliser is applied at a rate of 5 kgm/ha at the time of establishment (direct seeding).	used safe operating procedures and applied. (b) Fertiliser is applied in small quantity with seed mix. Handling procedures applicable.
4.3.7 Harvesting of forests	Harvesting?	No	None envisaged.	NAN
4.3.8 Food	Affect food supply?	Potentially	Project grazes sheep periodically. At various stages some sheep are sold for meat or produce wool. Relatively small quantity on a regional basis.	NAN – sheep quantities do not affect regional supply/demand status.
4.3.9 Animal Husbandry	Animals used?	Yes	Sheep on small-scale grazing.	NAN – grazing will be used to reduce grass growth and reduce fire spread risks.

SECTION C Monitoring plan

C.1 Data and parameters to be monitored

(Include specific information on how the data and parameters that need to be monitored in the selected methodology(ies) or proposed approaches or as per mitigation measures from safeguarding principles assessment or as per feedback from stakeholder consultations would actually be collected during monitoring. Copy this table for each piece of data and parameter.)

The following Monitoring items are as presented in Auscarbon's 2017 Certification Audit (i.e. Sustainability Monitoring Plan template)

Relevant Indicator/Safeguarding Principle	SDG	1. Air Quality
Data / Parameter		Regional air quality – level of pollution
Unit		No measured unit considered
Description		Air pollution levels
Source of data		Government Agencies measures regional air pollution levels
Value(s) applied		No value applied
Measurement methods and procedures		No direct measurement planned by Auscarbon

Monitoring frequency	No measurement frequency planned by Auscarbon
QA/QC procedures	None applicable
Purpose of data	Regional quality of air
Additional comment	With extensive areas established to vegetation (in excess of 10,000 ha) the air quality will improve and possibly increase the incidence of rainfall.

Relevant Indicator/Safeguarding Principle	SDG 2. Soil Condition
Data / Parameter	Soils affected by sub-soil and surface salinity
Unit	Area of affected soils (hectares)
Description	Sites affected by sub-soil salinity show reduced vegetation growth. The establishment of deep-rooted vegetation in upper- and mid-topographical profiles and additional salt-tolerant vegetation established on the fringes of saline-affected zones can result in a reduction of salt in the soil profile. This is an ecosystem recovery process.
Source of data	Company mapping of properties.
Value(s) applied	In a saline-affected state, this land has a limited number of species surviving and regenerating. In a recovered site, re-established plants would exhibit growth and regeneration.
Measurement methods and procedures	1. 6-months survival appraisal. 2. Periodic monitoring and observations. 3. 5-year survey – species, stocking, growth. 4. 10-year survey – species, stocking, growth.
Monitoring frequency	Informally periodic Formally every 5 years
QA/QC procedures	Mapping location accuracy Species identification Sound site sampling
Purpose of data	To determine long-term changes in salinity through improvement in vegetative growth.
Additional comment	These areas will have lower biomass productivity.

Relevant Indicator/Safeguarding Principle	SDG 3. Biodiversity
Data / Parameter	Ecological diversity
Unit	Number of species and stocking
Description	Auscarbon's vegetation establishment aims to convert previous farmland with limited native species into a site dominated by native species.
Source of data	Auscarbon establishment and management program
Value(s) applied	Baseline position = cereal crop remnants and weeds Future expectation = admixture of native trees and shrubs
Measurement methods and procedures	Inventory program • Sampling over whole properties and Mus • Sample plots detail vegetation species and stocking • Data compiled on property basis

Monitoring frequency	Maximum 5 years – casual inspections periodically
QA/QC procedures	1. Sampling protocols 2. Plot measurement protocols 3. Species identification
Purpose of data	Observe the increase in native species across former farmland
Additional comment	Creating a Biodiverse resource is a basis for Auscarbon's project.

Relevant Indicator/Safeguarding Principle	SDG	4. Human and Institutional Capacity
Data / Parameter		Collaborative Research Program
Unit		Research Projects
Description		Carry out research to improve knowledge on biomass development, species growth, measurement of biomass – done in collaboration with other parties.
Source of data		Company records and scientific papers
Value(s) applied		Carry out research on an annual basis – internally or in collaborative arrangements
Measurement methods and procedures		Annual program initiation and implementation
Monitoring frequency		Annual
QA/QC procedures		• Justification of research need • Establishment of collaborative arrangements (legal) • Measurement protocols • Manual handling procedures • Equipment safety procedures
Purpose of data		Improve measurement accuracy of biomass
Additional comment		Auscarbon has had collaborative arrangements with CSIRO, Murdoch University and other private companies.

Relevant Indicator/Safeguarding Principle	SDG	5. Employment and Income Regeneration
Data / Parameter		Company employment in regional locations
Unit		Employment numbers (regional) and salary/wages paid. Included in this category are contractors that carry out land management activities.
Description		Maintain a local workforce
Source of data		Employee numbers and Payroll
Value(s) applied		Baseline position is 1 full-time person to cover approx. 8,000 ha for carbon sequestration project on an annual basis.
Measurement methods and procedures		Annual employment records Annual regional salary records Annual contractor payments
Monitoring frequency		Annual
QA/QC procedures		Employment contracts Salary payment procedures Compile company records
Purpose of data		Observe salary levels over time

Additional comment	Included will be some regular contractors that carry out land management activities.
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Relevant Indicator/Safeguarding Principle	SDG 6. Technical Transfer and Technological self-reliance
Data / Parameter	Technical advancement
Unit	Improvement/advancement in technology
Description	Auscarbon aims to constantly improve its establishment, management, monitoring and resource determination procedures.
Source of data	Annual Operations
Value(s) applied	No specific value applicable
Measurement methods and procedures	Establishment = direct seeding and hand planting of seedlings Management = extensive manual inspections Monitoring = aerial photography and ground surveys Resource assessment = manual plot sample measurements
Monitoring frequency	Annual operational review
QA/QC procedures	• Machinery safety procedures • Manual handling safety procedures • Sampling protocols • Vegetation measurement protocols
Purpose of data	Advancement in technology should result in more efficient operations and ultimately cheaper management costs.
Additional comment	Technical advancement is also a product of the research program

C.1.1 Other elements of monitoring plan (if applicable)

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SECTION D Duration and crediting period

D.1 Duration of project

50 years

D.1.1 Start date of project

>> (Specify start date of the project, in the format of DD/MM/YYYY)

Commencement date = 11 June 2015

D.1.2 Expected operational lifetime of project

>> (Specify in years)

100 years (in perpetuity)

D.1 GS Crediting period of the project/activity

2008 to 2058

D.2.1 Start date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*

1 July 2008 (i.e. the beginning of the initial establishment period)

D.2.3 End date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*

30 June 2058 (i.e. at the end of the 50th year since the initial establishment)

D.2.3 Total length of the GS crediting periods

>> *(Specify the total length of crediting period in years in line with GS4GG Principles & Requirements or relevant activity requirements)*

50 years

SECTION E Stacking of new assets

>> *(If project is looking to stack new assets over GSVERs the required information to demonstrate compliance to the relevant methodology, product specification and additionality shall be presented in the new PDD template launched with GS4GG)*

Not applicable.

Additional Information = Ongoing Financial Need

1. Financing the Project
2. Revenue from Carbon credit sales
3. Corporate Viability

Appendix 2. Contact information of project participants

Organization name	Auscarbon Pty Ltd	
Registration number with relevant authority	Australian Company Number = 122 712 314 Registered with the Australian Securities and Investment Commission (A Commonwealth Government Agency)	
Street/P.O. Box	85 Forrest Street	PO BOX 18
Building	Unit 6 Norfolk House	
City	Cottesloe	Cottesloe
State/Region	Western Australia	Western Australia
Postcode	6011	6911
Country	Australia	
Telephone	+61 08 9200 6152	
Fax		
E-mail	geoff@auscarbongroup.com.au	
Website	www. Auscarbon.com.au	
Contact person		
Title	Resources Manager	
Salutation	Mr	
Last name	McArthur	
Middle name		
First name	Geoff	
Department	Resources	
Mobile	+61 412 556 984	
Direct fax		
Direct tel.		
Personal e-mail	geoff@auscarbongroup.com.au	