Modification history

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| Release | Comments |
| Release 1 | This version released with Agriculture Horticulture and Conservation and Land Management Training Package 4.0. |

| AHCCFP3X1 | Identify the effects of climate change |
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| Application | This unit of competency describes the skills and knowledge required to consider the effects of climate change and to analyse the environmental, social and cultural, and economic benefits of changed land management practices, which could also be described as carbon farming practices, for a designated site.  The unit applies to individuals who participate in land management activities, who require knowledge and skills to make decisions around activities that reduce greenhouse gas emissions. It may lead on to participation in a carbon farming project.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite unit | Nil |
| Unit sector | Carbon Farming |

| Elements | Performance Criteria |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Consider the effects of climate change | 1.1 Identify the effects of greenhouse gas emissions on the environment  1.2 Determine industries that are major producers of greenhouse gases  1.3 Determine the benefits of reducing greenhouse gas emissions |
| 2. Consider the carbon cycle and storage | 2.1 Identify the role of carbon in the biosphere  2.2 Determine types of carbon and where it is stored  2.3 Identify types of carbon storage  2.4 Describe the carbon cycle |
| 3. Identify land management practices that reduce greenhouse gas emissions | 3.1 Identify land management practices to reduce methane  3.2 Identify land management practices to reduce nitrous oxide  3.3 Identify land management practices to reduce carbon dioxide |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Engage with material focussed on carbon farming benefits and techniques |

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| Unit mapping information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| ACMCFP3X1 Identify the effects of climate change |  | New unit | No equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet at: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |

| TITLE | Assessment requirements for AHCCFP3X1 Identify the effects of climate change |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has identified the benefits of carbon farming, including:   * identified at least three effects that climate change has had on a designated site * identified three land management practices that would reduce greenhouse gas emissions, for a designated site * identified at least one environmental, one social and one economic benefit that carbon farming practices could have on a designated site. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * most abundant greenhouse gases * common land management practices (or carbon farming methods) that reduce greenhouse gas emissions, including: * vegetation methods: including regenerating native forests, protecting native forests by reducing land clearing, planting trees to grow carbon stocks * savanna burning: including managing bushfires in Australia's savannas to avoid harmful, high-temperature fires * agricultural practices: including building soil carbon through changed farming practices such as crop stubble retention, no till cropping, mulching, improved water management, use of organic fertilisers, composting and use of soil conditioners including biochar * other agricultural practices: including protecting vegetation from stock grazing, reducing emissions from cattle, controlled grazing practices, or other industry specific practices * Australia's commitment to global emissions reduction targets * environmental benefits of carbon farming including: improved biodiversity above and below ground, improved air, water and soil quality, reduced greenhouse gas emissions, improved movement of water across landscape, reduced salinity/erosion/acidification/compaction, increased resilience to drought, increased land versatility * social benefits of carbon farming including increased social capital, Indigenous community empowerment, increased resilience to drought, more stable and diverse income, healthier people and communities, improved succession planning * economic benefits of carbon farming, including diversified income streams, increased farm productivity, access to finance, increased land versatility, new skills and career development, less income spent on supplements and fertilisers. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * specifications: * with access to information about climate change and carbon farming practices * with access to details and history of a designated site.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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