Modification history

|  |  |
| --- | --- |
| Release | Comments |
| Release 2 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0. |

| AHCECR504 | Manage ecological restoration programs |
| --- | --- |
| Application | This unit of competency describes the skills and knowledge required to inspect and assess ecological site and degraded landscapes for restoration works, plan the restoration activities and monitor its implementation.  The unit applies to individuals who are restoration managers and who analyse information and exercise judgement to complete a range of advanced skilled activities demonstrating a deep knowledge in specific technical areas within land management. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.  No licensing, legislative or certification requirements are known to apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Ecological Restoration (ECR) |

| Elements | Performance Criteria |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Inspect and assess site for restoration | 1.1 Prepare a biotic and abiotic assessment report  1.2 Determine site conditions, level of degradation and restoration potential for site  1.3 Assess threats to biotic and abiotic factors of area from proposed restoration works  1.4 Assess range of operating conditions, hazards and environmental conditions which will impact on restoration works |
| 2. Plan ecological restoration program | 2.1 Prepare plans and specifications according to program or management aims and objectives  2.2 Select restoration approaches to achieve management plan objectives  2.3 Outline staging strategy for works  2.4 Determine monitoring strategy and measurable key performance indicators for project  2.5 Conduct a site specific risk analysis and develop controls procedures according to work health and safety policies  2.6 Determine personnel requirements and recruit skilled personnel  2.7 Obtain permits, licenses and authorisations required to complete the work  2.8 Source equipment and materials for restoration work  2.9 Arrange transport of equipment and personnel to restoration sites |
| 3. Monitor ecological restoration works | 3.1 Check site preparation activities have been completed according to specifications  3.2 Check plant materials, machinery and equipment comply with ecological restoration plan  3.3 Monitor ecological restoration works for quality and progression against plan  3.4 Monitor work to ensure remedial action is undertaken  3.5 Manage workers to ensure work is carried out in accordance with work health and safety procedures |
| 4. Review ecological restoration programs | 4.1 Monitor site to ensure compliance with maintenance program and specifications  4.2 Assess site to determine restoration works are consistent with management plans  4.3 Report changes to restoration techniques for adoption in future works |

| 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. | |
| --- | --- |
| Skill | Description |
| Writing | * Demonstrate advanced writing skills by selecting appropriate conventions and stylistic devices to express precise requirements, processes and procedures in management plans |

|  |  |  |  |
| --- | --- | --- | --- |
| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCECR504 Manage ecological restoration programs  Release 2 | AHCNAR504 Manage natural area restoration programs  Release 1 | Changed Code and Unit Sector  Changed Title to reflect non-natural degraded landscapes  Change to Application  Minor changes to Performance Criteria for clarity  Updated Performance Evidence, Knowledge Evidence and Assessment Conditions | Equivalent unit |

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

| TITLE | Assessment requirements for AHCECR504 Manage ecological restoration programs |
| --- | --- |
| 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, on at least one occasion inspected an ecological site and planned and monitored a restoration program for a specified ecological environment.  There must also be evidence that the individual has:   * managed an ecological restoration program * conducted a site assessment for restoration works * selected vegetation restoration techniques for the program according to planned objectives * ensured program complies with relevant legislative and program requirements * calculated labour and other resources require for program * monitored progress and quality of restoration program delivery * reviewed ecological restoration program against intended outcomes in management plan. | |

| Knowledge Evidence |
| --- |
| 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:   * biotic and abiotic factors affecting ecological sites * principles and methods of prevention and control of pests and diseases * work health and safety hazards associated with restoration works and the controls necessary to remove or minimise associated risks * soils and nutrients, plant selection and culture * calculations for materials * preparation of plans and specifications * ecological restoration and management principles, including: * the planning process * site assessment and evaluation techniques * methods of analysing soils, waterways and their condition * natural regeneration potential and limits * factors affecting the timing and method of plant establishment * sustainable land management strategies, including: * advantages and limitations * environmental sustainability as a 'whole-system' approach * environmental issues including: * water use and water catchments * pollution sources and damage potential * waste minimisation and sustainable disposal * natural and human threats to ecological sites * soil type and geology for revegetation and site access * interactions between production systems and ecological sites * ecological principles related to management of ecological sites, including: * maintaining ecosystem structures and habitat * interactions between flora and fauna and impact on the ecology * vegetation types and their general characteristics for management * identification of plant and animal threats to treated areas * importance of biodiversity in managing ecological sites, including: * terrestrial plants and basic plant community structures * water plant communities and interaction in saline environments * methods for preserving biodiversity * State/Territory legislative requirements related to revegetation works, environmental protection and biosecurity standards. |

| Assessment Conditions |
| --- |
| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated on an ecological restoration site as specified in the Performance Criteria * resources, equipment and materials: * equipment, machinery, plants and consumables specified in restoration plan * specifications: * use of workplace policies and procedures for preparing plans * use of restoration scope * access to legislation and regulations relevant to ecological restoration works and biosecurity * relationships: * client * work team and/or contractors.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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