



Australian Government

AHCECR504 Manage implementation of ecological restoration programs

Release: 1

AHCECR504 Manage implementation of ecological restoration programs

Modification History

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

Application

This unit of competency describes the skills and knowledge required to inspect and assess degraded sites for ecological restoration works, assess an existing design or plan for ecological restoration activities, and manage and monitor implementation.

The unit applies to individuals who are ecological restoration managers who analyse information and exercise judgement to complete a range of advanced skilled activities demonstrating a deep knowledge in specific technical areas within ecosystem 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 apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Ecological Restoration (ECR)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Inspect and assess site subject to an ecological restoration program	1.1 Interpret ecological restoration project design or plan for purpose of implementation 1.2 Confirm site conditions, level of degradation and restoration potential for site outlined in ecological restoration design or plan

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Assess threats to biotic and abiotic factors of area from ecological restoration works proposed in design or plan 1.4 Assess range of operating conditions, hazards and environmental conditions that will impact on the implementation of restoration works outlined in design or plan
2. Plan implementation of ecological restoration from project plan or design	2.1 Confirm ecological restoration approaches and techniques to achieve project design objectives 2.2 Develop a proposed program budget in accordance with client expectations and resources 2.3 Prepare an implementation program and schedule according to the ecological restoration design or plan aims and objectives 2.4 Confirm program monitoring strategy and measurable key performance indicators for program outputs 2.5 Conduct a site-specific risk analysis and develop controls and procedures 2.6 Determine personnel and skill requirements for implementing program 2.7 Identify permits, licenses and authorisations required to complete work 2.8 Identify equipment and materials for restoration work 2.9 Identify transport requirements for equipment and personnel for ecological restoration work
3. Manage implementation of ecological restoration program plan	3.1 Liaise with program stakeholders, client and implementation team 3.2 Oversee implementation of restoration works according to program 3.3 Record works according to the design and program 3.4 Manage workers to ensure program is carried out in accordance with workplace health and safety procedures
4. Monitor implementation of ecological restoration program	4.1 Check site preparation activities have been completed according to specifications 4.2 Check materials, machinery and equipment comply with ecological restoration design or plan and implementation program 4.3 Monitor implementation of ecological restoration program for quality and progression against outputs of ecological restoration

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	design or plan 4.4 Monitor budget expenditure against the program budget 4.5 Carry out adaptive management according to ecological monitoring 4.6 Manage workers to ensure work is carried out in accordance with workplace health and safety procedures
5. Review and report on implementation of ecological restoration program	5.1 Review outputs to determine program implementation is consistent with ecological restoration design or plan 5.2 Report outputs and key performance indicators achieved during program implementation according to workplace procedures 5.3 Report changes to restoration techniques for adoption in future works 5.4 Monitor site to identify recommendations and specifications for ongoing maintenance program

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
Reading	Interpret and extract relevant information from ecological restoration designs and plans to formulate programs and monitor their implementation
Writing	Demonstrate advanced writing skills by selecting appropriate conventions and stylistic devices to express precise requirements, processes and procedures in management programs
Oral communication	Establish and maintain complex and effective communication for a broad range of stakeholders using appropriate strategies for different contexts
Numeracy	Interpret financial and operational information from designs and plans to perform calculations of costing and scheduling for inclusion in budget and implementation program

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCECR504 Manage implementation of ecological restoration programs	AHCNAR504 Manage natural area restoration programs	Redesigned unit to focus on implementation of designs or plans Changed unit code to reflect new unit sector Changed title Change to Application Changed Performance Criteria Changed Performance Evidence, Knowledge Evidence and Assessment Conditions to reflect implementation focus	Not equivalent

Links

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

Assessment Requirements for AHCECR504 Manage implementation of ecological restoration programs

Modification History

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

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 managed the implementation of an ecological restoration program for an ecological restoration design or plan.

There must also be evidence that the individual has:

- identified essential elements of ecological restoration program
- conducted a site assessment for implementing ecological restoration works
- confirmed restoration techniques for the program according to planned objectives
- ensured program complies with relevant legislative and program requirements
- calculated labour and other resources required for program
- recorded, monitored and reported on labour and other resource requirements
- monitored progress and quality of restoration program delivery
- reviewed ecological restoration implementation 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, and restoration interventions that can be applied
- principles and methods of prevention and control of weeds and pests
- project management skills, including:
 - work health and safety, environmental and quality hazards associated with restoration works, and controls necessary to remove or ameliorate associated risks
 - calculations for resource requirements, costs and charges
 - preparation of plans, budgets and works reporting

- financial recording, tracking and reporting
- use of project management software
- leading a team
- ecological restoration and management principles, including:
 - planning process, particularly interpreting goals and indicators of success
 - site assessment and evaluation techniques
 - methods of analysing soils, waterways and their condition and threats
 - natural regeneration potential and limits
 - factors affecting the timing and method of plant establishment
- sustainable land and aquatic management strategies, including:
 - reducing degradation of specific ecosystems
 - use of available resources
 - 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
 - maintaining and reinstating connectivity
 - interactions between flora and fauna and their roles in ecosystems
 - vegetation and other ecosystem types and their general characteristics for management
 - identification of plant and animal threats to treated areas, and appropriate control methods
 - identification of plant and animal assets and their ecological requirements
- 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 conserving biodiversity
- state/territory legislative requirements related to revegetation works, environmental protection and biosecurity standards
- communication skills for various stakeholders, including special interest groups, government agencies, professional bodies and community.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated on an ecological restoration site
- resources, equipment and materials:
 - equipment, machinery, plants and consumables specified in restoration plan
- specifications:
 - workplace policies and procedures for preparing plans
 - restoration scope and budgetary constraints
 - legislation and regulations relevant to ecological restoration works and biosecurity
- relationships:
 - client
 - stakeholders/groups
 - 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.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>