



Australian Government

Assessment Requirements for AHCECR311 Implement ecosystem reconstruction works

Release: 1

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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 performed ecological restoration works for at least two different ecological environments.

There must also be evidence that the individual has:

- recognised boundaries between assisted regeneration areas and reconstruction areas at a restoration site
- identified potential linkages for habitat area and connectivity from project brief
- identified species for an ecosystem reconstruction site from project brief
- conducted a site hazard identification and risk control assessment
- recognised and treated undesirable species for ecosystem restoration site
- prepared site for ecosystem reconstruction works
- prepared site substrates for reconstruction activities
- carried out reintroduction ecosystem reconstruction works according to current industry standards using at least two of following methods:
 - replanting nursery stock
 - direct seeding or introduced propagules
 - translocation
- protected the restored area with guards, barriers or other techniques
- used, cleaned, maintained and stored machinery and equipment according to manufacturer instructions
- complied with workplace health and safety, biosecurity and environmentally sustainable work practices.

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:

- recognition and common names of native flora, fauna and other key biota of specific restoration areas
- ecological principles, including:
 - recognition of basic ecosystem elements and functions
 - recognition of ecological communities
 - interactions between flora, fauna and other biota and the impact of these on restoration objectives and outcomes
 - importance of biodiversity in an ecological community
 - the role of habitats to reinstating functional ecosystems
 - connectivity principles for expanding area and effective linkages
 - substrates in different ecological environments and their preparation, including terrestrial and aquatic environments
 - physiology of growth of desirable and non-desirable organisms
- ecological restoration principles, including:
 - recognising levels of resilience and recovery potential of species requiring reconstruction intervention for a range of levels and types of degradation
 - role of reference models, including different models for difference zones within the one site
 - impact of potential climate change on reference ecosystems and effect on reconstruction works
 - setting restoration goals and identifying indicators of recovery outcomes
 - the importance and value of genetic integrity and diversity in selecting the provenance of propagules, including under climate change
 - configuration of species with respect to potential for successful breeding and recruitment
 - factors affecting the timing and method of reintroduction
- a range of biological reintroduction techniques, including:
 - reintroduced nursery stock
 - hand seeding, broadcast sowing and mechanical seeding
 - transplanted stock from natural areas
- a range of sector-appropriate tools, equipment and machinery
- concepts and methods for establishment of biota on reconstruction sites, including:
 - species requirement for water on reconstruction site (hydrological requirements)
 - physiology of desirable organisms propagation and growth
 - nutrient requirements and materials and methods for amelioration for site species
 - techniques for protecting, securing or anchoring reintroduced organisms
 - techniques for providing water for reintroduced organisms
- pests and diseases and the principal control strategies for their prevention and control on reconstruction sites, including:
 - methods for minimising the transfer of undesirable organisms (biosecurity)
 - methods for biological, cultural, mechanical and chemical pest control

- safety requirements when handling and using hazardous materials.

Assessment Conditions

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

- physical conditions:
 - skills must be demonstrated in the field as specified in the Performance Evidence
- resources, equipment and materials:
 - tools and equipment required for ecological reconstruction works
 - live biota for reconstruction works
 - materials required for treatments
- specifications:
 - specific workplace procedures and processes for reconstruction works
 - manufacturer operating instructions for specific equipment and machinery
 - workplace instructions and project brief.

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>