

External Diploma handbook

Conservation and Land Management



2012

Tocal
COLLEGE



Department of
Primary Industries

The information contained in this publication is based on knowledge and understanding at the time of writing (2011). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check currency of the information with the appropriate officer of NSW Department of Primary Industries or the user's independent adviser.

Recognising that some of the information in this document is provided by third parties, the State of New South Wales, the author and the publisher take no responsibility for the accuracy, currency, reliability and correctness of any information included in the document provided by third parties.

©The State of New South Wales

NSW Department of Primary Industries 2011.

This publication is copyright. Except as permitted under the Copyright Act 1968 (Commonwealth), no part of the publication may be reproduced by any process, electronic or otherwise, without the specific written permission of the copyright owner. Neither may information be stored electronically in any form whatever without such permission.

Table of contents

Who to contact	4
Welcome	5
Introduction to the course	6
Course structure	11
Course program	12
Subject details	13
Core subjects	13-24
Agriculture stream	25-33
Bush regeneration stream	34-40
Study guides	44
Assignment grading	45
Course policies	46
Other sources of information	47
AHC51110 Diploma of Conservation and Land Management	50

Who to contact

Course Coordinator

David Brouwer

Phone: 02 4939 8851

E-mail: david.brouwer@industry.nsw.gov.au

Contact David for inquiries about course subjects and for help with assignments.

Course Secretary

Kim Griffiths

Phone 02 4939 8881

Email: kim.griffiths@industry.nsw.gov.au

Contact Kim for inquiries about payment of fees, records and despatch of assignments

Other contacts

Darren Bayley

Manager, Continuing Education

Phone: 02 4939 8862

Cameron Archer

Principal

Phone: 02 4939 8865

Mailing address:

Tocal College

CB Alexander Campus

PATERSON NSW 2421

AUSTRALIA

Fax: 02 4938 5549

Website: www.tocal.com

Welcome

Welcome to the course. Your course, Studies in Landcare and Natural Resource Management, leads to a Diploma of Conservation and Land Management and is part of NSW Department of Primary Industries' External Courses, one of the most successful rural adult education programs in Australia.

The External Course Program has been offering courses in Farm Management and Farm Office Management to landholders since 1970 and over 12,000 people have enrolled in these courses in that time. Since 1981 the management of the external courses has been located at the C B Alexander Agricultural College, 'Tocal' at Paterson in the Hunter Valley north of Maitland.

In recent years the Program has developed a range of external modules related to sustainable agriculture and landcare. Because of the increasing importance and interest in these topics, it was decided to offer the modules as an external course so landholders could receive a formal education qualification after studying in this area.

A Certificate in Landcare was offered for the first time in 1995, and this was developed further into the Diploma in Landcare and Natural Resources. With the release of the national Conservation and Land Management Training Package, this course was modified to meet the requirements of the new package in 2003.

For this course, we have taken a number of modules from the Training Package and developed study materials for them, which lead to a diploma qualification. There are other ways of achieving a diploma or other qualifications in Conservation and Land Management, but completing the course through external studies is the method described in this handbook.

We are confident you will find the course a most rewarding experience and well worth the time and effort you will need to spend on it. What could be more rewarding than learning how to take better care of the land for ourselves, our families and future generations?

The staff at Tocal wish you well in the course. We hope you study hard, enjoy it and achieve what you want from it.

Good luck and please call if you would like help or further information. (Contacts and phone numbers are on the inside front cover).

Introduction to the course

Course aims

The course aims to give you the knowledge, skills and attitudes you need to achieve the following:

- assess the condition of a landscape as a holistic system
- draw up plans for managing and restoring a particular land system for sustainability
- demonstrate landcare and natural resource management skills for sustainable land use
- work effectively with stakeholders, who may be your family, clients, community groups or government agencies on landcare, catchment and natural resource management projects
- understand the legal and policy framework for conservation and natural resource management

How the course works

The course comprises a number of written assignments, maps and plans that you will develop for a land management area of your choice. You will submit assignments on a regular basis and pay for each assignment as you go. Assignments will be assessed by a Tocal staff member with expertise in the subjects.

Online learning

Online materials are being developed for all subjects, but these will not be available until late 2012. In any case, each subject will also be available as hard copies and essential references are supplied as part of your course fees.

Background to the course

This course, covering Studies in Landcare and Natural Resource Management, leads to a national Diploma of Conservation and Land Management. It is based on the success of NSW Agriculture's Farm Management and Farm Office Management External Courses. These courses have been revised and developed for over 25 years to ensure they meet the needs of our clients. The current nationally-accredited diploma is now available for our students to extend their skills and knowledge.

Adult learners have different needs and characteristics than adolescents or children. These characteristics include:

- adults are very selective about what they learn
- they have limited time and have many other activities to take their time and energy apart from learning
- adult learning should be done in a non threatening environment
- adult learning has to be relevant to the needs of the learner.

Taking these issues into account, the College has developed the course, Studies in Landcare and Natural Resource Management, leading to a Diploma of Conservation and Land Management. This course is based on identified competencies, following widespread industry consultation.

The course is also based on the principles of problem-based and inter-active learning. In other words, we do not believe that competent land managers or carers need to be experts on every area of land management. Instead, they need to have a thorough knowledge of their particular environment and principles involved in land management. But more importantly, they need to have a mindset and understanding of the issues involved in the stewardship of land and principles of sustainable land use.

We also believe that land cannot really be cared for solely by an individual. You have to involve other people, whether it is members of your own family, your farm workforce, your neighbours or the whole catchment community. It is the involvement of people on a group and community basis that has made the landcare movement different and effective compared with previous initiatives in land conservation.

To get the most out of the course you will need to consult closely with all the stakeholders in the area of land you study, as well as neighbours and government agencies.

If you do this effectively, we believe that this course can help you to bring change and improve land management practices on your own land and in your local community.

Questions that may arise

You may have a number of questions about how the course works. Most of the details will be revealed as you work your way through the book. Some questions that may occur to you are answered below.

Is this the course for you?

You may be wondering if this course is the most suitable for your needs. An explanation may help you decide:

The course is especially designed for landholders, farmers, land managers, bush regenerators, landcare workers, weeds officers and students of environmental management. If you are already employed or have experience in a land management or community facilitator role, you may be able to take advantage of Skills Recognition, described on page 5. The course is also ideal for land owners who want to chart a course of responsible land management for an area of land they may have recently acquired.

Do you need to own land to complete the course?

Ideally yes, but not necessarily. You will definitely need **access** to land to complete the project parts of the course.

The course is designed to take you through a series of assignments which meet national competencies. To complete all these assignments and gain a Diploma of Conservation and Land Management, you need access to an area of land. The land you use for study projects may belong to you, your family, neighbours, friends, relatives OR local councils or some other government agency. You will need permission to carry out studies on land that is not your own. You should gain this permission before you start the course.

At Diploma level, the emphasis is on managing land areas. If you don't own land yourself, it is difficult to implement land management decisions, so you will need to simulate some situations to demonstrate you are capable of making management decisions. You should always check the practicality and feasibility of your plans with the stakeholders of the land. We believe you can validly go through the **process** of management decision-making, even if you don't own the land. So, if you don't own or actually manage land, don't be put off! Explore the options in your local area.

Is the course full-time or part-time?

The course is designed to be completed on a part-time, external basis. Studying part-time is not always easy. Often it has to fit in with work and family commitments and it can be hard to find the time to give it a fair go. That's why we are as flexible as possible with the course requirements.

If you find it difficult to submit assignments in a reasonable time, please ring the course supervisor to arrange an extension or deferment. We know what it's like and we will help if we can.

On the other hand, external study is a great way to learn. You can study at your own pace, without a lot of travel to education institutions.

How can your existing skills and experience be recognised?

Completing the course-work is just one way of achieving the Diploma of Conservation and Land Management. The award we offer is from a National Training Package. The training package enables you to gain qualifications from skills or experience you may already have. This is described as **Skills Recognition** (sometimes referred to as Recognition of Prior Learning, or even Recognition of Current Competency).

You can gain skills recognition for what you have already achieved through life or work experience, by formal coursework at other recognised institutions or by attending workshops and training activities. You can then prepare a case for recognition with the course coordinator who will submit your evidence to an accreditation committee.

Because there are a large number of competency units to choose from, you will need to chart a pathway that fully recognises your existing skills and also meets the requirements of the qualification you are seeking. This is best done by consulting fully with your course coordinator, who can also arrange for you to be assessed. Before you do this, study carefully the competencies described on pages 10 of this handbook, and select the ones you think you may be able to have recognised.

The competencies described in this book apply to diploma-level studies only, but you may be able to gain a qualification at Certificate III or Certificate IV level by skills recognition (only). Discuss this option with the course co-ordinator and read the Skills Recognition Handbook on the web at www.tocal.nsw.edu.au/courses/Skills-recognition-services.

What are competencies?

A National Training Package sets standards for assessment and describes ways of measuring and recognising an individual's competence.

In each sector there are units of competence that relate to different workplace functions. These are linked to levels of the Australian Qualifications Framework (AQF).

This means that training pathways for all sectors of agriculture are similar and reflect workplace expectations for the whole of Australia.

For any qualification you need to achieve a basic number of competencies in different areas. Completing the required competencies by course-work is just one way of gaining a qualification.

Fees

Each subject has a standard fee: at time of printing the fee was \$285 per unit of competency. An up-front enrolment fee of \$570 will entitle you to the first two subjects. This fee changes from time to time, so you will need to check a current brochure for the fees.

There is a fee that applies to skills recognition that depends on whether you supply all necessary documentation for a 'desk audit' or whether you undertake assessment at your place of work (or home). We can let you know what these fees are on application.



Course structure

ASSIGNMENT 1

Provide information on environmental issues (Group C AHCWRK402A)

ASSIGNMENT 2

Conduct field research into an area of land (Group A AHCILM501A)

ASSIGNMENT 3

Collect and classify plants (Group A AHPCM502A)

ASSIGNMENT 4

Conduct biological surveys (Group A AHCNAR502A)

ASSIGNMENT 5

Monitor biodiversity (Group C AHCLPW405A)

ASSIGNMENT 6

Develop a plan for managing target pests (Group A AHCPMG503A)

Agricultural stream

ASSIGNMENT 7A

Develop a management plan for agricultural land
Group A AHCLPW501A

ASSIGNMENT 8A

Manage natural areas on a rural property Group A
AHCNAR501A

ASSIGNMENT 9A

Plan for revegetation works
Group C AHCNAR402A

ASSIGNMENT 10A

Develop sustainable land use strategies
Group A AHCNAR506A

Prepare a report
Group B AHCWRK503A

or Bush regeneration stream

ASSIGNMENT 7B

Develop a management plan for bushland
Group A AHCLPW501A

ASSIGNMENT 8B

Design a bushland restoration project
Group A AHCNAR503A

ASSIGNMENT 9B

Plan bushland revegetation works
Group C AHCNAR402A

ASSIGNMENT 10B

Manage a bushland restoration program
Group A AHCNAR504A

Prepare a report
Group B AHCWRK503A

Course program

When to enrol

There are two enrolment periods: January for a February course commencement and June for a July commencement. We expect that you will submit assignments regularly to complete the course within eighteen months. We will keep in contact with you to help you meet this commitment.

We try to make the course as flexible as possible, so if you want to complete the course sooner, that's fine. You can vary your studies to suit your work and personal commitments and the time you have available.

You will note that there are no compulsory residential schools. Tocal College, however, conducts a wide range of short courses, many of which may be suitable and appropriate for your studies. Each year a short course brochure is available from the college with a timetable of courses. Most are held on weekends.

The subjects we offer in the course as outlined on page 11 cover the essential competencies required for a Diploma and follow a logical pathway to build up your management skills in conservation and land management.

If, however, you would like to pursue other subjects by substituting an appropriate competency for one that we offer, you can negotiate this change with the course coordinator. This can only be done on a limited basis, and you need to be aware of the 'packaging rules' that apply to the Diploma. These are shown on page 50.

We will send your study notes when you send us the fee for the subject.

You will also need to decide whether you are going to follow the agricultural or non-agricultural stream, but you won't need to choose a stream until you have completed Assignment 6.

Subject details

Core subjects

Assignment 1: Provide information on environmental issues

The purpose of the subject is to give you an understanding of the difference between Landcare as a national movement and landcare as a value or ethical approach to the land. The subject encourages you to see how values have changed over the history of Australia, especially since European settlement, and that some of these values may have been inappropriate.

Content

- How Landcare groups begin
- What are the issues in landcare?
- Do we need a landcare ethic?
- Science and beyond
- Aboriginal values and land use
- Check your own value system.

Learning outcomes

At the end of this subject, you will be able to:

1. Process a request for information on environmental issues and policies
 - document the request using appropriate recording system
 - seek approval to access information when necessary
 - research and identify appropriate responses
 - forward the request to another person where appropriate
2. Identify information sources
 - identify and research relevant sources and locations of information
 - obtain access to identified sources

3. Organise self and others to extract information on environmental issues and policies

- locate and extract relevant information
- discuss resolution to problems of accessing information
- copy information extracted

4. Ensure information meets request

- information is assessed for its validity and reliability
- clarification and assistance is sought if information is unclear or difficult to understand
- different types of information are combined to provide a response to a request

5. Prepare a report or correspondence

- develop a format, plan and structure for the report
- write in clear and concise language
- check and correct spelling, punctuation and grammar
- format the work appropriately
- check the report for accuracy and meaning to ensure it is readily understood by the recipient

6. Finalise the report or correspondence

- Arrange to review and sign off the report with the designated person if required
- keep a record of the report or correspondence
- forward the report to the client

*This assignment fulfils the requirements of the Group C competency AHCWRK402A
Provide information on environmental issues and policies.*

Resources:

'Introduction to landcare',

Tocal Code of Land Use Practice,

excerpts from *'A Sand County Almanac',*

Foreword from Flannery, *'Here on Earth'.*

Suggested reading includes:

Leopold A (1949) *A Sand County Almanac* Oxford University Press, New York

Roberts B (1991) *How green is my mallee: changing Australian attitudes to their land*. Fundamental Questions Paper No.8. Centre for Resource and Environmental Studies, Australian National University, ACT

Farquhar B A (1992) *Bert's Story. The Autobiography of B A Farquhar*. Regal Publications, Launceston TAS

Flannery, T (2010) *Here on Earth*, Text Publishing, Melbourne, Australia.

Palmer K (1991) *Aborigines, values and the environment*. Fundamental Questions Paper No.7. Centre for Resource and Environmental Studies, Australian National University, ACT

Campbell A (1994) *Landcare. Communities shaping the land and the future*. Allen and Unwin, NSW

Roberts B (1992) *Land Care Manual*. New South Wales University Press. Kensington NSW

Lines W J (1991) *Taming the Great South Land*. Allen & Unwin. St Leonards NSW

Cocks D (1992) *Use with Care: managing Australia's natural resources in the 21st century*. New South Wales University Press. Kensington NSW

Knudtson P & Suzuki D (1992) *Wisdom of the elders*. Allen & Unwin. St Leonards NSW

Rolls E (1993) *From Forest to Sea*. University of Queensland Press. St. Lucia Queensland.

Horton, D (2000) *The Pure State of Nature. Sacred cows, destructive myths and the environment*, Allen & Unwin, Australia

Assignment 2: Conduct field research into an area of land

This subject starts the process of gathering information about the land you will study. You will investigate sources of knowledge and land ownership. You will collect and generate maps of the area and show its location in relation to the catchment and the natural resources of the area. You will investigate how land use and human activities have impacted on the land and its ecology.

Content

- The landscape and the catchment
- Landscape features
- Natural systems
- Biodiversity
- Humans and natural systems
- Landcare ethics and practice
- Landscape planning

Learning outcomes

At the end of this subject, you will be able to:

1. Review existing knowledge
 - gather existing information
 - review oral evidence
 - inspect sites
 - access sources of expertise
2. Identify stakeholders
 - identify stakeholders
 - investigate and record land tenure
 - apply protocols
 - comply with privacy requirements
3. Develop a research approach
 - determine objectives of the research
 - techniques are assessed for hazard and risk
 - review existing information
 - identify resources required
 - consult stakeholders
 - establish sampling and recording processes

4. Conduct field investigations
 - undertake consultation and fieldwork
 - adjust methodology
 - observations, records and monitoring meet research objectives
 - document each field operation
5. Develop a process for involving decision-makers
 - define issues to be addressed with interest groups
 - develop a consultation and decision-making process
 - appropriate time is provided for consultation
 - use cultural reference groups where needed
6. Report on the field investigation
 - present results in a form that addresses the research objectives
 - consult stakeholders
 - document legislative requirements
 - determine the significance of the research

*This assignment fulfils the requirements of the Group A competency AHCILM501A
Conduct field research into natural and cultural resources.*

Resources:

'Principles of ecology',

Excerpts from 'Conserving our farming history'

Assignment 3: Collect and classify plants

The purpose of the subject is to develop your competence in collecting and identifying plants by using the correct techniques and equipment. Preserving specimens and recording data on plants is described in this subject.

Content

- Prepare for collecting and identifying plants
- Access resources and plant ID references
- Collect and preserve plants effectively
- Label and describe plants for a collection

Learning outcomes

At the end of this subject, you will be able to:

1. Prepare for plant collecting
 - confirm purpose and objectives
 - define area, location and/or habitat for collecting
 - determine and prepare resources
 - determine and prepare equipment required
 - identify OHS hazards
2. Collect plant specimens
 - observe collecting ethics
 - note relevant information
 - collect adequate material for identification
 - specimens are correctly tagged and stored
3. Preserve specimens
 - preservation is undertaken while specimen is fresh
 - specimen is cleaned and prepared correctly
 - preserving is carried out by pressing or drying
 - dried specimen is mounted and labelled with accurate information

4. Identify plant specimens

- identify resources
- identify and document basic characteristics of a plant
- use a relevant plant key
- confirm plant identity
- plant identity is documented on label

This assignment fulfils the requirements of the Group A competency AHCPCM502A Collect and classify plants.

Resources:

'Principles of ecology'

'Pasture species for NSW AgGuide'

Assignment 4: Conduct biological surveys

This subject will assist you in choosing the best survey method for your site and help you understand the value of the vegetation you are assessing.

Vegetation surveys are used to determine:

- the importance of a site in terms of its vegetation
- the presence of a species in a particular area
- the population size or density of a species
- the distribution of one or more species
- the habitat needs of a species
- the reasons for a species' decline
- whether land or habitat management has been a success
- how populations have changed over time.

The subject will guide you through the accompanying manual '*Vegetation Survey and Assessment – a practical guide*' to provide you with the information and ideas you need to undertake a vegetation survey at a site of your choice.

Content

- Why conduct vegetation surveys?
- Define the purpose and area of your survey
- Describe plant communities
- Vegetation survey and assessment methods
- Collect and identify plants
- Record field data
- Mapping as a management tool
- Legislation and policy
- Guidelines for assessing vegetation health and habitat value
- Preparing quality reports

Learning outcomes

At the end of this subject, you will be able to:

1. Consider the design of the survey.
 - identify the objectives and scope of your survey
 - collect and review previous studies relevant to your survey
 - develop a process for collecting and recording data
 - develop an approach to for processing the data collected
 - develop a draft of your survey design to discuss with experts, the land manager and other stakeholders

2. Determine your survey approach
 - identify survey and data recording methods
 - identify rules for applying chosen survey method
 - identify and control OH&S hazards
 - identify and source tools and equipment needed
 - schedule survey activities
 - document survey procedures

3. Conduct the survey
 - conduct an initial field visit to familiarise yourself with the site
 - conduct the survey applying your chosen method
 - monitor survey activities for accuracy and consistency
 - data collection is carried out according to survey design
 - record all data promptly and accurately

4. Compile a survey report
 - analyse data collected
 - draw conclusions from the data highlighting the evidence
 - produce a report that contains a suitable structure and the relevant information and data
 - report describes findings linked to initial aims and objectives and provides recommendations where necessary

This assignment fulfils the requirements of the Group A competency AHCNAR502A Conduct biological surveys.

Resources:

'Vegetation survey and assessment'

Assignment 5: Monitor biodiversity

This subject covers the process of monitoring biodiversity. Changes in land use will lead to changes in the types and balance of organisms in the environment.

Biodiversity is something we want to encourage—it has many benefits and is a direct indicator of the health of a landscape.

By monitoring biodiversity, we set benchmarks for future management.

Monitoring biodiversity requires a knowledge of ecology, plant and animal classification, monitoring systems for flora, fauna and micro-organism populations, threats to places of natural significance, accepted scientific process, standards and Codes of Practice.

Content

- The monitoring process
- Pre-monitoring preparation
- The assessment
 - soil and land processes
 - native vegetation and wildlife
 - pest animals and plants
 - pasture condition
 - rainfall and climate
 - state of watercourses and water quality

Learning outcomes

At the end of this subject, you will be able to:

1. Select monitoring techniques
 - select appropriate monitoring techniques
 - assess the range of operating conditions hazards and environments
 - test monitoring scheme for reliability, timeline and safety
2. Prepare equipment and resources
 - obtain appropriate certificates, licences and authorisations
 - source equipment required for monitoring
 - transport equipment and personnel to sites in safety
 - install protect and test equipment

3. Monitor biodiversity

- observations are made according to plan
- record data to plan and requirements
- record location and times of observations
- follow OHS requirements

4. Review data

- examine records for consistency and accuracy
- assess records to determine whether the observations and measurements are addressing factors and issues consistent with the monitoring plan
- adjust monitoring techniques to overcome any deficiency

This assignment fulfils the requirements of the Group C competency AHCLPW405A Monitor Biodiversity.

Resources:

'Nature conservation on farms'

'Monitor natural resources'.

Assignment 6 Develop a plan for managing target pests

This subject covers the process of assessing pest and land management information and developing a plan for the management of the pests. The pests under study for this subject will be plant species—weeds. You will select management options for the target weed species and negotiate strategies with stakeholders in the affected area. You will need to know the relevant legislation and regulations, pest control methods and techniques, social and environmental issues, land use processes, plant identification and weed biology.

Content

- Define the weed problem in a landscape
- Understand weeds and their growth
- Manage a weed problem
- Chemical and non-chemical control methods
- Develop an action plan for weed management.

Learning outcomes

At the end of this subject, you will be able to:

1. Determine land management and production objectives
 - consult other land users, regional land management bodies, and other relevant stakeholders on regional and local objectives
 - record this information
 - draw up objectives for a land area that are consistent with those above
2. Estimate costs and advantages for the land most affected by the target weeds
 - define the land and production values affected
 - document the costs of control
 - compare the costs of control with the impacts and losses caused by the weeds
 - define the land areas actually and potentially affected
3. Select management options for the target weeds
 - assess and document options for weed control
 - select a management option that is positive in terms of sustainable land use, economic feasibility, integrated pest management principles, environmental acceptability and statutory requirements for pest control

4. Negotiate strategies with relevant stakeholders in the affected area
 - base the strategy on the data collected on abundance and impacts
 - clearly document the pest problem, the objectives and priorities, and the most suitable management options
 - agree on and confirm the strategies by consulting and negotiating with stakeholders
 - publish and distribute the strategies to the relevant stakeholders

*This assignment fulfils the requirements of the Group A competency AHCPMG503A
Develop a strategy for the management of target pests.*

Resources:

'Efficient weed management'

'Noxious and environmental weed control handbook'

Agricultural stream

Assignment 7A Develop a management plan for agricultural land

This subject begins the process of property planning. An essential first step is to work out what your vision and goals are for yourself, your family, your future and your farm. Only when you have been through this intensely personal process will you then be in a position to make sound decisions on what to do with the physical resources of the land.

Content

- Develop a vision for an area of agricultural land
- Negotiate with others on preliminary goals for the land
- Develop effective communication skills
- Develop planning skills.

Learning outcomes

At the end of this subject, you will be able to:

1. Define the need for a management plan
 - identify objectives for the area
 - consult with others
2. Undertake preliminary planning
 - identify stakeholders
 - check with any specialists
 - develop a timeline for a management plan
 - identify resources for developing a plan
3. Prepare a site description
 - define and map landscape values of the area
 - identify and map physical features and characteristics
 - research land uses
 - assess the physical condition of the site
 - document biological features of the site

4. Analyse site information and description
 - evaluate information
 - produce documents, reports, plans and maps
 - determine key conservation issues and priorities
 - consider continuing impacts
 - assess land capability
 - conduct a SWOT analysis
 - present material to stakeholders

5. Identify management strategies
 - identify management strategies that address objectives
 - design strategies that reduce negative impacts
 - cost out the strategies and prepare budgets
 - prioritise actions and stage work
 - consult with stakeholders and incorporate their feedback

6. Prepare the management plan
 - document management strategies into a plan
 - consult with stakeholders
 - present the final plan

This assignment fulfils the requirements of the Group A competency AHCLPW501A Develop a management plan for a designated area.

Resources:

'Physical Property Planning',

'When we meet'

Suggested reading includes:

Chamala S & Mortiss P D (1990) *Working together for Landcare. Group Management Skills and Strategies*, Australian Academic Press, Brisbane.

Laffan, J (1995) *Let's Talk - communication skills for farm families*. Video, NSW Agriculture, Orange NSW.

Agricultural stream

Assignment 8A Manage natural areas on a rural property

This subject builds on the previous subject. It follows a process of assessing natural resources, producing a farm map with overlays of natural and imposed features, as you work towards producing your 'ideal plan' for natural areas on the farm.

Content

- Classify and assess the natural resources of the site
- Assess the soil resource base for productivity and limitations
- Transfer information to overlays on a physical property plan
- Develop strategies for implementing an action plan for the property

Learning outcomes

At the end of this subject, you will be able to:

1. Determine the location, size and type of natural area to be managed
 - confirm location, property ownership and map boundaries
 - list native animal and plant species
 - source vegetation structure and conservation value data
 - determine the presence of and threats from pest plants and animals
 - compile evidence of physical impacts on natural area
2. Prepare a management plan
 - design a boundary to protect the area.
 - plan restoration/maintenance strategies
 - address environmental concerns in accordance with relevant national, state, territory and local legislation and/or regulations.
 - reduce or correct physical impacts.
 - liaise with appropriate planning and specialist personnel, and local authorities
 - adopt a strategy to improve the habitat
 - integrate management of natural areas into land use and production systems of property.
 - prepare and present the management plan

3. Implement management strategies
- develop work schedules incorporating objectives and timelines.
 - follow organisational Occupational Health and Safety (OHS) procedures, practices, policies and precautions
 - work according to management strategies and within statutory requirements.
 - coordinate people, materials and equipment
 - Schedule the works according to personnel, sources of equipment, and seasonal conditions.
 - identify and obtain any permits or licenses required
 - consult with stakeholders as required.
 - communicate with staff, clients, and contractors regularly.

This assignment fulfils the requirements of the Group A competency AHCNAR501A Manage natural areas on a rural property.

Resources:

'Physical Property Planning'

'When we meet'

'Farm Agskills'

'Soils of Tocal'

Suggested reading includes:

Brouwer D, Thompson B & Clowes A (1999) *Physical Property Planning* DLWC and NSW Agriculture, Paterson NSW (supplied text)

Roberts B (1992) *Land Care Manual*. New South Wales University Press. Kensington NSW.

Cocks D (1992) *Use with Care: managing Australia's natural resources in the 21st century*. New South Wales University Press. Kensington NSW.

Victorian Conservation Trust (1990) *On Borrowed Time - The Potter Plan in action*. Two video tapes.

Agricultural stream

Assignment 9A Plan for revegetation works

This subject details the methods you can use to re-establish trees and shrubs on farms. It describes how to plan, prepare, plant and protect sites.

Content

- The value of trees and shrubs
- Farm planning
- Designing windbreaks and shade areas
- Assessing existing remnants
- Natural regeneration
- Collecting and growing native seed
- Direct seeding
- Planting
- Revegetating streams and waterways
- Weed control
- Protecting revegetated areas

Learning outcomes

At the end of this subject, you will be able to:

1. Carry out preliminary planning activities for revegetation works
 - confirm the needs of the client and the scope of the work
 - identify legal requirements and your responsibilities on the site
 - visit the site to establish the needs of the project
 - identify OHS obligations and any hazards
 - establish the costs, quantity and availability of plants and other materials
2. Prepare a staged plan of works
 - identify resources, tools and equipment required, and cost these
 - plan for environmental impacts of site works
 - prepare a program of works
 - establish timelines for project
 - take into account seasonal factors
 - detail the staged implementation of the plan

This assignment fulfils the requirements of the Group C competency AHCNAR402A Plan the implementation of revegetation works.

Resources:

'Plan for trees'

Suggested reading includes:

Breckwoldt, R (1986) *The Last Stand. Managing Australia's Remnant Forests and Woodlands*, AGPS, Canberra

Goldney, D & Wakefield, S (1997) *Assessing Farm Bushland Kit 1 Save the Bush Toolkit*, Charles Sturt University, Bathurst

Heinjus, D (1992) *Farm Tree Planting*, Department of Agriculture, South Australia

Peake, T (2003) *Hunter Bushland Resource Kit: a guide to managing vegetation on private land in the Hunter catchment*, Hunter Catchment Management Trust, Paterson.

Cary, J & Williams, K (2000) *The value of native vegetation: urban and rural perspectives*, National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report 3/100 Land and Water Resources Research and Development Corporation, Canberra.

Agricultural stream

Assignment 10A Develop sustainable land use strategies and prepare a report

This subject completes the development of planning for the natural resources of your farm. Mapping and descriptions of the natural resources have been completed and management decisions can now be made in the light of the research that has been carried out. This may include plans for fence realignments, watering points, protecting vulnerable areas and conservation earthworks.

Part of the planning process is to monitor and review the plan. You will set up a system that helps you monitor whether your plans are having the desired effect. You also must consider the legislation that applies to your farm.

If you choose to complete the subject 'Prepare reports' you will make a verbal presentation (on tape) that covers your farm planning process. The study guide will lead you through these requirements.

Content

- Site management plan for soil, water, vegetation, fauna, climate and heritage
- Role of stakeholders in the management plan
- Statutory controls applying to the site
- Mapping
- Establishment of priorities and a timetable
- Sources of funding
- Written and verbal reporting on the project

Learning outcomes

At the end of this subject, you will be able to:

1. Assess requirements for improved land use
 - audit the natural resource and identify threats to sustainability.
 - review production and management plans to incorporate sustainable land use principles.
 - assess the water quality and impacts of run off for risk of erosion.
 - assess soil health and fertility
 - assess vegetation and identify required changes
 - plan land protection measures and structures

2. Carry out structural improvements to address threats to sustainability
 - inspect and measure sites for improvement
 - identify OHS hazards and risks. Implement controls.
 - calculate materials required for the construction of the improvement(s)
 - obtain materials, personnel and equipment
 - construct structural works

3. Integrate sustainable land use principles into production
 - realign fences to land classes and soil conservation works.
 - protect and repair contour banks as necessary.
 - construct water carrying structures as necessary.
 - establish tree, other vegetation and shelter belts
 - review soil cultivation and planting practices to prevent erosion and minimise soil run-off.
 - plan grazing strategies for maximum ground cover and avoid damage to banks.

4. Treat areas of land degradation
 - realign fences to land classes and soil conservation works.
 - protect and repair contour banks as necessary.
 - construct water carrying structures as necessary.
 - establish tree, other vegetation and shelter belts
 - review soil cultivation and planting practices to prevent erosion and minimise soil run-off.

5. Research material
 - identify and describe the topic
 - determine sources information
 - collect and organise information

6. Evaluate information
 - collect information that is relevant
 - clarify information and seek assistance
 - assess information for validity and reliability and is organise into a suitable form
 - draw conclusions from information and evidence

7. Produce a document
 - use language applicable to task and audience
 - document is logically organised
 - document is formatted and presented to a suitable standard
 - conclusions reflect the stated objectives
 - prepare report within the timeframe
 - follow OHS requirements

8. Deliver an oral presentation
 - use language applicable to the task and audience
 - presentation is organised logically and structured suitably
 - support materials are concise and well presented
 - use time efficiently
 - present the material in a specified time

This assignment fulfils the requirements of the Group A competency AHCNAR506A Develop and implement sustainable land use strategies and the Group B competency AHCWRK503A Prepare reports.

Resources:

'Physical Property Planning'

Suggested reading includes:

Brouwer D, Thompson B & Clowes A (1999) *Physical Property Planning* DLWC and NSW Agriculture, Paterson NSW (supplied text)

Roberts B (1992) *Land Care Manual*. New South Wales University Press. Kensington NSW.

Cocks D (1992) *Use with Care: managing Australia's natural resources in the 21st century*. New South Wales University Press. Kensington NSW.

Rural Property Planning (video, 1993). Adelaide College of TAFE.

Victorian Conservation Trust (1990) *On Borrowed Time - The Potter Plan in action*. Two video tapes.

Bush regeneration stream

Assignment 7B Develop a management plan for bushland

This subject begins the process of planning for rehabilitation of an area of bushland. An essential first step is to work out what the vision and goals are for the area of land to be rehabilitated or regenerated. Only when you have been through this negotiation process will you then be in a position to make sound decisions on what to do with the physical resources of the land.

To go through the ‘visioning’ process is to work out with all the stakeholders what each person or agency wants the land to look like in the long term.

Content

- Develop a vision for an area of bushland
- Negotiate with others on preliminary goals for the land
- Develop effective communication skills
- Develop planning skills.

Learning outcomes

At the end of this subject, you will be able to:

1. Define the need for a management plan
 - identify objectives for the area
 - consult with others
2. Undertake preliminary planning
 - identify stakeholders
 - check with any specialists
 - develop a timeline for a management plan
 - identify resources for developing a plan
3. Prepare a site description
 - define and map landscape values of the area
 - identify and map physical features and characteristics
 - research land uses
 - assess the physical condition of the site
 - document biological features of the site

4. Analyse site information and description
 - evaluate information
 - produce documents, reports, plans and maps
 - determine key conservation issues and priorities
 - consider continuing impacts
 - assess land capability
 - conduct a SWOT analysis
 - present material to stakeholders
5. Identify management strategies
 - identify management strategies that address objectives
 - design strategies that reduce negative impacts
 - cost out the strategies and prepare budgets
 - prioritise actions and stage work
 - consult with stakeholders and incorporate their feedback
6. Prepare the management plan
 - document management strategies into a plan
 - consult with stakeholders
 - present the final plan

*This assignment fulfils the requirements of the Group A competency AHCLPW501A
Develop a management plan for a designated area*

Resources:

'Restoring natural areas'

'Bush regenerators handbook'

'When we meet'

Suggested reading includes:

Chamala S & Mortiss P D (1990) Working together for Landcare. Group Management Skills and Strategies, Australian Academic Press, Brisbane.

Johnson & Johnson (1982) Joining together. Group theory and Group skills. Prentice-Hall, New Jersey.

Bush regeneration stream

Assignment 8B Design a bushland restoration project

In this subject you will begin the process of preparing a design for a bushland restoration project. This in turn will lead to the development of a management plan for the site and its implementation. You will need to understand the former ecology of the area and what is needed to restore it. You will prescribe a solution to the problems in the area and produce maps and plans to assist the process.

Content

- Site management plan for soil, water, vegetation, fauna and heritage
- Role of stakeholders in the management plan
- Statutory controls applying to the site
- Mapping
- Establishment of priorities and a timetable
- Sources of funding

Learning outcomes

At the end of this subject, you will be able to:

1. Develop a design brief
 - purpose and requirements of the project
 - develop ecological aims and objectives
 - develop a design brief and agree with the client
 - prepare a project budget
 - prepare a base plan of the site
 - review existing data on the site
2. Undertake a site analysis
 - consult the client to establish the
 - visit and inspect the project site
 - list and map physical features of the site and its condition and threats onto a base plan
 - record soil, topography and other natural features
 - assess legal requirements
 - assess the potential for natural regeneration and identify and record limiting factors

3. Develop a concept design

- illustrate the location and layout of the proposed design
- consult and agree with the client on options and approaches
- present the design concept with supporting written information and justification

4. Produce a final design

- prepare a detailed plan
- information is relevant, precise and communicate the project works clearly
- include notes and specifications with the plan
- use appropriate construction and engineering principles
- organise and prepare further design documentation

This assignment fulfils the requirements of the Group A competency AHCNAR503A Design a natural area restoration project.

Resources:

‘Restoring natural areas’

‘Bush regenerators handbook’

Bush regeneration stream

Assignment 9B Plan bushland revegetation works

This subject details the methods you can use to re-establish trees and shrubs on a site. It describes how to plan, prepare, plant and protect sites.

Content

- Plan a program of works
- Develop a timeline for revegetation projects
- Consider how best to revegetate:
 - natural regeneration
 - collecting and growing native seed
 - direct seeding
 - planting
- Consider the environmental impact of your activities

Learning outcomes

At the end of this subject, you will be able to:

1. Carry out preliminary planning activities for revegetation works
 - confirm the needs of the client and the scope of the work
 - identify legal requirements and your responsibilities on the site
 - visit the site to establish the needs of the project
 - identify OHS obligations and any hazards
 - establish costs, quantity and availability of plants and other materials
2. Prepare a staged plan of works
 - identify resources, tools and equipment required, and cost these
 - plan for environmental impacts of site works
 - prepare a program of works
 - establish timelines for project
 - take into account seasonal factors
 - detail the staged implementation of the plan

This assignment fulfils the requirements of the Group C competency AHCNAR402A Plan the implementation of revegetation works.

Resources:

'Restoring natural areas'

'Bush regenerators handbook'

Suggested reading includes:

Breckwoldt, R (1986) *The Last Stand. Managing Australia's Remnant Forests and Woodlands*, AGPS, Canberra

Goldney, D & Wakefield, S (1997) *Assessing Farm Bushland Kit 1 Save the Bush Toolkit*, Charles Sturt University, Bathurst

Heinjus, D (1992) *Farm Tree Planting*, Department of Agriculture, South Australia

Peake, T (2003) *Hunter Bushland Resource Kit: a guide to managing vegetation on private land in the Hunter catchment*, Hunter Catchment Management Trust, Paterson.

Cary, J & Williams, K (2000) *The value of native vegetation: urban and rural perspectives*, National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report 3/100 Land and Water Resources Research and Development Corporation, Canberra.

Bush regeneration stream

Assignment 10B Manage a bushland restoration program and prepare a report

This subject continues the process of developing and implementing a management plan to restore natural bushland.

You will complete the process of developing aims and objectives for a natural area. These may include:

- provide habitat for wildlife,
- maintain biodiversity,
- contribute to sustainable land use,
- protect agricultural land
- or even contribute to the aesthetics of the land.

You will need to consider the resources that are needed for a natural resource management plan. In particular, you will use maps and local experts to gain an understanding of local flora and fauna.

In this subject you will prepare a written and verbal report on the management of your project.

You will keep a photographic and written record of your project for a period of six months in which you are involved in the management of a site.

Content

- Site assessment
- Plan preparation
- Legislation, permits and OHS issues
- Observations and monitoring of works
- Report preparation and presentation

Learning outcomes

At the end of this module, learners will be able to:

1. Inspect and asses site for replacement of vegetation
 - prepare a vegetation assessment report
 - determine site conditions, level of degradation and potential for regeneration
 - assess threats to existing ecosystem, organisms and property from restoration works
 - assess range of operating conditions and hazards
2. Plan natural area restoration program
 - prepare plans and specifications
 - select restoration techniques
 - outline a staged strategy for works
 - protect the project with OHS measures
 - select personnel
 - obtain permits and licences
 - source equipment and materials
2. Monitor natural area restoration works
 - make observations
 - check that the site is prepared
 - check plant materials, machinery and equipment
 - complete restoration works
 - monitor work and undertake remedial action
 - OHS conforms to legislative requirements
3. Review natural area restoration program
 - monitor site to ensure compliance with the maintenance program
 - assess site to determine whether works are consistent with the plans
 - report changes to the techniques used for adoption in future works
4. Research material
 - identify and describe the topic
 - determine sources information
 - collect and organise information
5. Evaluate information
 - collect information that is relevant
 - clarify information and seek assistance
 - assess information for validity and reliability and is organise into a suitable form
 - draw conclusions from information and evidence

6. Produce a document
 - use language applicable to task and audience
 - organise the document logically
 - format and present the document to a suitable standard
 - conclusions reflect the stated objectives
 - prepare report within the timeframe
 - follow OHS requirements

7. Deliver an oral presentation
 - use language applicable to the task and audience
 - organise presentation logically and structure it suitably
 - support materials are concise and well presented
 - use time efficiently
 - present the material in a specified time

This assignment fulfils the requirements of the Group A competency AHCNAR504A Manage natural area restoration programs and the Group B competency AHCWRK503A Prepare reports.

Resources:

'Restoring natural areas'

'Bush Regenerators Handbook'

'Effective Writing Skills'

Study guides

You will already have noted that all assessment is via assignments or projects that you prepare at home and send in for marking.

You will receive a study guide with each module that details the learning requirements and how to work your way through the study materials.

Want to send assignments by e-mail? Where this is appropriate, you can send assignments to david.brouwer@industry.nsw.gov.au. They must be in WORD 6 or higher or in Rich Text Format (rtf) or Straight Text (txt).

Included in each study guide is an **Evaluation and Assignment Sheet** that you complete and send in as a cover sheet with your assignment. If you are e-mailing the body of the assignment, you will need to reproduce this sheet by scanning or fax it to us. It is most important that both the evaluation and the declaration are completed.

The College fax number is (02) 49 385 549. It is essential that you include a cover sheet with 'Course Supervisor - Conservation and Land Management' clearly indicated on it.

Assignment grading

Assignments will be graded with reference to the learning outcomes and competencies for the subject, as follows:

- **Not yet competent.** You have not yet met the assessment criteria at a basic level or not completed the required work.
- **Competent.** You have met the assessment criteria at the required level.

The grading you receive for each subject will be shown on an academic transcript issued on completion of the course or if you elect to withdraw without graduating.

About due dates...

There are no due dates set for your assessments. As an independent learner we believe you are able to discipline yourself to complete your studies. To do this, you should try to send in your assignments at regular intervals so you can keep up with the course and complete it in two years. Naturally you are welcome to hand in assignments earlier if you wish.

The course is designed for busy people who are juggling study with work and family commitments. If you are unable to submit assignments by the suggested time, we will be as flexible as possible. Obviously you need to complete all assignments in the two years if you wish to graduate in the normal time.

If this is not possible, you can apply to the course secretary to defer your studies for 12 months. There is no charge for a 12 month deferral. Please ring 1800 025 520 so your deferral can be noted. It is much better to defer than to drop out of the course.

Who do you send your assignments to?

Send your assignments to:

**Course Secretary
Continuing Education
CB Alexander Campus
Tocal College
PATERSON NSW 2421.**

You will receive some sticky address labels with your first dispatch of study materials.

Course policies

For information on refunds, appeals regarding assessment, privacy protection, student support and grievances, please see the website:

<http://www.tocal.nsw.edu.au/student-policies>

Other learning activities

There are no residential schools for this course. There are, however, some short courses held each year at the college that may be useful to completion of an assignment or unit of competency. If you feel you need extra tuition or an introduction to a subject, please check our current offerings of short courses which are advertised on our website (<http://www.tocal.nsw.edu.au/courses>) and by brochures obtained from the College.

Library resources

The study materials you receive in the mail will cover most of your reading needs. However, at times you may wish to read some of the additional references mentioned in the study modules.

If your local library does not have the books you want, it should be able to get them on loan from other libraries in its network. We suggest you discuss your needs with your local library staff.

If your library has difficulty getting a reference book for you, College staff may be able to suggest a source. Ring the course coordinator—details are on the inside front cover.

The Tocal College library can provide inter-Library loans. Again, your local library can organise this. If you are at the College, feel free to use the library. Check opening times and other details with the College librarian on 02 4939 8830.

Other sources of information

How familiar are you with the state and federal government departments, agencies and authorities offering information and advisory support services to primary producers? Are you making effective use of the services offered? A number of authorities offer an extensive range of information and advisory services and it is in your interest to familiarise yourself with these and to use them when you need help.

Internet Service

A directory of NSW government services for country people is available on www.nsw.gov.au.

Catchment Management Authorities

Thirteen Catchment Management Authorities (CMAs) are established across the State by the New South Wales Government to help regional communities manage natural resources in their catchments.

The CMAs are locally driven organisations with a board that reports directly to the NSW Minister for Natural Resources. They are responsible for involving regional communities in management of the NRM issues facing their region, and are the primary means for the delivery of funding from the NSW and Commonwealth Governments to help land managers improve and restore the natural resources of the State.

The CMAs work in partnership with the community, local government, State Government agencies, industry and individuals.

<http://www.cma.nsw.gov.au/>

Bureau of Meteorology

02 9296 1555

<http://www.bom.gov.au/>

The Bureau will supply information and advice on climate and weather conditions in particular areas. Historic climatic data is available and specific details of weather forecasting are supplied.

Department of Lands

02 6332 8123

or fax 02 6332 8299

http://www.lands.nsw.gov.au/survey_maps/maps_and_imagery/aerial_photography

The Department will answer inquiries and give advice on the availability of appropriate maps for specific purposes. A large range of general and special-purpose maps is available.

NSW Primary Industries (Forests)

<http://www.industry.nsw.gov.au/forests>

State Forests' officers give advice on tree planting schemes and timber use. State Forests' nurseries are located at Muswellbrook, Forbes, Dubbo, Narrandera and Pennant Hills.

NSW Primary Industries (Agriculture)

02 6391 3100

<http://www.industry.nsw.gov.au/agriculture>

NSW Primary Industries aims to help the food and fibre industries to be market focused, internationally competitive and sustainable. It does this through its research, extension, education and regulatory services. Advice to farmers is available from a wide range of specialists in rural industries located in centres throughout the state.

Publications. A mail order service is available for Agfacts and other publications. Phone 1800 028374 for a catalogue.

Department of Environment and Climate Change

<http://www.environment.nsw.gov.au/>

This service advises farmers on matters related to the development and preservation of flora and fauna. Assistance is given to farmers to establish wildlife refuges on their properties. Advice is also given on hunting and fishing regulations and the preservation of historic and sacred sites.

Livestock Health and Pest Authority

<http://www.lhpa.org.au/>

The Authority is concerned with the control of stock diseases, pasture protection and vermin control. Advice and assistance is given on non-chemical control measures.

Department of Natural Resources (Department of Environment and Climate Change)

Information on aspects of natural resource management can be found on the following websites:

<http://www.dnr.nsw.gov.au>

<http://www.dwe.nsw.gov.au>

<http://www.industry.nsw.gov.au>

<http://www.environment.nsw.gov.au>

<http://www.lands.nsw.gov.au>

<http://www.nativevegetation.nsw.gov.au>

Role of DNR

The Department of Natural Resources (DNR) has a role in managing land and water in NSW. The work is divided into three core areas: water management, soil and vegetation management, and coastal and floodplain management.

Water management

DNR's main role is the allocation of NSW's water resources to various users including the environment, agriculture, industry, and the community.

Soil and vegetation management

DNR aims to improve the condition of native vegetation and soil across our state. It helps to ensure that the NSW Government's policies of sustainable natural resource management and ending of broadscale land clearing are achieved.

NSW Rural Assistance Authority

The NSW Rural Assistance Authority administers financial assistance to primary producers in NSW under the Rural Adjustment Scheme, the Special Conservation Scheme and the Relief Scheme.

<http://www.raa.nsw.gov.au/>

AHC51110 Diploma of Conservation and Land Management

Qualification Notes

The Diploma of Conservation and Land Management reflects the role of personnel working in management positions with technical level skill in land management roles.

Entry requirements

There are no entry requirements for this qualification.

Qualification pathways

Pathways into the qualification

This qualification may be accessed by direct entry.

Pathways from the qualification

Further training pathways from this qualification include, but are not limited to, Advanced Diploma of Conservation and Land Management.

Australian Apprenticeships

This qualification is suitable for an Australian Apprenticeship.

Job roles

Job roles and titles vary across different industry sectors. Possible job titles relevant to this qualification include lands, parks and wildlife manager and Senior Ranger.

Packaging Rules

Completion of ten (10) elective units.

ELECTIVE UNITS

- a minimum of four (4) units must come from elective group A
- a minimum of four (4) units must come from elective groups A or B
- a maximum of two (2) units may be selected from units aligned to Certificate IV or above in AHC10 or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in conservation and land management.

ELECTIVE UNITS GROUP A

Indigenous land management

AHCILM501A	Conduct field research into natural and cultural resources
AHCILM502A	Develop conservation strategies for cultural resources
AHCILM503A	Manage restoration of cultural places
AHCILM504A	Develop strategies for Indigenous land or sea management
AHCILM505A	Map relationship of business enterprise to culture and country
AHCILM506A	Operate within community cultures and goals
AHCILM507A	Plan for successful cultural practice at work
AHCILM508A	Propose a negotiated outcome for a given area of country
AHCILM509A	Plan burning activities for natural and cultural resource management
AHCILM601A	Manage cultural processes in an Indigenous organisation
SITTGDE009A	Interpret aspects of local Australian Indigenous culture

Lands, parks and wildlife

AHCLPW501A	Develop a management plan for a designated area
AHCLPW502A	Manage wildfire hazard reduction programs
AHCLPW503A	Assess applications for legislative compliance
AHCLPW504A	Review assessments for legislative compliance
AHCLPW505A	Implement natural and cultural resource management plans
AHCLPW506A	Investigate suspected breaches of NRM legislation
AHCLPW601A	Coordinate the preparation of a regional resource management plan
NWP512B	Develop and review catchment management plan
NWP513B	Implement and manage catchment management plan
NWP516B	Develop and review surface water management plan
NWP517B	Implement and manage surface water management plan
NWP518B	Prepare and report on data related to flood mitigation
NWP519B	Develop and report flood mitigation
PUAFIR406B	Develop prescribed burning plans
PRMWM43B	Develop an environmental management strategy
SRXRES007B	Undertake open space planning
SRXRES010B	Protect heritage and cultural assets

Natural area restoration

- AHCNAR501A Manage natural areas on a rural property
- AHCNAR502A Conduct biological surveys
- AHCNAR503A Design a natural area restoration project
- AHCNAR504A Manage natural area restoration programs
- AHCNAR505A Plan river restoration works
- AHCNAR506A Develop and implement sustainable land use strategies

Pest management

- AHCPMG501A Coordinate the pest management strategy in a regional or broader context
- AHCPMG502A Define the pest problem in a regional or broader context
- AHCPMG503A Develop a strategy for the management of target pests
- AHCPMG504A Develop a system for monitoring the pest management strategy
- AHCPMG505A Evaluate the pest management strategy
- AHCPMG506A Manage the implementation of legislation

Plants

- AHCPCM502A Collect and classify plants

Soil and water conservation

- AHCSAW501A Design control measures and structures
- AHCSAW502A Plan erosion and sediment control measures
- AHCSAW503A Plan conservation earthworks

ELECTIVE UNITS GROUP B

Business

- AHCBUS501A Manage staff
- AHCBUS503A Negotiate and monitor contracts
- AHCBUS504A Prepare estimates, quotes and tenders
- AHCBUS508A Prepare and monitor budgets and financial reports
- TLIR307C Negotiate a contract

Fauna

- AHCFAU501A Manage fauna populations

Fire

- AHCFIR501A Manage wildfire hazard reduction programs

Lands, parks and wildlife

- AHCLPW501A Develop a management plan for a designated area

Machinery operation and maintenance

- AHCMOM501A Manage machinery and equipment
- AHCMOM502A Implement a machinery management system
- BSBOHS504B Apply principles of OHS risk management
- BSBOHS506B Monitor and facilitate the management of hazards associated with plant

Occupational health and safety

AHCOHS501A Manage OHS processes

Natural area restoration

- AHCNAR501A Manage natural areas on a rural property
- AHCNAR502A Conduct biological surveys
- AHCNAR503A Design a natural area restoration project
- AHCNAR504A Manage natural area restoration programs
- AHCNAR505A Plan river restoration works
- AHCNAR506A Develop and implement sustainable land use strategies
- SITTPPD005A Plan and develop interpretative activities
- SITTPPD006A Plan and develop ecologically sustainable tourism operations

Natural resource management

- AHCNRM501A Develop a coastal rehabilitation strategy
- AHCNRM502A Develop a water quality monitoring strategy
- AHCNRM503A Support the implementation of waterways strategies
- AHCNRM504A Interpret and report on catchment hydrology
- AHCNRM505A Provide technical advice on sustainable catchment management
- AHCNRM506A Plan and monitor works projects in catchments and waterways
- AHCNRM507A Manipulate and analyse data within geographic information systems

Parks and gardens

- AHCPGD503A Manage parks and reserves
- AHCPGD505A Conduct comprehensive inspection of park facilities

Work

- AHCWRK502A Collect and manage data
- AHCWRK503A Prepare reports
- AHCWRK508A Interpret legislation
- AHCWRK509A Provide specialist advice to clients
- AHCWRK511A Develop workplace policy and procedures for sustainability
- PSPPM502B Manage complex projects
- PSPPM503B Close complex projects