



Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3258 Comply with soil and water protection

Release: 1

FPICOT3258 Comply with soil and water protection

Modification History

Version	Detail
1	New unit

Unit Descriptor

This unit describes the outcomes required to protect soil, water and water catchments from erosion, sediment and other pollutants.

Application of the Unit

This unit involves following erosion, sediment control and pollution prevention measures in a variety of work settings, including a forest environment; portable saw mill; portable woodchip mill; or horticultural, domestic, local council and emergency services environment.

Licensing/Regulatory Information

General workplace legislative and regulatory requirements apply to this unit.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge section and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

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|---|--|
| 1. Access and interpret soil and water protection legislation and organisational procedures | <p>1.1 Identify and review information on occupational health and safety (OHS), legislative and organisational requirements relevant to soil and water protection procedures for various forest types</p> <p>1.2 Identify and interpret key principles and requirements that apply to erosion mitigation, sediment and other pollutant control, surface/ground water protection and catchment</p> <p>1.3 Identify relevant work practices and procedures that comply with regulatory requirements, codes of practice and operational plans</p> |
| 2 Conduct erosion and other pollutant control measures | <p>2.1 Clarify and confirm operator responsibilities and duties with appropriate personnel</p> <p>2.2 Identify soil erodibility, adverse weather, environmental features and other factors likely to influence soil and water protection measures</p> <p>2.3 Select and use materials, equipment and machinery in line with regulatory requirements, and verify them with appropriate personnel</p> <p>2.4 Apply erosion, sediment and other pollution control measures in line with forest operational plans and/or manufacturer recommendations</p> <p>2.5 Identify situations requiring specialist advice and seek assistance in line with organisational requirements</p> |
| 3. Monitor work practices to ensure compliance with legislation | <p>3.1 Monitor and adjust work practices to meet changing conditions</p> <p>3.2 Monitor and maintain erosion, sediment and other pollutant control measures in line with relevant legislation, codes of practice and organisational requirements</p> <p>3.3 Identify and report non-compliant work practices to appropriate personnel</p> <p>3.4 Identify improved work practices and</p> |

make recommendations in line with
organisational continuous improvement
procedures

4. Maintain records

4.1 Revise and update forest operational plan
and organisational procedures as required

4.2 Complete relevant ***documentation and
reporting*** processes in line with codes of
practice and organisational requirements

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills:

- Literacy skills to:
 - locate, read, interpret and convey information in written, diagrammatic and/or verbal form
 - complete and maintain workplace documentation and reports
- Technical skills to use and maintain relevant tools, machinery and equipment
- Communication skills and interpersonal techniques to interact appropriately with colleagues and others in the workplace
- Numeracy skills to measure, calculate and estimate material quantities and time required to complete a task
- Problem-solving skills to:
 - identify problems and equipment faults and demonstrate appropriate response procedures
 - review, identify and interpret work requirements

Required knowledge:

- Applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for soil and water protection procedures
- Environmental protection requirements, including the safe disposal of products and waste material
- Organisational and site standards, requirements, policies and procedures relevant to environmental care
- Environmental policies and practices, risks and hazard identification relevant to soil and water protection
- Established communication channels and protocols
- Problem identification and common fault-finding techniques
- Types of tools and equipment and procedures for their safe use and maintenance
- Mathematical procedures for measuring and estimating, including calculating quantities and time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can implement and monitor soil and water protection procedures

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- following applicable federal, state or territory regulatory or local government ordinance requirements, codes of practice, OHS and environmental policies relevant to the protection of soil, water and water catchments
- following organisational policies and procedures, relevant to the protection of soil, water and water catchments
- applying effective communication and safe work practices
- implementing effective erosion mitigation, sediment and pollutant control, surface and ground water protection measures
- monitoring and maintaining erosion mitigation and sediment control processes and water catchment protection measures
- identifying and reporting non-compliant work practices
- completing relevant workplace documentation and reporting processes

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or a realistically simulated workplace

- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory requirements and Australian standards
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment methods must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access, interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with

assessment of other units of competency

- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

- OHS requirements:**
- are to be in line with applicable federal, state or territory legislation and regulations, and organisational safety policies and procedures and may include:
 - safe work procedures
 - hazard and risk control
 - elimination of hazardous materials and substances
 - techniques for manual handling, including shifting, lifting and carrying
- Legislative requirements:**
- are to be in line with applicable legislation from all levels of government that affect forest operations in relation to soil and water protection and may include:
 - federal, state or territory forestry and environmental legislation
 - regional forest agreements
 - relevant codes of practice
 - forest operational plans
- Organisational requirements may include:**
- organisational procedural manuals
 - communication protocols
 - quality assurance
- Various forest types may include:**
- coast and tableland native forests
 - inland native forests and woodlands
 - River Red Gum and river flood plain native forests
 - tropical forests
 - exotic plantations
 - native plantations
- Erosion mitigation may include:**
- walk-over techniques
 - minimal disturbance techniques

- crown and cross fall drainage
- cross bank drainage
- relief culverts on roads
- mitre and table drains on roads
- armouring/gravelling of roads
- crossing and draining surfaces
- batter stabilisation
- contour banks and channels
- gabions
- sediment basins
- riparian buffer zones
- outlet protection structures
- revegetation

Sediment control measures may include:

- slash management
- sediment traps, basins and filters
- geotextile fabric fences
- vegetated filter strips

Operational plans may include:

- forest operational plan
- plantation establishment plan
- harvesting plan
- operational inspection report
- roading plan
- sediment and erosion control plan
- revegetation plan
- chemical and fertiliser plan

Appropriate personnel may include:

- colleagues
- leading hands
- supervisors
- managers
- safety officers

Soil may include:

- dispersible soil
- clay, silt, sand and gravel soil
- loam soil
- organic material
- topsoil and subsoil

- Environmental features:**
- are those sensitive features that can be adversely effected if soil erosion occurs, or if inundated with sediment or other pollutants, and may include:
 - drainage lines and drainage depressions
 - water course, creeks and rivers
 - lakes, swamps and wetlands
 - aquatic species
 - steep slopes
 - caves
 - historic and cultural heritage sites
 - road and water supply infrastructure
- Other factors may include:**
- track and road maintenance
 - drainage structures
 - setting of contour lines
 - slope measurement techniques
 - boundaries and survey markers
 - site preparation techniques
 - site cultivation techniques
 - disposal of logging waste materials
 - windrowing placement and techniques
 - tree selection and felling techniques
 - log dump locations and techniques
 - log extraction and haulage techniques
 - clearing techniques
- Other pollution control measures may include:**
- fuel containment barriers
 - chemical spillage barriers
 - containment and removal of waste, including rubbish litter and human waste
- Changing conditions:**
- are those conditions that can alter or change and therefore require different work strategies or practices to maximise forest soil and water protection from an increased risk of pollution and may include:
 - land tenure
 - topography
 - machinery and operation type

- forest type
- soil type and erodibility
- rainfall intensity
- soil moisture
- ground cover
- quality of roads and tracks

Documentation and reporting may include:

- specific organisational records, reports and forms
- update of forest operational plan
- operational inspection report
- non-compliance report
- road and crossing designs
- drainage line and buffer zone specifications

Unit Sector(s)

Common Technical

Competency field

Competency field n/a