



Australian Government

Department of Education, Employment and Workplace Relations

FPIFGM3206B Plan and implement non-commercial thinning operations

Release: 1

FPIFGM3206B Plan and implement non-commercial thinning operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to control non-commercially thin species growing on site and stocking rate to ensure maximum vigour and optimum product outcome. The unit includes treatment with chemicals and the use of mechanical equipment

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPIFGM3206A Plan and implement non-commercial thinning operations

Application of the Unit

Application of the unit

The unit involves planning and implementing non-commercial thinning operations in a variety of work settings, including:

- forest environments
- farms
- agriculture
- nurseries
- local councils

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the 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 the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan thinning operations	<p>1.1. Applicable <i>occupational health and safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to planning and implementing non-commercial <i>thinning operations</i> are identified and followed</p> <p>1.2. Site <i>environmental protection measures</i> are identified and adhered to in line with relevant legislation and regulations</p> <p>1.3. Thinning operation <i>parameters</i> and <i>method</i> of operation are identified and checked with <i>appropriate personnel</i></p> <p>1.4. <i>Relevant plans</i>, legislation and regulations are reviewed and assessed to identify impact on thinning operations</p> <p>1.5. Sample area is identified and trees are <i>measured</i> in line with organisational procedures</p> <p>1.6. Level of <i>overwood treatment</i> is recommended, accounting for habitat or seed tree considerations in line with organisational procedures</p> <p>1.7. Necessary <i>approvals</i> are sought and obtained in line with organisational procedures</p>
2. Implement thinning operations	<p>2.1. Thinning operations are implemented in line with plans, budget, OHS, environmental and legislative requirements</p> <p>2.2. <i>Communication</i> with others is established and maintained in line with plans and OHS requirements</p> <p>2.3. Required <i>resources</i>, <i>equipment</i> and <i>authorisations</i> are coordinated and obtained in line with organisational and legislative requirements</p> <p>2.4. Schedule for operations is organised with appropriate personnel in line with organisational requirements</p> <p>2.5. Trees are marked for treatment in line with plan and organisational procedures</p> <p>2.6. <i>Documentation requirements</i> are identified and completed in line with OHS requirements</p>
3. Monitor thinning operations	<p>3.1. <i>Monitoring points</i> are identified and adhered to in line with organisational procedures</p> <p>3.2. Operation is <i>checked</i> to ensure compliance with environmental, OHS, organisational and legislative requirements</p>

ELEMENT	PERFORMANCE CRITERIA
4. Review thinning operations	<p>3.3. Communication with coordinating personnel is maintained in line with OHS requirements</p> <p>3.4. Operations are amended as required to ensure specifications, quality and performance targets are met</p> <p>4.1. Operation is reviewed against inventory program and organisational and environmental requirements</p> <p>4.2. Information and data are analysed to determine effectiveness of thinning operations and improvements to future operations</p> <p>4.3. Recommendations for future operations are prepared, based on assessment of information collected</p> <p>4.4. Operation processes are recorded and reported to the appropriate personnel</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to analyse qualitative and quantitative information and data; handle retained stems without causing damage; protect stand from subsequent wind damage; collate and assess information against specified criteria; undertake treatments for overwood trees; recognise common diseases, pests and nutritional deficiencies
- Communication skills sufficient to use appropriate consultative, communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to prepare a range of reports, documentation and submissions where precise meaning is required; assess and extract critical information from sources, such as legislation and forest biology; record and report workplace information; maintain documentation
- Numeracy skills sufficient to measure, estimate and calculate time required to complete a task
- Problem solving skills sufficient to review and identify work requirements; identify problems and equipment faults; demonstrate appropriate response procedures

Required knowledge

- Applicable commonwealth, state or territory legislation, regulations, standards,

REQUIRED SKILLS AND KNOWLEDGE

codes of practice and established safe practices relevant to the full range of processes for planning and implementing non-commercial thinning operations

- Environmental protection requirements, including the safe disposal of waste material, the safe use and storage of chemicals, and the minimisation of noise and environmental impact
- Organisational and site standards, requirements, policies and procedures for planning and implementing non-commercial thinning operations
- Environmental risks and hazards
- Using energy effectively and efficiently
- Using material effectively and efficiently
- Available products for thinning operations
- Available thinning methods
- Environmental imperatives for forest area
- Hazards associated with treatments
- Pests, diseases, tree form and nutritional defects
- Possible causes of damage to the stand
- Relevant biology and stand dynamics for the species
- Stand parameters for forest type
- Treatments available for overwood trees
- Weed species and herbicide interactions
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques
- Types of tools and equipment, and procedures for their safe use and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

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 safely and efficiently plan, implement and review non-commercial thinning operations

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 commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to planning and implementing non-commercial thinning operations
- following organisational policies and procedures relevant to planning and implementing non-commercial thinning operations
- planning non-commercial thinning operations in consultation with management to obtain inputs, and ensure efficient and safe processes and timelines
- safely conducting a non-commercial thinning operation in line with documented plan and budget, including marking trees for appropriate treatment
- reviewing operations and using findings to document improvements to future operations
- preparing and presenting a detailed report, including costs, processes and assessment of the operation

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or 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 or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace

EVIDENCE GUIDE

Method of assessment

- materials and equipment relevant to undertaking work applicable to this unit
- specifications and work instructions
- Assessment 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 and correctly 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

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. **Italicised** wording, if used in the performance criteria, is detailed below. Essential operating

RANGE STATEMENT

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 commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices, including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements may include:

Legislative requirements:

are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility

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- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use, maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Thinning operations

may be designed to:

- maintain the health of the stand
- improve productivity and long-term sustainability
- provide for end product mix requirements
- manage notifiable weeds

and may impact:

- organisation's public relations

Environmental protection measures may relate to:

- ground growth
- canopy
- general forest lean
- wind speed and direction
- fallen trees
- density of trees
- ground slope
- soil and water protection
- ground hazards and obstacles
- contingencies for modifying operations during wet or other adverse weather conditions
- hygiene of the area
- relevant commonwealth, state or territory, and local legislation and regulations, including issues related to notification of neighbours

Parameters

may affect treatment recommendations and include:

- forest type
- size and geography of treatment area
- equipment and personnel available

RANGE STATEMENT

- budget available
- local environmental conditions
- age and size of trees and stand parameters, including DBH distribution, basal area, crown health, tree size, species and tree bark characteristics

Method

may be in line with:

- sampling undertaken
- forest type
- species
- stand history
- organisational requirements or procedures

Appropriate personnel may include:

- supervisors
- management
- colleagues
- clients
- relevant groups
- contractors

Relevant plans may include:

- tending plans
- harvesting plans
- organisational marketing and strategic plans
- plans or regulations relating to chemical use and environmental requirements

Measured may include:

- girth
- height
- number
- spread

Overwood treatment may be:

- expressed as a number of trees per hectare removed

and may include:

- felling
- poisoning
- sapringing
- ringbarking

Approvals

may be required by:

- environmental bodies
- local, state or territory, and federal government bodies and agencies
- long-term budget processes

RANGE STATEMENT

Communication *may include*:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice

Resources may include:

- time
- people
- materials
- chemicals

Equipment may include:

- geographic information systems
- aerial photography
- hand tools
- mechanical equipment, such as chainsaw and harvesting equipment

Authorisations may include:

- permits
- approvals
- licences relating to neighbouring sites or properties
- hours of operation
- use and application of chemicals
- the environment

Documentation requirements:

- may be required where chemical agents are used for treatment

and may include changes to:

- prescriptions
- supplementary notifications and approvals
- reports
- amendments to maps and plans

Monitoring points:

- may be time-based and frequency-based

and may include:

- stream monitoring
- mechanical damage to trees

Checked may include:

- following OHS, organisational, legislative and environmental regulations, procedures,

RANGE STATEMENT

practices and precautions

- adherence to site environmental imperatives
- specifications, quality and performance targets
- documentation completed and submitted as required

Information

may be:

- written
- printed
- verbal
- electronic
- visually displayed

may include:

- aerial photographs
- history of forest
- visual observation
- local regulations and by-laws
- difficulties or issues faced during planning and implementing the program
- forest assessments
- recommendations for future work
- results
- costs
- data analysis

Records and reports may include:

and may be:

- manual
- a computer-based system
- other appropriate organisational communication system

Unit Sector(s)

Not Applicable

Competency field

Competency field

Forest Growing and Management