



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FPIHAR4203B Design log landings and snig tracks**

**Release: 1**

## **FPIHAR4203B Design log landings and snig tracks**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit describes the outcomes required to design, plan and establish log landings and snig tracks and to provide support for their construction and development

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 FPIHAR4203B Design log landings and snig tracks

### **Application of the Unit**

#### **Application of the unit**

The unit involves designing log landings and snig tracks in a forest or farm forest setting

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**

#### **Prerequisite units**

## 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 <i>landing</i> and recovery requirements	1.1. Applicable <i>Occupational Health and Safety</i> (OHS), <i>environmental</i> , <i>legislative</i> and <i>organisational requirements</i> relevant to designing log landings and <i>snig tracks</i> are identified and followed 1.2. <i>Logging</i> and <i>topography</i> details are obtained and assessed while applying <i>environmental management considerations</i> 1.3. Landing location and construction requirements are identified in line with the harvest plan and inspected to assess factors affecting harvesting operations 1.4. Timeframe for use of the site and likely weather conditions are identified 1.5. Log <i>extraction</i> methods and storage requirements for landings, roads, tracks, equipment placement, falling and recovery rates and delivery schedules are calculated and documented 1.6. <i>Communication</i> with others is established and maintained in line with OHS requirements
2. Design landing and snig tracks	2.1. Specific landing site, size and level are calculated to meet all requirements, minimise landing <i>environmental damage</i> and optimise construction time 2.2. Number and location of snig tracks are planned to optimise track clearing and construction time, log handling requirements and minimise environmental damage 2.3. Track and road entry points to landing are located in line with plan requirements, log handling procedures, vehicle and equipment access requirements, and turning and loading space requirements 2.4. Provision for equipment availability and access for construction are included in landing and track design 2.5. <i>Restoration</i> of land on completion of activity is planned 2.6. Landing design and track locations are documented in line with regulations
3. Coordinate landing and track development	3.1. Landing and snig track design and construction plan is clearly communicated to site personnel to enable preparation 3.2. Operational procedures for tracks and landings are

**ELEMENT****PERFORMANCE CRITERIA**

- planned with site personnel in line with the design plan
- 3.3. Construction of landing and tracks is monitored and unexpected ground, water, vegetation or other environmental conditions reviewed and design modified in line with new conditions
- 3.4. Technical assistance is provided to site personnel for the preparation of landing and tracks
- 3.5. Design and development process is *recorded and reported* to the *appropriate personnel*

## 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 use and maintain relevant tools, machinery and equipment; efficiently and safely design log landings and snig tracks
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

#### Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for designing log landings and snig tracks
- Environmental protection requirements, including the safe disposal of waste material and returning the environment to its original or near to original condition on completion of activity
- Organisational and site standards, requirements, policies and procedures for designing log landings and snig tracks
- Log extraction methods
- Cable recovery operations and planning
- Landing design and development

**REQUIRED SKILLS AND KNOWLEDGE**

- Snig track requirements, design and development
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace records and 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 design log landings and snig tracks within organisational requirements

### 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 designing log landings and snig tracks
- following organisational policies and procedures relevant to designing log landings and snig tracks
- designing log landings and snig tracks in line with the work order and within prescribed organisational tolerances
- planning the layout of the landing and snig tracks in line with site conditions
- coordinating the development of the landing and snig tracks in line with the hook tender's instructions

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

## EVIDENCE GUIDE

### Method of assessment

- 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. 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.



## RANGE STATEMENT

<b>Landing</b>	is the location where the yarder is positioned to receive the timber
<b>OHS requirements:</b>	are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include: <ul style="list-style-type: none"><li>• personal protective equipment and clothing</li><li>• safety equipment</li><li>• first aid equipment</li><li>• fire fighting equipment</li><li>• hazard and risk control</li><li>• fatigue management</li><li>• elimination of hazardous materials and substances</li><li>• safe forest practices including required actions relating to forest fire</li><li>• manual handling including shifting, lifting and carrying</li></ul>
<b>Environmental requirements</b> may include:	<ul style="list-style-type: none"><li>• legislation</li><li>• organisational policies and procedures</li><li>• workplace practices</li></ul>
<b>Legislative requirements:</b>	are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include: <ul style="list-style-type: none"><li>• award and enterprise agreements</li><li>• industrial relations</li><li>• Australian Standards</li><li>• confidentiality and privacy</li><li>• OHS</li><li>• the environment</li><li>• equal opportunity</li><li>• anti-discrimination</li><li>• relevant industry codes of practice</li><li>• duty of care</li></ul>
<b>Organisational requirements</b> may include:	<ul style="list-style-type: none"><li>• legal</li><li>• organisational and site guidelines</li><li>• policies and procedures relating to own role and responsibility</li><li>• quality assurance</li></ul>

## RANGE STATEMENT

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

**Snig tracks** are to include:

- equipment access tracks
- hauling tracks
- emergency escape routes
- vehicular tracks

**Logging** may include:

- activities covering a full range of species, log sizes, falling and retention densities, slope, other environmental conditions
- use of cable systems including high lead (no skyline), standing skyline and a running skyline with hauling both uphill and downhill
- Logs attached optimising payload without exceeding the lift or haul capacity of the system

**Topography**

is a map of the designated area showing terrain levels

**Environmental management considerations** may include:

- ground growth
- canopy
- general forest lean
- wind speed and direction
- fallen trees
- density of trees
- ground slope
- soil and water protection
- ground hazards
- obstacles

**Extraction**

is the method of removing the log from the worksite with mechanical equipment and cables, considering site conditions and specific log location, in an order which minimises downtime and risk of snags, breakage and hang ups

## 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
- body language

**Environmental damage** may include:

- natural vegetation and landscape
- temporary, short-term, long-term and permanent

**Restoration**

is the provision for placing and storing topsoil in preparation for returning the site to its original or near to original condition

**Records and reports** may include:

- landing and snig track design and development operations
- extraction methods
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or another appropriate organisational communication system

**Appropriate personnel** may include:

- supervisors
- suppliers
- clients
- colleagues
- managers

## Unit Sector(s)

**Unit sector**

No sector assigned

## **Co-requisite units**

**Co-requisite units**

## **Competency field**

**Competency field**            Harvesting and Haulage