

**Modification history**

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

FWPHAR3XXX	Read and interpret digital maps and forest operation plans
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to read and interpret digital maps and forest operation plans. This includes sourcing, downloading and using digital maps, recording details of physical features, hazards and forestry assets on digital maps, and sourcing, downloading and extracting information from forest operation plans.</p> <p>The unit applies to individuals who work in forestry field operations in a forest or plantation setting.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Harvesting and Haulage

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Source and use third party digital maps	1.1 Install digital map application on mobile device according to developer instructions 1.2 Browse map library and download relevant map 1.3 Use map tools to view, zoom and pan maps 1.4 Establish and identify Global Positioning System (GPS) coordinates of own and other locations on map 1.5 Apply processes to orientate self in relation to map based on field observations 1.6 Use map functions to determine distance, direction, travelling time and routes between locations on map 1.7 Locate, label and enter attribute data and notes on physical features, hazards and forestry assets on map according to developer instructions and workplace procedures 1.8 Capture digital images of physical features, hazards and forestry assets and plot on map according to developer instructions and workplace procedures 1.9 Hide or surface layers to view data on map 1.10 Use folders for storage and retrieval of maps according to workplace procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Source and extract data from forest operation plan	2.1 Source and download forest operation plan to mobile device 2.2 Verify version of forest operation plan 2.3 Identify and access maps, site-specific information and instructions in forest operation plan 2.4 Confirm meanings of key terms used in the forest operation plan 2.5 Extract forestry information, including information on coupe boundaries and adjacent land uses, vegetation cover, forest operation and management, silviculture operations, protection of physical and cultural environment and construction and maintenance of forest infrastructure, from plan 2.6 Apply map reading conventions, including interpretation of title, GPS coordinates, symbols and abbreviations, legend, orientation and scale, to extract forestry-related information from forest operation plan map 2.7 Identify amendments to forest operation plan 2.8 Apply processes to validate data in forest operation plan based on field observations

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> <li>Read complex text including technical terms contained in forest operation plans</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record routine text information related to forestry operations using digital mapping applications</li> </ul>
Oral Communication	<ul style="list-style-type: none"> <li>Ask questions to clarify instructions or information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Record routine numerical information related to forestry operations, using digital mapping applications</li> <li>Perform routine mathematical calculations related to using scale and calculating distances</li> </ul>

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
FWPHAR3XXX Read and interpret digital maps and forest operation plans	Not applicable	New unit	No equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a>
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<b>TITLE</b>	<b>Assessment requirements for FWPHAR3XXX Read and interpret digital maps and forest operation plans</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has:</p> <ul style="list-style-type: none"> <li>• sourced, downloaded and used the functions in a digital map on four occasions to perform work functions in which the operator: <ul style="list-style-type: none"> <li>• established and identified Global Positioning System (GPS) coordinates on map</li> <li>• applied processes to orientate self in relation to map based on field observations</li> <li>• used map functions to determine distance, direction, travelling time and routes between locations on map</li> <li>• located, labelled and entered attribute data and notes on physical features, hazards and forestry assets on map</li> <li>• captured digital images of physical features, hazards and forestry assets and plotted on map</li> <li>• hid or surfaced layers to view data on map</li> </ul> </li> <li>• sourced, downloaded and extracted information from a forest operation plan on four occasions to perform work functions</li> </ul>	
<b>Knowledge Evidence</b>	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of</p> <ul style="list-style-type: none"> <li>• types of digital maps <ul style="list-style-type: none"> <li>• general reference</li> <li>• topographical</li> <li>• thematic</li> <li>• cadastral maps and plans</li> </ul> </li> <li>• sources of digital maps <ul style="list-style-type: none"> <li>• forest management companies</li> <li>• government agencies</li> <li>• commercial</li> </ul> </li> <li>• fundamental map reading skills <ul style="list-style-type: none"> <li>• title</li> <li>• coordinates</li> <li>• scale</li> <li>• legend</li> <li>• data frame</li> <li>• orientation</li> <li>• citation</li> </ul> </li> <li>• basic concepts of digital maps <ul style="list-style-type: none"> <li>• base map</li> <li>• layers – Light Detection and Ranging (LiDAR), satellite, aerial photograph</li> <li>• GPS</li> <li>• spatial data</li> <li>• attribute data</li> <li>• file format</li> <li>• application areas</li> </ul> </li> <li>• types of information contained on digital maps</li> <li>• processes to download digital maps <ul style="list-style-type: none"> <li>• cloud storage services</li> <li>• emails</li> <li>• mobile applications</li> </ul> </li> <li>• processes to validate the data viewed on digital maps based on field observations</li> <li>• forest operation plans <ul style="list-style-type: none"> <li>• purpose</li> </ul> </li> </ul>	

<b>Knowledge Evidence</b>
<ul style="list-style-type: none"> <li>• intended users</li> <li>• format</li> <li>• information contained in forest operation plans</li> <li>• amendments</li> <li>• versions</li> <li>• key terms used in forest operation plan</li> <li>• processes to validate data in forest operation plan based on field observations</li> </ul>

<b>Assessment Conditions</b>
<p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• skills must be demonstrated in a forestry or plantation setting</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• mobile device</li> <li>• access to digital map application</li> <li>• access to digital map library</li> <li>• access to digital forest operation plan</li> </ul> </li> <li>• specifications: <ul style="list-style-type: none"> <li>• access to work order or instruction detailing activities to be carried out by operator that require use of digital map and digital forest operation plan</li> <li>• access to workplace policies and procedures which cover current Work Health and Safety Acts or Occupation Health and Safety Acts, regulations and related industry standards and codes of practice applicable to working in a forestry or plantation setting</li> <li>• access to workplace policies and procedures which cover current Environment Protection Acts, regulations and related industry standards and codes of practice applicable to working in a forestry or plantation setting</li> <li>• access to production plan</li> <li>• access to workplace safety and environmental protection plans</li> <li>• access to site emergency procedure</li> <li>• access to workplace acceptable use policies for mobile device</li> <li>• access to user manual for mobile device and technical instructions for use of digital map application.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

<b>Links</b>
<p>Companion Volume implementation guides are found in VETNet - <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a></p>