

**FIELD                    AGRICULTURE, FORESTRY AND FISHERIES****Review of *Forestry* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>Id</b>
Forestry	Forest Harvesting	1140
	Forest Inventory	1125, 1129, 1130
	Forest Mensuration	1225, 6960
	Forest Silviculture	1135, 1138
	Forestry Business Management	4282, 4288, 4289, 4291, 4292, 4294, 4298, 4301
	Forestry Operations	19717
	Technical Forestry	1123, 1124, 1126, 1127, 1137, 14666, 14667

The Forest Industries Training and Education Council (FITEC) has completed the review of the unit standards listed above.

**Date new versions published**

**October 2009**

**Planned review date**

**December 2014**

**Summary of review and consultation process**

Over the past two years, FITEC has carried out intensive industry consultation on the make-up of our higher level *Forestry* qualifications. Twelve industry advisory groups were established to bring together subject matter experts from forest owner companies, forest management companies, forestry consultants, the New Zealand Forest Owners Association, the Forest Industry Contractors Association and providers. These groups were set up to detail the knowledge and skills to be included in proposed Level 5 and Level 6 qualifications within the *Forestry* domain. As part of this process these unit standards were reviewed and new unit standards were developed.

**Main changes resulting from the review**

The main changes are as follows:

- Unit standards 25746, 25747, 25748, and 25749 were introduced to cover process analysis, production and quality monitoring, forestry supply chains, and researching and reporting on a business improvement initiative.
- Unit standards 25751 and 25752, which cover harvest planning and the use of tools to collect and manage forest inventory data, were introduced for candidates who will work for forest owners and will require knowledge of specialist areas.
- Unit standards 25753 and 25754 replaced standards for 1138 and 1140 respectively. This was required to cover a wider range of topics in establishment, silvicultural and harvesting operations.
- Unit standards 4288, 4291, 4292, 4301, and 19717 were designated expiring because they were no longer required by the industry and/or their outcomes were covered by other unit standards.
- Following review, some levels were adjusted to better reflect the skills and knowledge recognised.

- The level of unit standard 1126 was increased.
- The levels of unit standards 1130, 1137, 4298, and 14467 were decreased.
- Following review, some credit totals were adjusted to better reflect notional learning time.
- The credit totals for unit standards 1125, 1126, 1127, 1137, and 1225 were decreased.
- The credit totals for unit standards 4282, 4294, and 14667 were increased.
- Unit standards 1123, 1124, 1126, 1127, 1135, 1137, 1225, 14666, and 14667 were reclassified (see table below).
- Changes were made to the unit standards to address issues of currency and accuracy.
- The special notes for each unit standard were standardised for consistency with FITEC's Unit Standard Writing Guide.

**Unit standards categorised as category C or D expire at the end of December 2012.**

### Impact on existing provider accreditations

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Subfield	Forestry	3	Standard	1126	4
Domain	Technical Forestry	Any	Domain	Forest Operations Management	Same
				Forestry Business Management	Same
				Forestry Knowledge	Same
Domain	Forest Silviculture	Any	Domain	Forest Silvicultural Operations	Same
				Forestry Knowledge	Same
Domain	Forest Harvesting	Any	Domain	Forest Harvesting Operations	Same
Domain	Forest Mensuration	Any	Domain	Forest Operations Management	Same
Standard	1138	5	Standard	25753	5

### Impact on Accreditation and Moderation Action Plan (AMAP)

The reviewed standards have been transferred from AMAP 0072 to AMAP 0173. The remaining unit standards in AMAP 0072 that are not included in this application will be transferred to AMAP 0173 when they are next reviewed.

## Impact on existing qualifications

Qualifications that contain the reviewed standards or classifications are tabled below.

<b>Affected</b>	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
<b>Not materially affected</b>	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following FITEC qualifications are affected by the outcome of this review and will be reviewed in 2009. The unit standards generating the *affected* status are shown in **bold**.

Qualification title	Classification or standard in the qualification
National Diploma in Forestry (Forest Management) (Level 6) [Ref: 0232]	1123, 1124, <b>1125-1127, 1130, 1135, 1137, 1138, 1140, 1225, 4282, 4288, 4289, 4291, 4292, 4294, 4298, 4301, 14666, 14667</b>
National Certificate in Forestry (Business Management) [Ref: 0820]	<b>4282, 4288, 4289, 4291, 4294, 4298, 4301</b>
National Certificate in Forestry (Mensuration) [Ref: 0833]	<b>1225</b>
National Certificate in Forestry (Operations Management) [Ref: 0834]	<b>1138, 1140, 4294</b>
National Certificate in Forest Health Surveillance (Level 5) [Ref: 0909]	1123, 1124, <b>1126, 1135, 1138, 14666, 14667</b>
National Certificate in Forestry (Investment in Commercial Forestry) (Level 5) [Ref: 1009]	<b>1130, 1138, 1140, 4291, 4294, 4298</b>
National Certificate in Forestry (Harvest Planning) (Level 5) [Ref: 1035]	1123, <b>1140</b>
National Certificate in Forestry (Generic Skills - Workplace Safety and Operations) (Level 2) [Ref: 1409]	<b>1126</b>

The following qualification is also affected by the outcome of this review. The standard setting bodies (SSBs) have been advised that they require revision.

Qualification title	Classification or standard in the qualification	SSB Name
National Diploma in Fire and Rescue Services (Vegetation Fire Fighting - Management) (Level 5) [Ref: 0780]	Technical Forestry	Fire and Rescue Services Industry Training Organisation

## Review Categories and changes to classification, title, level, and credits

All changes are in **bold**.

<b>Key to review category</b>
<b>A</b> Dates changed, but no other changes are made - the new version of the standard carries the same Id and a new version number
<b>B</b> Changes made, but the overall outcome remains the same - the new version of the standard carries the same Id and a new version number
<b>C</b> Major changes that necessitate the registration of a replacement standard with a new Id
<b>D</b> Standard will expire and not be replaced

Subfield Forestry  
Domain Forest Inventory

Id	Title	Level	Credit	Review Category
1125	Plan and implement forest inventories to obtain information for forest management	5	10 <b>5</b>	B
1129	Use stand growth models to forecast growth and yield in commercial forestry	6	5	B
1130	Demonstrate knowledge of the principles of forest valuation	6 <b>5</b>	3	B

Subfield Forestry  
Domain Forest Mensuration

Id	Title	Level	Credit	Review Category
6960	Prepare job prescriptions for forest operations	4	6	B

Subfield Forestry  
Domain Forestry Business Management

Id	Title	Level	Credit	Review Category
4282	Demonstrate knowledge of a systems approach to forestry management <b>Demonstrate knowledge of management systems for forestry operations</b>	5	2 <b>4</b>	B
4288	Establish a financial control system for a forestry business	5	6	D
4289	Prepare a business plan for use in forestry <b>Prepare a business plan for a forestry business</b>	6	6	B
4291	Interpret contract documentation and plan management of forestry contracts	5	6	D
4292	Select information technology and determine management procedures for forestry use	6	5	D
4294	Demonstrate knowledge of procedures for costing forestry activities <b>Calculate costs of forestry operations</b>	5	4 <b>6</b>	B
4298	Present an overview of the forestry industry and an analysis of a selected forestry sector <b>Research key elements of the forest industry and analyse opportunities for forest optimisation</b>	5 <b>3</b>	4	B
4301	Establish a production control system for a forestry operation	6	7	D
<b>25748</b>	<b>Research and report on a forestry business improvement initiative</b>	<b>6</b>	<b>12</b>	<b>New</b>
<b>25749</b>	<b>Demonstrate knowledge of and analyse forest operations supply chains</b>	<b>5</b>	<b>10</b>	<b>New</b>
<b>25751</b>	<b>Demonstrate knowledge of tools used to collect and manage data in commercial forestry</b>	<b>4</b>	<b>4</b>	<b>New</b>

Subfield Forestry  
Domain Forestry Operations

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
19717	Identify, and control energy hazards in a forestry workplace	3	5	D

Subfield Forestry  
Domain Forest Operations Management

<b>Id</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
<b>25746</b>	<b>Prepare, conduct, and report process analysis in a forestry operation</b>	<b>5</b>	<b>8</b>	<b>New</b>
<b>25747</b>	<b>Plan for and monitor production and quality of a forestry operation</b>	<b>5</b>	<b>6</b>	<b>New</b>
<b>25752</b>	<b>Demonstrate knowledge of harvest planning and evaluate a given operational forest harvesting plan</b>	<b>5</b>	<b>8</b>	<b>New</b>

Subfield Forestry

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
1123	Technical Forestry <b>Forest Operations Management</b>	Use maps and photogrammetry to survey land for commercial forestry <b>Use maps and aerial photographs to establish a plot for commercial forestry</b>	4	4	B
1124	Technical Forestry <b>Forestry Business Management</b>	Use maths and statistics functions and procedures in commercial forestry	5	6	B
1126	Technical Forestry <b>Forestry Knowledge</b>	Demonstrate knowledge of botany for commercial forestry	3 4	8 4	B
1127	Technical Forestry <b>Forestry Knowledge</b>	Demonstrate knowledge of wood science for commercial forestry	4	8 4	B
1135	Forest Silviculture <b>Forestry Knowledge</b>	Demonstrate knowledge of nutrient management in commercial forestry	5	4	B
1137	Technical Forestry <b>Forestry Knowledge</b>	Demonstrate knowledge of forestry and its role as a land use	7 6	10 5	B

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
1138 <b>25753</b>	Forest Silviculture <b>Forest Silvicultural Operations</b>	Demonstrate knowledge of silviculture in commercial forestry <b>Demonstrate knowledge of and plan forestry operations</b>	5 <b>5</b>	8 <b>8</b>	C
1140 <b>25754</b>	Forest Harvesting <b>Forest Harvesting Operations</b>	Demonstrate knowledge of harvesting operations in commercial forestry <b>Demonstrate knowledge of harvesting operations in commercial forestry</b>	5 <b>5</b>	9 <b>8</b>	C
1225	Forest Mensuration <b>Forest Operations Management</b>	Calculate production targets and unit rates for forestry operations <b>Calculate production targets for forestry operations</b>	5	8 <b>5</b>	B
14666	Technical Forestry <b>Forestry Knowledge</b>	Demonstrate knowledge of earth science for commercial forestry	4	4	B
14667	Technical Forestry <b>Forestry Knowledge</b>	Demonstrate knowledge of forest ecology	5 <b>4</b>	3 <b>4</b>	B