



Australian Government

AHCARB609 Measure and improve the performance of urban forests

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.

Application

This unit of competency describes the skills and knowledge required to research, analyse the values, analyse the performance, and develop management recommendations to improve the performance of an urban forest.

The unit applies to individuals with broad theoretical and technical knowledge of urban forest management. They have a broad range of cognitive, technical and communication skills and demonstrate autonomy and judgement for a defined area of responsibility, undertaking complex work with broad parameters to provide specialist advice and functions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

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. Research urban forest practices and applications	1.1 Research urban forest case studies and management reports 1.2 Review best management practices in urban forest planning and management 1.3 Research applications and functional tools for measuring benefits

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	of urban forests
2. Analyse and report on urban forest benefits	2.1 Analyse economic, social and environmental benefits of urban forests 2.2 Document evidence-based research into a preliminary report on benefits of urban forests
3. Determine values of urban forest benefits	3.1 Conduct sampling analysis of specified urban forest 3.2 Determine required sample size to assess total tree population 3.3 Determine accuracy of sample size 3.4 Determine the quantitative values of urban forest environmental benefits 3.5 Identify base financial value for functional benefit 3.6 Calculate financial values of functional and environmental benefits of current tree population 3.7 Determine benefits of heat island modification of urban areas 3.8 Document a preliminary report on total asset valuation of an urban forest
4. Analyse and compile results	4.1 Analyse urban forest structure and function 4.2 Estimate life expectancy of tree population 4.3 Compile results of urban forest analysis
5. Determine and report on urban forests improvements	5.1 Identify urban forest issues within tree population sample area 5.2 Determine recommendations for tree species and diversity 5.3 Determine extent of current tree planting and replacement programs 5.4 Determine volume and rate of planting programs required for improvements to urban forest performance 5.5 Determine required modifications to planting practices 5.6 Determine targets for urban forest improvement 5.7 Document urban forest performance and provide recommendations for improvement in a report

Foundation Skills

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.

Skill	Description
Reading	Critically analyse and extract information from complex research materials for urban forest management and analysis to critique and formulate performance outcomes for urban forests
Writing	Demonstrate sophisticated writing skills by selecting appropriate conventions and stylistic devices to express precise meaning in urban forest performance reports
Numeracy	Select and apply a wide range of highly developed mathematical and problem-solving strategies and techniques to quantitatively analyse the financial, social and ecologic benefits of urban forests

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB609 Measure and improve the performance of urban forests	AHCARB604 Measure and improve the performance of urban forests	Performance criteria clarified Foundation skills added Assessment requirements updated	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>