



Australian Government

Assessment Requirements for AHCARB408 Perform a ground-based tree defect evaluation

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.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has conducted a whole-of-tree defect evaluation from the ground for at least 20 individual trees with defects, from at least 10 different species.

There must also be evidence that the individual has:

- performed a site-specific job safety analysis (JSA) and recorded and implemented control measures
- determined tree hazard benchmarks for the project
- considered relationship between tree species, defects and potential risk
- examined trees for indicators of the following defects:
 - tree health
 - visible physical defects
 - damage from organisms
- assessed examination results to determine potential structural failure
- conducted tests to determine visual and concealed defects, including:
 - sounding accessible visual and concealed defects
 - probing accessible cavities
 - exposing and examining root crown
 - removing loose bark and examining for defects
- assessed test results for structural integrity against tree hazard benchmarks
- recorded details of tree under defect evaluation, including:
 - captured images of tree
 - identified tree to genus, species and common name
 - estimated approximate dimensions of tree
 - identified geographical location of tree
- recorded the following attributes of the defects:
 - image of the defect

- location within the tree canopy
- visual indicators of the defect
- estimated the dimensions of defect and affected tree component
- identified potential target from client brief and assessed consequences of tree defects on structural integrity and risk to target
- advised client on outcomes of tree defect evaluation
- implemented action to mitigate tree hazard according to client and workplace procedures
- documented actions taken to mitigate risk
- reviewed tree defect evaluation results and assessed possible options for controlling hazard
- identified and recommended action for client approval
- compiled all results, records and recommendations, and documented in tree defect evaluation report according to workplace procedures
- submitted tree defect evaluation report to client according to workplace procedures.

Knowledge Evidence

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:

- work health, safety and environmental hazards, assessing risk and the role of a JSA
- preferred industry practices (as outlined in the Companion Volume) relating to tree defects and effect on structural integrity
- structure and function of client briefs and their interpretation, including:
 - targets and the role of targets in tree risk assessment
 - industry and client tree hazard benchmarks
- work health, safety and environmental hazards, assessing risk and the role of a JSA
- noting and specifying tree under evaluation, including recording:
 - plant naming conventions
 - estimating tree dimensions from the ground
 - specifying geographic location on maps, pictures and global positioning systems (GPS)
- tree examination procedures and methods from the ground, including:
 - signs and symptoms of health of trees
 - methods for determining tree health
 - tree anatomy and morphology relating to structural failures
- tools and equipment required to assist in tree examinations, including:
 - cameras and digital imaging
 - sounding mallet and probing tools
 - materials
- recognising visual indicators of tree defects, their causes and effect on structural failure, including:
 - visible and concealed defects, including cavities, cracks and included bark

- common symptoms of diseases (e.g. rot, fungal growth, loose bark)
- common signs of organisms (e.g. holes, frass, live organisms, loose bark)
- testing procedures for confirming visual indicators of tree health and structural defects, including:
 - sounding and probing techniques for defects
 - loose bark removal and signs of defects
 - exposure of root crown to identify root and crown defects
- health and approximate dimensions of the tree and affected tree part and defect
- documentation of the tree defect evaluation, including:
 - digital imaging and photographs
 - reports and reporting styles and industry best practice
- assessing tree hazards and likelihood of failure, including:
 - potential consequences
 - measures to rectify
 - types of potential target
 - urgency for notifications and gauging imminent threat
 - isolation of hazardous trees
 - moving potential target
 - size of tree and its defects
- considerations for remedial action arising from defect evaluation, including:
 - aerial inspection
 - load testing
 - role of a consulting arborist, and seeking further advice from consulting arborist
 - laboratory testing
- documenting and presenting reports to clients.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - 20 trees from 10 different species as stipulated in the performance evidence
- resources, equipment and materials:
 - cross-sectioned tree components representing visual indicators of tree defects
 - computer and computer software
 - digital image capture device
- specifications:
 - workplace procedures, instructions and client brief for trees requiring evaluation
 - preferred industry practices (as outlined in the Companion Volume) relating to tree defects and effect on structural integrity
- relationships:

- client and consulting arborist.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. In particular, assessors must have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed.

Links

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