

# Newcastle Urban Forest Technical Manual

## Part C Native Vegetation

**February 2018**

Newcastle's urban forest is the collection of trees, shrubs, and other vegetation types, on both public and privately owned land within the Newcastle Local Government Area. The urban forest and associated tree canopy across Newcastle provides a range of benefits for the community. Some of these benefits include shade, microclimate regulation, air quality, sense of wellbeing, diverse flora and fauna, storm water management and interception. The liveability of the city is greatly improved by having a sustainable tree canopy and green spaces.

In May 2008, Council adopted the Newcastle Urban Forest Policy and Urban Forest Background Paper in recognising the importance of the urban forest. The goals of the Urban Forest Policy include sustaining and maximising the Newcastle urban forest on an intergenerational basis. In June 2013, Council adopted the Newcastle 2030 Community Strategic Plan which is the community's long term vision for the city. The Community Strategic Plan identifies that over the next 20 years the Newcastle community wants a greater connection with nature, with a greener more enriching environment where the urban forest is maintained and connected.

This Technical Manual contributes to Newcastle's urban forest by providing guidance on the management of native vegetation communities on private land within the Newcastle Local Government Area. The Manual is an accompaniment to the Newcastle Development Control Plan (DCP) Section 5.03 Vegetation Management. It is separated into three parts based on the land on which the vegetation is located and the type of vegetation present:

- Part A provides guidance on the management of trees and shrubs located on private land.
- Part B provides guidance on the management of trees and shrubs located on public land.
- Part C provides guidance on the management of native vegetation communities on private land.

Use Part C to guide applications for native vegetation removal on private land in conjunction with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and Section 5.03 Vegetation Management of Newcastle Development Control Plan 2012.

# Urban Forest Technical Manual

## Part C Native Vegetation

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## 1.0 Introduction

To sustain and maximise Newcastle's urban forest on an intergenerational basis, it is essential that native vegetation be retained, and the ecological functions of vegetation communities protected and enhanced. The aim of Part C Native Vegetation is to provide guidance on the management of native vegetation within the Newcastle Local Government Area.

Part C is currently limited to providing guidance on applications for native vegetation clearing on private land not associated with development. The manual is to be read in conjunction with *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* and Section 5.03 Vegetation Management of the Newcastle Development Control Plan 2012.

Before applying for a *Permit Application to Remove Native Vegetation* the applicant needs to check whether the proposal is permissible under *Newcastle Local Environment Plan 2012*, and ascertain whether the removal is associated with works or activities that require the lodging of a Development Application, or need to be assessed as complying development. A permit **will not** be issued if the vegetation removal is associated with development.

### 1.1 How to use this manual

Part C is presented in five (5) sections:

**Section 1.0 Introduction** - outlines when this part of the Manual is to be used.

**Section 2.0 Native Vegetation pruning on private land (not associated with other development)** - outlines the process to be followed for applications to prune native vegetation on private land not associated with a Development Application.

**Section 3.0 Native Vegetation removal on private land (not associated with other development)** - outlines the process to be followed for applicants to clear native vegetation on private land not associated with a Development Application.

**Section 4.0 Native Vegetation clearing on private land associated with other development**

**Section 5.0 Glossary**

## 2.0 Native vegetation pruning on private land (not associated with development)

### 2.1 Pruning of native vegetation that requires a permit from Council

A *Permit Application to Remove Native Vegetation* is to be submitted to Council when the native vegetation to be pruned is:

- (a) vegetation in a threatened ecological community, or is a threatened plant species listed under the *Biodiversity Conservation Act 2016* or *Fisheries Management Act 1994*.

For pruning of all other native trees and shrubs refer to **Part A Section 2.0 of the Urban Forest Technical Manual** for Council requirements.

Note: If pruning involves the removal of a limb providing habitat for native fauna, a suitably qualified fauna specialist should be consulted.

Applying to Council for a permit to prune or clear native vegetation **does not** remove the Applicant's obligation to comply with all other state and federal legislation relating to the conservation of protected and threatened species, habitats, ecological communities and populations, or sensitive environmental lands like wetlands and riparian corridors.

As such, the applicant may need to obtain additional approvals and/or licences as part of the permit application process. For example, an applicant may need to obtain a licence from the Office of Environment and Heritage for pruning of a threatened ecological community or a threatened plant species listed under the *Biodiversity Conservation Act 2016*. For further information see the Office of Environment and Heritage website.

Similarly, proposals to prune marine vegetation protected under the *Fisheries Management Act 1994* may require a permit under the Act. For further information see the Department of Primary Industries website.

A permit application to prune native vegetation will not be issued without all appropriate assessments undertaken and associated permits obtained.

Note: For pruning vegetation that is, or forms part of a heritage item, or is, or forms part of an Aboriginal object, or within a place of Aboriginal significance. Refer to *Section 5.03.04 Vegetation Management* of the *Newcastle DCP 2012* for guidance on heritage minor works notification applications.

### 3.0 Clearing of native vegetation on private land (not associated with development)

This section outlines the process an applicant is to follow when seeking a permit to clear native vegetation on private land, and the removal is not associated with development (eg. building a residential dwelling). This section is to be read in conjunction with *State Environmental Planning Policy (Vegetation in Non-rural Areas) 2017* and Section 5.03 Vegetation Management of Newcastle Development Control Plan 2012.

For applications relating to the removal of native trees and shrubs, where the native trees and shrubs to be removed are not:

- x part of a native vegetation community / vegetation assemblage,
- x within a wetland or a riparian zone,
- x a threatened species, or provide habitat for a threatened species, under state or federal legislation

refer to **Part A of the Urban Forest Technical Manual** and associated *Permit Application for Tree Removal* form.

For all other native vegetation removal applications, use the following sections.

Note: If the vegetation is located on a residential lot and has been planted for landscaping purposes, refer to Part A Urban Forest Technical Manual and associated Tree Removal application form.

### 3.1 Clearing of native vegetation that requires a Permit from Council

A *Permit Application for Native Vegetation Removal* is to be submitted to Council for assessment when the native vegetation to be removed is:

- (a) a threatened ecological community or is a threatened plant species listed under the *Biodiversity Conservation Act 2016* or *Fisheries Management Act 1994*; or
- (b) 1 or more native trees or shrubs that form part of a native vegetation community, and the proposal includes the removal of native understorey; or
- (c) 4 or more native trees or shrubs that form part of a native vegetation community (with or without native understorey removal); or
- (d) any other native vegetation including understorey plants, groundcovers and plants occurring in a wetland, and is less than the biodiversity offsets scheme threshold identified under the *Biodiversity Conservation Act 2016*.

Clearing of native vegetation that exceeds the biodiversity offsets scheme threshold can only be undertaken with the prior approval of the Native Vegetation Panel.

Note: If the clearing of vegetation relates to a threatened species, threatened ecological community, a matter of national environmental significance, or is located on sensitive environmental lands, a **development application** may be the more appropriate pathway for the proposal to be assessed by Council. Please contact Council about your options prior to submitting your application.

### 3.2 Documentation to support a Permit Application for Native Vegetation Removal

The information required to support an application to clear native vegetation under a permit will be determined by the type of vegetation to be removed, the location of the vegetation (eg. within a riparian zone or wetland) and the amount of vegetation to be removed.

All Permit Applications for Native Vegetation Removal will require:

- (a) a site map which identifies the location of the native vegetation to be cleared and any vegetation proposed to be retained at the site,
- (c) a description of the native vegetation community and/or list of the native vegetation species proposed to be cleared, and
- (d) a description of why the native vegetation is proposed to be cleared.

For proposals that involve:

- (a) the removal of 1 or more native trees or shrubs that form part of a native vegetation community, and the proposal includes the removal of native understorey up to 400m<sup>2</sup>,

the Applicant is to complete a *Permit Application for Native Vegetation Removal* form and attach a *Native Vegetation Summary Report* (refer to **Appendix 12** of the Urban Forest Technical Manual) that has been completed by a suitably qualified ecologist,

upon review of the application, an applicant may be required to obtain an arborist report to support the removal. If an arborist report (as per **Appendix 7** of this Manual) is required, it is to be prepared in accordance with Part A, Section 6 of the Manual.

- (b) the removal of 4 or more native trees and/or shrubs that form part of a native vegetation community (with or without associated understorey removal),

the Applicant is to complete a *Permit Application for Native Vegetation Removal* form and attach a *Native Vegetation Summary Report* (refer to **Appendix 12** of this Manual) that has been completed by a suitably qualified ecologist,

upon review of the application, an Applicant may be required to obtain an arborist report to support the removal. If an arborist report (as per **Appendix 7** of this Manual) is required, it is to be prepared in accordance with Part A, Section 6 of the Manual,

the arborist report must demonstrate that at least one of the tree assessment tests under Part A Section 3.4.4 of this Manual has been met for all trees that are proposed to be removed.

- (c) the removal of less than 400m<sup>2</sup> of native vegetation (that does not include the removal of any trees or shrubs, or any vegetation listed at (f) or (g) below),

the applicant is to lodge a *Permit Application to Remove Native Vegetation* for assessment.

- (d) the removal of between 400m<sup>2</sup> and 1000m<sup>2</sup> of native vegetation,

the Applicant is to complete a *Permit Application for Native Vegetation Removal* form and attach a *Native Vegetation Summary Report* (refer to **Appendix 12** of this Manual) that has been completed by a suitably qualified ecologist.

- (e) the removal of greater than 1000m<sup>2</sup> of native vegetation and the removal does not exceed the biodiversity offsets scheme threshold (refer to the *Biodiversity Conservation Act 2016* for further information),

the applicant is to complete a *Permit Application for Native Vegetation* form and attach a *Flora and Fauna Impact Assessment* completed by a suitably qualified ecologist.

- (f) where the proposal is to remove native vegetation within 40m of a watercourse (a riparian zone) or within a wetland area (100 m from the edge of the wetland),

the applicant is to complete a *Permit Application for Native Vegetation Removal* form and attach a *Flora and Fauna Impact Assessment*, completed by a suitably qualified ecologist,

the applicant may be required to obtain additional approvals from other NSW Government agencies to remove vegetation within these sensitive environmental zones.

- (g) proposal to remove a threatened ecological community or a threatened plant species listed under the *Biodiversity Conservation Act 2016* or *Fisheries Management Act 1994*,

the applicant is to complete a *Permit Application for Native Vegetation Removal* form and attach a *Native Vegetation Summary Report* (refer to **Appendix 12** of this Manual) that has been completed by a suitably qualified ecologist,

the applicant may be required to obtain additional approvals from other NSW Government agencies and/or commission impact assessments to support the removal of species, habitats and communities listed under these Acts.

Note 1: All Applicants need to clearly explain why the proposed clearing of the native vegetation is required. Vegetation clearing proposals that are associated with activities/works that require a development application to be lodged with Council, or relate to complying development, **will not be approved** using this permit.

Clearing of native vegetation on private land that is subject to development consent conditions **will not** be processed under a *Permit Application for Native Vegetation Removal*.

Note 2: For proposed clearing of native vegetation within a *State Environmental Planning Policy 14 - Coastal Wetland* **do not apply for a permit**. Proposals to clear vegetation within a SEPP 14 wetland require the submission of a **development application**.

Note 3: For proposed clearing of native vegetation on private land in relation to bushfire 10/50 rules **do not apply for a permit** from Council. Refer to the Rural Fire Service website.

Note 4: Council **cannot** issue a permit for clearing of native vegetation that exceeds the biodiversity offsets scheme threshold. Refer to the *Biodiversity Conservation Act 2016* and *State Planning Policy (Vegetation in non-rural Areas) 2017* for further information. Clearing of native vegetation that exceeds the biodiversity offsets scheme can only be undertaken with the prior approval of the Native Vegetation Panel.

Note 5: State and Federal environmental conservation legislation may apply to proposals to remove native vegetation under a *Permit Application for Native Vegetation Removal*. Government issued licences, permits, controlled activity approvals, ecological reviews and impact assessments may be required, particularly for proposals that involve threatened species and associated habitat, threatened ecological communities, sensitive environmental zones including wetlands and watercourses, or matters of national environmental significance.

The applicant will need to obtain all relevant approvals and licences as required under other legislation including the *Water Management Act 2000*, *Biodiversity Conservation Act 2016*, *Fisheries Management Act 1994* and the *Environment Protection and Biodiversity Conservation Act 1999*.

## 4.0 Native vegetation clearing on private land associated with development

A permit **will not** be issued if the vegetation clearing is associated with development.

## Glossary

**Action Plan:** for the purpose of the University of Newcastle Callaghan Campus the term refers to the Action Plans in Section 9.3 of the Landscape Management Implementation Plan Callaghan Campus dated 3 September 2012.

**Amenity:** is the term used to describe the features, facilities or services that make for a comfortable and pleasant life. Amenity is not only enjoyed by residents in their homes and gardens but also in the street and public places.

**Arborist:** a person who holds the Australian Qualifications Framework (AQF) 5 Diploma in Horticulture (Arboriculture) or AQF 4 Certificate IV in Horticulture (Arboriculture) and is enrolled in the NSW TAFE AQF 5 Diploma in Horticulture (Arboriculture) course.

**Bushland Management zone:** for the purpose of the University of Newcastle Callaghan Campus the term refers to the Bushland Management zone map in Section 9 of the Landscape Management Implementation Plan Callaghan Campus 3 September 2012.

**Bush Regeneration:** the rehabilitation of bush from a invasive plant species or otherwise degraded plant community to a healthy community composed of native and indigenous species.

**Canopy cover:** refers to the total area contained within the vertical projection of the periphery of tree crowns (or other overstorey). Provides an indicator of the quantity of urban forest, and its capacity to provide ecological, economic, social and aesthetic benefits.

**Circumference breast height:** the girth of the supporting stem of a tree at a height of 1.4m above ground level measured at the trunk centre, and so as to contain the outermost projection of any flanges or buttresses.

**City Arborist:** person designated as such by The City of Newcastle.

**Compensatory planting:** tree planting required offsetting the loss of retainable tree canopy.

**Council:** means Newcastle City Council.

**Crown:** portion of the tree consisting of branches and leaves and any part of the trunk from which branches arise.

**Crown projection:** is the size of the tree canopy. Crown size ( $m^2$ ) =  $\pi r^2$  where r equals the average distance to canopy dripline.

**Compaction:** compression of the soil that creates an upper layer that is impermeable.

**Diameter at Breast Height (DBH):** the diameter of the tree trunk at 1.4m above natural grade.

**Dead tree:** where the biological function of the tree has ceased, no leaves are present and visible evidence of trunk, root plate and canopy desiccation.

**Development Control Plan (DCP):** has the same meaning as in the Act.

**Development site:** includes all areas within which the development will occur and can extend across several lots or development blocks.

**Disturbed area:** the area which will be impacted by a development, including construction, demolition and use.



**Dying tree:** demonstrates reduced growth rates, sparse foliage and reduced response to damage or stress over subsequent growing seasons.

**Exotic:** any flora or fauna species which is not native or indigenous.

**Gap-graded soil:** a mix of 40mm crushed basalt aggregate, filler soil and other additives to meet specification supplied. Components are thoroughly pre-mixed before placing in trench.

**Hazard:** anything with potential to harm health, life or property.

**Indigenous:** any tree, shrub, fern, creeper, vine, palm or plant that is native to the Lower Hunter Region, and includes the flower and any part thereof.

**Infiltration:** the practice of discharging drainage water into the ground soil matrix.

**Injuring:** in relation to a tree, means a wound resulting from an activity, including but not limited to excessive pruning, cutting, trenching, excavating, altering the grade, paving or compaction within the tree protection zone of a tree. Injury includes bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action foreseeably leading to the death or permanent damage to the tree health.

**Lopping:** An unacceptable practice as defined in the Australian Standard AS4373 – 2007.

**Main body of vegetation:** is the area shown on Map 1 - Callaghan campus

**Manual:** the technical manual/s that support DCP 2012.

**Native:** any tree, shrub, fern, creeper, vine, palm or plant that is native to Australia but not indigenous, and includes the flower and any part thereof.

**Native Vegetation:** has the same meaning as in the *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*. As such native vegetation is any of the following types of plants native to New South Wales:

- (a) trees (including any sapling or shrub or any scrub)
- (b) understorey plants,
- (c) groundcover (begin any type of herbaceous vegetation),
- (d) plants occurring in a wetland.

**Native Vegetation Community:** Plant communities, comprising primarily native species, the composition and structure of which reflects the interactions between plant species, between plants and fauna and with the environment. Native vegetation communities include canopy trees (where present), understorey, and ground cover. Regrowth and newly colonising stands of native species are included as part of the native vegetation community.

**LEP:** the Newcastle Local Environmental Plan (LEP) is a city wide plan covering the entire local government area. The plan anticipates social and economic trends as well as the need to protect the environment. The LEP is prepared by Council and approved by the Minister for Planning and Infrastructure.

**Park Tree:** a public tree located in a park managed by Council. These are generally mown areas but may have some pockets of trees with understory.

**Project Arborist:** a suitably qualified arborist retained by a property owner or development applicant for the purpose of overseeing on-site activity involving the welfare of the trees to be retained. The Project Arborist shall be responsible for all reports, appraisals, tree preservation plans, or inspections as required.

**Property:** refers to any infrastructure (eg. underground water/sewer pipes, electrical cables etc.) and structural elements on private land. Structural elements include driveways, and walls which are retaining devices only.

**Pruning:** is the selective removal of branches in accordance with the requirements and classifications within AS4373-2007 Pruning of amenity trees.

**Public Tree:** tree/shrub species located on any land managed by Council.

**Remnant:** native vegetation community within the boundaries of the Newcastle University Callaghan Campus.

**Removal:** complete tree removal such as cutting to the ground or extraction of the tree or taking any action foreseeably leading to the death of a tree or permanent damage to its health or structural integrity, including but not limited to excessive pruning, cutting, girdling, poisoning, over watering, unauthorized relocation or transportation of a tree, or trenching, excavation, altering the grade within the tree protection zone, or paving within the drip-line of the tree.

**Riparian zone:** refers to a riparian corridor as defined by Department of Primary Industries - Office of Water - i.e. a riparian corridor that forms the transition between land and river or watercourse.

**Risk:** the chance of injury, loss or damage to property, a person, organisation or the community measured in terms of consequences and likelihood.

**Risk management:** is the process of identifying, analysing, evaluating, monitoring and communicating risks in a way that minimises losses and maximises opportunities. It is described generically in AS/NZS 4360:1999 Risk Management.

**Shrub:** a woody perennial plant that is generally smaller than a tree species at maturity and has many main stems or trunks.

**Stormwater:** the runoff from rainfall events.

**Streetscape:** the form, character and visual amenity of the street environment.

**Street tree:** public trees and shrubs within the road reserve. These have been surveyed and mapped by Council.

**Street tree vacancy site:** Sites identified by Council for future tree planting. The sites have been identified from analysis of the Local Government Area based on criteria in the Tree Asset Management System (TAMS). The information on locations of street tree vacancy sites is available on request from Council.

**Structural soil:** see Gap-graded soil.

**Suitably qualified person:** a person with appropriate level of skills and formal training in a particular field relevant to a particular situation or works, such as a structural engineer who is required to assess structural works, a civil engineer required to assess road works.

**Solar:** suitable access to sunlight for human wellbeing.

**Topping:** an unacceptable practice as defined in the Australian Standard AS4373 – 2007.

**Tree Private land** - a long lived woody perennial plant greater than 3m height (or will be at maturity), with one or relatively few main stems or trunks.

**Tree Protection Plan (TPP):** a plan prepared by a suitably qualified arborist that details measures to protect and preserve trees.

**Tree Protection Zone (TPZ):** is a determined area of ground under a tree that is to be fenced off during the development of a site to ensure that activity does not cause damage to the tree or its root system.

**Trenching:** any excavation to provide irrigation, installation of foundations, utility lines, services, pipe, drainage or other property improvements below ground.

**Urban forest:** the totality of trees and shrubs on all public and private land across Newcastle LGA, and measured as a canopy cover percentage of the total area.

**Urban Forest Technical Manual:** produced by the City of Newcastle to supplement section 5.03 Vegetation Management of the Newcastle DCP 2012 by providing technical information for the design, implementation and management of tree planting in the local area.

**Undesirable Species:** tree species listed in Appendix 1 of this Urban Forest Technical Manual that are unsuitable for replanting due to negative characteristics.

**Verge:** the part of the street reserve between the carriageway and the boundary of adjacent lots (or other limit to street reserve). It may accommodate public utilities, footpaths, stormwater flows, street lighting poles and planting.

**Vertical mulching:** auguring, hydraulic or air excavation of vertical holes within a trees root zone to loosen and aerate the soil, typically to mitigate compacted soil. Holes are typically penetrated four to six feet on centre, two to three feet deep, two to six inches in diameter and backfilled with either perlite, vermiculite, peat moss or a mixture thereof.

**Weed:** a plant encroaching on an area mulched for trees.

**Wetland area:** for the purposes of the Urban Forest Technical Manual a wetland area includes the outer boundary of the wetland plus 100 m from that edge.

## Appendices

Appendices are provided as separate documents on Council's website.

[www.newcastle.nsw.gov.au/Development/Land-Use-Planning/Development-control-plans](http://www.newcastle.nsw.gov.au/Development/Land-Use-Planning/Development-control-plans)