REMOVAL OF TREES AND VEGETATION ON AIRPORT ESTATE

DOCUMENT NO. PP010

DOCUMENT CONTROLLER:	APPROVED:
NAME: David Woods TITLE: Senior Environment Manager	NAME: Gigi Yuen TITLE: Head of Environment and Sustainability DATE: 12/06/2025

PRINTED COPY - UNCONTROLLED

REMOVAL OF TREES AND VEGETATION ON AIRPORT ESTATE PROCEDURE

1 Objective

The objective of this procedure is to ensure that when tree / vegetation removal, or significant tree lopping works are required on Melbourne Airport property, an assessment is conducted by a suitably qualified person, compensation is provided for replacement tree(s) / vegetation, and re-planting is undertaken to achieve a no net loss and/or a net positive impact on vegetation cover and biodiversity within the airport estate. The carbon, urban heat island effects, and ecological impact on tree removals should also be taken into consideration, given that trees have carbon capture potential.

Carbon sequestration from tree plantings is a form of Greenhouse Gas (GHG) emissions removal. Trees and/or other vegetation remove carbon dioxide and air pollutants from the atmosphere and store it in biomass. Re-planting is primarily aimed at improving areas of high ecological significance at Melbourne Airport, including but not limited to areas along Moonee Ponds Creek, Deep Creek, and the Maribyrnong River and its tributaries. Re-planting may also occur in existing landscaped areas managed by Melbourne Airport, where approved to do so by the Head of Environment and Sustainability.

All funds set aside as compensation for replacement trees and/or other vegetation must go towards the purchase of the approved number of replacement trees and/or other vegetation, and the costs associated with their planting. Any costs associated with ongoing maintenance of replacement trees and/or other vegetation, including mulch, soil, and fertiliser, watering etc., or any other additional costs must be accounted for outside of the compensation funding.

2 Scope

This procedure applies to all living native and exotic trees and areas of shrubs, ground covers, herbs, and/or grasses at Melbourne Airport that are not within areas classified as *Matters of National Environmental Significance (MNES)* under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. Where vegetation is required to be removed in an area classified as MNES, an alternative approval process is required under the relevant legislation.

The removal of weed species under State legislation may need to be approved by the Environment and Sustainability Team but is unlikely to require compensation. This procedure does not apply to exotic pasture grasses.

3 Definitions

Drip line: the outermost circumference of a tree's canopy.
Significant tree lopping works: tree pruning / lopping works that will affect 25% or more of the tree's limbs.
Weed species: species classified as a noxious weed species listed under the *Catchment and Land Protection (CaLP) Act 1994.*

4 Responsibility

The Project Proponent: Responsible for consulting with the Environment and Sustainability Team in relation to any proposal to remove trees and/or vegetation or undertake significant tree lopping works. The Project Proponent is also responsible for arranging arborist assessment(s) and removal of the tree(s) and/or vegetation if the permit is approved. The Project Proponent is defined as the Project Manager, or equivalent, who is responsible for the works associated with the proposed tree and/or vegetation removal. The Project Proponent

must ensure to the best of their knowledge that all proposed tree/vegetation removals are captured within one PP010 application.

Environment and Sustainability (E&S) Team: Responsible for assessing the permit application, endorsing and/or approving the final proposal from the Project Proponent to remove trees and/or other vegetation or undertake significant tree lopping works.

Head of Environment and Sustainability: Responsible for approving the final proposal from the Project Proponent to remove trees and/or other vegetation or undertake tree lopping works for tree removals of up to a value of $10,000.00 for the entire extent of the scope of works.

Executive General Manager, Strategy, Planning and Community: Responsible for approving the final proposal from the Project Proponent to remove trees and/or other vegetation or undertake significant tree lopping works equal or over the value of $10,000.00 for the entire extent of the scope of works.

5 Conditions

To safeguard against avoidable impacts on green spaces and tree canopy cover within the Melbourne Airport Estate, trees/vegetation with cultural/historical importance, high ecological value and/or contributing to the visual appeal and character of the estate must be protected from unnecessary removal or damage unless the following conditions apply (subject to an assessment by a suitably qualified arborist and at the discretion of the Head of Environment and Sustainability):

5.1 Trees/vegetation being removed have been assessed as unhealthy or dead, and/or.

5.2 Trees/vegetation classified at an urgent or high-risk level or pose a risk to nearby structure(s) or roadway(s), and/or

5.3 Trees that pose a fire risk to infrastructure or property.

6 Procedure

6.1 The Project Proponent must submit the following documentation to the Environment and Sustainability Team for their assessment:

a. the documents and advice outlined in sections 6.1-6.9.
b. an aerial photograph or photographs of the trees / areas of vegetation to be impacted; and
c. a copy of the arborist report (if required).

6.2 The Project Proponent should include a feature survey, mapping, or sketch noting potential impact on existing trees and vegetation at the initial project concept stage. Note: any excavation and/or Non-Destructive Digging (NDD) within the drip line of a tree is considered to have potential impact on the health of the tree.

6.3 The Project Proponent should complete a carbon impact assessment (refer to Appendix 2) and submit to the Environment and Sustainability Team.

6.4 The Project Proponent should consider urban heat island effect from tree and/or vegetation removals and implement mitigation measures, where possible, within the project or elsewhere within the Melbourne Airport estate in consultation with the Environment and Sustainability Team. The Project Proponent shall take all feasible measures during design to avoid tree / vegetation removals.

6.5 The Project Proponent should seek advice about the results of the feature survey and potential vegetation and tree impacts of the proposed works from the Environment and Sustainability Team.

6.6 If the impact on the tree / vegetation is considered unavoidable, an arborist report detailing the health and structure of the trees and/or vegetation requiring removal must be prepared by a suitably qualified person.

6.7 The arborist report must be commissioned by the Project Proponent and include a completed ‘Summary of Vegetation and Trees Replacement Ratios’ table (Appendix 2). Template referenced in Appendix 2 must be used when completing the table.

6.8 If a project only requires the replacement of vegetation (no trees) an arborist report is not required. Instead, a completed ‘Summary of Vegetation and Trees Replacement Ratios’ table (Appendix 2) listing the vegetation requiring removal must be prepared by a suitably qualified person.

6.9 All vegetation and trees proposed for removal must be replaced at the ratio and cost determined by the tables in Appendix 2. The tree cost has been derived using the methodology defined in Moore G. (2021) and based on the average annual cost per annum ($106.00) for the first two years typical urban street tree. The cost for replacing shrubs, ground covers, grasses and herbs is based on the average cost to purchase and install a 14cm potted plant. This cost is exclusive of GST, subject to an annual CPI increase (since April 2022) using the Reserve Bank of Australia calculator (https://www.rba.gov.au/calculator/), and to be covered by the Project Proponent.

6.10 Where affected trees/vegetation include weed species, these must be listed in the ‘Summary of Vegetation and Trees Replacement Ratios’ (Appendix 2) however, replacement is unlikely to be required.

6.11 Should the application be endorsed and approved by the Head of Environment and Sustainability and/or approved by the Executive General Manager – Strategy, Planning & Community, the Project Proponent should arrange tree lopping or removal, and/or vegetation removal in consultation with the Building Approvals Officer to determine the need for a Permit to Commence Works (PERCOW) and/or an Excavation Permit.

6.12 Following tree or vegetation removal, the Project Proponent must provide documentation as agreed by the Environment and Sustainability Team to verify compliance with the conditions of the permit.

6.13 In the instance where trees or vegetation are removed without written approval of the Head of Environment and Sustainability and/or Executive General Manager – Strategy, Planning & Community, then a penalty of $30,000.00 per tree and/or a penalty equal to the cost of reinstatement of the removed vegetation may apply regardless of the condition of the removed plants.

6.14 This procedure will be reviewed annually and will include revising the removal cost in line with the financial year's annual CPI increase using the RBA inflation calculator (https://www.rba.gov.au/calculator/)

6 References

a. APAM Tree and Vegetation Removal Permit Register
b. AS 4970 – 2009: Australian Standard – Protection of trees on development sites
c. AS 4373 – 2007: Australian Standard – Pruning of amenity trees
d. Environmental Management System Procedure for Records (document number EMS015)
e. Melbourne Airport Environmental Management Plan, Rev 2, September 2021
f. Moore, G. 2021. Developing an Australian street tree cost model. Treenet Journal, Australia
g. Reserve Bank of Australia inflation calculator, 2001-2024, https://www.rba.gov.au/calculator/

7 Attachments

a. Appendix 1: Template application for Removal of Trees and Vegetation on Airport Property
b. Appendix 2: Tree and Vegetation Replacement Ratios.

APPENDIX 1: Pro Forma for Removal of Trees on Airport Estate Endorsement

TO: Executive General Manager Strategy, Planning & Community

CC: Head of Environment and Sustainability

FROM:

DATE:

SUBJECT: Tree and vegetation removal application - Project Name

In accordance with the Environmental Management System procedure *Removal of Trees and Vegetation on Airport Estate* (Doc. No. PP010), all relevant departments have been consulted about the removal of Flora to be removed as part of the Project Name Project.

The trees and/or vegetation have been assessed by an arborist (where required) and the report was submitted on Date including a summary of tree and vegetation species and replacement ratios. These ratios have been calculated and are consistent with the Removal of Trees and Vegetation on Airport Estate procedure.

A Carbon Impact Assessment has also been completed, and the calculation is submitted on Date .

The urban heat island effect from tree removals has been considered and mitigation measures are in place to reduce the effect either at or elsewhere on the Project or airport estate as agreed with the Environment and Sustainability Team.

It is recommended you approve the removal of Number trees and/or Number plants with the following conditions:

1. All trees are to be removed by a suitably qualified tree / vegetation removal contractor.
2. The replacement value for tree and vegetation removal for this project is $ Value ex. GST (ex GST). This must be drawn from the Project name, Proponent's department or relevant tenancy budget and transferred into the APAM Flora Replacement Program budget before project commencement.
3. Tree/vegetation removal must occur in a way that prevents sediment or mulch/debris from covering the roadway or entering stormwater drains. The project proponent will be responsible for management and cost of any required clean-up and/or the removal of any materials that enter drain during tree/vegetation removal and/or stump grinding works.
4. Wildlife management must be in accordance with the approved Construction Environment Plan (CEMP) and/or the Melbourne Airport Environmental Management Plan.

5. All (non-weed) removed trees / vegetation must be mulched on site. All mulch must be provided to Melbourne Airport for re-use. Contact the Environment and Sustainability Team for an approved location for mulch storage (E: environment@melair.com.au M: +61 403 768 695).

6. Tree stumps must be either totally removed and mulched or ground down to stop regrowth and, where applicable, allow replanting.

7. Upon completion of removal works, any existing irrigation assets must be operational.

8. Grassed areas that are removed or damaged must be reinstated via hydroseeding or direct seeding, using an approved species mix (Section 5.5 of Melbourne Airport Environmental Management Plan), or stabilised in another way to the satisfaction of the Environment and Sustainability Team.

Submitted by:
Name: Project Proponent
Organisation / Department

Signed ……
Date: …../…./…..

Approved / Endorsed by:
Gigi Yuen
Head of Environment and Sustainability

Signed ……
Date: …../…./…..

Approved by: Justin Portelli
EGM Strategy, Planning & Community

Signed ……..
Date: …../…../….

APPENDIX 2: Tree and Vegetation Replacement Ratios

Plant Replacement Ratios

Replacement trees must be planted using the ratios specified in Table 1. Other vegetation (e.g. grasses, shrubs, herbs and other ground cover) must be replaced utilising a 1plant:1m^2ratio.

Trees and vegetation classified as a weed species are not required to be replaced. Management and disposal of weed species must be in accordance with state legislation (CaLP Act 1994).

Table 1: Tree Replacement Ratios

Tree Assessment Category*	Total Replacement Ratio	Trees	Shrubs	Grasses, Ground covers, Herbs
Not worth retaining	5:1	2	3	0
If possible, retain	10:1	3	4	3
Retain	100:1	30	40	30

** refer to Section 6 for relevant assessment standards. to Section 6 for relevant assessment standards.*

Carbon Impact

the Project Proponents are required to provide an estimate of the tree clearing carbon impact in accordance with the template supplied with this document (refer to the next page for reference) to account for the sequestration loss associated with tree clearing and assist with re-planting.

The carbon impact is based on TfNSW Carbon Estimate & Reporting Tool (https://www.transport.nsw.gov.au/system/files/media/documents/2022/Planning-Environment-Sustainability-Carbon-Estimate-and-Reporting-Tool-Manual-2022_0.pdf). The sequestration losses are based on a simplified calculation to appropriate high-level estimates as adopted by government agencies.

Carbon impact of tree clearing in APAM is set at $30 per tonne of carbon ($CO_2e$). Note: The Australian carbon market, environmental planting averages at $45 - $55 per tonne.

Refer to the Excel file supplied with this document for a live version of below calculator:

Tree removal

#	Tree Species	Diameter at Breast Height (DBH), cm	Height (measured or estimated), m	Assessment Category	Comments (tree condition etc.)	Replacement Ratio *(autopopulates based on Assessment Category)*	Cost breakdown by plant type			Carbon impact of tree clearing i.e. loss of sequestration *(autopopulates based on a tree's DBH and height)*		
							Trees	Shrubs	Grasses, Ground covers, Herbs	Tree volume, m^3	Tree dry mass, kg	Loss of CO_2 sequestered, t
1										0.00	0	0.00
2										0.00	0	0.00
3										0.00	0	0.00
4										0.00	0	0.00
5										0.00	0	0.00
6										0.00	0	0.00
7										0.00	0	0.00
8										0.00	0	0.00
9										0.00	0	0.00
10										0.00	0	0.00
				TOTAL # of trees to be removed	0	TOTAL	0	0	0	TOTAL CO_2		0.00

Other vegetation removal

#	Other removed vegetation (non-trees) - Affected Area, m2	Comments	Total Replacement area for grasses, ground covers, herbs, m^2 *(autopopulates based on the Affected Area at a 1:1 ratio)*	Loss of sequestration
1			0	N/A (not material)

General information and instructions:

1 Users must enter information about removed trees and other vegetation (as required) in the two leftmost tables.

2 The carbon component of the tool is based on TfNSW Carbon Estimate & Reporting Tool (https://www.transport.nsw.gov.au/system/files/media/documents/2022/Planning-Environment-Sustainability-Carbon-Estimate-and-Reporting-Tool-Manual-2022_0.pdf)

3 The sequestration losses are based on a simplified calculation, assuming all carbon sequestered by the tree is returned to the atmosphere as CO2. This approach is deemed appropriate for high level estimates.

4 The tree volume calculation is based on the Ontario Scaler's Rule Formula.

5 The tree dry mass calculation assumes average oven-dry density of 700kg/m^3.

$ PER PLANT TYPE	$246.48	$13.38	$11.71	$ PER TONN CO_2	$30.00
$ SUBTOTALS	$0.00	$0.00	$0.00		
$ TOTAL - REPLACEMENT (ex GST)	**$0.00**			**$ TOTAL - SEQUESTRATION LOSS (ex GST)**	**$0.00**

$ TOTAL - REPLACEMENT AND SEQUESTRATION LOSS (ex GST) **$0.00**