

GENETIC INTEGRITY POLICY

Policy Number:	Issued by Governance	Directorate:	Engineering and Infrastructure
Approval by:	Council	Responsible Officer:	Manager Community Infrastructure
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1. PURPOSE

The purpose of this Policy is for Knox City Council to demonstrate leadership in the area of preserving genetic integrity of remnant vegetation by requiring local provenance plant stock for all Council plantings where indigenous species are used within the Knox municipality.

2. CONTEXT

A Sites of Biological Significance study published in 2010 identified 117 significant sites containing remnant vegetation within the City of Knox. This includes several significant bushland areas which are managed as conservation zones.

In 2012, 4% of the original native vegetation or areas with indigenous tree cover remain within Knox. Native vegetation continues to be removed.

The study also revealed that indigenous plants are not well conserved:

- 41% of the indigenous plant species presently found in Knox are threatened with extinction from the municipality within one decade.
- 81 of the 117 sites identified in the study contain plant species that are threatened in Knox or more widely.
- The loss of any one of these sites is likely to render a species extinct from the municipality or more widely.

Knox's native vegetation has become fragmented due to decades of land clearing for agriculture, housing development and infrastructure. Consequently, much of what remains is in small pockets. The populations of indigenous plant species within these remnants range from a few plants to many hundreds, and their ecological and genetic health is highly variable and dependant on many factors.

A major risk factor for indigenous plants is the very small, genetically isolated populations that many species have. Small populations can mean:

- Poor pollination leading to inadequate reproduction;
- Dumping of garden waste, household waste and builders waste;
- Inbreeding; and
- Vulnerability to chance events such as trampling by a dog or bike.

Planting of indigenous plant species can reduce these risks as long as the planting uses local strains. On the other hand, planting non-local strains of locally indigenous species can be more a threat than a saviour. This is because pollination of wild plants by pollen from non-local strains can produce offspring that are less fit for the local environment than the natural strains. This is called 'outbreeding depression'.

The risk of outbreeding depression is minimised if we plant stock raised from wild parents growing at the closest possible location with similar soil type, climate and drainage to the planting site. The origin of the parents is called the 'provenance'.

Council has very little ability to control the planting of species in private gardens and new developments and therefore this Policy only provides an opportunity to lead by example on this issue. Nevertheless, Council is a major planter of indigenous plants in Knox.

3. SCOPE

The Policy applies to all Council plantings where indigenous species are used within the Knox municipality.

Street trees species selection is excluded from this Policy as they are addressed in Council's Street Tree Policy.

4. REFERENCES

4.1 Council Plan

- Sustainable Natural Environment

4.2 Relevant Legislation

- Nil

4.3 Charter of Human Rights

- This policy has been assessed against and complies with the charter of Human Rights.

4.4 Related Council Policies

- Street Tree Policy
- Native Vegetation Net Gain Policy

4.5 Related Council Procedures

- Nil

5. DEFINITIONS

Council	Means Knox City Council, whether constituted before or after the commencement of this Policy.
Biodiversity	The variety of all life-forms, the different plants, animals and micro-organisms, the genes they contain, and the ecosystems of which they form a part.
EVC (Ecological Vegetation Class)	One or a number of communities which can be described through a combination of floristic, life form, reproductive strategy profiles and biogeographic attributes.
Remnant Native Vegetation	Remnant native vegetation is any species of vegetation that existed in the Knox municipality before European settlement including trees, saplings, shrubs, scrub, understory, groundcover or plants in a wetland.
Genetic Integrity	Maintaining the completeness of the genetic material of a species that has evolved and adapted to the local environment.
Hybridisation	The production of an offspring of genetically dissimilar parents. Mostly used to describe the production of offspring of two different species or of two distinct varieties within a species.
Local Provenance	Indigenous plants propagated from collections located as close as practicable, geographically and ecologically, to the location where the propagated plants are to be planted. Cultivars are not considered local provenance.

6. COUNCIL POLICY

- 6.1 It is Council policy to maintain and improve genetic integrity of indigenous vegetation by:
- As far as is practicable, ensuring that when planting native vegetation, any species that are indigenous to Knox will not be planted unless they are of local provenance.
 - Requiring confirmation of provenance by the plant supplier.
 - Where local provenance species are not available, using suitable non-indigenous species that will not hybridise with the local species or become weedy.
- 6.2 This policy will not apply to street trees. Street tree species selection will be addressed in Council's Street Tree Policy.