

Site 30a. Penrith Street Reserve, Boronia

A tiny Council park with native vegetation.

Summary of significant features:

- Locally significant: viable populations of seven plant species that are threatened with dying out in Knox, notably including the regionally-rare Scaly-foot Wallaby-grass (*Rytidosperma lepidopodum*);
- 700 m² of the regionally-endangered Valley Heathy Forest.



Note: This site is so small that it escaped detection as a site of biological significance in the previous editions of this report.

Boundaries

The site is outlined with blue dashes above, measuring 720 m². The northern and western boundaries are property boundaries. Two other edges follow the boxed edge around play equipment. The southernmost edge has been chosen somewhat arbitrarily to enclose the crown of a mature eucalypt. The boundary closest to Knox Leisureworks approximates the edge of native groundcover.

Land use & tenure: Part of a Council reserve. Within the site boundary, Knox City Council manages the vegetation for nature conservation apart from mowing around the edge. The rest of the reserve serves the usual functions of a backstreet park with a playground.

Site description

This unassuming site is almost flat, at an elevation of 117 m. The soil is shallow, poorly draining, clay loam over clay subsoil. The soil has formed by *in-situ* weathering of Lower Devonian siltstone of the Humevale formation.

The naturally-occurring indigenous flora comprises a fairly natural cover of eucalypts and a surprising range of groundcover species. Among the groundcover species is the flat-pea, *Platylobium infecundum*, which is critically endangered, globally. The understory was evidently cleared long ago and subsequent mowing has suppressed its regeneration, but indigenous grasses and low-growing groundcovers have survived. Apart from the eucalypts, the only woody species to survive is the highly resilient shrub species, Sweet Bursaria (*Bursaria spinosa*).

Council staff noticed some years ago that indigenous groundcover species remained around the bases of the eucalypts and within the mown lawn. They released the affected area from mowing, nurtured the remnant groundcover and planted indigenous shrubs. As a result, the vegetation is changing fairly rapidly.

Intermixed with the indigenous plants is a substantial cover of environmental weeds – some that have been planted in the park and others that have volunteered themselves. There is a strip along the northern boundary and the northern half of the western boundary with few indigenous plants and a high cover of environmental weeds that are hard to control.

Relationship to other land

This site is quite ecologically isolated, but some native birds and insects visit the park as they move around treed parts of the neighbourhood.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, **Endangered**): 700 m², of which about half is in fair ecological condition (rating C) and half in poor ecological condition (rating D).

Canopy trees: *Eucalyptus obliqua* dominates strongly (8 wild trees) and there is a single *Eucalyptus radiata*.

Sub-canopy trees: None.

Shrubs: Naturally-occurring shrubs have been reduced to a scattering of *Bursaria spinosa*, whose numbers have been increased by planting. *Goodenia ovata* has been planted densely near the playground.

Vines and Ferns: None.

Creepers: The following species are fairly abundant: *Acrotriche prostrata*, *Bossiaea prostrata*, *Dichondra repens* and *Veronica gracilis*. There is a solitary patch of *Platylobium infecundum*.

Grassy species: *Rytidosperma racemosum* is abundant; the following species somewhat less so: *Lomandra filiformis* (both subspecies), *Poa morrisii*, *Rytidosperma penicillatum* and *Schoenus apogon*. No fewer than seven other, less common species were found despite the inspection not being at a good time of year for detection of grasses.

Other groundcover: Small numbers of *Gonocarpus tetragynus*, *Lagenophora sublyrata* and *Tricoryne sublyrata*.

Plant species

The following lists contain wild and planted indigenous species seen by the author on 26th February 2023. The column headed 'Risk' indicates the risk of species dying out in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; 'V'=Vulnerable; 'N'=Near threatened. Additional species are expected to be found in other seasons.

Risk	Wild indigenous species	Risk	Wild indigenous species
V	<i>Acrotriche prostrata</i> , Trailing Ground-berry (perhaps planted)		<i>Lomandra longifolia</i> subsp. <i>exilis</i> , Cluster-headed Mat-rush (perhaps planted)
	<i>Austrostipa rudis</i> subsp. <i>rudis</i> , Veined Spear-grass		<i>Microlaena stipoides</i> , Weeping Grass
N	<i>Bossiaea prostrata</i> , Creeping Bossiaea	E	<i>Platylobium infecundum</i> , a flat-pea
	<i>Bursaria spinosa</i> , Sweet Bursaria		<i>Poa morrisii</i> , Soft Tussock-grass
	<i>Chiloscyphus semiteres</i> , Green Worms	C	<i>Rytidosperma lepidopodum</i> , Scaly-foot Wallaby-grass
	<i>Dichondra repens</i> , Kidney-weed	E	<i>Rytidosperma ?pallidum</i> , Red-anther (or Silvertop) Wallaby-grass
E	<i>Eucalyptus obliqua</i> , Messmate Stringybark		<i>Rytidosperma penicillatum</i> , Slender Wallaby-grass
E	<i>Eucalyptus radiata</i> , Narrow-leaved Peppermint		<i>Rytidosperma racemosum</i> , Clustered Wallaby-grass
C	<i>Gahnia radula</i> , Thatch Saw-sedge		<i>Schoenus apogon</i> , Common Bog-rush
	<i>Gonocarpus tetragynus</i> , Common Raspwort		<i>Themeda triandra</i> , Kangaroo Grass
V	<i>Lagenophora sublyrata</i> , Slender Bottle-daisy		<i>Tricoryne elatior</i> , Yellow Rush-lily
	<i>Lomandra filiformis</i> subsp. <i>coriacea</i> , Wattle Mat-rush	V	<i>Veronica gracilis</i> , Slender Speedwell
	<i>Lomandra filiformis</i> subsp. <i>filiformis</i> , Wattle Mat-rush		

Risk Planted indigenous species

- Bursaria spinosa*, Sweet Bursaria
 E *Eucalyptus obliqua*, Messmate Stringybark
Goodenia ovata, Hop Goodenia
Themeda triandra, Kangaroo Grass

Fauna of special significance

None observed.

Fauna habitat features

The reserve's eucalypts provide habitat for common native forest birds (e.g. Australian King-parrot and Crimson Rosella) and invertebrates. The native understorey would suit skinks and a range of invertebrates.

Significance ratings

The following is an assessment of the site's biological significance against the Department of Energy, Environment & Climate Action's standard criteria (Amos 2004).

Regionally Threatened Ecological Vegetation Class

Amos (2004) adopted a definition of a remnant patch as a continuous area of at least 0.25 ha with at least 10% cover of native understorey throughout. This site does not meet the size threshold and so is not recognised as significant for the presence of the endangered vegetation type.

Threatened Plants

The park has a single patch of the flat-pea, *Platylobium infecundum* – perhaps a single plant. That species is listed under the *Flora and Fauna Guarantee Act* as Critically Endangered and it does not occur outside Victoria. A literal reading of criterion 3.1.2 gives any known habitat of such a species National significance. However, as discussed in Section 8.1 of Volume 1, this report adopts the policy that a single patch of *Platylobium infecundum* is only of **Local** significance because it does not (in the words of the criteria document) 'make a substantial contribution to the conservation of the asset' at the National level.

Apart from *Eucalyptus radiata*, all of the locally-threatened plant species listed above (including *Platylobium infecundum*) have viable populations, or else they would have died out before Council started to nurture them. Criterion 3.1.5 awards **Local** significance to the habitat of any locally-threatened species with a viable population. Most notable of those is the regionally-rare Scaly-foot Wallaby-grass (*Rytidosperma lepidopodum*).

Threats

- Displacement of indigenous flora by environmental weeds such as Kikuyu Grass (*Cenchrus clandestinum*);
- Loss or decline of plant species that are present in such precariously small numbers that they are vulnerable to inbreeding, poor reproductive success or localised chance events such as being scratched out by a dog or struck by a falling tree limb;
- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves and storms, as well as substantially lower rainfall (particularly in winter).

Strategic planning

- The reserve is zoned Public Park and Recreation Zone (PPRZ);
- The reserve and land to the north and west are covered by Schedule 3 of the Vegetation Protection Overlay (VPO3), which requires a permit for removal of most Victorian-native trees over 8 m tall;
- Because it is now known that the site's understorey is more significant than its trees over 8 m tall, it is recommended to apply Schedule 2 of the Environmental Significance Overlay (ESO2) to the site. If desired, that overlay could be extended to the whole reserve. VPO3 is unnecessary if ESO2 is applied;
- The reserve is less than 0.4 ha in area and therefore exempt from the state-wide baseline planning controls over removal of native vegetation (clause 52.17).

Information sources used in this assessment

- A botanical survey by Dr Lorimer for this report on 26th February 2023, including a list of all indigenous plant species and their abundances (or counts and precise locations of individuals, in the case of scarce species);
- Records of flora and fauna observations stored in the Atlas of Living Australia;
- The Victorian Government's 'NatureKit' website;
- Aerial and satellite imagery from between 1946 and 2024;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.