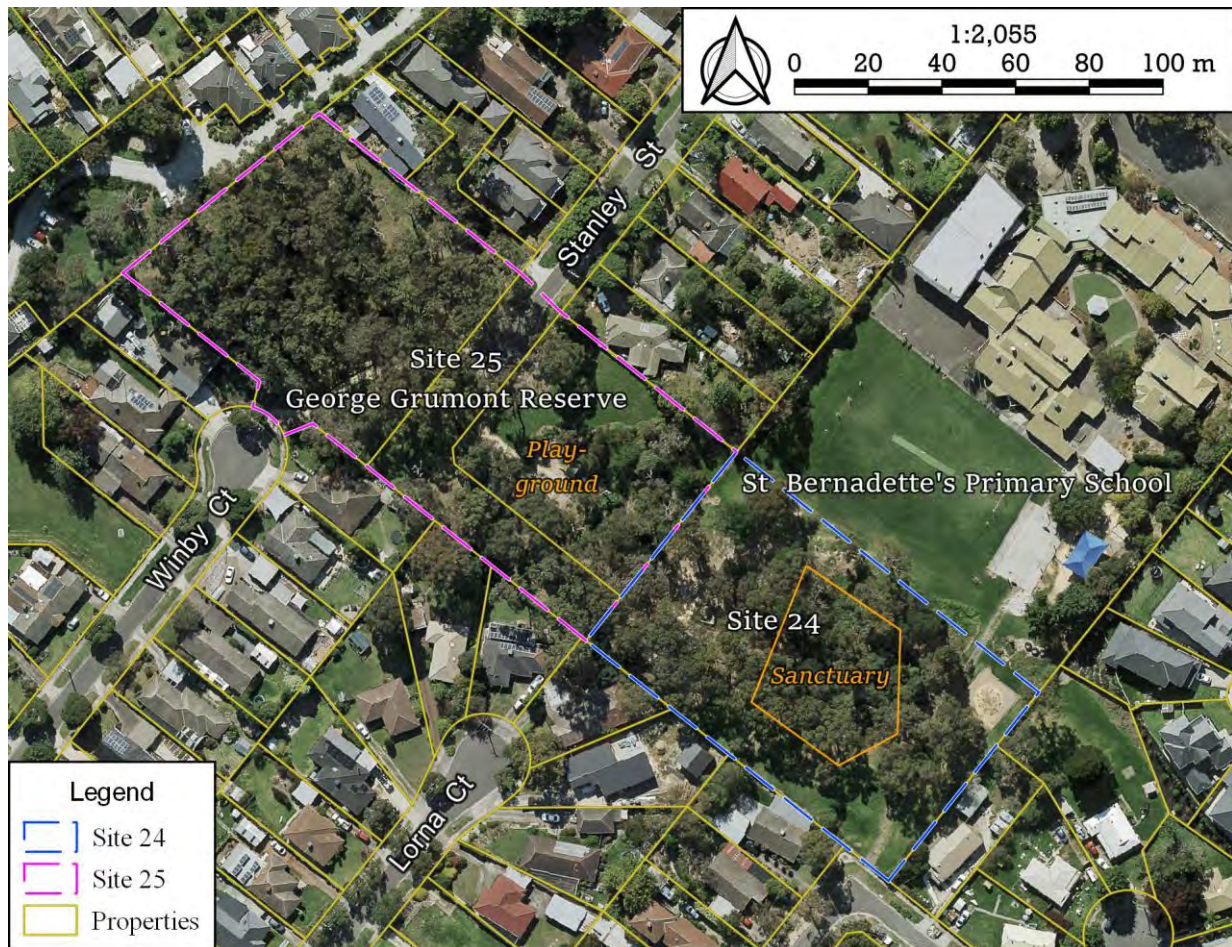


Site 25. George Grumont Reserve, The Basin

Council bushland reserve, with native vegetation recovering from years of slashing.

Summary of significant features:

- **Nationally significant:** an abundance of the flat-pea, *Platylobium infecundum*, which is critically endangered globally;
- **State significance:** a patch of a regionally endangered Ecological Vegetation Class;
- **Locally significant:** habitat for viable populations of many locally-threatened plant species.



Boundaries

The site is the whole of George Grumont Reserve, measuring 1.03 ha.

Land use & tenure: Bushland reserve with playground, zoned Public Park and Recreation Zone (PPRZ).

Site description

This bushland reserve includes gentle slopes with natural tree cover and understorey, and a westward-flowing drainage line that has been cleared. Some of the cleared drainage line has been revegetated this century with indigenous species that now provide a material supplementation of the naturally occurring habitat. There is also a small playground on the southern bank of the drainage line.

The soil is loam over clay subsoil, derived from the Mt Evelyn rhyodacite formation of the Dandenong Ranges volcanic group. Elevations range from 142 m near Winby Ct to 149 m in the northern corner.

The whole site has a long history of slashing but most of the native understorey was relieved from slashing around the end of the 20th Century. This brought about excellent regeneration of indigenous grasses and many wildflowers, but the fieldwork for this report failed to detect some species that one would expect to find if the

vegetation had not had a history of slashing, such as *Hardenbergia violacea* and *Hovea heterophylla*. The vegetation structure and relative abundances of plant species have changed markedly since the 2002 ecological study for the first edition of this report. Some indigenous species have died out (at least temporarily) and others have arrived and/or proliferated (e.g. *Pandorea pandorana*). Unfortunately, some environmental weed species have become significant ecological problems, e.g. blackberry. Even the indigenous species, *Bursaria spinosa*, has proliferated to the extent of making the vegetation less natural, not more.

The site is within a narrow transition zone between the Gippsland Plain bioregion and the Highlands - Southern Fall bioregion. The vegetation is mainly intermediate between the Valley Heathy Forest that is associated with the Gippsland Plain and Grassy Forest that is associated with the Highlands Southern Fall. There are also traces of the Swampy Woodland that would once have occurred along the drainage line.

Relationship to other land

The site abuts Site 24 (St Bernadette's Primary School) and there would no doubt be substantial traffic of fauna, seeds and pollen between the two sites. There are also several mature eucalypts immediately to the west of the reserve, providing some additional habitat for arboreal fauna. Other treed properties in the neighbourhood help to keep native birds in the area.

Bioregion: Mapped by the Department of Energy, Environment and Climate Action as Gippsland Plain, close to the edge where it abuts the Highlands Southern Fall. Geologically, it belongs in the Highlands Southern Fall.

Habitat types

Intermediate Valley Heathy Forest / Grassy Forest (EVCs 127 and 128, both regionally **Endangered**):

Estimated in a 2002 investigation to cover 7,300 m², comprising 2,000 m² in good ecological condition (rating B), 3,100 m² in fair ecological condition (rating C) and 2,200 m² in poor ecological condition (rating D).

Canopy trees: *Eucalyptus obliqua*, *E. macrorhyncha* and *E. radiata*; 20 m tall. There are also two *E. cephalocarpa*, one of which is a vestige of the Swampy Woodland that once occurred along the drainage line.

Sub-canopy trees: *Exocarpos cupressiformis* and *Acacia melanoxylon* dominate. *Acacia mearnsii* is scarce.

Shrubs: Moderately dense, having been sparse in 2002 and scarcely present a few years earlier due to slashing.

The relative abundances of shrub species have also changed but *Bursaria spinosa* has remained dominant throughout (typical of regenerating Valley Heathy Forest). In 2024, *Cassinia aculeata*, *Coprosma quadrifida* and *Goodenia ovata* are moderately abundant, while *Cassinia longifolia*, *Epacris impressa* and *Olearia myrsinoides* are scarce. In 2002, *Acacia myrtifolia*, *Leptospermum continentale* and *Pultenaea gunnii* were also present but *Cassinia longifolia* was absent.

Vines: The light twiner, *Billardiera mutabilis*, is fairly abundant (as it was in 2002). The vigorous vine, *Pandorea pandorana*, was absent in 2002 but has become fairly abundant and threatens to displace other indigenous species.

Ferns: *Pteridium esculentum* is present but only in a few small patches.

Groundcover: Grassy, with 80% ground coverage. The dominant species in 2024 are (variously) *Austrostipa rudis* subsp. *rudis*, *Microlaena stipoides*, *Tetrarrhena juncea* or *Platylobium infecundum*. In 2002, the dominant species were *Poa morrisii* and *Rytidosperma pallidum*, which remain fairly abundant. Other species that are fairly abundant in 2024 but not dominant in foliage cover include *Acrotriche prostrata*, *Austrostipa pubinodis*, *Chiloglottis valida*, *Dichondra repens*, *Gonocarpus tetragynus*, *Goodenia lanata*, *Deyeuxia quadriseta*, *Gahnia radula*, *Lomandra filiformis*, *L. longifolia*, *Oxalis exilis/perennans*, and *Rytidosperma penicillatum*. The presence of *Centella cordifolia* and *Eragrostis brownii* in lower-lying areas are pointers to what would once have been Swampy Woodland along the drainage line.

Plant species

The following plant species have been observed in the reserve by the author on either or both of two surveys: on 3/4/02 and 16/6/24. Indigenous species with asterisks were seen only in 2002. Introduced species were only recorded in 2002. Not all planted species were recorded, just those likely to be mistaken for wild plants. The column headed 'Risk' indicates the indigenous species' risk of dying out in Knox, with 'C'=Critically endangered, 'E'=Endangered, 'V'=Vulnerable and 'N'=Near threatened. In addition, *Platylobium infecundum* is critically endangered, globally. Additional wild indigenous species would no doubt be found in other seasons.

Risk Wild indigenous species

- V *Acacia mearnsii*, Black Wattle
 V *Acacia melanoxylon*, Blackwood
 E *Acacia myrtifolia*, Myrtle Wattle*
 V *Acacia verticillata*, Prickly Moses*
Acaena novae-zelandiae, Bidgee-widgee
 V *Acrotriche prostrata*, Trailing Ground-berry
Austrostipa pubinodis, Tall Spear-grass*
Austrostipa rudis subsp. *rudis*, Veined Spear-grass
Billardiera mutabilis, Common Apple-berry
Bursaria spinosa, Sweet Bursaria
 V *Caesia parviflora*, Pale Grass-lily
Carex breviculmis, Short-stem Sedge
Cassinia aculeata, Common Cassinia
Cassinia longifolia, Shiny Cassinia
 E *Centella cordifolia*, Centella*
 V *Chiloglottis valida*, Common Bird-orchid
 V *Coprosma quadrifida*, Prickly Currant-bush
Deyeuxia quadriseta, Reed Bent-grass
Dianella revoluta, Black-anther Flax-lily*
Dichelachne rara, Common Plume-grass*
Dichondra repens, Kidney-weed
 E *Dipodium roseum*, Rosy Hyacinth-orchid*
 C *Epacris impressa*, Common Heath
Eragrostis brownii, Common Love-grass*
 E *Eucalyptus cephalocarpa*, Mealy Stringybark
 V *Eucalyptus goniocalyx*, Bundy
 C *Eucalyptus macrorhyncha*, Red Stringybark
 E *Eucalyptus obliqua*, Messmate Stringybark
 E *Eucalyptus radiata*, Narrow-leaved Peppermint
Euchiton japonicus, Creeping Cudweed*
 V *Exocarpos cupressiformis*, Cherry Ballart
 C *Gahnia radula*, Thatch Saw-sedge
Gonocarpus tetragynus, Common Raspwort
 N *Goodenia lanata*, Trailing Goodenia
Goodenia ovata, Hop Goodenia
Juncus pallidus, Pale Rush
 V *Lagenophora sublyrata*, Slender Bottle-daisy
Lepidosperma elatius, Tall Sword-sedge
 C *Leptospermum continentale*, Prickly Tea-tree*
Lomandra filiformis subsp. *coriacea*, Wattle Mat-rush
Lomandra filiformis subsp. *filiformis*, Wattle Mat-rush*
Lomandra longifolia subsp. *exilis*, Cluster-headed Mat-rush
Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
Microlaena stipoides, Weeping Grass
 C *Olearia myrsinoides*, Silky Daisy-bush
Oxalis exilis/perennans, Wood-sorrel
Pandorea pandorana, Wonga Vine

Risk Wild indigenous species

- E *Platylobium infecundum*, a flat-pea
Poa morrisii, Soft Tussock-grass
 E *Poa tenera*, Slender Tussock-grass
Poranthera microphylla, Small Poranthera*
Pteridium esculentum, Austral Bracken
 V *Pultenaea gunnii*, Golden Bush-pea*
Rytidosperma ?laeve, Smooth Wallaby-grass*
 E *Rytidosperma pallidum*, Red-anther (or Silvertop) Wallaby-grass
Rytidosperma penicillatum, Slender Wallaby-grass*
Rytidosperma pilosum, Velvet Wallaby-grass*
 E *Rytidosperma semiannulare*, Tasmanian Wallaby-grass*
Rytidosperma setaceum, Bristly Wallaby-grass*
Schoenus apogon, Common Bog-rush*
Tetrarrhena juncea, Forest Wire-grass
Themeda triandra, Kangaroo Grass
 E *Viola hederacea*, Ivy-leaf Violet

Risk Planted species in 2024

- V *Acacia stictophylla*, Dandenong Range Cinnamon Wattle
Acaena novae-zelandiae, Bidgee-widgee
 C *Daviesia latifolia*, Hop Bitter-pea
Dianella longifolia var. *longifolia*, Pale Flax-lily
Dianella tasmanica, Tasman Flax-lily
 E *Gahnia sieberiana*, Red-fruit Saw-sedge
 C *Hakea nodosa*, Yellow Hakea
 C *Ozothamnus obcordatus*, Grey Everlasting
 C *Patersonia occidentalis*, Long Purple-flag

Wild introduced species in 2002

- Agrostis capillaris*, Brown-top Bent
Aira sp., Hair Grass
Anthoxanthum odoratum, Sweet Vernal-grass
Cassinia sifton, Sifton Bush
Centaureum erythraea, Common Centaury
Cytisus scoparius, English Broom
Dactylis glomerata, Cocksfoot
Ehrharta erecta, Panic Veldt-grass
Hakea salicifolia, Willow-leaf Hakea
Hedera helix/hibernica, Ivy
Hypochaeris radicata, Cat's Ear
Ilex aquifolium, Holly
Paspalum dilatatum, Paspalum
Pittosporum undulatum, Sweet Pittosporum
Plantago lanceolata, Ribwort
Prunella vulgaris, Self-heal
Trifolium repens, White Clover

Notes concerning some of the plant species

Olearia myrsinoides (Silky Daisy-bush) – Sixteen were recorded in 2002 but only three could be found in 2024.

Platylobium infecundum (a flat-pea) – This globally-critically-endangered species is the dominant or co-dominant groundcover species over significant parts of the reserve's northwestern half.

Fauna habitat features

- The many mature trees would attract a reasonable diversity of forest birds, as well as the Southern Brown Tree Frog and probably bats;
- The ground layer of dense grasses in most of the site is excellent habitat for grass-reliant butterflies, some of which were observed during the 2002 site inspection;
- The planted *Gahnia sieberiana* would provide good habitat for the locally uncommon Swordgrass Brown butterfly, whose conservation has been made a priority by Knox City Council and the Knox Environment Society.

Significance ratings

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

Vegetation Type and Condition

This reserve contains a 'remnant patch' of an endangered EVC (Valley Heathy Forest), which extends into St Bernadette's Primary School. Criterion 3.2.3 of Amos (2004) assigns **State** significance to any remnant patch of an Endangered EVC.

Threatened Plant Species

Platylobium infecundum is abundant in the reserve, even being a dominant or co-dominant groundcover species over significant parts of the reserve's northwestern half. That species is listed under the *Flora and Fauna Guarantee Act* as Critically Endangered and it does not occur outside Victoria. As a result, the habitat provided for *Platylobium infecundum* in the site qualifies as **National** significance under criterion 3.1.2.

Platylobium infecundum had not been scientifically described in 2010 when the previous edition of this report was written. As a result, the site's significance level has risen from State to National.

Many of the locally-threatened plant species listed above have viable populations, thereby meeting criterion 3.1.5 for **Local** significance.

Threats

The following appear to be the main threats to the site's conservation significance, in roughly decreasing order of severity or urgency:

- Displacement of indigenous flora and fauna by environmental weeds, exacerbated by debilitation of the native vegetation by the impacts of climate change. Introduced species of understorey trees and shrubs are of particular concern. The indigenous Sweet Bursaria (*Bursaria spinosa*) is also unnaturally dense and may need to be thinned to allow other species to recover;
- 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;
- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves, fires and storms, as well as substantially lower rainfall (particularly in winter).

Management

Cessation of slashing of native groundcover has been very successful but the benefits are being threatened by environmental weeds and Sweet Bursaria.

Strategic planning

- This site is covered by Schedule 2 of the Environmental Significance Overlay (ESO2) as a result of the previous (2010) edition of this report, which cited the regionally-endangered EVC. Since then, *Platylobium*

infecundum has been scientifically described as a species and recognised to be critically endangered, raising the site's biological significance to the National level. Despite this change, ESO2 remains an appropriate protective instrument. The only apparent reason to amend the ESO2 boundary is to very slightly refine its corners to match property corners in the current state cadastre;

- The whole reserve and its surroundings are covered by Schedule 3 of the Significant Landscape Overlay (SLO3) and Schedule 2 of the Design and Development Overlay (DDO2);
- The reserve is larger than 0.4 ha and therefore does not qualify for the size-based exemption from the state-wide baseline planning controls over removal of native vegetation (clause 52.17);
- The reserve is zoned Public Park and Recreation (PPRZ) and is surrounded by Neighbourhood Residential Zone – Schedule 1 (NRZ1);
- The reserve and its surroundings are inside the Urban Growth Boundary for Melbourne.

Information sources used in this assessment

- An ecological survey undertaken by Dr Lorimer for 1 hour 35 minutes on 3rd April 2002 for the first edition of this report. This included a description of the vegetation composition, compilation of a list of indigenous and introduced plant species, incidental fauna observations (birds, frogs, butterflies), and checks for fauna habitat, ecological threats and management issues;
- A follow-up ecological survey by Dr Lorimer on 15th June 2024 for this edition;
- Records of flora and fauna observations stored in the Atlas of Living Australia (but note that the *Patersonia* record is of planted plants, without being flagged as such);
- 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.