

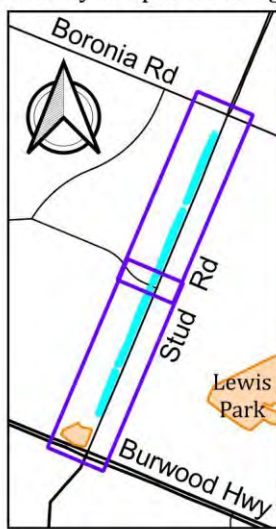
Site 101. Stud Rd Roadside, Wantirna

A total of 1.54 kilometres of road reserve, in four sections.

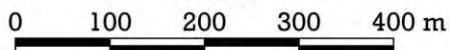
Summary of significant features:

- Locally significant: viable populations of several locally-threatened tree species, including the dominant species, Mealy Stringybark (*Eucalyptus cephalocarpa*);
- Locally significant: an ecological stepping-stone for daily and seasonal movements of birds and flying insects.

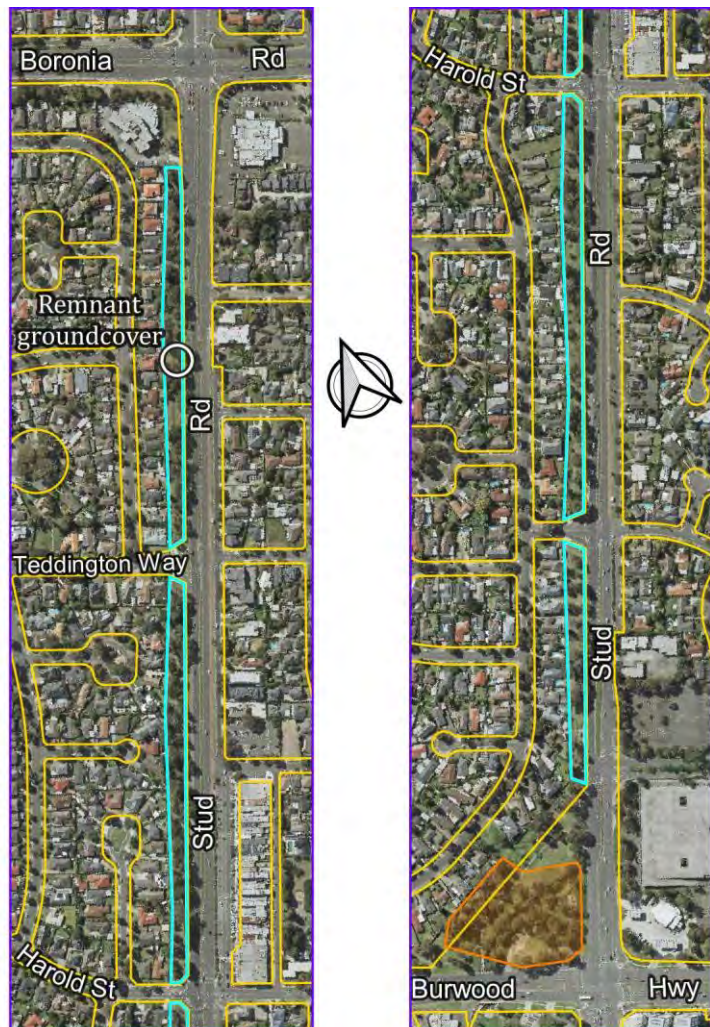
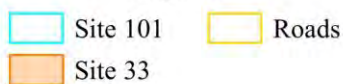
Overview map (1:40,000) with indigo rectangles showing areas covered by the panels at right.



Scale for the maps to the right
1:8,000



Legend



Boundaries

The four segments that make up this site have cyan outlines on the aerial photograph above. The boundaries align with title boundaries, except for two short, straight lines that delimit the site's northern and southern extent. The boundaries are the same as the previous (2010) edition of this report. The total area is 3.24 ha.

Land use & tenure: Roadside tree reserve.

Site description

This site provides an almost continuous canopy of trees that provide rudimentary habitat for native birds and insects. The trees that make up the canopy are a mixture of remnant eucalypts, remnant wattles (Blackwood and Lightwood) and many planted 'Australian natives' such as Red Ironbark, Lemon-scented Gum, River Red Gum, Southern Blue Gum, Southern Mahogany, Casuarinas and Melaleucas. Two of the species of remnant eucalypt

have died out since the first (2004) edition of this report, probably due to the Millennium Drought. The loss of those trees is partly compensated by the increased size of the surviving trees.

Remnant understorey is quite scarce: There are scattered Sweet Bursarias, one Large Kangaroo Apple, a small patch of groundcover (marked on the aerial photograph above) and scattered wallaby-grasses. The patch of groundcover lies in the periphery of what a 1946 aerial photograph shows as a 12-hectare patch of native forest. There has been extensive planting of indigenous shrub species over the past two decades. Exotic understorey species are fairly abundant, mostly originating pre-1990.

The remnant trees indicate that the original Ecological Vegetation Classes were Swampy Woodland in low-lying patches and Valley Heathy Forest in the remainder.

Relationship to other land

Birds and insects that use this site as part of their habitat probably access it via the surrounding residential neighbourhoods. Trees in these neighbourhoods help to maintain birds in the area, including along the Stud Rd roadside. Conversely, the trees along Stud Rd help to keep birds and insects around the surrounding neighbourhoods.

Bioregion: Gippsland Plain

Habitat types

The original EVCs of the site have been reduced to scattered trees and a very small number of understorey plants. These EVCs are:

Valley Heathy Forest (EVC 127, **Endangered**) dominated by *Eucalyptus cephalocarpa*, *E. melliodora* and (formerly) *E. macrorhyncha* and *E. radiata*. *Eucalyptus obliqua* was also present in 2002.

Swampy Woodland (EVC 937, **regionally Endangered**) formerly dominated by *Eucalyptus ovata*, which is now very scarce.

Plant species

The following indigenous plant species were observed by the author on 10th October 2024 except for those with asterisks, which were only recorded in the prior survey, by Rik Brown on 15th May 2002. The column headed 'Risk' indicates the indigenous species' risk of dying out in Knox, with 'C'=Critically endangered, 'E'=Endangered and 'V'=Vulnerable.

| Risk | Wild indigenous vascular species | Risk | Wild indigenous vascular species |
|------|--|------|--|
| V | <i>Acacia implexa</i> , Lightwood | E | <i>Eucalyptus melliodora</i> , Yellow Box |
| V | <i>Acacia mearnsii</i> , Black Wattle | E | <i>Eucalyptus obliqua</i> , Messmate Stringybark* |
| V | <i>Acacia melanoxylon</i> , Blackwood | V | <i>Eucalyptus ovata</i> , Swamp Gum |
| | <i>Arthropodium strictum</i> , Chocolate Lily | E | <i>Eucalyptus radiata</i> , Narrow-leaved |
| | <i>Bursaria spinosa</i> , Sweet Bursaria | | Peppermint* |
| V | <i>Coprosma quadrifida</i> , Prickly Currant-bush* | V | <i>Exocarpos cupressiformis</i> , Cherry Ballart* |
| | <i>Dianella longifolia</i> var. <i>longifolia</i> , Pale Flax-lily (perhaps offspring of planted plants) | | <i>Lomandra filiformis</i> subsp. <i>coriacea</i> , Wattle |
| | <i>Dianella revoluta</i> , Black-anther Flax-lily | | Mat-rush |
| E | <i>Eucalyptus cephalocarpa</i> , Mealy Stringybark | | <i>Rytidosperma racemosum</i> , Clustered Wallaby-grass |
| V | <i>Eucalyptus goniacalyx</i> , Bundy | | <i>Rytidosperma setaceum</i> , Bristly Wallaby-grass |
| C | <i>Eucalyptus macrorhyncha</i> , Red Stringybark* | V | <i>Solanum laciniatum</i> , Large Kangaroo Apple |

Fauna of special significance

None recorded.

Fauna habitat features

- The composition of the vegetation, including its multi-layered structure, provides habitat for common suburban birds, invertebrates and perhaps microbats;

- Planted Red Ironbark trees (*Eucalyptus sideroxylon*) attract substantial numbers of lorikeets when in flower.

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).

Ecological Integrity and Viability

The use of the site by nomadic native forest birds, particularly Musk Lorikeets, demonstrates that the site acts as an ecological 'stepping stone'. Flying insects are likely to make similar use of the habitat. Criterion 1.2.6 attributes **Local** significance to ecological stepping stones like this which can be described as 'Important at local scale - Link between individual remnant habitat blocks or within subcatchment'.

Locally Threatened Plants

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

Threats

- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves and storms, as well as substantially lower rainfall (particularly in winter);
- Continuing debilitation and deaths of trees due to changed site drainage and the abovementioned droughts and storms;
- Lack of natural replacement of indigenous species as they die, due to ongoing mowing and use of herbicide;
- Potential damage to remnant vegetation (including tree roots) during maintenance of roads or utility services;
- Loss or decline of indigenous plant species as a result of most of their populations being so small that they are vulnerable to inbreeding, poor reproductive success or localised chance events.

Strategic planning

- Schedule 4 of the Vegetation Protection Overlay (VPO4) applies to this site as a result of a recommendation in the previous (2010) edition of this report. Despite the loss of several remnant trees, VPO4 remains well justified;
- The land is zoned Public Park and Recreation Zone (PPRZ).

Information sources used in this assessment

- A botanical survey by Rik Brown on 15th May 2002 for the first edition of this report, including:
 - Compilation of a list of indigenous and introduced plants;
 - A description of the vegetation's structural and floristic composition;
 - Incidental fauna observations; and
 - Checks for fauna habitat, ecological threats and management issues;
- A visual inspection of the site by Dr Lorimer in a moving vehicle in 2004;
- A botanical survey of the site by Dr Lorimer on 10th October 2024, recording and mapping indigenous plant species and noting other features relevant to this report;
- A search (in vain) for records of flora and fauna observations stored in either Knox City Council's biodiversity database or the Atlas of Living Australia;
- Aerial and satellite imagery from between 1946 and 2025;
- The Victorian Government's 'NatureKit' website;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.