

Site 93. Burwood Hwy Roadside, Wantirna

320 lineal metres of road reserve, each side of the Wantirna Telephone Exchange. Melway ref. 63 E9

Site Significance Level: *State*

- Contains remnants and regrowth of the endangered Ecological Vegetation Class, Valley Heathy Forest;
- A linear oasis of native vegetation in a heavily urbanised neighbourhood;
- Uncommonly large populations of the shrub, Hop Bitter-pea (*Daviesia latifolia*), by Knox standards;
- Ecologically stable or improving vegetation with moderate diversity, except for some species that may have too few individuals for long-term viability in the absence of intervention.



Boundaries

The site is defined by the red outline on the plan above. Its width extends from the gutter of Burwood Hwy to the northern boundary of the tree reserve. Its western end is a signpost indicating this as Significant Roadside KN9. The eastern end is as shown. The total area is 0.70 ha.

Land use & tenure: Road reservation and Council tree reserve.

Site Description

The most significant vegetation west of the telephone exchange's driveway is between the footpath above the cutting, extending down the batter to almost one metre above the road gutter. This is regrowth following creation of the cutting many years ago, fostered in recent years by relief from slashing (except just above the gutter).

Between this strip and the fences of adjoining residences, there are scarce remnant eucalypts and scattered regenerating wattles, interspersed with much larger numbers of nonindigenous wattles, grevilleas, hakeas and other large shrubs. Beneath all these is a ground layer comprising mostly indigenous wallaby-grasses and spear-grass, except for a weedy strip within a metre or so of the residences' fences (due largely to dumping of garden waste).

Some of the nonindigenous shrubs are naturalising and Council staff have therefore targeted them for removal.

East of the telephone exchange's driveway, the vegetation has been strongly influenced by many mature pines (some of which have just been removed). The significance of the vegetation tends to decrease northwards from the informal footpath next to the gutter.

The vegetation west of the telephone exchange is at the drier extreme of Valley Heathy Forest, reflected by the presence of *Eucalyptus macrorhyncha* and densely grassy ground flora. The vegetation toward the eastern end tends toward the opposite extreme of Valley Heathy Forest, with several *Eucalyptus cephalocarpa* and an increasing density of *Gahnia radula*.

Council has been actively controlling weeds in this site and it is quite possible that more indigenous plant species may appear. However, many species are present in numbers so low as to create concerns about their long-term viability. Examples are *Billardiera mutabilis*, *Bursaria spinosa*, *Hardenbergia violacea*, *Leptospermum continentale* and *Solanum ?laciniatum*, all with one plant each, and *Eucalyptus melliodora* and *Exocarpos cupressiformis* with two plants each.

Relationship to other land

This site is rather isolated from other native vegetation. Plantings of Australian natives and some indigenous species beside Burwood Hwy toward Stud Rd will, at maturity, provide a narrow and probably weak connection to the Blind Creek corridor. There is negligible habitat for native flora or fauna between the site and the Dandenong Creek corridor 1 km away.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, **regionally Endangered**). Total vegetated area approx. 6,600 m², comprising:

125 m² in good ecological condition (rating B, shown as the two blue rectangles on the plan above);

3,000 m² in fair ecological condition (rating C); and

3,500 m² in poor ecological condition (rating D, some reduced to native grasses beneath planted Australian natives).

Dominant canopy trees: *Eucalyptus obliqua*, *E. macrorhyncha*, *E. goniocalyx*, *E. radiata*.

Dominant lower trees: *Acacia implexa*.

Shrubs: Very sparse, *Daviesia latifolia* prominent.

Ground flora: Fairly rich and densely grassy with ferns limited to a few patches of bracken and maidenhair. Dominated variously by *Rytidosperma* species (particularly *R. linkii* var. *fulva*), *Poa morrisii*, *Austrostipa rudis*, *Gahnia radula* or large patches of *Dianella admixta*. Also abundant are *Lomandra filiformis* subsp. *filiformis*, *Gonocarpus tetragynus*.

Plant species

The following plant species were observed by the author on 19/3/02 or by Mr Damien Cook on 6/12/92, as indicated in the 'Year' column. Additional species would probably be detectable in other seasons. The column headed 'Risk' indicates the indigenous species' risk of extinction in Knox with 'E'=Endangered and 'V'=Vulnerable.

Risk	Indigenous Species	Year	Risk	Indigenous Species	Year
V	<i>Acacia implexa</i>	2002	E	<i>Euchiton involucratus</i>	1992
V	<i>Acacia mearnsii</i>	2002	V	<i>Exocarpos cupressiformis</i>	2002
	<i>Acacia paradoxa</i>	2002		<i>Gahnia radula</i>	2002
	<i>Acrotriche serrulata</i>	2002		<i>Gonocarpus tetragynus</i>	2002
	<i>Arthropodium strictum</i>	2002	V	<i>Hardenbergia violacea</i>	2002
	<i>Austrostipa pubinodis</i>	2002	E	<i>Hibbertia riparia</i>	2002
	<i>Austrostipa rudis</i> subsp. <i>rudis</i>	2002	V	<i>Hovea heterophylla</i>	2002
	<i>Billardiera mutabilis</i>	2002	E	<i>Hypericum gramineum</i>	1992
	<i>Bossiaea prostrata</i>	2002		<i>Lachnagrostis filiformis</i>	2002
	<i>Bursaria spinosa</i>	2002		<i>Lepidosperma gunnii</i>	2002
	<i>Carex breviculmis</i>	1992		<i>Leptospermum continentale</i>	2002
	<i>Cassinia arcuata</i>	2002	E	<i>Linum marginale</i>	1992
V	<i>Coprosma quadrifida</i>	2002		<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	2002
E	<i>Daviesia latifolia</i>	2002		<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	2002
	<i>Deyeuxia quadriseta</i>	2002		<i>Lomandra longifolia</i>	2002
	<i>Dianella admixta</i>	2002	V	<i>Luzula meridionalis</i>	1992
	<i>Dichelachne rara</i>	1992		<i>Microlaena stipoides</i>	2002
V	<i>Dillwynia cinerascens</i>	2002		<i>Microtis parviflora</i>	1992
V	<i>Drosera peltata</i> subsp. <i>auriculata</i>	1992	V	<i>Opercularia varia</i>	1992
	<i>Elymus scaber</i>	2002		<i>Oxalis exilis/perennans</i>	1992
V	<i>Epacris impressa</i>	1992	V	<i>Pimelea humilis</i>	2002
	<i>Eragrostis brownii</i>	2002		<i>Poa morrisii</i>	2002
V	<i>Eucalyptus cephalocarpa</i>	2002		<i>Poranthera microphylla</i>	1992
	<i>Eucalyptus goniocalyx</i>	2002		<i>Pteridium esculentum</i>	2002
E	<i>Eucalyptus macrorhyncha</i>	2002		<i>Rytidosperma linkii</i> var. <i>fulvum</i>	2002
V	<i>Eucalyptus melliodora</i>	2002		<i>Rytidosperma pallidum</i>	2002
V	<i>Eucalyptus obliqua</i>	2002		<i>Rytidosperma penicillatum</i>	2002
E	<i>Eucalyptus radiata</i>	2002		<i>Rytidosperma racemosum</i>	2002

Risk	Indigenous Species	Year	Risk	Indigenous Species	Year
	<i>Rytidosperma setaceum</i>	2002	V	<i>Thelymitra peniculata</i>	2002
	<i>Rytidosperma tenuius</i>	2002		<i>Themeda triandra</i>	2002
	<i>Schoenus apogon</i>	2002	E	<i>Viola hederacea</i>	1992
V	<i>Solanum laciniatum</i>	2002			

Introduced Species

<i>Acacia baileyana</i>	<i>Dactylis glomerata</i>	<i>Pinus radiata</i>
<i>Acacia longifolia</i> subsp. <i>longifolia</i>	<i>Ehrharta erecta</i>	<i>Pittosporum undulatum</i>
<i>Agrostis capillaris</i>	<i>Grevillea</i> cultivar or hybrid	<i>Plantago lanceolata</i>
<i>Aira caryophyllea</i>	<i>Holcus lanatus</i>	<i>Romulea rosea</i>
<i>Anthoxanthum odoratum</i>	<i>Hypochoeris radicata</i>	<i>Rubus anglocandicans</i>
<i>Briza maxima</i>	<i>Linum trigynum</i>	<i>Trifolium repens</i>
<i>Briza minor</i>	<i>Medicago polymorpha</i>	<i>Ulex europaeus</i>
<i>Centaurium erythraea</i>	<i>Oxalis incarnata</i>	<i>Vulpia bromoides</i>
<i>Cotoneaster pannosus</i>	<i>Paspalum dilatatum</i>	

Notes concerning some of the locally threatened plant species

Acacia implexa (Lightwood). Significant for the large size of the population, by Knox standards.

Daviesia latifolia (Hop Bitter-pea). Well over a dozen individuals, a large population by Knox standards.

Eucalyptus macrorhyncha × *obliqua* (hybrid eucalypt). One multi-trunked tree; a botanical oddity.

Fauna habitat features

The grassy ground layer is probably supporting butterfly larvae. (Adult Common Brown butterflies were seen.)

There are a small number of large trees that may provide habitat for the more common species of possums and bats.

Significance ratings

The following is an assessment of the site's significance against the Department of Sustainability & Environment's standard criteria (Amos 2004).

Richness of Flora

49 indigenous species is a high tally in this highly urbanised area, even though many species are present in very small numbers. The total of six eucalypt species plus one hybrid is also rare in a site of this size. However, these types of attributes are not recognised by the standard criteria of Amos (2004).

Regionally Threatened Ecological Vegetation Class

Valley Heathy Forest is endangered. It follows from Appendix 3 of *Victoria's Native Vegetation Management - a Framework for Action* (NRE 2002a) that the site's native vegetation is necessarily of at least High conservation significance. This, in turn, gives the site **State** significance under criterion 3.2.3 of Amos (2004).

Rare or Threatened Flora

A few of the locally threatened plant species listed above have viable populations (e.g. *Austrostipa pubinodis*), thereby meeting criterion 3.1.5 for a site of **Local** significance.

Threats

- Loss or decline of plant species whose populations are so small that they are vulnerable to inbreeding, poor reproductive success or elimination by incidents such as cubby house construction or digging by dogs;
- Reduced visitation of the site by small insect-eating birds due to its isolation from other areas with indigenous understorey, possibly leading to a worsening of plant pests and diseases;
- Invasion by environmental weeds, particularly Panic Veldt-grass (*Ehrharta erecta*), Pale Wood-sorrel (*Oxalis incarnata*) and pines (all rated 'serious') as well as the potentially serious Cotoneasters, nonindigenous wattles and Gorse (*Ulex europaeus*).

Management issues

- The pines are a negative influence but very expensive to remove (and becoming increasingly so as they grow);
- Recent and ongoing removal of pines, nonindigenous wattles and Panic Veldt-grass should allow expansion and better development of the indigenous vegetation. Gorse and grass weeds (particularly Sweet Vernal-grass) should be monitored on the cutting embankment;
- Pale Wood-sorrel could be controlled by appropriate herbicide application in July-August.

Administration matters

This site is suited to the proposed Schedule 1 to the Environmental Significance Overlay because of its biological significance documented above. It is recommended that this replace the existing coverage of part of the site by Schedule 1 of the Vegetation Protection Overlay.

Information sources used in this assessment

- A site survey undertaken during this study by Dr Lorimer on 19/3/02, following this study's standard procedures discussed in Section 2.4 of Volume 1. This included vegetation mapping, a description of the composition and condition of the vegetation, compilation of four lists of indigenous and introduced plant species, incidental fauna observations, and checks for fauna habitat, ecological threats, management issues and populations of scarce or threatened plant species;
- Data from a 150 m² quadrat (numbers N0190600 in the Victorian Flora Information System), gathered by Mr Damien Cook on 6/12/92, as described by Mark Allaway and Associates in '*Indigenous Vegetation survey to Major Road Reserves – Phase 2 – A Management Strategy for Remnant Roadside Vegetation*' for City of Knox (1993).;
- Aerial photography from February 2001 and April 2003;
- Satellite imagery of the district;
- The Department of Sustainability & Environment's BioMaps of the area;
- Maps of geology and topography produced by agencies of the Victorian government.