

Site 62. Cathies Lane Reservation, Scoresby

A linear reserve that was once occupied by an extension of Cathies Lane. Centred on Melway ref. 72 E6.

Site Significance Level: *State*

- Contains some of the endangered Valley Heathy Forest and Swampy Woodland, in fair to poor ecological condition.



Aerial photograph taken February 2007

Boundaries

This site has been reduced in area from 9.18 ha to 1.9 ha due to construction of the EastLink road. The new boundary is shown in red on the aerial photograph above.

Land use & tenure: Linear Council park (formerly a road, since dug up) and tree reservation beside Ferntree Gully Rd.

Site description

Cathies Lane once ran along this reserve but has been closed and revegetated to provide a linear park along the interface between an industrial estate and a residential neighbourhood.

The site lies on the lower slopes of the valley of Blind Ck and Dandenong Ck. Elevations range between 53 m near Ferntree Gully Rd to approximately 70m at the northwest end. The slope of the terrain is mostly 5%.

The topsoil is nearly all shallow, poorly draining, light grey loam over clay subsoil, derived from decomposition of the underlying Lower Devonian sedimentary rocks of the Humevale formation. The exception is that there is a narrow band of alluvium along a drainage line that crosses the site close to Ferntree Gully Rd, at the southern end.

The endangered Ecological Vegetation Class, Valley Heathy Forest, occurs along most of the corridor. Swampy Woodland (a regionally endangered Ecological Vegetation Class) occurs on the alluvium as well as other locations where drainage is poor. In both cases, there is a fairly good cover of remnant trees and a fair cover of naturally occurring shrubs, with moderately large specimens of Yellow Box (*Eucalyptus melliodora*) and Sweet Bursaria (*Bursaria spinosa*). This explains why a good density and diversity of native birds was observed during the site surveys for this study. However, the native ground flora has been reduced to only a few scattered patches, in fair condition at best.

The remnant vegetation has been supplemented by revegetation, particularly towards Ferntree Gully Rd. This includes extensive planting of Golden Wattle (*Acacia pycnantha*) and Black Sheoak (*Allocasuarina littoralis*) approximately 15 years ago. The 'foot' of the site next to Ferntree Gully Rd contains a mature plantation of Australian native trees, providing greater security of food for native birds and insects at times when the remnant vegetation is least productive.

A highlight of the site prior to the construction of EastLink was the occurrence of the nationally rare Yarra Gum, *Eucalyptus yarraensis*. Supplement Volume H of the Environment Effects Statement for the Scoresby Transport Corridor (1998) concluded that there were seven clustered around the northwestern end of this site, but they have all been cleared during EastLink construction. The westernmost eucalypt in the site may be a hybrid containing Yarra Gum genes but appears to be predominantly Mealy Stringybark.

It is very unusual to find Yarra Gums extending so far from a floodplain or on a 5% slope, suggesting that the soil drains very poorly despite the slope.

Relationship to other land

Birds and insects are believed to fly between this site, Redcourt Reserve (Site 63) and Dandenong Valley Parklands (Site 58). It is not clear whether the recent construction of EastLink will disrupt such movements.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, regionally **Endangered):** Estimated to cover 1.1 ha, comprising 0.3 ha in fair ecological condition (rating C) and 0.8 ha in poor ecological condition (rating D).

Canopy trees: Dominated by *Eucalyptus cephalocarpa*, *E. radiata* and *E. melliodora*, with some *E. goniocalyx* and *E. macrorhyncha*.

Lower trees: *Exocarpos cupressiformis*, *Acacia mearnsii*, *A. melanoxylon* and few *Allocasuarina littoralis*.

Shrubs: Dominated by *Bursaria spinosa* and *Cassinia arcuata*.

Vines: None remain.

Ground flora: Mostly dominated by pasture species and grass weeds. The remaining indigenous ground flora includes *Rytidosperma racemosum*, *Austrostipa rudis*, *Dianella admixta*, *Lomandra filiformis* and *Microlaena stipoides*.

Swampy Woodland (EVC 937, regionally **Endangered):** Estimated to cover 0.15 ha (but uncertain due to intergradation with Valley Heathy Forest), all in poor ecological condition (rating D). 8 indigenous plant species found in 2008.

Dominant canopy trees: Dominated by *Eucalyptus ovata*. *E. cephalocarpa* is also present.

Dominant lower trees: *Acacia melanoxylon* and *Exocarpos cupressiformis*.

Shrubs: Only scattered indigenous shrubs remain, mainly *Bursaria spinosa*. *Melaleuca ericifolia* and *Solanum laciniatum* are also present.

Vines: None remain.

Ground flora: Mostly dominated by pasture species and grass weeds, but the indigenous species, *Microlaena stipoides* and *Phragmites australis* persist.

Plant species

In the following plant list, the column headed 'Risk' indicates the indigenous species' risk of extinction in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; and 'V'=Vulnerable.

Risk	Indigenous Species	Risk	Indigenous Species
V	<i>Acacia mearnsii</i>	E	<i>Eucalyptus radiata</i>
V	<i>Acacia melanoxylon</i>	E	<i>Eucalyptus viminalis</i> (planted?)
E	<i>Acacia pycnantha</i>	C	<i>Eucalyptus yarraensis</i> (felled 2005)
V	<i>Allocasuarina littoralis</i>	V	<i>Exocarpos cupressiformis</i>
C	<i>Amyema pendula</i>		<i>Lomandra filiformis</i> subsp. <i>coriacea</i>
	<i>Austrostipa rudis</i>		<i>Lomandra longifolia</i>
	<i>Bursaria spinosa</i>	E	<i>Melaleuca ericifolia</i>
	<i>Cassinia arcuata</i>		<i>Microlaena stipoides</i>
	<i>Dianella admixta</i>	E	<i>Phragmites australis</i>
V	<i>Eucalyptus cephalocarpa</i>		<i>Poa morrisii</i>
	<i>Eucalyptus goniocalyx</i>		<i>Pteridium esculentum</i>
E	<i>Eucalyptus macrorhyncha</i>		<i>Rytidosperma racemosum</i>
V	<i>Eucalyptus melliodora</i>	V	<i>Solanum ?laciniatum</i>
V	<i>Eucalyptus ovata</i>		

Introduced Species

<i>Acacia elata</i>	<i>Fraxinus angustifolia</i>	<i>Phalaris aquatica</i>
<i>Agapanthus praecox</i>	<i>Fumaria</i> sp.	<i>Plantago lanceolata</i>
<i>Allium triquetrum</i>	<i>Galium aparine</i>	<i>Romulea rosea</i>
<i>Arctotheca calendula</i>	<i>Genista monspessulana</i>	<i>Rubus anglocandicans</i>
<i>Coprosma repens</i>	<i>Hedera helix</i>	<i>Stellaria media</i>
<i>Cotoneaster pannosus</i>	<i>Ligustrum lucidum</i>	<i>Tradescantia fluminensis</i>
<i>Cynodon dactylon</i>	<i>Oxalis articulata</i>	<i>Ulex europaeus</i>
<i>Dactylis glomerata</i>	<i>Oxalis pes-caprae</i>	<i>Watsonia meriana</i> var. <i>bulbillifera</i>
<i>Ehrharta erecta</i>	<i>Pennisetum clandestinum</i>	<i>Zantedeschia aethiopica</i>

Fauna of special significance

None detected.

Fauna habitat features

- The fair to good cover of indigenous trees and shrubs provides habitat for native birds, bats, possums or insects, including small forest birds such as thornbills and White-browed Scrubwrens. The prickliness of many of the shrubs helps protect birds from cats;
- Large Yellow Box trees (*Eucalyptus melliodora*) attract honeyeaters and lorikeets;

Significance ratings

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

Ecological Integrity & Viability

A good diversity and density of native birds were observed during the site surveys, and the site appeared to serve as a habitat corridor for their movements through the local area. This represents **Local** significance under criterion 1.2.6 of the standard criteria, provided that the construction of EastLink has not seriously disrupted fauna movements through the area.

Endangered Vegetation Types

Under the Department of Sustainability & Environment's criteria, this site contains a 'remnant patch' of two endangered EVCs (notwithstanding that some of the Valley Heathy Forest is too fragmented to be deemed a remnant patch). According to 'Victoria's Native Vegetation Management – A Framework for Action' (NRE 2002a), remnant patches of native vegetation belonging to an endangered EVC have a conservation significance rating of either High or Very High, depending on their ecological condition. In either case, any site containing a remnant patch of such vegetation is of **State** significance under criterion 3.2.3 of Amos (2004).

The author has misgivings about such a high rating for such a site, but these misgivings are overridden by the importance of consistency with the standard criteria.

Locally Threatened Plant Species

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

Threats

- Fragmentation of habitat caused by the EastLink road, possibly leading to reduced visitation by small insect-eating birds and hence a risk of worsening plant pests and diseases;
- Invasion by environmental weeds, of which the following species are rated 'Serious': Angled Onion (*Allium triquetrum*), Panic Veldt-grass (*Ehrharta erecta*), Montpellier Broom (*Genista monspessulana*), Wood-sorrels (*Oxalis* species), Kikuyu Grass (*Pennisetum clandestinum*) and Blackberry (*Rubus discolor*);
- Loss or decline of plant species whose populations are so small that they are vulnerable to inbreeding, poor reproductive success or misadventure;
- Rubbish dumping.

Management issues

- Revegetation has been successful in improving habitat connectivity and assisting natural regeneration, and this could be extended.

Administration matters

- This site is presently worthy of inclusion within the proposed Environmental Significance Overlay, ESO2, because of the matters considered under the heading, 'Significance ratings';
- Most of the site's native vegetation is included within the existing Vegetation Protection Overlay Schedule 1 of the Knox Planning Scheme, based on the description of Site 25 of the report by Water Ecoscience (1998).
- The Planning Scheme zoning is Public Park and Recreation Zone (PPRZ), except for the tree reservation on the verge of Ferntree Gully Rd.

Information sources used in this assessment

- Site surveys undertaken during this study by Mr Rik Brown on 20/5/02 (beside the constructed section of Cathies Lane) and 5/9/02 (between the dead end of Cathies Lane and Ferntree Gully Rd), using this study's standard procedures discussed in Section 2.4 of Volume 1. In each case, this included a description of the vegetation composition, compilation of a list of indigenous and introduced plant species, incidental fauna observations, and checks for fauna habitat, ecological threats and management issues;
- Re-inspections of the site by Dr Lorimer on 26th June 2003 and 5/6/08, to make sure that the information presented here would be current;
- A report, '*Assessment of Native Vegetation on the Mitcham to Frankston Freeway Alignment in Knox*', by Dr Lorimer in July 2003 for Knox City Council;
- The 1998 '*Scoresby Transport Corridor Environment Effects Statement*', particularly Supplement Volume H: Flora and Fauna by Williams L.M., Yugovic J.V., McGuckin J., Humphrey P. and Larwill S. (1998), in which part of this site is labelled as 'Site 6';
- Aerial photography from February 2001, April 2003 and February 2007;
- 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.