Site 87. Napoleon Rd Bushland, Ferntree Gully

Land at the rear of properties in Napoleon Rd. Melway ref. 73 J10.

Site Significance Level: *Local*

- Contains a remnant of a regionally endangered Ecological Vegetation Class (Swampy Woodland) in fair to poor ecological condition;
- Provides habitat for forest and woodland birds in an area otherwise substantially depleted of suitable habitat;
- Includes large old trees with hollows suitable for hollow-dependent native fauna.

Aerial photograph taken April 2003

Scale 1:2,000
10 0 20 40 60 80 100m

Boundaries

This site is outlined in red on the aerial photograph. The boundaries other than the northwestern one coincide with cadastral boundaries of 149 and 151 Napoleon Rd. The northwestern edge is drawn parallel to the southeastern boundary and 50 m from it. The site boundary does not fully follow cadastral boundaries in this case because it seems possible to develop the rest of the lots without unreasonably affecting the significant vegetation.

Land use & tenure: Private residential properties zoned R1Z – Residential 1.

Site description

This 0·29 ha site is located near the base of a northern spur of the Lysterfield Hills formed by metamorphic rock at the interface between the Lower Devonian sediments to the west and the Upper Devonian volcanics of the Dandenong Ranges to the east. The western edge of the metamorphic zone runs north-south through the site. The slope is very shallow, facing southwest, with a shallow drainage line through it. The elevation is 84-86 m.

The site supports a good cover of remnant trees, including a number of moderately large specimens containing natural hollows. Indigenous understorey vegetation has been degraded through past clearing and other disturbances (likely grazing and mowing), although patches of remnant and regenerating shrubs and ground flora species persist in some locations.

Relationship to other land

The site is rather isolated from other areas of remnant vegetation. Indigenous vegetation is generally depleted within the surrounding residential areas which have relatively recently been established, except for a few remnant trees within properties on the northern and western sides. The nearest areas with more than just scattered trees are 800 m north and northeast on Monbulk Ck (Site 66) and 900 m southwest to the Kelletts Rd roadside corridor (Site 95). This site is now too small to serve as much of a 'stepping-stone' for movements of fauna between larger areas of habitat.

Bioregion: Gippsland Plain

Habitat type

Swampy Woodland (EVC 937, **regionally Endangered**): Total area 0·24 ha, of which approximately 0·01 ha is in fair condition (rating C) and 0·23 ha is in poor condition (rating D).

Canopy trees: Dominated by *Eucalyptus ovata*, with some *E. cephalocarpa* and *E. radiata*. There is a good cover of older remnant trees up to 25 m tall (mainly 80-100 years old). No regeneration is apparent.

Lower trees: Scattered specimens of *Acacia melanoxylon*, with some *Exocarpos cupressiformis* and *Melaleuca ericifolia*.

Shrubs: Shrub layer vegetation has previously been extensively cleared. Some *Ozothamnus ferrugineus* and a few other indigenous shrubs have regenerated. Otherwise dominated by woody weeds, particularly Sweet Pittosporum.

Vines and ferns: Absent.

Ground flora: Patches of indigenous sedges and grasses persist in the least disturbed areas, including *Gahnia radula* and *Microlaena stipoides*.

Plant species

The following plant species were observed by Mr Rik Brown on 3rd June 2002. Additional species would no doubt 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
V	*Acacia melanoxylon*
V	*Coprosma quadrifida*
V	*Dianella longifolia* s.l.
	Eucalyptus goniocalyx
V	*Eucalyptus ovata*
E	*Eucalyptus radiata*
V	*Exocarpos cupressiformis*

Risk	Indigenous Species
	Gahnia radula
	Lomandra longifolia
E	*Melaleuca ericifolia*
	Microlaena stipoides
E	*Ozothamnus ferrugineus*
	Rytidosperma penicillatum

Introduced Species		
Acacia longifolia subsp. *longifolia*	*Crataegus monogyna*	*Lonicera japonica*
Asparagus asparagoides	*Dactylis glomerata*	*Paspalum dilatatum*
Cirsium vulgare	*Foeniculum vulgare*	*Pittosporum undulatum*
Cotoneaster glaucophyllus	*Hedera helix*	*Rubus anglocandicans*

Fauna of special significance

The least common fauna that was observed during the site inspection was a Yellow-tailed Black-cockatoo. The site provides very little habitat for this species, which is historically uncommon in the area but becoming much more frequent in recent years.

Fauna habitat features

The good cover of remnant trees within the site provides a habitat refuge for forest and woodland birds in an area otherwise substantially depleted of suitable habitat. The larger Swamp Gums occurring within the site contain natural hollows

suitable as shelter and breeding locations for possums, bats and birds. Nesting activity by Sulphur-crested Cockatoos was observed during the site inspection. Stick nests were also apparent in some trees, potentially utilised by raptors or ravens.

Significance ratings

Regionally Endangered Ecological Vegetation Class

Swampy Woodland is regionally 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. Criterion 3.2.3 of Amos (2004) assigns State significance to any site with a remnant patch of such vegetation.

The native vegetation at the Napoleon Rd site meets the Department of Sustainability & Environment's current definition of a remnant patch, but at the time Amos (2004) prepared the significance criteria, the unpublished convention was that native vegetation only qualified as a remnant patch if it occupied at least 2,500 m². Because this threshold is not met in the current instance, and because there is so little understorey, the author has reduced the significance level of the site to **Local**.

Locally Threatened Plant Species

Some of the locally threatened plant species listed appear to have viable populations (except for the risk that the site may be cleared for residential development), thereby meeting criterion 3.1.5 for a site of **Local** significance.

Threats

- Loss of remnant vegetation associated with potential residential development, including mowing;
- Invasion by environmental weeds:
  - Serious: Cocksfoot (*Dactylis glomerata*), Sweet Pittosporum (*Pittosporum undulatum*);
  - Moderate: Bridal Creeper (*Asparagus asparagoides*), Fennel (*Foeniculum vulgare*), Japanese Honeysuckle (*Lonicera japonica*), Paspalum (*Paspalum dilatatum*), Blackberry (*Rubus discolor*);
- Dieback of remnant trees associated with altered drainage, likely to be exacerbated by excavation works and the establishment of buildings and hard surfaces;
- 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.
- Loss or decline of plant species whose populations are so small that they are vulnerable to inbreeding, poor reproductive success or elimination by random incidents such as digging by dogs;

Management issues

- The remnant vegetation could be restored to good ecological condition with appropriate expertise and very modest effort, but the usual outcome on residential lots is deterioration due to lack of understanding or commitment;
- The main priority for management is removal of the weeds listed under the heading 'Threats'.

Administration matters

- This site is suited to the proposed Environmental Significance Overlay (ESO2) because of the presence of an endangered EVC;
- This site corresponds to Site 36 of Water Ecoscience (1998), but is much smaller in extent due to clearing of native vegetation since 1998;
- The whole of Water Ecoscience's site is presently covered by Vegetation Protection Overlay 1.

Information sources used in this assessment

- A site survey undertaken during this study by Rik Brown on 3rd June 2002, following this study's standard procedures discussed in Section 2.4 of Volume 1. This included a description of the composition and condition of the vegetation, compilation of 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;
- Viewing of the site by Dr Lorimer from Napoleon Rd during the period in which the Rathgar Rd properties were being cleared, and again on 10/3/08;
- 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 (although this site is not on the map of extant EVCs);
- Maps of geology and topography produced by agencies of the Victorian government.