

## Site 38. Clyde Reserve, Ferntree Gully

A small Council reserve extending between Clyde St and Hayward Rd. Melway ref. 73 F2-G2.

### Site Significance Level: *State*

- Contains remnants of a regionally endangered Ecological Vegetation Class (Valley Heathy Forest) in fair to poor ecological condition due to previous clearing and mowing, but with good potential for rehabilitation;
- Provides good habitat for forest birds in conjunction with adjoining residential areas, including substantial populations of lorikeets;
- Forms a component of a fragmented habitat link between Blind Creek and the Ferny Creek - Monbulk Creek valley.



### Boundaries

The site comprises the two lots that make up Clyde Reserve, as outlined in red above. The dashed line separates the two lots. The total area is 3,370 m<sup>2</sup>. Note that the aerial photograph was taken from well to the north, so tree tops and roofs are displaced to the south of their actual locations relative to the map.

**Land use & tenure:** Council reserve without facilities, zoned 'Public Park and Recreation Zone'.

### Site description

As shown on the aerial photograph, this small reserve is at the interface between commercial premises fronting Burwood Hwy and a residential neighbourhood to the south. It provides pedestrian passage between Clyde St, the bend in Hayward Rd and the northern end of Ferguson Ct.

The land is almost flat land and the elevation is 90 m. The slope is less than 3% for a radius of 1 km around the site. The soil is shallow, poorly draining, light grey loam over clay subsoil, derived from decomposition of the underlying Lower Devonian sedimentary rocks of the Humevale formation.

An intact cover of remnant trees extends throughout most of the reserve. Understorey vegetation is scarce due to past clearing and ongoing mowing activities, but some patches of indigenous ground flora persist. This includes a fair cover of indigenous grasses and some ground layer species that are characteristic species of the endangered Valley Heathy Forest, such as Pale Flax-lily (*Dianella longifolia*), Spreading Flax-lily (*Dianella admixta*) and a colony of approximately fifty Nodding Greenhood orchids (*Pterostylis nutans*). The highest quality ground layer vegetation occurs on the northern side of the reserve. Mowing activities appear to have been relatively recently discontinued in areas supporting remnant ground flora.

### Relationship to other land

The reserve is at the northern edge of a residential neighbourhood whose properties and nature strips contain scattered remnant trees and trees from other parts of Australia. This neighbourhood is Site 105 (p. 520), which is recommended to be covered by a Vegetation Protection Overlay. Any native birds, insects, possums or other fauna that may use the reserve's habitat would also need additional habitat in Site 105 or further afield.

Native vegetation is very scarce in commercial premises along Burwood Hwy north of the reserve.

The site forms a component of a fragmented habitat link between Blind Creek and Ferny Creek - Monbulk Creek valley.

**Bioregion:** Gippsland Plain

### Habitat type

Valley Heathy Forest (EVC 127, **regionally Endangered**): Estimated to occupy 0.3 ha, comprising 30% (0.09 ha<sup>2</sup>) in ecological condition C (fair) and 70% (0.21 ha) in ecological condition D (poor).

Canopy trees: Dominated by *Eucalyptus cephalocarpa* and *E. radiata*, with some *E. goniocalyx*. A good cover of remnant trees up to 20 m tall (mainly 50-80 years old).

Lower trees: A few scattered specimens of *Exocarpos cupressiformis* and *Acacia melanoxylon*.

Shrubs: Absent because of previous clearing.

Vines and ferns: *Billardiera mutabilis*, scarce.

Ground flora: A fair cover of indigenous grasses has recovered in unmown areas, including *Rytidosperma* spp., *Rytidosperma pallidum* and *Microlaena stipoides*. Other ground layer plants are mainly restricted to around the base of remnant trees, including some *Dianella longifolia* and *D. admixta*. There is a sizeable colony of *Pterostylis nutans*.

### Plant species

The following indigenous plant species were observed by Mr Rik Brown on 8th May 2002. The column headed 'Risk' indicates the indigenous species' risk of extinction in Knox with 'E'=Endangered and 'V'=Vulnerable. Additional species would no doubt be detectable in other seasons.

| <u>Risk</u> | <u>Indigenous Species</u>       | <u>Risk</u> | <u>Indigenous Species</u>                         |
|-------------|---------------------------------|-------------|---|
| V           | <i>Acacia melanoxylon</i>       |             | <i>Gahnia radula</i>                              |
|             | <i>Billardiera mutabilis</i>    | V           | <i>Helichrysum scorpioides</i>                    |
|             | <i>Dianella admixta</i>         |             | <i>Lomandra filiformis</i> subsp. <i>coriacea</i> |
| V           | <i>Dianella longifolia</i> s.l. |             | <i>Microlaena stipoides</i>                       |
| V           | <i>Eucalyptus cephalocarpa</i>  |             | <i>Pterostylis nutans</i>                         |
|             | <i>Eucalyptus goniocalyx</i>    |             | <i>Rytidosperma pallidum</i>                      |
| E           | <i>Eucalyptus radiata</i>       |             | <i>Rytidosperma penicillatum</i>                  |
| V           | <i>Exocarpos cupressiformis</i> |             | <i>Rytidosperma</i> sp.                           |

### Fauna of special significance

None recorded during field surveys.

### Fauna habitat features

The relatively intact cover of remnant trees provides good habitat for forest birds in conjunction with remnant trees scattered within the adjoining residential neighbourhood. Substantial populations of Musk and Rainbow Lorikeets were apparent during field surveys.

### Significance ratings

#### *Regionally Endangered Ecological Vegetation Class*

Under the Department of Sustainability & Environment's criteria, this site contains a 'remnant patch' of an endangered EVC. 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 the Department of Sustainability & Environment's standard criteria (Amos 2004 – criterion 3.2.3).

The author has misgivings about such a high rating when the ecological condition of the vegetation is so poor, 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 (in combination with surrounding vegetation), thereby meeting criterion 3.1.5 for a site of **Local** significance.

### Threats

- Lack of recruitment of indigenous vegetation because of mowing;
- Invasion by environmental weeds, particularly *Paspalum (Paspalum dilatatum)*;
- 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.

**Management issues**

- Incorporate remnant trees within indigenous revegetation areas to provide ongoing protection and opportunities for regeneration;
- Continue to reduce mowing of areas supporting remnant ground layer vegetation, which appears to have been successful in facilitating natural regeneration of indigenous flora. Prospects for rehabilitation of these areas are good;
- Control exotic grasses and herbs, particularly *Paspalum* in poorly drained areas.

**Administration matters**

- This site is suited to inclusion under the proposed ESO2 overlay because it contains a viable (if degraded) remnant of an endangered EVC;
- The site is presently covered by Vegetation Protection Overlay 1. This is partly because of the study by Water Ecoscience (1998), in which this is Site 292 (but which the authors apparently did not inspect).

**Information sources used in this assessment**

- A site survey undertaken during this study by Rik Brown on 8/5/02, 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;
- 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.