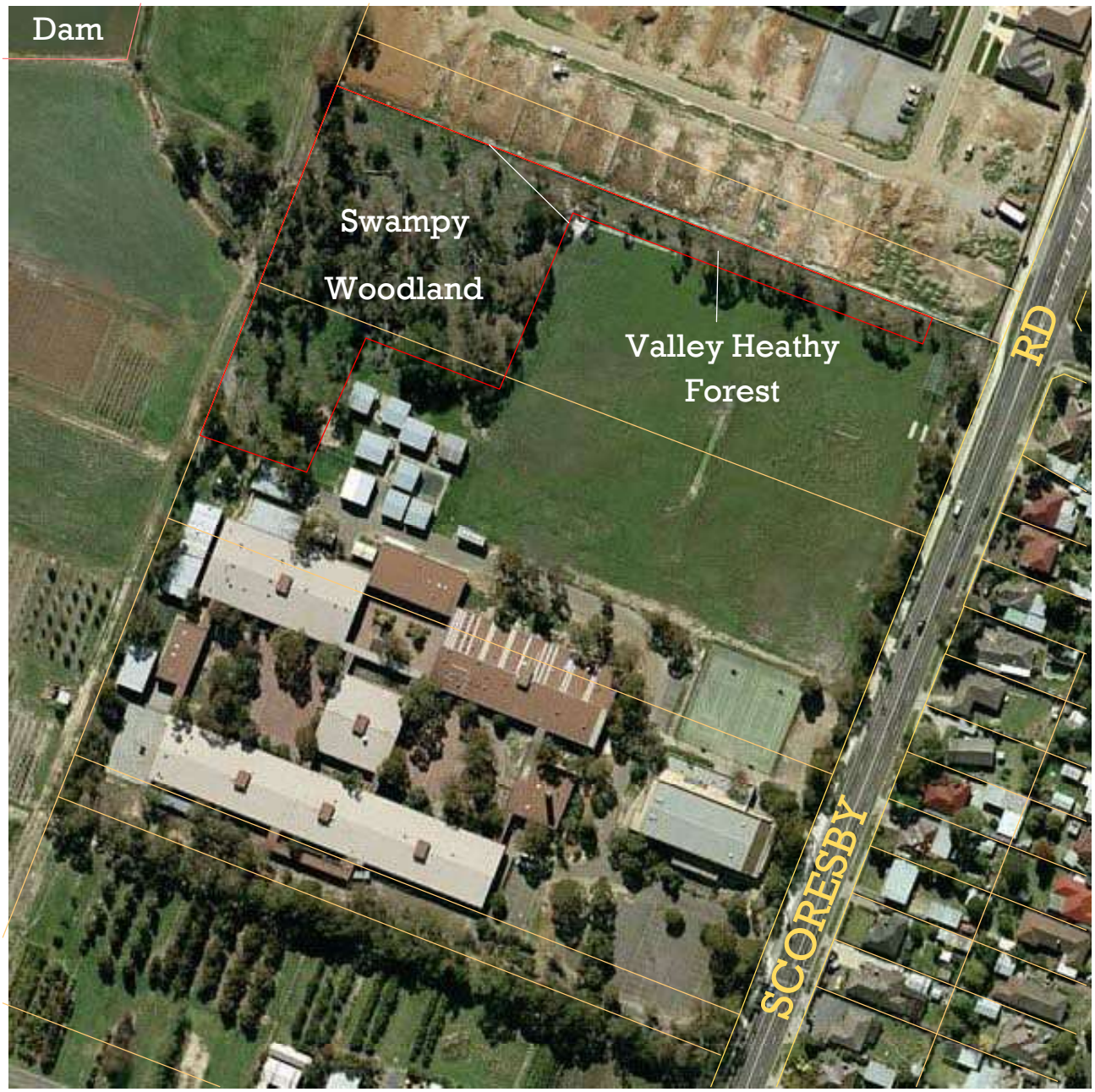
Site 109. Fairhills High School, Knoxfield

Part of the grounds of a high school with remnant tree cover. Melway ref. 64 D12.

Site Significance Level: *Below the Rating Threshold*

- Contains remnant eucalypts, wattles and mat-rushes that represent basic habitat for native birds, bats, possums, frogs and insects.



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

Aerial photograph taken April 2003.

Boundaries

The site is the part of the school grounds that is outlined in red above. The area is 0·97 ha.

Land use & tenure: High school grounds.

Document Revision 2.0, 28 June 2010

Site description

The treed, northwestern corner of the school grounds is on a drainage line and is prone to waterlogging. It would once have supported the regionally endangered Swampy Woodland, as evidenced by the dominance of Swamp Gums (*Eucalyptus ovata*) and the presence of Swamp Paperbark (*Melaleuca ericifolia*). One of the Swamp Gums is very large and represents good habitat for a variety of native birds, possums, bats and insects. The remaining trees in this area are reproductively mature and represent reasonable habitat for native birds and insects, but they are not large, with trunk diameters less than about 30 cm. The shrub layer is very sparse due to past clearing, and the Swamp Paperbarks are the only indigenous species left. There are substantial numbers of Spiny-headed Mat-rush (*Lomandra longifolia*), but the only other ground flora are mown grass, weeds and amenity plantings.

The line of trees to the north of the playing field are vestiges of the endangered Valley Heathy Forest. As in the Swampy Woodland, the trees represent reasonable habitat, but the shrub layer has been decimated to a single species (Hedge Wattle, *Acacia paradoxa*). There are also hardy native grasses beneath the trees.

Relationship to other land

The school is less than seventy metres southeast from the large dam at the Knoxfield Institute for Horticultural Development, which is part of the Blind Ck habitat corridor (Site 33). The forest habitat along the corridor is 100m further away. Some birds and bats no doubt cross this distance to make use of the school's forest, but the school could not be regarded as an ecological 'stepping-stone' or link in a corridor.

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, **regionally Endangered**). 9 indigenous plant species were found.

Dominant canopy trees: *Eucalyptus cephalocarpa* and *Eucalyptus radiata*.

Dominant lower trees: *Acacia mearnsii*.

Shrubs: *Acacia paradoxa*.

Vines: None.

Ferns: None.

Ground flora: *Rytidosperma racemosum* and *Microlaena stipoides* are fairly abundant in the mown lawn. There are also small numbers of *Themeda triandra*.

Swampy Woodland (EVC 937, **regionally Endangered**). 8 indigenous plant species were found.

Dominant canopy trees: *Eucalyptus ovata*, *E. cephalocarpa* and *E. radiata*.

Dominant lower trees: *Acacia melanoxylon* and *Acacia mearnsii*.

Shrubs: Decimated by past clearing, now reduced to a few *Melaleuca ericifolia*.

Vines: None.

Ferns: None.

Ground flora and small shrubs: The only remaining indigenous ground flora is a substantial number of *Lomandra longifolia*.

Plant species

The following plant species were observed by the author. The column headed 'Risk' indicates the indigenous species' risk of extinction in Knox with 'E'=Endangered and 'V'=Vulnerable.

Risk	Indigenous Species
V	*Acacia mearnsii*
V	*Acacia melanoxylon*
	Acacia paradoxa
	Bursaria spinosa
	Einadia nutans (a recent immigrant to Knox)
V	*Eucalyptus cephalocarpa*
E	*Eucalyptus macrorhyncha*
V	*Eucalyptus melliodora*
V	*Eucalyptus ovata*
E	*Eucalyptus radiata*
	Kunzea ericoides spp. agg. (possibly planted)
	Lomandra longifolia
E	*Melaleuca ericifolia*
	Microlaena stipoides
	Rytidosperma penicillatum
	Rytidosperma racemosum
	Rytidosperma setaceum
	Themeda triandra
V	*Allocasuarina littoralis*
V	*Dianella longifolia* s.l.
E	*Eucalyptus viminalis* subsp. *viminalis*

Introduced Species		
Agrostis capillaris	*Fraxinus angustifolia*	*Plantago lanceolata*
Anthoxanthum odoratum	*Genista monspessulana*	*Prunus cerasifera*
Arctotheca calendula	*Grevillea rosmarinifolia* hybrid	*Rubus anglocandicans*
Bromus catharticus	*Hakea salicifolia*	*Tradescantia fluminensis*
Cynodon dactylon	*Hedera helix*	*Ulex europaeus*
Dactylis glomerata	*Hypochoeris radicata*	*Vulpia bromoides*
Ehrharta erecta	*Paspalum dilatatum*	

Flora and fauna of special significance

None detected, but if there are any significant fauna species, they would probably have escaped detection due to the brevity of the author's time at the school (20 minutes).

Fauna habitat features

- The remnant trees, combined with mature planted trees, represent basic habitat for native forest birds, bats, possums, frogs and insects. The particularly large Swamp Gum has hollows that are likely to be inhabited by birds or bats;
- The abundance of Spiny-headed Mat-rushes (*Lomandra longifolia*) represent good habitat for certain species of skipper butterfly whose caterpillars rely on that species for food.

Significance rating

Threatened Ecological Vegetation Classes

Both of the original Ecological Vegetation Classes on the site are now endangered. However, they have been reduced to such skeletal form in the school grounds that the vestiges do not qualify as 'remnant patches' of those EVCs under the Department of Sustainability & Environment's significance criterion 3.2.3 (Amos 2004).

Locally Threatened Plant Species

Some of the site's locally threatened species of eucalypt and wattle have viable populations, thereby meeting criterion 3.1.5 of Amos (2004) for a site of **Local** significance.

Threats

- Lack of recruitment of indigenous vegetation because of mowing and trampling, although the vegetation appears to be in a stable state under the current use of the school grounds;
- Potential future need for more school buildings, which might involve removal of native vegetation.

Management issues

Planting indigenous shrubs could enhance the site's habitat value. If properly positioned, these shrubs need not interfere with mowing.

Administration matters

- The site is large enough for the native vegetation to receive some protection by Clause 52.17 of the Knox Planning Scheme. However, that clause exempts vegetation removal for construction of buildings, which appears to be the most serious threat to the native vegetation in the school grounds. For this reason, effective protection of the vegetation requires use of an overlay to the planning scheme, and the proposed schedule to the Vegetation Protection Overlay (Volume 1, Section 5.5) would be appropriate;
- The area labelled on the aerial photograph as Swampy Woodland is covered by the existing Schedule 1 to the Vegetation Protection Overlay of the Knox Planning Scheme. This resulted from the description of the area by Water Ecoscience (1998) as their Site 51. It is recommended that the existing Schedule 1 be removed and that this site be covered instead by the schedule proposed in Volume 1 of this report.

Information sources used in this assessment

- A botanical survey by Dr Lorimer for 20 minutes on 12th April 2004, following the standard procedures described in Section 2.4 of Volume 1, 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;
- Aerial photography from February 2001, April 2003 and February 2007.