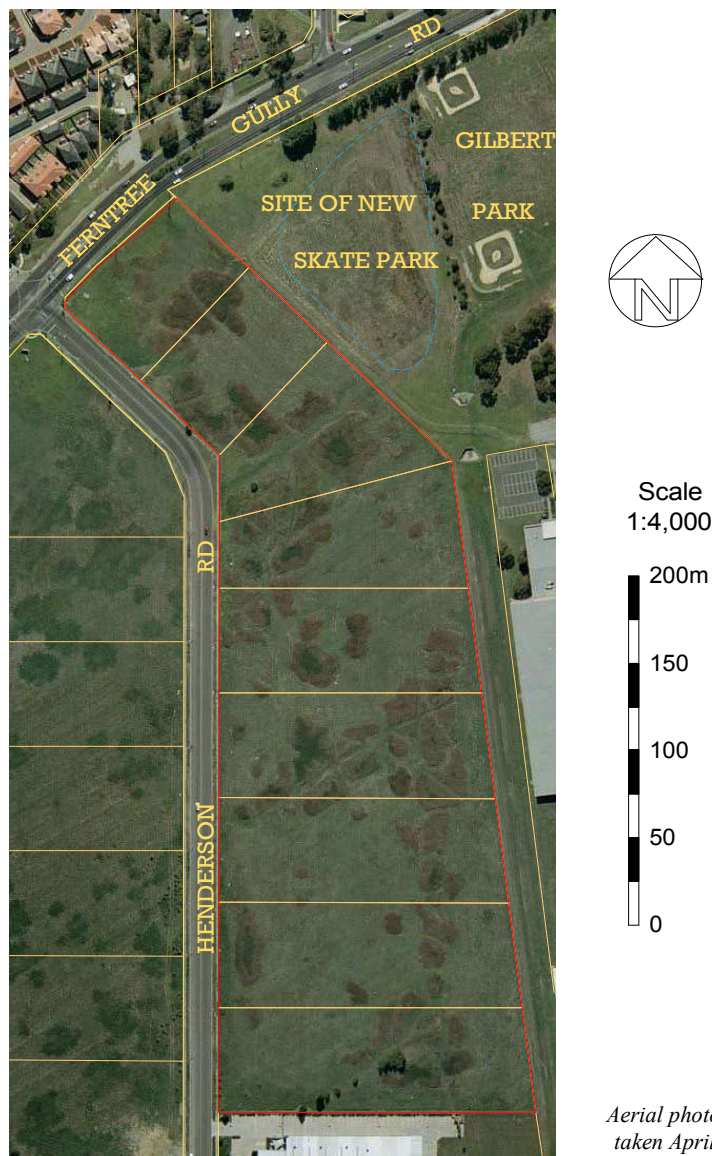


Site 67. Henderson Road Wetlands, Knoxfield

Vacant, cleared land that was formerly swamp, now with naturally regenerated wetlands. Melway ref 73 B7.

Site Significance Level: *Regional*

- Includes a substantial population of the plant, *Senecio campylocarpus*, which is rare throughout Victoria;
- Approximately 2.7 ha of wetlands were present in 2002, but drought has converted the wetlands into depressions within pasture and it is questionable whether recovery is possible. Wetland is a regionally endangered vegetation type;
- Uncommon birds used the wetlands when they were marshy;
- The site is zoned for industrial development.



*Aerial photograph
taken April 2003*

Boundaries

The site boundary is shown in red above and follows property boundaries. The aerial photograph is from 2003 and does not show the skate park constructed in 2007-8.

Land use & tenure: Vacant private land zoned for industrial development.

Site description

This 7.4 ha site is on the floodplain of Corhanwarrabul Ck at an elevation of 62 m, at the edge of what would have been a large swamp of more than 400 ha prior to settlement. The swamp contracted to scattered wetlands when the area was settled and numerous drains were dug to create farmland. A patchwork of these depressions remains on this site and were functional wetlands when surveyed for the first edition of this report. Since then, several years of drought have converted the wetlands into weedy depressions, and it is questionable whether the future climate will allow the wetlands to recover. However, a rare species (*Senecio campylocarpus*) persists in substantial numbers.

The largest wetland area in 2004 was on the site of the new skate park, marked on the aerial photograph by a blue, dashed outline. Smaller depressions, previously dominated by Common Reed (*Phragmites australis*), Fen Sedge (*Carex gaudichaudiana*) and Blackberry (*Rubus discolor*), occur on the vacant industrial lots fronting Henderson Rd, distinguished on the aerial photograph by the brownish patches sometimes with green centres. There are still some patches of Common Reed but when last checked in January 2009, Fen Sedge had died back so much that it could not be found.

Relationship to other land

This site is a component of the Corhanwarrabul Creek catchment's habitat corridor. However, factories have been built between the site and the rest of the corridor in recent years, thereby weakening the connection.

Bioregion: Gippsland Plain

Habitat types

Floodplain Wetland Complex (EVC 172, **regionally Endangered**).

Within the site: Estimated as 1.8 ha in numerous patches, all in poor ecological condition (rating D). 5 indigenous plant species were found in late 2008 or January 2009.

Trees, shrubs, vines and ferns: Almost absent. Confined to a few young *Acacia melanoxylon*.

Aquatic and semi-aquatic flora: Dominated by pasture species, *Phragmites australis*, *Carex gaudichaudiana* and *Rubus discolor*. There were over 100 plants of *Senecio campylocarpus* in 2008-9.

In the adjacent Skate Park (prior to construction): Estimated as 0.85 ha in area, all in fair ecological condition (rating C). 8 identified indigenous plant species plus an unknown number of unidentified indigenous *Juncus* species.

Trees, shrubs, vines and ferns: Absent.

Aquatic and semi-aquatic flora: Dominated variously by *Typha orientalis*, species of *Juncus* and *Persicaria*, and (seasonally) *Epilobium hirtigerum*.

Plant species

The following plant species were observed by the author, most recently in January 2009. The column headed 'Risk' indicates the indigenous species' risk of extinction in Knox with 'E'=Endangered and 'V'=Vulnerable. In addition, *Senecio campylocarpus* is rare in Victoria and *Carex gaudichaudiana* is rare in the Melbourne region.

Risk	Indigenous Species	Risk	Indigenous Species
V	<i>Acacia melanoxylon</i>		<i>Persicaria decipiens</i>
E	<i>Carex ?gaudichaudiana</i>	E	<i>Phragmites australis</i>
	<i>Epilobium hirtigerum</i>	E	<i>Rubus parvifolius</i>
	<i>Juncus</i> sp.	E	<i>Senecio campylocarpus</i>
E	<i>Ozothamnus ferrugineus</i>	E	<i>Typha orientalis</i>
Introduced Species			
	<i>Cirsium vulgare</i>		<i>Paspalum dilatatum</i>
	<i>Fraxinus angustifolia</i>		<i>Pennisetum clandestinum</i>
	<i>Galium aparine</i>		<i>Phalaris aquatica</i>
	<i>Geranium molle</i>		<i>Plantago lanceolata</i>
	<i>Holcus lanatus</i>		<i>Prunus cerasifera</i>
			<i>Ranunculus repens</i>
			<i>Raphanus raphanistrum</i>
			<i>Rubus anglocandicans</i>
			<i>Rumex crispus</i>
			<i>Vinca major</i>

Notes concerning some of the locally threatened plant species

Carex gaudichaudiana (Fen Sedge). Fairly abundant in 2006 but substantially reduced in numbers and stressed by drought when inspected in March and June 2008 and January 2009.

Senecio campylocarpus. One of only three known sites in Knox and very few in the Melbourne region. Approximately 100 plants were found in June 2008 in an area burned the previous summer, as well as scattered individuals outside the burned area. Expected to come up in abundance whenever the soil is disturbed lightly, as by fire.

Fauna of special significance

Lower Risk (Near Threatened) in Victoria

Latham's Snipe. Recorded by Mr Darren Wallace in the 1990s.

Regionally Uncommon

Cattle Egret. The site appears to be a congregating point for this species, listed as 'Uncommon' in the Melbourne region by the LCC (1991).

Locally Uncommon

Golden-Headed Cisticola. A population of approximately 100 individuals was observed foraging in patches of Common Reed in 2002. Smaller numbers were found in late 2008 and January 2009.

Fauna habitat features

- When wet, extensive seasonal wetlands and floodplain areas provide foraging habitat for waterbirds;
- Seasonal wetlands are likely to provide substantial habitat for frogs, snakes and invertebrates;
- Golden-Headed Cisticolas were observed in small numbers in 2008 after having been fairly abundant in 2002 on reeds and blackberry clumps that have since been decimated. Other small birds also used to use the reeds and blackberries for perching and foraging.

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 and Viability

The site is a component of the Corhanwarrabul Creek habitat corridor. The corridor is important at a Local scale. Criterion 1.2.6 takes this to confer **Local** significance to the site.

Endangered Vegetation Types

The wetland EVC is regionally Endangered. It follows from Appendix 3 of *Victoria's Native Vegetation Management - a Framework for Action* (NRE 2002a) and criterion 3.2.3 of Amos (2004) that any site containing a remnant patch of wetland is of State significance. As at January 2009, the previous few years of drought have reduced the cover of indigenous flora so much that it does not qualify as a 'remnant patch'. This may, or may not, be a temporary situation. It is therefore not possible to assign a significance rating by this criterion until the site's future hydrology is established.

Rare or Threatened Flora

Senecio campylocarpus is listed as a rare species in Victoria. It also occurs interstate. The population is quite substantial and it would have the capacity to become quite large in response to suitable disturbance. However its security is poor and it probably does not fit the description of an 'important site' in the terms of criterion 3.1.2 of Amos (2004). It follows from that criterion that the population of *Senecio campylocarpus* gives the site **Regional** significance.

There is an extensive area of the locally threatened *Phragmites australis*, thereby meeting criterion 3.1.5 for a site of **Local** significance.

Rare or Threatened Fauna

In its unown state, the site provided good habitat for Latham's Snipe until recent years. Latham's Snipe is listed as 'Lower Risk, Near Threatened' in Victoria. This would represent Local significance under criterion 3.1.2 if the wetlands become functional again.

Threats

- Drought and climate change;
- Loss of seasonal wetland habitat through future industrial development of private land along Henderson Road;
- Inappropriate slashing of wetland vegetation;
- Invasion by environmental weeds, of which the greatest threats are Paspalum (*Paspalum dilatatum*), Toowoomba Canary-grass (*Phalaris aquatica*), Creeping Buttercup (*Ranunculus repens*), Blackberry (*Rubus discolor*) and Kikuyu (*Pennisetum clandestinum*).

Administration matters

- This site is worthy of inclusion within the proposed Environmental Significance Overlay, ESO2, because of the potential for land development and the possibility that the wetlands may return to their former State significance;
- A northern part of the site is presently covered by Vegetation Protection Overlay Schedule 1 of the Knox Planning Scheme, based on recognition of that area by Water Ecoscience (1998) as their Site 74;

- The Planning Scheme zoning is Industrial 1 Zone (IN1Z).

Information sources used in this assessment

- A site survey on 24th May 2002 by Mr Rik Brown using this study's standard procedures discussed in Section 2.4 of Volume 1. Plant lists and vegetation descriptions were compiled separately for Gilbert Park and the adjacent private land. Other data gathered included incidental fauna observations and checks for fauna habitat, ecological threats and management issues;
- An inspection of by Dr Lorimer in May 2006 to check for ecological implications of the proposal for a skate park;
- Follow-up inspections by Dr Lorimer in March, June and December 2008 and January 2009 to check the impact of the newly constructed skate park and to see how the wetlands were coping with drought;
- Information, and particularly records of bird species from Mr Darren Wallace, listed by Water Ecoscience (1998) for their Site 74;
- 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.