

Site 51. Winton Wetlands, Wantirna

Publicly accessible wetland conservation park managed by Melbourne Water. Melway ref. 63 D3.

Site Significance Level: *State*

- Two regionally threatened vegetation types are represented: Floodplain Wetland Complex and Riparian Forest;
- Locally rare flora are present, and the rare waterbird, Latham's Snipe, has been observed there;
- Being on Dandenong Creek, the site is on a major corridor for daily and seasonal movements of birds and insects (particularly waterbirds, several species of which are threatened).



Aerial photograph taken February 2007



Scale

0 50 100 150 200m

Boundaries

This site is the elongated shape on the aerial photograph of the previous page, outlined in red and labelled 'Winton Wetlands'. The boundary follows a fence. The total area is 5.72 ha.

Land use & tenure: Fenced (but publicly accessible) wetland conservation area, managed by Melbourne Water.

Site description

This site lies on the floodplain of Dandenong Creek, at elevations of 74-77 m. The natural course of the creek meandered partly through this area until it was replaced by a straight channel in the 1960s. There is now a chain of wetland depressions whose origins appear to be partly natural and partly the result of excavation. The largest, most northerly wetland is a section of the original creek channel.

There are a small number of mature remnant trees and extensive plantings of trees and shrubs between the wetlands. There are also some large dead trees, whose hollows are used as birds' nests. As a result of a long history of grazing, naturally occurring shrubs are few, and most of the ground flora comprises introduced pasture species.

Relationship to other land

Being on Dandenong Creek, Winton Wetlands is an ecological stepping-stone on a major corridor for daily and seasonal movements of birds and insects (particularly waterbirds, several species of which are threatened). This is discussed further in the section of this report for the corridor (Site 26), which includes the strip between the creek and the northern boundary of the Manson Reserve site.

The native habitat along the stretch of creek corridor between Winton Wetlands and the eastern side of Wantirna Rd is greatly fragmented, being mostly reduced to scattered trees and young revegetation. The situation downstream is better, with a large area of unfragmented forest habitat south of Boronia Rd and a substantial area of less intact bushland at Campbell's Croft Reserve, just southwest of Winton Wetlands.

The recent construction of the EastLink road may alter the hydrology or water quality of the wetlands.

Bioregion: Gippsland Plain

Habitat types

Riparian Forest (EVC 18, **Vulnerable in the Gippsland Plain bioregion):** Estimated as 1.6 ha, comprising 0.3 ha in fair ecological condition (rating C) and 1.3 ha in poor ecological condition (rating D). 20 indigenous plant species were found by Mr John Reid in January to February 1997.

Dominant canopy trees: *Eucalyptus viminalis* with smaller numbers of *E. cephalocarpa*, *E. obliqua*, *E. radiata* and *E. ovata*.

Dominant lower trees: *Acacia dealbata*, *Acacia melanoxylon*, *Acacia mearnsii* and *Exocarpos cupressiformis*.

Shrubs: Only the very hardy shrub, *Kunzea ericoides*, remains of the natural shrub layer, due to a history of grazing.

Vines: There is a *Calystegia* that may be the indigenous *C. sepium* or (more likely) part of a hybrid complex between that species and the introduced *C. silvatica*.

Ferns: None found.

Ground flora: Principally introduced pasture species, but there are patches of the weedy indigenous *Phragmites australis* and a few plants of *Persicaria hydropiper* and *Persicaria lapathifolia*, as well as patches of the indigenous grasses, *Rytidosperma setaceum*, *Eragrostis brownii*, *Austrostipa rudis* and *Themeda triandra*.

Floodplain Wetland Complex (EVC 172, **regionally Endangered):** Estimated as 9,500 m², in good ecological condition (rating B). 29 indigenous plant species were found by Mr John Reid in January to February 1997.

Trees, shrubs, vines and ferns: None other than some overhanging branches of trees and shrubs.

Aquatic and semi-aquatic flora: Deeper water is dominated by *Eleocharis sphacelata* and *Triglochin procerum*, as well as small floating plants in season. The dominant indigenous species in other areas are variously *Alternanthera denticulata*, *Juncus* species or *Persicaria* species. *Alisma plantago-aquatica* is also abundant in places. *Carex appressa* and *Glyceria australis* are present, as is usual in this EVC.

Plant species

The following plant species were observed in 1997. The column headed 'Risk' indicates the indigenous species' risk of extinction in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; and 'V'=Vulnerable. Additional species would no doubt be detectable in other seasons. In addition, the species with names in bold are rare throughout the Melbourne region.

Risk	Indigenous Species	Risk	Indigenous Species
	<i>Acacia dealbata</i>		<i>Austrostipa rudis</i> subsp. <i>rudis</i>
V	<i>Acacia mearnsii</i>	E	<i>Azolla pinnata</i>
V	<i>Acacia melanoxylon</i>		<i>Bursaria spinosa</i>
	<i>Alisma plantago-aquatica</i>	C	<i>Calystegia ?sepium</i>
V	<i>Alternanthera denticulata</i>		<i>Carex appressa</i>
C	<i>Amyema pendula</i>	E	<i>Centella cordifolia</i>

Risk	Indigenous Species	Risk	Indigenous Species
C	<i>Centipeda elatinoidea</i>		<i>Juncus sarophorus</i>
E	<i>Crassula helmsii</i>		<i>Kunzea ericoides</i> spp. agg.
V	<i>Eleocharis acuta</i>		<i>Lachnagrostis filiformis</i>
	<i>Eleocharis sphacelata</i>	C	<i>Landoltia punctata</i>
	<i>Epilobium hirtigerum</i>	V	<i>Lythrum hyssopifolia</i>
	<i>Eragrostis brownii</i>		<i>Persicaria decipiens</i>
V	<i>Eucalyptus cephalocarpa</i>	E	<i>Persicaria hydropiper</i>
V	<i>Eucalyptus obliqua</i>	E	<i>Persicaria lapathifolia</i>
V	<i>Eucalyptus ovata</i>	E	<i>Persicaria praetermissa</i>
E	<i>Eucalyptus radiata</i>	E	<i>Phragmites australis</i>
E	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>		<i>Ranunculus</i> sp.
E	<i>Euchiton involucratus</i>		<i>Rytidosperma setaceum</i>
V	<i>Exocarpos cupressiformis</i>	C	<i>Spiranthes australis</i>
C	<i>Gratiola pubescens</i>		<i>Themeda triandra</i>
	<i>Juncus amabilis</i>	C	<i>Triglochin procera</i>
	<i>Juncus gregiflorus</i>	E	<i>Triglochin striata</i> (flat leaf variant)
C	<i>Juncus holoschoenus</i>	C	<i>Viminaria juncea</i>
E	<i>Juncus procerus</i>		
Introduced Species			
	<i>Acacia retinodes</i> s.l.		<i>Paspalum distichum</i>
	<i>Agrostis capillaris</i>		<i>Plantago lanceolata</i>
	<i>Anthoxanthum odoratum</i>		<i>Ranunculus repens</i>
	<i>Aster subulatus</i>		<i>Raphanus raphanistrum</i>
	<i>Bromus catharticus</i>		<i>Rumex crispus</i>
	<i>Calystegia ?silvatica</i>		<i>Salix × rubens</i>
	<i>Dactylis glomerata</i>		<i>Ulex europaeus</i>
	<i>Foeniculum vulgare</i>		
	<i>Helminthotheca echioides</i>		
	<i>Holcus lanatus</i>		
	<i>Hypochoeris radicata</i>		
	<i>Juncus articulatus</i>		
	<i>Myriophyllum aquaticum</i>		
	<i>Paspalum dilatatum</i>		

Fauna of special significance

Listed as 'Near Threatened' in Victoria

Latham's (or Japanese) Snipe. Observed by Mr John Reid on 30/6/96. Frequency of visitation unknown.

Uncommon in the Melbourne Area

Weasel Skink. Seen in c.1998, as reported in the Scoresby Transport Corridor Environment Effects Statement.

Rare or Threatened in Knox (but not all of Melbourne)

Yellow-Billed Spoonbill. Observed by Mr John Reid during a 1997 survey. Frequency of visitation unknown.

Fauna habitat features

- Some of the mature eucalypts have hollows suitable for nesting or roosting by native birds, bats, possums or insects;
- Some large Manna Gums (*Eucalyptus viminalis*) may provide nest sites for bird species that only breed in particularly tall trees;
- The juxtaposition of the tall trees (including dead ones) and the open pasture makes good habitat for smaller birds of prey such as Black-Shouldered Kites;
- The wetlands were observed to provide habitat for yabbies, frogs, insects and nesting waterbirds.

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

Criterion 1.1.1 attributes **Local** significance to 'All parts of riparian systems with riparian vegetation present', which applies to this site.

Criterion 1.2.6 accords **Local** significance to sites that fit the description, 'Important at local scale - Link between individual remnant habitat blocks or within subcatchment'. This applies to Winton Wetlands' role for waterbirds such as the Latham's Snipe observed there.

Threatened Vegetation Types

Floodplain Wetland Complex is listed as regionally Endangered. It follows from Appendix 3 of *Victoria's Native Vegetation Management - a Framework for Action* (NRE 2002a) that the wetland vegetation is necessarily of at least High conservation significance. This, in turn, gives the site **State** significance under criterion 3.2.3 of Amos (2004).

Similarly, the presence of a remnant patch of Riparian Forest (which is listed as regionally Vulnerable) in fair ecological condition represents Regional significance under criterion 3.2.3.

Rare or Threatened Flora

Some of the locally threatened plant species listed above have viable populations (in combination with ecologically connected habitat), thereby meeting criterion 3.1.5 for a site of **Local** significance.

Rare or Threatened Fauna

Criterion 3.1.2 confers at least Local significance on sites that provide habitat for species that are on the Department of Sustainability & Environment's advisory list of threatened fauna in Victoria, which includes Latham's Snipe. Winton Wetlands does provide habitat that appears suitable for Latham's Snipe, one of which has been recorded at the site, but without further observations, the significance level is only **Local**.

Threats

- Invasion by environmental weeds. The most serious in the wetlands are Water Couch (*Paspalum distichum*), Jointed Rush (*Juncus articulatus*) and Creeping Buttercup (*Ranunculus repens*). *Paspalum dilatatum* and *Cynodon dactylon* are serious around the fringes of the wetlands and into their surroundings. Gorse (*Ulex europaeus*) and Blackberry (*Rubus discolor*) could readily become very serious if not for periodic application of herbicide;
- Climate change and the effects of drought;
- Potential alteration of hydrology or water quality as a result of the recent construction of the EastLink road.

Management issues

- Any works that may affect an old eucalypt in the site should be mindful that there is at least one listed Aboriginal scar tree (whose location must remain confidential);
- Weed control is the highest ecological priority for management. Since Water Couch is very serious, it would be desirable to conduct a trial with a grass-specific herbicide that has been shown to have low aquatic toxicity. The WA Water and Rivers Commission has found Fusilade® to be suitable in such conditions (see their 'Water Notes' no. 22 of 2001, available from the www).

Administration matters

- It would be desirable to have an expert on insects investigate whether the wetlands support any rare invertebrates;
- This site is worthy of inclusion within the proposed Environmental Significance Overlay, ESO2, because of its State significance, the threatened EVCs, the significant plant species, the habitat for native fauna and the riparian location;
- The Planning Scheme zoning is Public Conservation and Resource Zone (PCRZ);
- The site is included under the existing Vegetation Protection Overlay Schedule 1 of the Knox Planning Scheme, as part of Site 82 of the report by Water Ecoscience (1998).

Information sources used in this assessment

- Site description and mapping in '*Vegetation Survey of Linear Reserves – A Management Strategy for Riparian and Floodplain Vegetation*' by Reid, Moss and Lorimer (1997), and the underlying field data. The field data included vegetation mapping, compilation of lists of indigenous and introduced plant species for three parts of the reserve, incidental fauna observations, and checks for fauna habitat, ecological threats, management issues and populations of scarce or threatened plant species;
- Brief, informal visits to the site by the author over seven years;
- 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);
- 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.