

Site 83. Lysterfield Valley

Residential and grazing land between Lysterfield Park and Lysterfield Rd, with patches of forest.

Summary of significant features:

- State significance: Long grass and rushes beside Corhanwarrabul Creek and farm dams provide habitat for Latham's Snipe, which is listed as Vulnerable under Commonwealth legislation;
- State or Regional significance: patches of the regionally-vulnerable EVCs, Grassy Forest, Valley Grassy Forest and Herb-rich Foothill Forest;
- Locally significant: viable populations of dozens of plant species threatened with dying out in Knox.

Note

Permission was not obtained to enter most of the properties within this site. Instead, these properties were inspected from public land, aided by aerial photographs. This may have caused some biologically significant attributes to be overlooked. The Precautionary Principle should be applied when considering protection of this site in the absence of full scientific certainty about its attributes.

Aerial photograph and plan: See page 532.

Boundaries

This 108-hectare site is in three parts, outlined in cyan and marked '83' on the aerial photograph on p. 532. Compared with the previous (2010) edition of this report, the boundary has been changed in the following ways: (a) Only small parts of Lot 2 Wellington Rd (2\PS319627) are retained in the site (matching the Environmental Significance Overlay applied to the property) as a result of a site inspection by the author in 2011; (b) some properties fronting Bergner Ct and Sherwood Way have been excised due to vegetation loss; and (c) part of the road reservation of Brae Rd is excised because it has negligible habitat value.

Land use & tenure: Private property, road reservations and a disused water supply reserve.

Site description

This site is at the head of the Corhanwarrabul Creek valley, with elevations ranging from approximately 87 m at Sherwood Way to just over 200 m near the dead end of Cornish Rd on the Lysterfield Hills ridge. The highest areas, on the southern and southwestern fringe, have steep slopes facing northeast. The gradient tapers rapidly toward Corhanwarrabul Ck, which has a shallow gradient toward the northwest. The creek does not flow perennially due to dams that intercept it. There is a timbered knoll within the site between the creek and Lysterfield Rd, reaching an elevation of just over 150 m.

The site has complex geology. It is at the intersection of the Lysterfield Granodiorite formation, the Kalorama Rhyodacite formation and an unnamed band of hornfels where Devonian sediments have been metamorphosed by the heat of the other two formations as they solidified from magma. There is also alluvium along the Corhanwarrabul Ck valley and two tributary gullies, and colluvial deposits where weathered hornfels has gravitated down hills. There is extensive outcropping of granodiorite rocks and boulders toward Lysterfield Park, with associated specialised flora, e.g. *Crassula sieberiana* s.l. and *Asplenium subglandulosum* (syn. *Pleurosorus rutifolius*).

The aerial photograph (p. 532) shows that the land use is mostly untreed or sparsely treed pasture, with some denser treed areas north of Wellington Rd. Every part of the site has been grazed for many decades. Part of the site, near Sherwood Way, is undergoing residential development, which has resulted in Corhanwarrabul Ck being replaced by an underground pipe downstream of a pit near Sherwood Way.

Grazing has destroyed most of the native understorey in the site but some indigenous plants persist, including two fern species (*Cheilanthes sieberi* and *Asplenium subglandulosum*) that had not been recorded at any site closer than the Yarra River prior to the fieldwork for this report's 2010 edition. Even the open pasture is of some environmental significance because it provides rudimentary habitat (e.g. for indigenous groundcover plants and

the vulnerable Latham's Snipe seen during the present study) and some of it forms the headwaters of Corhanwarrabul Ck.

A large part of the site's native vegetation could be classified as scattered trees with negligible native understorey. The more natural areas on the upper slopes near Lysterfield Park belong to a form of the Ecological Vegetation Class (EVC) called Grassy Forest. Drainage lines and the floodplain of the Corhanwarrabul Ck valley support Swampy Woodland. Some of the Swampy Woodland has been reduced to rush-dominated wetland by the removal of trees, and there is a patch of Swamp Scrub near the corner of Wellington Rd and Brae Rd (visible on the aerial photograph). Between the Grassy Forest and the Swampy Woodland, there are overstorey remnants of Valley Grassy Forest near Cornish Rd and Valley Heathy Forest further to the east.

The unusual, complex geology north of Wellington Rd, combined with the history of grazing and clearing, cause difficulty in assigning EVCs to vegetation within the patches of trees there. The patch of trees within the site closest to the northeast of the Wellington Rd / Kelletts Rd corner is a nearly-pure stand of Narrow-leaved Peppermint (*Eucalyptus radiata*) with densely grassy ground flora. That vegetation fits the Grassy Forest EVC much better than the Valley Heathy Forest shown on the Department of Energy, Environment & Climate Action's map of extant EVCs. Similarly, the stand of tall Messmate Stringybark (*Eucalyptus obliqua*) and occasional Narrow-leaved Peppermints just south of Logan Ct is a better fit to Herb-rich Foothill Forest than the Valley Grassy Forest depicted on the department's maps.

Relationship to other land

The site is effectively an ecological buffer or fringe to a larger site of biological significance that includes the Dandenong Police Paddocks Reserve, Heany Park (Site 80), Churchill National Park, Lysterfield Park (Site 82) and bushland to the northeast of Lysterfield Park. The Eastern Grey Kangaroos and birdlife found within the Lysterfield Valley site undoubtedly rely on the larger site of significance for much of their habitat needs.

Bioregion: Highlands Southern Fall on the slopes of the Lysterfield Hills; Gippsland Plain elsewhere. The Department of Energy, Environment and Climate Action treats the knoll in the site's northeast as part of the Gippsland Plain despite it being geologically and topographically part of the Lysterfield Hills.

Habitat types

Full details about the structure and composition of each EVC are not given below because of variability across the site, the dearth of understorey and lack of permission to enter most of the private property.

Herb-rich Foothill Forest (EVC 23, regionally **Vulnerable):** approximately 8 ha on and east of Langley Ct, mostly in poor ecological condition (rating D). Recognisable by the tall canopy dominated by *Eucalyptus obliqua* with rather fewer *E. radiata*, on predominantly southwest-facing slopes.

Swamp Scrub (EVC 53, regionally **Endangered):** 0.2 ha, all in poor ecological condition (rating D). Recognisable by the dense thicket of *Melaleuca ericifolia*.

Grassy Forest (EVC 128, **Endangered in the Gippsland Plain bioregion and **Vulnerable** in the Highlands Southern Fall bioregion).** Although Grassy Forest is in both bioregions of this site, it all belongs to the kind that is associated with the Gippsland Plain, not the Highlands Southern Fall. The area with native understorey is estimated as 5 ha, almost all in poor ecological condition (rating D). 57 indigenous plant species were found.

Swampy Woodland (EVC 937, regionally **Endangered in the Gippsland Plain bioregion):** The area with understorey is estimated to occupy 0.5 ha (but uncertain due to lack of permission to inspect some areas). All is in poor ecological condition (rating D).

Valley Grassy Forest (EVC 47, regionally **Vulnerable):** Mostly with negligible native understorey, but one patch at the intersection of Wellington Rd and Kelletts Rd is estimated to contain 0.3 ha with understorey, of which roughly quarter is in good ecological condition (rating B), half is in fair ecological condition (rating C) and quarter is in poor ecological condition (rating D). Other areas may have escaped detection.

Valley Heathy Forest (EVC 127, regionally **Endangered):** There are patches of tree canopy from this EVC – dominated by *Eucalyptus cephalocarpa* – but little native understorey could be seen in the absence of permission to inspect the private properties where these patches occur.

Wetland (EVC 74, listed as regionally Endangered but the occurrences in this site are not natural). There is a total of approximately 1½ ha of farm dams with an indeterminate area of fringing vegetation, and roughly ½ ha of rushland that has replaced the natural Swampy Woodland due to clearing and grazing.

Plant species

The following plant species have been recorded as growing wild in the site by various observers. For indigenous species not seen during the author's brief inspection of the site on 2nd October 2024, superscripts show the year of the most recent record. The 1996 records are somewhat dubious. Additional species would no doubt be detectable if the whole of the area were to be surveyed. The column headed 'Risk' indicates the indigenous species' risk of dying out in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; 'V'=Vulnerable; and 'N'=Near threatened. In addition, the *Asplenium* is rare throughout the Melbourne region.

Risk	Wild indigenous vascular species	Risk	Wild indigenous vascular species
	<u>Wild fern species</u>	E	<i>Eucalyptus melliodora</i> , Yellow Box
C	<i>Asplenium subglandulosum</i> , Blanket Fern ²⁰⁰²	E	<i>Eucalyptus obliqua</i> , Messmate Stringybark
C	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> , Narrow Rock Fern ²⁰⁰²	V	<i>Eucalyptus ovata</i> , Swamp Gum
	<i>Pteridium esculentum</i> , Austral Bracken	E	<i>Eucalyptus radiata</i> , Narrow-leaved Peppermint
	<u>Wild flowering species</u>	C	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i> , Manna Gum
V	<i>Acacia mearnsii</i> , Black Wattle	E	<i>Euchiton ?involucratus</i> , Common Cudweed
V	<i>Acacia melanoxylon</i> , Blackwood		<i>Euchiton japonicus</i> , Creeping Cudweed ²⁰⁰²
	<i>Acacia paradoxa</i> , Hedge Wattle ²⁰⁰⁴	V	<i>Exocarpos cupressiformis</i> , Cherry Ballart
E	<i>Acacia stricta</i> , Hop Wattle ¹⁹⁹⁷	C	<i>Gahnia radula</i> , Thatch Saw-sedge
V	<i>Acacia verticillata</i> , Prickly Moses ²⁰⁰²	V	<i>Geranium</i> sp. 2, Variable Crane's-bill
V	<i>Acaena echinata</i> , Sheep's Burr ²⁰⁰²		<i>Gonocarpus tetragynus</i> , Common Raspwort ²⁰⁰²
	<i>Acaena novae-zelandiae</i> , Bidgee-widgee ²⁰⁰²	N	<i>Goodenia lanata</i> , Trailing Goodenia ²⁰⁰²
V	<i>Allocasuarina littoralis</i> , Black Sheoak		<i>Goodenia ovata</i> , Hop Goodenia
C	<i>Amyema pendula</i> , Drooping Mistletoe ²⁰⁰²	C	<i>Gratiola peruviana</i> , Austral Brooklime ¹⁹⁹⁶
E	<i>Amyema quandang</i> , Grey Mistletoe ¹⁹⁹⁷	V	<i>Hemarthria uncinata</i> , Mat Grass ²⁰⁰²
	<i>Anthosachne scabra</i> , Common Wheat-grass ¹⁹⁹⁷	E	<i>Hypericum gramineum</i> , Small St John's Wort
	<i>Austrostipa rudis</i> subsp. <i>rudis</i> , Veined Spear-grass	E	<i>Isolepis cernua</i> , Nodding Club-rush ²⁰¹¹
	<i>Billardiera mutabilis</i> , Common Apple-berry ²⁰⁰²	C	<i>Juncus fockei/holoschoenus</i> , a joint-leaf Rush
N	<i>Bossiaea prostrata</i> , Creeping Bossiaea		<i>Juncus amabilis</i> , Hollow Rush
	<i>Bursaria spinosa</i> , Sweet Bursaria		<i>Juncus bufonius</i> , Toad Rush
	<i>Carex appressa</i> , Tall Sedge		<i>Juncus gregiflorus</i> , Green Rush
	<i>Carex breviculmis</i> , Short-stem Sedge ¹⁹⁹⁶		<i>Juncus pallidus</i> , Pale Rush
E	<i>Carex gaudichaudiana</i> , Fen Sedge ²⁰⁰²	E	<i>Juncus planifolius</i> , Broad-leaf Rush
	<i>Cassinia aculeata</i> , Common Cassinia ²⁰⁰⁵	E	<i>Juncus procerus</i> , Tall Rush ²⁰⁰²
	<i>Cassinia longifolia</i> , Shiny Cassinia		<i>Juncus sarophorus</i> , Broom Rush
E	<i>Centella cordifolia</i> , Centella	E	<i>Juncus subsecundus</i> , Finger Rush ²⁰⁰²
V	<i>Clematis aristata</i> , Mountain Clematis ¹⁹⁹⁶		<i>Kunzea</i> sp. (Upright form), Forest Burgan
	<i>Clematis decipiens</i> , a small-leafed clematis	E	<i>Lagenophora adenosa/stipitata</i> , a bottle-daisy ¹⁹⁹⁶
V	<i>Crassula sieberiana</i> s.l., Sieber Crassula	C	<i>Leptospermum continentale</i> , Prickly Tea-tree ²⁰⁰²
	<i>Crassula decumbens</i> , Spreading Crassula		<i>Leptospermum scoparium</i> , Manuka ²⁰⁰²
	<i>Dianella revoluta</i> , Black-anther Flax-lily ²⁰⁰⁴		<i>Lomandra filiformis</i> subsp. <i>coriacea</i> , Wattle Mat-rush
	<i>Dichondra repens</i> , Kidney-weed ²⁰⁰⁵		<i>Lomandra filiformis</i> subsp. <i>filiformis</i> , Wattle Mat-rush ²⁰⁰⁴
V	<i>Eleocharis acuta</i> , Common Spike-rush ²⁰¹¹		<i>Lomandra longifolia</i> , Spiny-headed Mat-rush ²⁰⁰²
	<i>Eleocharis sphacelata</i> , Tall Spike-rush		<i>Lythrum hyssopifolia</i> , Lesser Loosestrife
C	<i>Epacris impressa</i> , Common Heath ²⁰⁰²	E	<i>Melaleuca ericifolia</i> , Swamp Paperbark
	<i>Epilobium hirtigerum</i> , Hairy Willow-herb		<i>Microlaena stipoides</i> , Weeping Grass
	<i>Eragrostis brownii</i> , Common Love-grass ²⁰⁰²		
E	<i>Eucalyptus cephalocarpa</i> , Mealy Stringybark		
V	<i>Eucalyptus goniacalyx</i> , Bundy		

Risk Wild indigenous vascular species

- E *Olearia lirata*, Snowy Daisy-bush ²⁰²¹
 V *Opercularia varia*, Variable Stinkweed ²⁰⁰²
Oxalis exilis/perennans, Wood-sorrel
 V *Ozothamnus ferrugineus*, Tree Everlasting ²⁰⁰⁴
Pandorea pandorana, Wonga Vine ²⁰⁰²
Persicaria decipiens, Slender Knotweed ²⁰⁰²
 E *Phragmites australis*, Common Reed
 E *Platylobium infecundum*, a flat-pea ¹⁹⁹⁶
Poa morrisii, Soft Tussock-grass ²⁰⁰⁴
 V *Pomaderris aspera*, Hazel Pomaderris ¹⁹⁹⁶
Poranthera microphylla, Small Poranthera ²⁰²³
Pterostylis nutans, Nodding Greenhood ²⁰²²
 E *Rubus parvifolius*, Small-leaf Bramble ²⁰¹¹
 C *Rumex brownii*, Slender Dock ²⁰⁰⁵
Rytidosperma fulvum, Leafy Wallaby-grass ²⁰⁰²
Rytidosperma geniculatum, Knead Wallaby-grass ²⁰¹¹
Rytidosperma laeve, Smooth Wallaby-grass ¹⁹⁹⁷
Rytidosperma penicillatum, Slender Wallaby-grass ²⁰⁰²
Rytidosperma racemosum, Clustered Wallaby-grass ²⁰¹¹
 E *Rytidosperma semiannulare*, Tasmanian Wallaby-grass ¹⁹⁹⁷
Rytidosperma setaceum, Bristly Wallaby-grass
Rytidosperma tenuius, Purplish Wallaby-grass ¹⁹⁹⁷
Schoenus apogon, Common Bog-rush
Senecio quadridentatus, Cotton Fireweed ²⁰⁰²
 V *Solanum laciniatum*, Large Kangaroo Apple
 V *Solenogyne dominii*, Smooth Solenogyne ²⁰⁰²
Themeda triandra, Kangaroo Grass
Tricoryne elatior, Yellow Rush-lily ²⁰⁰²
Typha domingensis, Cumbungi ²⁰¹¹
 V *Veronica gracilis*, Slender Speedwell ²⁰⁰²
 E *Veronica plebeia*, Trailing Speedwell ¹⁹⁹⁶
 E *Viola hederacea*, Ivy-leaf Violet ²⁰⁰²

Introduced species

- Agrostis capillaris*, Brown-top Bent
Allium triquetrum, Angled Onion
Anthoxanthum odoratum, Sweet Vernal-grass
Arctotheca calendula, Cape Weed
Asparagus asparagoides, Bridal Creeper
Briza maxima, Large Quaking-grass
Bromus diandrus, Great Brome
Bromus hordeaceus, Soft Brome
Callitriche stagnalis, Pond (or Common) Water-starwort
Cassinia sifton, Sifton Bush
Cenchrus clandestinus, Kikuyu Grass
Centaureum erythraea, Common Centaury
Cerastium glomeratum s.l., Common Mouse-ear Chickweed

Introduced species

- Chrysanthemoides monilifera* subsp. *monilifera*, Boneseed
Cirsium vulgare, Spear Thistle
Cortaderia selloana, Pampas Grass
Crataegus monogyna, Hawthorn
Cynodon dactylon, Couch
Cynosurus echinatus, Rough Dog's-tail
Cyperus eragrostis, Drain Flat-sedge
Dactylis glomerata, Cocksfoot
Echium plantagineum, Paterson's Curse
Ehrharta erecta, Panic Veldt-grass
Euphorbia peplus, Petty Spurge
Galium aparine, Cleavers
Gamochaeta purpurea, Spiked Cudweed
Genista linifolia, Flax-leafed Broom
Genista monspessulana, Montpellier Broom
Glyceria declinata, Manna Grass
Hedera helix/hibernica, Ivy
Helminthotheca echioides, Ox-tongue
Holcus lanatus, Yorkshire Fog
Hordeum leporinum, Wall Barley-grass
Hypochaeris radicata, Cat's Ear
Juncus articulatus, Jointed Rush
Leontodon saxatilis, Lesser Hawkbit
Lolium perenne, Perennial Rye-grass
Lonicera japonica, Japanese Honeysuckle
Lotus subbiflorus, Hairy Bird's-foot Trefoil
Lythrum junceum, Mediterranean Loosestrife
Medicago polymorpha, Burr Medic
Modiola caroliniana, Carolina Mallow
Oxalis pes-caprae, Soursob
Paspalum dilatatum, Paspalum
Paspalum distichum, Water Couch
Phalaris aquatica, Toowoomba Canary-grass
Phytolacca octandra, Red-ink Weed
Pinus radiata, Monterey Pine
Pittosporum undulatum, Sweet Pittosporum
Plantago coronopus, Buck's-horn Plantain
Plantago lanceolata, Ribwort
Poa annua/infirma, a meadow-grass
Prunella vulgaris, Self-heal
Prunus cerasifera, Cherry-plum
Raphanus raphanistrum, Wild Radish
Romulea rosea, Common Onion-grass
Rosa rubiginosa, Sweet Briar
Rubus anglocandicans, Blackberry
Rumex conglomeratus, Clustered Dock
Rumex crispus, Curled Dock
Solanum nigrum, Black Nightshade
Sonchus asper, Rough Sow-thistle
Sonchus oleraceus, Sow-thistle
Stellaria media, Chickweed
Trifolium repens, White Clover
Trifolium striatum, Knotted Clover
Trifolium subterraneum, Subterranean Clover
Ulex europaeus, Gorse (Furze)

Notes concerning some of the significant plant species

Listed as Critically Endangered under Victorian law

Platylobium infecundum (a flat-pea): Included (under the former name, *P. formosum*) on a 1996 plant list by Steve Mueck (reference number T2104800), along with many other forest species, even though the location he has mapped is (and was) hundreds of metres from any native vegetation. Given that the data clearly does not coincide with the mapped location, one cannot be sure even whether the list is for part of Site 83. This problem affects all the species listed above with a superscript of 1996.

Rare and threatened in metro Melbourne

Asplenium subglandulosum (Blanket Fern): In June 2002, the author found a patch of plants measuring 500 mm × 50 mm in a crevice between rocks in pasture near the southern end of Glen Rd. He has not visited the property since.

Locally threatened

Carex gaudichaudiana (Fen Sedge): Found in June 2002 on Corhanwarrabul Ck near Sherwood Way, and probably since destroyed when the creek was filled in and replaced by a pipe in that vicinity.

Cheilanthes sieberi subsp. *sieberi* (Narrow Rock Fern): In June 2002, the author found three individuals among rocks in pasture near the southern end of Glen Rd. He has not visited the property since.

Crassula sieberiana s.l. (Sieber Crassula): Scores grow among granodiorite rocks in pasture near the southern end of Glen Rd. Likely to occur around other outcropping rocks.

Geranium sp. 2 (Variable Cranesbill): Found in 2024 in pasture near the end of Glen Rd, numbers not recorded.

Rumex brownii (Slender Dock): Several were found in 2024 in pasture near the southern end of Glen Rd.

Fauna of special significance

Listed as Vulnerable under Commonwealth law

Latham's Snipe: The author inadvertently flushed one snipe from long grass beside Corhanwarrabul Ck, 90 m upstream of Sherwood Way in 2024. There is additional habitat for the species around some farm dams and wet pasture in the area. The absence of other records from the site is understandable, given the species' cryptic nature and the land being overwhelmingly private.

Fauna habitat features

- The tree canopy provides habitat for invertebrates, bats, possums and forest birds;
- There are some very large, old trees with hollows that would suit native birds, bats, possums and invertebrates;
- Corhanwarrabul Ck and swampy vegetation provide habitat for frogs and aquatic invertebrates;
- Logs and rocks provide habitat for invertebrates and reptiles, e.g. the Jacky Lizards seen by the author;
- The mixture of open pasture and stands of trees suits Eastern Grey Kangaroos and is regularly used by them.

Significance ratings

The following is an assessment of the site's biological significance against the Department of Energy, Environment & Climate Action's standard criteria (Amos 2004).

Regionally-threatened Ecological Vegetation Classes

Although this study has been able to closely inspect only a small part of the site's private land, it appears that there are several areas that meet the definition of a 'remnant patch' adopted by the standard criteria, i.e. at least 0.25 ha in which the cover of native understorey is at least 10% throughout. Those areas include the regionally-vulnerable EVCs, Grassy Forest, Valley Grassy Forest and Herb-rich Foothill Forest. Appendix 3 of *Victoria's Native Vegetation Management – a Framework for Action* (NRE 2002a) rates the conservation significance of a remnant patch of a regionally-vulnerable EVC as 'Medium', 'High' or 'Very high', depending on the habitat score. Criterion 3.2.3 translates the 'Medium' rating to Regional significance and the other two ratings to State significance. In the present case, no habitat scores have been formally determined but it seems likely that at least some of the vegetation has a habitat score of at least 0.3, representing **State** significance. Lower habitat scores translate to **Regional** significance.

It is also possible that some of the site's Swampy Woodland qualifies as a 'remnant patch'. Swampy Woodland is a regionally-endangered EVC, for which any remnant patch is of State significance under criterion 3.2.3.

Threatened Plants

Blanket Fern (*Asplenium subglandulosum*) is extremely rare in the Highlands Southern Fall bioregion. Australasian herbaria hold only one specimen of the species from that bioregion in the past 30 years or so, that being from Warrandyte in 1995. Such qualities meet criterion 3.1.4 for **Regional** significance.

Some of the other locally-threatened plant species that the author saw in 2024 have viable populations, thereby meeting criterion 3.1.5 for **Local** significance.

Threatened Fauna

The observation of Latham's Snipe in 2024 beside Corhanwarrabul Ck in suitable habitat (long grass and rushes on wet ground) suggests that the species may be present regularly. Under criterion 3.1.1, known habitat of a nationally-listed vulnerable species such as Latham's Snipe is of **State** significance unless it is an 'important site', which does not apply in this case. If a targeted survey for Latham's Snipe were to establish that the species makes very little use of the site's habitat, the significance would fall away.

Threats

- Subdivision and land development;
- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves, floods, fires and storms, as well as substantially lower rainfall (particularly in winter);
- Continuing decline in the health of eucalypts, which are quite vulnerable to the abovementioned droughts and storms;
- Displacement of indigenous flora and fauna by environmental weeds. The species of greatest concern appear to be Sweet Pittosporum (*Pittosporum undulatum*), Boneseed (*Chrysanthemoides monilifera* subsp. *monilifera*), Gorse (*Ulex europaeus*) and broom species. South African Daisy (*Senecio pterophorus*) appears to be in a phase of rapid expansion in the Lysterfield-Rowville area and it may come to rival the species just mentioned;
- Cattle hoofs disturbing mud and trampling plants in areas of rushland and Swamp Scrub;
- Over-grazing by stock, rabbits and/or kangaroos;
- Loss or decline of plant species that have such small populations that they are vulnerable to inbreeding, poor reproductive success or chance events such as being struck by a falling tree limb. This is particularly important for the two rare fern species.

Strategic planning

- As a result of the previous (2010) edition of this report and a consequent planning amendment, Schedule 2 of the Environmental Significance Overlay (ESO2) applies to an enlarged version of this site. The main reasons for applying ESO2 were the matters of biological significance known at that time plus the potential for subdivision. The only subsequent material changes affecting those reasons are that: (a) the discovery of Latham's Snipe along Corhanwarrabul Ck increases the rationale for planning protection there; and (b) the removal of habitat near the Wellington Rd / Kelletts Rd corner has caused a contraction of the site boundary delineated here. In response, the only recommendation to amend ESO2 for the site is to change its boundary to match the new site boundary.
- If further subdivision is to occur along Corhanwarrabul Ck, the creek and its native riparian vegetation (particularly rushland) should not be destroyed and the Melbourne Water stream setback guidelines for developments on greenfield sites should be followed;
- The site is outside the Urban Growth Boundary.

Information sources used in this assessment

- Surveys of various parts of the site by Dr Lorimer on 18/6/02, 11/10/02, 29/10/02, 25/4/03 and 7/8/03 for a total of approximately eight hours for the first edition of this report. This included:
 - Compilation of lists of indigenous and introduced plant species;
 - Description of the structural and floristic composition of the native vegetation;
 - Documentation of rare species populations and the ecological condition of the vegetation;
 - Incidental fauna observations;

- Checks for fauna habitat, ecological threats and management issues;
- Obtaining verbal records of wildlife observations by Mrs Jo Hauler of 25 Glen Rd, Lysterfield over many years;
- A brief visit by Dr Lorimer during winter 2004 to determine to what degree the site of significance had reduced in area as a result of ongoing residential development since the 2003 survey;
- Further brief inspections of Lot 2 Wellington Rd (2\PS319627) and nearby properties in February 2011 to refine the boundary that was proposed for Schedule 2 of the Environmental Significance Overlay;
- A survey of the site by Dr Lorimer on 2nd October 2024, compiling two lists of wild indigenous plant species and checking for changes in conditions relevant to this report compared with pre-existing information;
- Records of flora and fauna observations stored in the Atlas of Living Australia and the Victorian Biodiversity Atlas;
- Aerial and satellite imagery from between 1976 and 2025;
- The Victorian Government's 'NatureKit' website;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.