

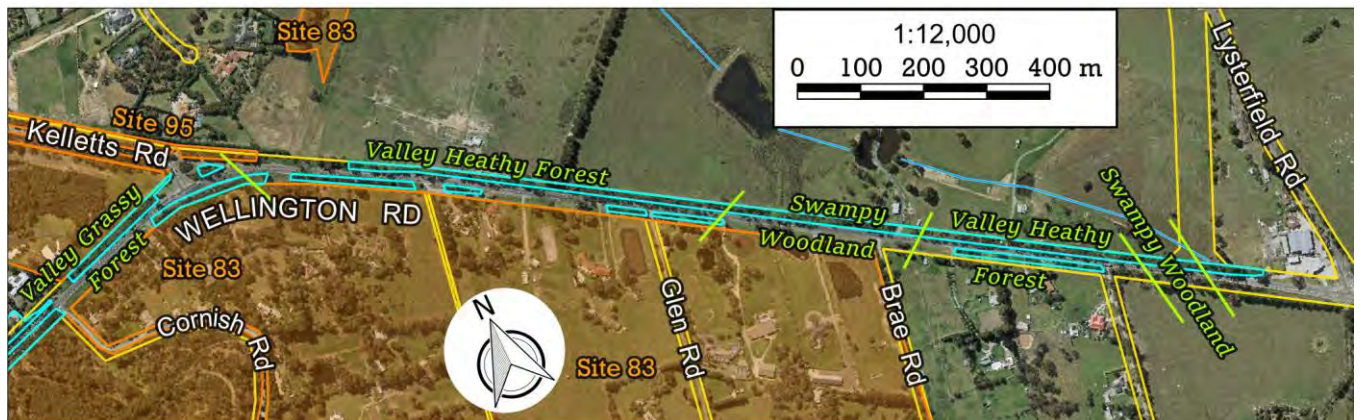
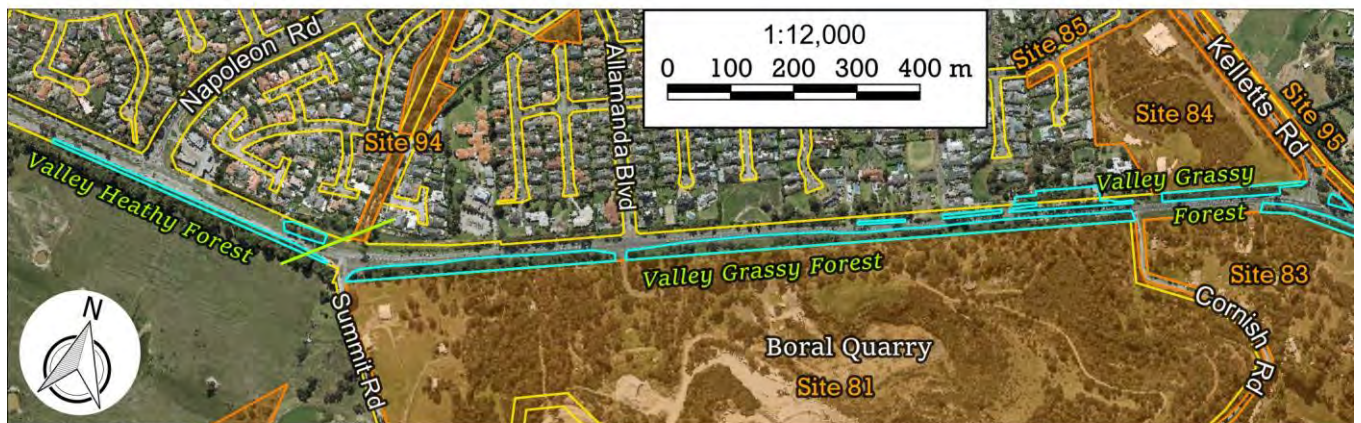
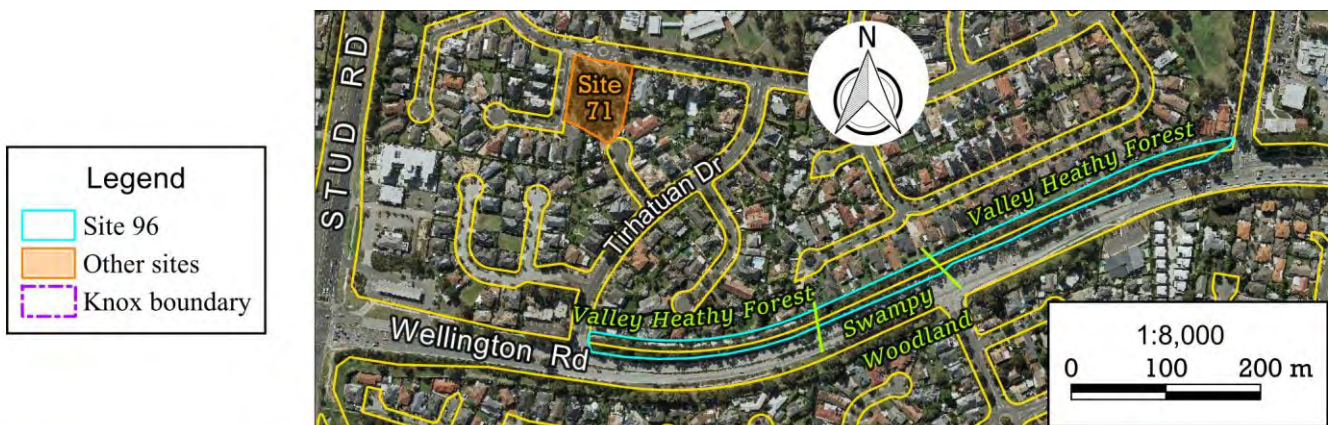
Site 96. Wellington Rd Roadside, Rowville & Lysterfield

Seventeen segments of road verge.

Summary of significant features:

- State significance: scores (perhaps hundreds) of the spear-grass, *Austrostipa rudis* subspecies *australis*, which is listed as Endangered under Victorian legislation;
- State significance: patches of the regionally-threatened vegetation types, Valley Grassy Forest and Valley Heathy Forest;
- Regionally significant: part of a large habitat corridor;
- Locally significant: viable populations of plant species that are threatened with dying out in Knox.

The panels below form a sequence from west to east, with a gap of 1.5 km between the top and central panels. The central and bottom panels overlap. Note the different scales and north orientations.



Boundaries

The site is in seventeen segments, as outlined in cyan (light blue) on the three aerial photographs above. The gutter of Wellington Rd forms one edge of each segment. The boundaries have changed slightly since the previous editions of this report, principally because of better aerial imagery and the greater precision available with satellite positioning since the site was last delineated in 2003.

Land use & tenure: Road reservation.

Site Description

This site contains the more substantial patches of native vegetation along Wellington Rd. Most segments have both native overstorey and understorey, but some patches are missing one or the other. There are other, smaller patches of native vegetation scattered along the roadside that are not deemed suitable for including within a Site of Biological Significance.

The width of the segments is typically 10–12 metres and the total area is 7.5 ha. Adjacent land use varies from urban residential at the western end to grazing and quarrying.

There is little correlation between the native vegetation's naturalness and the adjacent land use. As is normal, there is a strong tendency for the more intact vegetation to be where the road is below-grade. Also as normal, the road has been constructed above-grade through the wetter parts of the landscape, so the regionally-endangered vegetation type, Swampy Woodland, is in poor ecological condition everywhere it occurs within the site.

The most intact part of the site is in the westernmost 200 m, above a cutting. It is in good ecological condition (rating B). There are small areas in comparable condition at the intersection of Kelletts Rd and immediately west of Allamanda Blvd. Eastward from Kelletts Rd, the condition on the southern side of Wellington Rd rapidly deteriorates to rating D (poor) all the way to Brae Rd, principally due to powerlines and runoff from adjacent properties. The rest of the site is divided roughly equally between condition ratings C (fair) and D.

Some of the site is signposted as significant roadside vegetation, with slashing to be conducted less frequently and with more ecological sensitivity than would otherwise be the case.

The Ecological Vegetation Classes (EVCs) present in the site are predominantly Valley Grassy Forest and Valley Heathy Forest, with smaller stretches of Swampy Woodland. The first of these is regionally-vulnerable; the others, regionally-endangered.

Relationship to other land

The segment of this site west of Taylors Lane is 400 m from the substantial area of native vegetation at the Rowville Electricity Terminal Station (Site 72). There are smaller, less diverse patches of native vegetation at Delta Court Reserve (Site 71, 200 m northwest) and Rowville Secondary School (Site 70, 250 m north). This represents a high level of fragmentation and isolation of habitat, with greatly impeded migration of wildlife, pollen and seeds between the sites.

The segments of the site between Summit Rd and Kelletts Rd (in the central aerial photograph) can be regarded as an extension of the Lysterfield Hills site (Site 81). It is likely that there is a high degree of movement of fauna, pollen and seed between the roadside vegetation and the large contiguous area of native vegetation across the Lysterfield Hills, into Lysterfield Park (Site 82) and beyond. Without that roadside vegetation, there would be a much larger habitat gap to the twin Sites 84 and 85 to the north, impeding movement of flying insects and birds between the sites.

Other segments of the site do not represent a habitat corridor because they do not join larger areas of natural tree canopy or other habitat.

The segments east of Kelletts Rd can be regarded as an extension to the abutting Site 115, with its rural landscape of lightly treed grazing country.

Bioregion: The Valley Grassy Forest within the site – between Summit Rd and 100 m east of Kelletts Rd – is within the Highlands Southern Fall bioregion. The remainder of the site lies in the Gippsland Plain bioregion.

Habitat types

Valley Grassy Forest (EVC 47, **regionally Vulnerable**): between Summit Rd and 100 m east of Kelletts Rd.

Canopy trees: Dominated by *Eucalyptus melliodora* (except near Allamanda Blvd), *E. radiata* and *E. goniocalyx*. *E. cephalocarpa* is absent, as opposed to its dominance in the adjoining Valley Heathy Forest.

Sub-canopy trees: Rather abundant and rich in species, comprising *Acacia implexa*, *A. mearnsii*, *A. melanoxylon*, *A. pycnantha*, *Allocasuarina littoralis* and *Exocarpos cupressiformis*. The environmental weed *Pittosporum undulatum* is dense in patches near the Boral quarry.

Shrubs: *Kunzea* sp. (Upright form) and *Acacia paradoxa* are dense in patches. *Bursaria spinosa* is fairly abundant. *Cassinia longifolia* and *Goodenia ovata* are sparse. The environmental weeds, *Chrysanthemoides monilifera* and *Genista* species, are fairly abundant next to the Boral land, where they are also abundant.

Shrubby herbs: *Senecio quadridentatus* is fairly abundant.

Ferns: None.

Creepers and climbers: *Dichondra repens* is fairly abundant. *Clematis decipiens* is scarce.

Groundcover: Densely grassy. The dominant indigenous species are (variously) *Austrostipa rudis* or *Gahnia radula*, with fairly abundant *Austrostipa pubinodis*, *Rytidosperma* species, *Schoenus apogon* and *Themeda triandra*. *Austrostipa pubinodis* and *Microlaena stipoides* are abundant but not dominant. *Bossiaea prostrata*, *Burchardia umbellata*, *Dianella revoluta*, *Lepidosperma gunnii*, *Lomandra filiformis*, *L. longifolia*, *Oxalis exilis/perennans* and *Poranthera microphylla* are moderately abundant. *Juncus pallidus*, *J. subsecundus*, *Tricoryne elatior* and *Xanthorrhoea minor* are scarce.

Valley Heathy Forest (EVC 127, **regionally Endangered**): in most of the site other than between Summit Rd and 100 m east of Kelletts Rd, but not in several low-lying spots (for which, see ‘Swampy Woodland’ below).

Canopy trees: Dominated by *Eucalyptus cephalocarpa*, co-dominant with *E. radiata* in part. *Eucalyptus goniocalyx* is fairly abundant and *E. obliqua* is scarce.

Sub-canopy trees: Dominated by various mixtures of *Acacia mearnsii*, *A. melanoxylon*, *Allocasuarina littoralis* and *Exocarpos cupressiformis*.

Shrubs: Apparently thinned below the natural density, except for regrowth patches of *Acacia paradoxa*, *Bursaria spinosa* and *Kunzea* sp. (Upright form). *Leptospermum continentale*, *Daviesia latifolia* and *Platylobium obtusangulum* are notably present.

Ferns: None.

Creepers and climbers: *Billardiera mutabilis*, *Pandorea pandorana* and *Dichondra repens* are fairly abundant. *Rubus parvifolius* is scattered thinly.

Groundcover: Dense with grasses or *Gahnia radula*. The dominant indigenous grasses are *Austrostipa rudis*, *Microlaena stipoides* and various *Rytidosperma* species. *Dianella longifolia*, *Dianella revoluta*, *Lomandra longifolia*, *Lomandra filiformis*, *Schoenus apogon* and *Themeda triandra* are all abundant in the more intact areas. *Oxalis exilis/perennans* is moderately abundant. The characteristic species, *Poranthera microphylla*, *Tricoryne elatior* and *Xanthorrhoea minor* are present but scarce.

Swampy Woodland (EVC 937, **regionally Endangered**): 0.3–0.4 ha in two sections, all in poor ecological condition (rating D).

Canopy trees: Dominated by *Eucalyptus ovata*, mixed in part with *E. cephalocarpa*.

Sub-canopy trees: Dominated by either *Acacia melanoxylon* or *Melaleuca ericifolia*.

Shrubs: Effectively eliminated by the history of clearing, roadworks and slashing.

Vines: None.

Ferns: None.

Groundcover and small shrubs: Indigenous groundcover has been almost eliminated. *Gahnia radula*, *Microlaena stipoides* and *Juncus* species are the most consistently present remnants of the original groundcover, and there are occasional individuals of characteristic species such as *Senecio minimus* and *Epilobium hirtigerum*.

Plant species

The following plant species were seen growing wild in the site by the author on 25/11/97, 11/10/02, 25/4/03 or 9/10/24. Indigenous species not seen in 2024 are indicated by superscripts showing the year of the most recent sighting. The column headed ‘Risk’ indicates the indigenous species’ risk of dying out in Knox as follows:

‘C’=Critically Endangered; ‘E’=Endangered; ‘V’=Vulnerable; ‘N’=Near threatened. In addition, *Eleocharis gracilis* is rare throughout the Melbourne area. In addition, *Austrostipa rudis* subsp. *australis* is listed as Endangered under Victorian law.

Indigenous mosses and liverworts

Chiloscyphus semiteres, Green Worms
Campylopus introflexus, Heath Star Moss
Hypnum cupressiforme, Common Hypnum
Thuidiopsis furfurosa, Golden Weft-moss

Risk Wild indigenous vascular species

Acacia dealbata, Silver Wattle ¹⁹⁹⁷
V *Acacia implexa*, Lightwood
V *Acacia mearnsii*, Black Wattle
V *Acacia melanoxylon*, Blackwood
Acacia paradoxa, Hedge Wattle
V *Acacia pycnantha*, Golden Wattle
E *Acacia stricta*, Hop Wattle
V *Acaena echinata*, Sheep’s Burr
E *Acrotriche serrulata*, Honey-pots
V *Allocasuarina littoralis*, Black Sheoak
C *Amyema pendula*, Drooping Mistletoe
E *Amyema quandang*, Grey Mistletoe ¹⁹⁹⁷
Anthosachne scabra, Common Wheat-grass
Arthropodium strictum, Chocolate Lily
Austrostipa pubinodis, Tall Spear-grass
V *Austrostipa rudis* subsp. *australis*, Veined Spear-grass
Austrostipa rudis subsp. *rudis*, Veined Spear-grass
Billardiera mutabilis, Common Apple-berry
N *Bossiaea prostrata*, Creeping Bossiaea
Burchardia umbellata, Milkmaids
Bursaria spinosa, Sweet Bursaria
Carex breviculmis, Short-stem Sedge
Cassinia aculeata, Common Cassinia ²⁰⁰³
Cassinia longifolia, Shiny Cassinia
Clematis decipiens, a small-leafed clematis
C *Daviesia latifolia*, Hop Bitter-pea
Dianella longifolia var. *longifolia*, Pale Flax-lily
Dianella revoluta, Black-anther Flax-lily
C *Dichelachne crinita*, Long-hair Plume-grass ¹⁹⁹⁷
Dichelachne rara, Common Plume-grass ¹⁹⁹⁷
Dichondra repens, Kidney-weed
V *Dillwynia cinerascens*, Grey Parrot-pea ²⁰⁰³
E *Eleocharis gracilis*, Slender Spike-rush ²⁰⁰³
Epilobium hirtigerum, Hairy Willow-herb
E *Eucalyptus cephalocarpa*, Mealy Stringybark
V *Eucalyptus goniocalyx*, Bundy
E *Eucalyptus melliodora*, Yellow Box
E *Eucalyptus obliqua*, Messmate Stringybark
V *Eucalyptus ovata*, Swamp Gum
E *Eucalyptus radiata*, Narrow-leaved Peppermint
V *Exocarpos cupressiformis*, Cherry Ballart

Risk Wild indigenous vascular species

C *Gahnia radula*, Thatch Saw-sedge
Gonocarpus tetragynus, Common Raspwort ²⁰⁰³
Goodenia ovata, Hop Goodenia
C *Hibbertia australis*, Upright Guinea-flower
Juncus amabilis, Hollow Rush
Juncus bufonius, Toad Rush
Juncus gregiflorus, Green Rush ²⁰⁰²
Juncus pallidus, Pale Rush
Juncus sarophorus, Broom Rush
E *Juncus subsecundus*, Finger Rush
Kunzea sp. (Upright form), Forest Burgan
Lachnagrostis filiformis, Common Blown-grass ¹⁹⁹⁷
Lepidosperma gunnii, Slender Sword-sedge
V *Lepidosperma laterale*, Variable Sword-sedge ¹⁹⁹⁷
C *Leptospermum continentale*, Prickly Tea-tree
Lomandra filiformis subsp. *coriacea*, Wattle Mat-rush
Lomandra filiformis subsp. *filiformis*, Wattle Mat-rush
Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
Lythrum hyssopifolia, Lesser Loosestrife ¹⁹⁹⁷
E *Melaleuca ericifolia*, Swamp Paperbark
Microlaena stipoides, Weeping Grass
C *Muellerina eucalyptoides*, Creeping Mistletoe
Oxalis exilis/perennans, Wood-sorrel
V *Ozothamnus ferrugineus*, Tree Everlasting ²⁰⁰²
Pandorea pandorana, Wonga Vine
Pimelea curviflora, Curved Rice-flower ¹⁹⁹⁷
E *Pimelea humilis*, Common Rice-flower ¹⁹⁹⁷
E *Platylobium obtusangulum*, Common Flat-pea
Poa morrisii, Soft Tussock-grass ²⁰⁰⁴
E *Poa tenera*, Slender Tussock-grass ²⁰⁰²
Poranthera microphylla, Small Poranthera
Pteridium esculentum, Austral Bracken
E *Rubus parvifolius*, Small-leaf Bramble
E *Rytidosperma caespitosum*, Common Wallaby-grass ¹⁹⁹⁷
Rytidosperma fulvum, Leafy Wallaby-grass
Rytidosperma geniculatum, Knead Wallaby-grass
Rytidosperma laeve, Smooth Wallaby-grass ¹⁹⁹⁷
E *Rytidosperma pallidum*, Red-anther (or Silvertop) Wallaby-grass
Rytidosperma penicillatum, Slender Wallaby-grass
Rytidosperma racemosum, Clustered Wallaby-grass

Risk Wild indigenous vascular species

- Rytidosperma setaceum*, Bristly Wallaby-grass
Rytidosperma tenuius, Purplish Wallaby-grass
Schoenus apogon, Common Bog-rush
Senecio hispidulus, Rough Fireweed
Senecio minimus, Shrubby Fireweed
Senecio quadridentatus, Cotton Fireweed
E *Thelymitra peniculata*, Trim Sun-orchid ¹⁹⁹⁷
Themeda triandra, Kangaroo Grass
Tricoryne elatior, Yellow Rush-lily
V *Veronica gracilis*, Slender Speedwell ¹⁹⁹⁷
Wahlenbergia gracilis, Sprawling Bluebell
E *Xanthorrhoea minor*, Small Grass-tree

Introduced species

- Acacia longifolia* subsp. *longifolia*, Sallow Wattle
Agapanthus praecox, Agapanthus
Agrostis capillaris, Brown-top Bent
Allium triquetrum, Angled Onion
Anthoxanthum odoratum, Sweet Vernal-grass
Aristea ecklonii, Blue Stars
Asparagus asparagoides, Bridal Creeper
Avena barbata, Bearded Oat
Briza maxima, Large Quaking-grass
Bromus diandrus, Great Brome
Cassinia sifton, Sifton Bush
Centaureum erythraea, Common Centaury
Chrysanthemoides monilifera subsp. *monilifera*,
Boneseed
Cirsium vulgare, Spear Thistle
Crataegus monogyna, Hawthorn
Cynodon dactylon, Couch
Cytisus scoparius, English Broom
Dactylis glomerata, Cocksfoot
Disa bracteata, South African Orchid
Ehrharta erecta, Panic Veldt-grass
Ehrharta longiflora, Annual Veldt-grass

Introduced species

- Foeniculum vulgare*, Fennel
Fraxinus angustifolia, Desert Ash
Freesia leichtlinii, Freesia
Fumaria sp., an unidentified fumitory
Galium aparine, Cleavers
Genista linifolia, Flax-leaved Broom
Genista monspessulana, Montpellier Broom
Glyceria declinata, Manna Grass
Hedera helix/hibernica, Ivy
Holcus lanatus, Yorkshire Fog
Hypochaeris radicata, Cat's Ear
Isolepis ?sepulcralis, African Club-rush
Lolium perenne, Perennial Rye-grass
Lonicera japonica, Japanese Honeysuckle
Myoporum insulare, Common Boobialla
Oxalis incarnata, Pale Wood-sorrel
Paspalum dilatatum, Paspalum
Plantago lanceolata, Ribwort
Prunella vulgaris, Self-heal
Prunus cerasifera, Cherry-plum
Rosa rubiginosa, Sweet Briar
Rubus anglocandicans, Blackberry
Senecio pterophorus, Winged Groundsel
Solanum nigrum, Black Nightshade
Sonchus oleraceus, Sow-thistle
Sporobolus africanus, Rat-tail Grass
Ulex europaeus, Gorse (Furze)
Vicia ?hirsuta, Tiny Vetch
Vicia sativa, Common Vetch
Vulpia bromoides, Squirrel-tail Fescue
Watsonia meriana var. *bulbillifera*, Bulbil Watsonia
Cenchrus clandestinus, Kikuyu Grass
Chamaecytisus palmensis, Tree Lucerne
Oxalis pes-caprae, Soursob
Oxalis purpurea, Large-flower Wood-sorrel

Notes concerning some of the significant plant species

Listed as Endangered under Victorian law

Austrostipa rudis subsp. *australis* (a subspecies of Veined Spear-grass): Even though most plants of *Austrostipa rudis* were not identifiable to the level of subspecies at the time of the 2024 survey (9th October), still numerous plants were confidently identified as subsp. *australis* at several locations from one end of the site to the other. Many more would be expected to be identifiable by December.

Locally threatened

Dichelachne crinita (Long-hair Plume-grass): One plant found on the south side near Kelletts Rd in 1997; subsequent surveys have been at the wrong time of year to detect this species.

Eleocharis gracilis (Slender Spike-rush): Two patches next to Site 84; Presence confirmed 2024.

Pimelea curviflora (Curved Rice-flower). One colony, probably comprising several plants, was found outside the Boral quarry in 1997. In 2024, that location is overrun by Desert Ash and Sweet Pittosporum, making it hard to find such a species but the presence of many *Arthropodium strictum* there engenders hope that the *Pimelea* may remain.

Rytidosperma caespitosum (Common Wallaby-grass): Seen in 1997, scattered in the vicinity of Summit Rd. Subsequent surveys have been at the wrong time of year to detect this species

Rytidosperma geniculatum (Knead Wallaby-grass): Many plants between Summit Rd and Cornish Rd.

Fauna of special significance

Locally threatened

Sugar Glider (or Krefft's Glider): Found in a tree hollow between Tirhatuan Drive and Taylors Lane in 2004.

Fauna habitat features

- Many trees have hollows that may provide nesting sites for native bats, birds or possums;
- The densely grassy ground layer represents a good habitat for many invertebrate species, including larvae of various butterflies (particularly in the Valley Grassy Forest);
- Dense patches of shrubs provide protection for small native birds such as wrens and Brown Thornbills.

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).

Ecological Integrity and Viability

This site is part of a large habitat corridor extending from Dandenong Ck in the Dandenong Police Paddocks Reserve to Birdsland Reserve in Belgrave Heights, and beyond. Criterion 1.2.6 attributes **Regional** significance to any corridor that meets the description 'Important at regional scale (link within bioregion or catchment)', which is a reasonable description of the corridor of interest here. Criterion 1.1.2 also awards Local significance to 'areas of 100 ha or more of contiguous native vegetation in a heavily fragmented landscape', which applies to the contiguous habitat extending from this site through the Boral quarry to Lysterfield Park, Churchill National Park and beyond.

Regionally Threatened Ecological Vegetation Classes

Criterion 3.2.3 of Amos (2004) accords State significance to any 'remnant patch' of a regionally-endangered EVC, where 'remnant patch' is defined as a continuous area of at least 0.25 ha in which the cover of native understorey is at least 10% throughout. There are two 'remnant patches' of the regionally-endangered Valley Heathy Forest on the northern side of Wellington Rd: one extending eastward from Tirhatuan Drive and the other extending westward from near the site's eastern end. Consequently, those segments are of **State** significance under criterion 3.2.3.

Criterion 3.2.3 also accords **State** significance to any 'remnant patch' of a regionally-vulnerable EVC with a habitat score of at least 0.3. That description applies to the patch of Valley Grassy Forest on and adjacent to the cutting immediately west of Cornish Rd (and into the abutting Boral land). It also applies to the patch of Valley Grassy Forest that abuts 1280 Wellington Rd and the western end of the Boral land.

Threatened Plants

Austrostipa rudis subsp. *australis* is listed as Endangered under Victorian law. It also occurs outside Victoria. Its known population in this site is fairly large and a summer survey may find it to be much larger. Any known habitat for such a species meets criterion 3.1.2 for **State** significance.

Eleocharis gracilis is quite uncommon in the Melbourne area. A substantial and demonstrably stable population extends between this site and the abutting Fruitful Vine Church property (Site 84), where most of the population is located. Such an occurrence is clearly **Locally** significant under criterion 3.1.5.

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

Threats

- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves and storms, as well as substantially lower rainfall (particularly in winter);
- Continuing decline of tree health, partly due to the abovementioned droughts and storms;
- Displacement of indigenous flora and fauna by environmental weeds, particularly through spread from the Boral land. The most impactful species appear to be Sweet Pittosporum (*Pittosporum undulatum*), Boneseed (*Chrysanthemoides monilifera*) and Brooms (*Genista linifolia* and *G. monspessulana*). *Pandorea pandorana*,

which is indigenous to the Dandenong Ranges but not Rowville, is becoming a significant environmental weed, west of Taylors Lane;

- Loss or decline of plant species whose populations are so small and isolated that they are vulnerable to inbreeding, poor reproductive success or elimination by incidents such as being struck by a falling tree limb.

Strategic planning

The previous (2010) edition of this report led to its slightly different version of this site being covered by Schedule 2 of the Environmental Significance Overlay (ESO2). The reasons given for applying ESO2 were the presence of the regionally-threatened EVCs and (to a lesser degree) the site's locally-threatened plant species. Since 2010, the main changes affecting ESO2's appropriateness for the site are: (a) the spear-grass *Austrostipa rudis* subsp. *australis* has been discovered in the site and listed as endangered under the *Flora and Fauna Guarantee Act*; and (b) this edition has slightly revised the site boundary, principally because of better aerial imagery and the greater precision available with satellite positioning since the previous botanical survey in 2003. The only recommended amendment to ESO2 arising from these changes is to adjust its boundary to match the site boundary adopted here.

Information sources used in this assessment

- Vegetation mapping showing vegetation communities and vegetation quality, and twelve lists of plant species (indigenous and introduced) for all native vegetation west of Kelletts Rd, observed by Dr Lorimer on 25th November 1997, as described in the report, '*A Survey and Management Plan for Significant Vegetation of Roadsides in Knox*' by G.S. Lorimer for Knox City Council (May 1998, 137 pp.);
- Vegetation data collected east of Kelletts Rd in October 2002 and on 25th April 2003 by Dr Lorimer for the first edition of this report, including six lists of indigenous and introduced plant species for different segments of the site;
- Lists of fauna observed incidentally during the above studies;
- Revisitation of the area around the Boral Quarry in 2003 to further clarify the EVC identification;
- A botanical survey by Dr Lorimer on 2nd October 2024, including: compilation of five lists of plant species for different parts of the site, including abundances; mapping and documentation of significant plants; and checking for changes in features relevant to this report compared with pre-existing information;
- Records of flora and fauna observations stored in Knox City Council's biodiversity database;
- Records of flora and fauna observations stored in the Atlas of Living Australia, but note that the iNaturalist record of *Acacia myrtifolia* relates to planted plants despite not being portrayed as such;
- Aerial and satellite imagery from between 1946 and 2024;
- The Victorian Government's 'NatureKit' website;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.