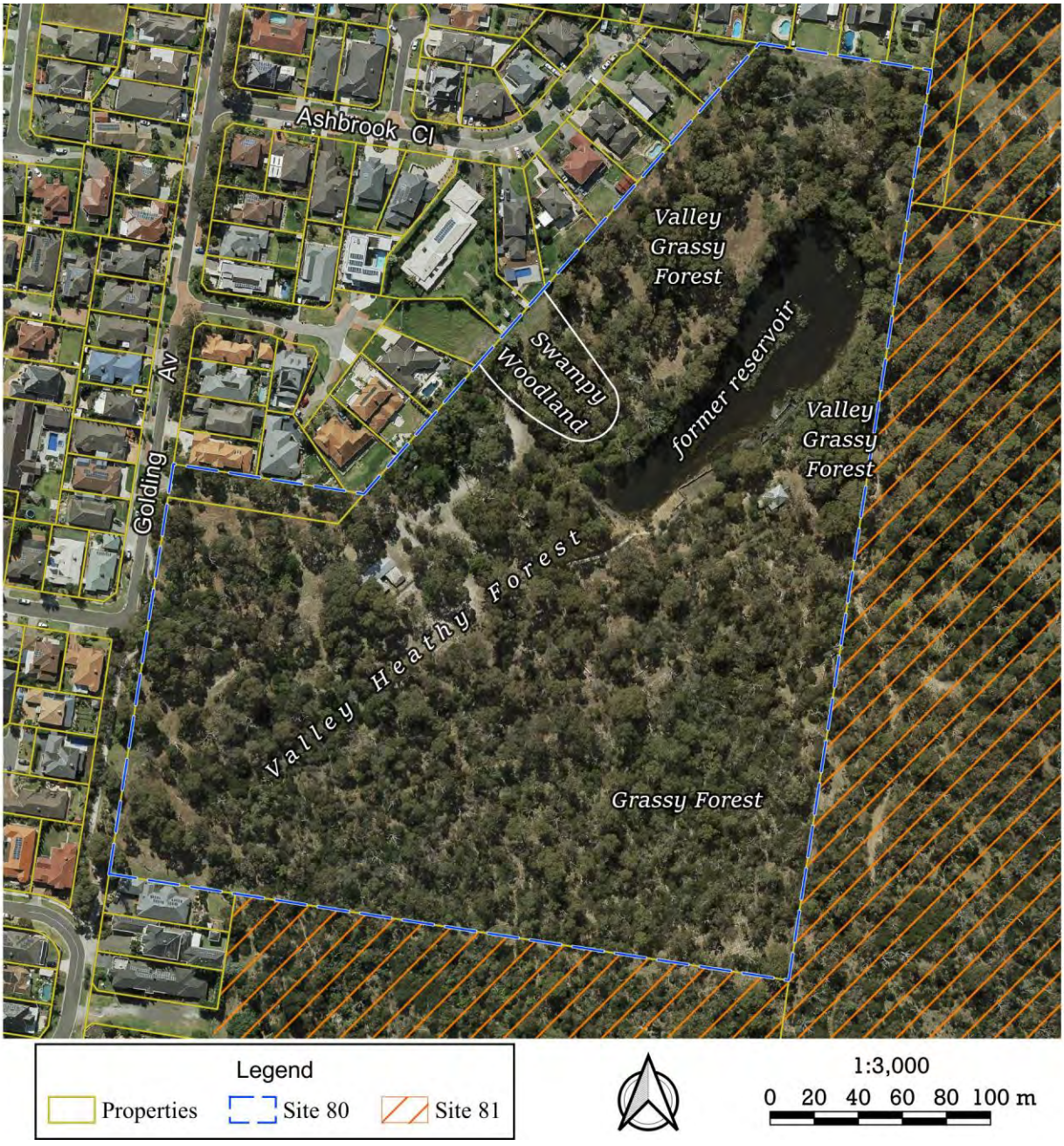
Site 80. Heany Park, Rowville

Council property with native vegetation, a reservoir and a Scout and Guide camp.

Summary of significant features:

- State significance: known habitat of the Bulging Fireweed (*Senecio campylocarpus*), which is listed as Endangered in Victoria;
- State significance: likely habitat of *Austrostipa rudis* subspecies *australis*, which grows on the adjacent land and is listed as Endangered in Victoria;
- State significance: patches of the regionally-threatened vegetation types, Swampy Woodland, Valley Heathy Forest, Valley Grassy Forest and Grassy Forest;
- Regionally significant: known habitat of the Blue-billed Duck and likely habitat of the Powerful Owl, both of which are listed as Vulnerable in Victoria;
- Regionally significant: part of a large habitat corridor;
- Locally significant: viable populations of scores of plant species that are threatened with dying out in Knox;
- Contains possibly the highest quality native vegetation for kilometres around.



Boundaries

The site is the whole reserve, as outlined with blue dashes on the aerial photograph.

Land use & tenure: Council property closed to the general public, managed for nature conservation and for the benefit of Scouts, to whom the park is leased for a scout hall, camping and related activities.

Site description

Heany Park occupies 9.4 ha on the northwest-facing slopes of the Lysterfield Hills, with elevations varying from 84 m at the entrance gate on Golding Av to 164 m at the southeastern corner. The slope is typically 30% at locations above the 105 m contour and 10% below that level. A reservoir for Dandenong's water supply was constructed over a century ago at the break of slope by digging out earth and using it to form the embankment on the downhill side of the reservoir. The spillway at the southwestern end of the reservoir was lowered in 2009 for safety reasons, leaving a shallow but permanent waterbody of 0.65 ha.

Despite the reservoir being an artificial waterbody, it has become colonised by overwhelmingly native vegetation (as is normal). It provides habitat for aquatic and semi-aquatic plants, frogs, waterbirds and aquatic invertebrates. Its bottom is well-vegetated – particularly by a charophyte (a green alga) and Eel-grass (*Vallisneria australis*) – providing a strong base for the aquatic food-chain. As a result, diving ducks such as Blue-billed Ducks (a vulnerable species) and Hardhead can often be seen there.

The bedrock is Lysterfield Hills hornfels. On the steeper, upper slope, this has weathered to form a shallow, stony, rather infertile clay loam that does not drain well and dries very hard. Eroded material from the steep slope has gravitated downhill and deposited to become colluvium that forms the lower, gentler slope.

The steep, upper slope has the most natural vegetation. It is in good ecological condition – perhaps the best for several kilometres around.

Scouting and recreational activities have been concentrated on the lower, gentlest slopes. Trampling, clearing, excavations and buildings have modified the vegetation in these areas, and the aerial photograph shows the lower density of trees that has resulted.

The area's many kangaroos currently graze the groundcover fairly heavily, suppressing the dominant grass species and leaving ecological niches for tiny indigenous annual plants, including some that have not been recorded elsewhere in Knox (*Crassula closiana*) or not for decades (*Hydrocotyle callicarpa* and *Wahlenbergia gracilenta*). Until the past decade or so, kangaroos were scarcer and rabbits did most of the grazing.

The park's shrubs and sub-canopy trees changed markedly in density and mix of species through the course of the Millennium Drought, and again to today. The structure and composition of the park's vegetation is still undergoing change.

There has been extensive planting in the park except for the upper slope. Pines date back many scores of years and have been removed over recent years. 'Australian natives' were planted in the 1970s, then locally-indigenous species in subsequent decades. The planting of indigenous species clouds classification of some of the vegetation in the least natural areas.

Relationship to other land

The park is effectively part of a larger site of biological significance in combination with the Dandenong Police Paddocks Reserve, the Lysterfield Hills (Site 81), Churchill National Park, Lysterfield Park (Site 82) and forest to the northeast of Lysterfield Park. Many species of fauna move between these sites, sometimes carrying pollen or seeds to link the plant populations across the area. Heany Park is treated as a separate site of significance for this report because of its land tenure, land use and the outstanding quality of its Grassy Forest.

The residential estate to the north and west of the park is unfit for native flora and fauna except the hardiest, urban-adapted species.

Bioregion: The Valley Heathy Forest is in the Gippsland Plain bioregion and the other vegetation types are in the Highlands Southern Fall bioregion.

Habitat types

The park's history of extensive excavations, clearing, recreation and scouting makes the vegetation types difficult to classify and delineate.

The vegetation on the steeper, upper slopes does not comfortably fit recognised Ecological Vegetation Classes (EVCs). Being west-facing with shallow, stony soil, one might expect it to be Grassy Dry Forest, which is what the Department of Energy, Environment and Climate Action has modelled it as (without seeing it). However, Grassy Forest is arguably a better fit, given that the vegetation is dominated by Narrow-leaved Peppermint (*Eucalyptus radiata*) and Black Sheoak (*Allocasuarina littoralis*); however, it is not the kind of Grassy Forest found in the Dandenong Ranges. It is unique among all the sites visited for this study but it was seen to extend into adjacent properties where permission was not granted to inspect further.

On the colluvium southwest of the reservoir, the vegetation is fairly typical of regrowth of Valley Heathy Forest.

Immediately downhill from a drain pipe near the reservoir's outlet, there is a patch of vegetation that reflects long-term seepage and discharge of water, with Swamp Gum (*Eucalyptus ovata*) and Swamp Paperbark (*Melaleuca ericifolia*). The vegetation is best classified as Swampy Woodland (a regionally-endangered EVC) but its origins are not entirely natural.

With the exception of the Swampy Woodland, the surroundings of the reservoir are Valley Grassy Forest, characterised by a nearly pure stand of Yellow Box (*Eucalyptus melliodora*). Candlebark (*Eucalyptus rubida*) was also present until the Millennium Drought killed them all in c. 2005.

Grassy Forest (part of EVC 128, **Vulnerable**): Estimated to cover 2 ha, all in good ecological condition (rating B).

Canopy trees: Dominated by *Eucalyptus radiata* (10 m tall), with fewer *E. melliodora* and *E. goniocalyx*.

Sub-canopy trees: Dominated by *Allocasuarina littoralis* and *Acacia mearnsii*, with fewer *Exocarpos cupressiformis* and *Acacia implexa*.

Shrubs: Since the Millennium Drought, *Acacia paradoxa* has become dense and *Cassinia longifolia* fairly dense. Prior to (and during) the drought, shrub cover was much sparser and dominated by *Bursaria spinosa* and *Acacia paradoxa*, with few *Cassinia longifolia*.

Vines: *Comesperma volubile* is abundant. *Billardiera mutabilis* is also present.

Ferns: Only a single plant has been recorded: a *Cheilanthes austrotenuifolia*.

Groundcover: Grassy with fairly low diversity (perhaps suppressed by kangaroo grazing). Dominated by *Rytidosperma pallidum, Microlaena stipoides* and *Lomandra filiformis* subsp. *coriacea*. The following other species are also abundant: *Arthropodium strictum, Lepidosperma laterale, Austrostipa pubinodis, Austrostipa rudis, Hydrocotyle foveolata* and *Lagenophora sublyrata*. *Bossiaea prostrata* and *Drosera aberrans* are moderately common; *Drosera auriculata* and *D. gunniana/hookeri* are also present.

Valley Heathy Forest (EVC 127, **Endangered**): Estimated to cover 3½ ha, comprising 1 ha in good ecological condition (rating B), 1½ ha in fair ecological condition (rating C) and 1 ha in poor ecological condition (rating D).

Canopy trees: Dominated by *Eucalyptus cephalocarpa* (typically 17 m tall), with far fewer *E. melliodora* (typically 20 m tall).

Sub-canopy trees: Dominated by *Acacia mearnsii* and *Exocarpos cupressiformis*; also with *Allocasuarina littoralis*.

Shrubs: At the turn of the century, the shrub layer was sparse except for patches of regrowth; now it is dense and dominated by various mixtures of *Acacia paradoxa*, *Cassinia longifolia*, *Goodenia ovata* and *Kunzea* sp. (Upright form).

Vines: *Billardiera mutabilis* is scattered.

Ferns: Absent.

Groundcover: Densely grassy (95% cover) and dominated by *Microlaena stipoides*. The following other grasses are also dense in patches: *Themeda triandra, Austrostipa rudis, Austrostipa pubinodis* and *Austrostipa mollis*. Species that are abundant but not dominant in cover are *Arthropodium strictum, Hibbertia australis* (a characteristic species) and *Oxalis perennans*.

Valley Grassy Forest (EVC 47, **regionally Endangered**): Estimated to cover 1 ha, comprising 0.3 ha in fair ecological condition (rating C) and the rest in poor ecological condition (rating D).

Canopy trees: Strongly dominated by *Eucalyptus melliodora*, with small numbers of *E. radiata* and (until early this century) *E. rubida*.

Sub-canopy trees: *Acacia mearnsii, Exocarpos cupressiformis, Acacia implexa* and *Allocasuarina littoralis*.

Shrubs: Patchy, dominated by *Acacia paradoxa, Bursaria spinosa* and/or *Cassinia longifolia*.

Groundcover: Variable in density due to camp activities, dominated in the least-modified areas by *Lomandra longifolia* and *Rytidosperma geniculatum*. *Microlaena stipoides* is much scarcer than in the Valley Heathy Forest to the southwest.

Swampy Woodland (EVC 937, **regionally Vulnerable**): Estimated to cover ¼ ha, 0.1 ha in fair ecological condition (rating C) and the rest in poor ecological condition (rating D).

Canopy trees: Dominated by stunted *Eucalyptus ovata* and *Eucalyptus cephalocarpa*.

Lower trees: *Acacia mearnsii, Exocarpos cupressiformis* and *Melaleuca ericifolia*.

Shrubs: Perhaps entirely planted except for the introduced *Senecio pterophorus*. *Goodenia ovata, Kunzea, Leptospermum scoparium* and *Ozothamnus ferrugineus* have been planted and some of these appear to have reproduced.

Vines: Absent.

Ferns: Absent.

Groundcover: Grassy, dominated by *Microlaena stipoides*, with scattered rushes (*Juncus amabilis, J. pallidus* and *J. subsecundus*), *Lepidosperma gunnii* and patches of *Acaena novae-zelandiae*. *Lomandra longifolia* is fairly conspicuous as a result of planting.

Wetland (EVC 74, listed as regionally Endangered but in this case, it is artificial): Estimated to contain 0.3 ha of fringing vegetation in fair ecological condition (rating C) with 8 indigenous plant species, and 0.4 ha of open water with bottom-dwelling flora.

Trees: *Melaleuca ericifolia* grows on some of the shore and encroaches slightly into the water.

Shrubs, vines and ferns: None.

Aquatic and semi-aquatic flora: Dominated underwater by *Vallisneria australis* and a charophyte (probably either *Chara* or *Nitella*), and above water, variously by *Typha domingensis, Persicaria decipiens, Eleocharis acuta, Eleocharis sphacelata, Juncus amabilis* or *Juncus sarophorus*. Floating plants fluctuate greatly in density and the species present; in September 2024, *Azolla pinnata* and *Wolffia australiana* were present with low cover.

Plant species

The following plant species have been recorded in the park. Those not seen in the (inexhaustive) survey in September 2024 are indicated by superscripts showing the year of the most recent record. In 2024, introduced species were only recorded if they were within native vegetation. 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, the species with names in bold are rare in the Melbourne area.

Indigenous nonvascular species
Campylopus introflexus, Heath Star Moss
Characeae sp., a stonewort
Funaria hygrometrica, Common Fire-moss [2009]
Hypnum cupressiforme, Common Hypnum
Rosulabryum billarderi, Common Thread-moss
Thuidiopsis furfurosa, Golden Weft-moss

Risk	Wild indigenous vascular species
V	*Acacia implexa*, Lightwood
V	*Acacia mearnsii*, Black Wattle
V	*Acacia melanoxylon*, Blackwood
	Acacia paradoxa, Hedge Wattle
E	*Acacia stricta*, Hop Wattle [2009]
V	*Acaena echinata*, Sheep's Burr
	Acaena novae-zelandiae, Bidgee-widgee
E	*Acrotriche serrulata*, Honey-pots
V	*Allocasuarina littoralis*, Black Sheoak
C	*Amyema pendula*, Drooping Mistletoe
	Anthosachne scabra, Common Wheat-grass [2009]
C	***Arthropodium milleflorum* s.l., Pale Vanilla-lily** [2001]
	Arthropodium strictum, Chocolate Lily
V	*Austrostipa mollis*, a Spear-grass
	Austrostipa pubinodis, Tall Spear-grass
	Austrostipa rudis subsp. *rudis*, Veined Spear-grass
V	*Azolla pinnata*, Ferny Azolla
	Billardiera mutabilis, Common Apple-berry
N	*Bossiaea prostrata*, Creeping Bossiaea
	Burchardia umbellata, Milkmaids

Risk	Wild indigenous vascular species
	Bursaria spinosa, Sweet Bursaria
V	*Caesia parviflora*, Pale Grass Lily
	Carex appressa, Tall Sedge (only planted?)
	Carex breviculmis, Short-stem Sedge
E	*Carex fascicularis*, Tassel Sedge
	Cassinia aculeata, Common Cassinia
	Cassinia longifolia, Shiny Cassinia
E	*Centella cordifolia*, Centella
C	*Chamaescilla corymbosa*, Blue Stars
C	*Cheilanthes austrotenuifolia*, Green Rock Fern
	Clematis decipiens, a small-leafed clematis (perhaps not indigenous to Knox)
E	*Comesperma volubile*, Love Creeper
	Cotula australis, Common Cotula [2009]
C	***Crassula closiana*, Stalked Crassula**
	Crassula decumbens, Spreading Crassula
	Deyeuxia quadriseta, Reed Bent-grass [2003]
	Dianella longifolia var. *longifolia*, Pale Flax-lily [2003]
	Dianella revoluta, Black-anther Flax-lily
	Dichelachne rara, Common Plume-grass [2009]
	Dichondra repens, Kidney-weed
C	*Diuris* sp. (D. Wallace, 1980s?)
V	*Drosera aberrans*, Scented Sundew
V	*Drosera auriculata*, Tall Sundew
N	*Drosera hookeri*, Branched Sundew
V	*Eleocharis acuta*, Common Spike-rush
	Eleocharis sphacelata, Tall Spike-rush
	Epilobium hirtigerum, Hairy Willow-herb
E	*Eucalyptus cephalocarpa*, Mealy Stringybark
V	*Eucalyptus goniocalyx*, Bundy
E	*Eucalyptus melliodora*, Yellow Box
V	*Eucalyptus ovata*, Swamp Gum
E	*Eucalyptus radiata*, Narrow-leaved Peppermint
C	*Eucalyptus rubida*, Candlebark (dead since c. 2005)
E	*Euchiton involucratus*, Common Cudweed
	Euchiton japonicus, Creeping Cudweed
V	*Exocarpos cupressiformis*, Cherry Ballart
C	*Gahnia radula*, Thatch Saw-sedge
	Gonocarpus tetragynus, Common Raspwort
	Goodenia ovata, Hop Goodenia
C	*Goodia lotifolia*, Common Golden-tip (offspring of planted plants)
C	***Gratiola pubescens*, Glandular Brooklime**
C	*Hibbertia australis*, Upright Guinea-flower
C	*Hydrocotyle callicarpa*, Small Pennywort
E	*Hydrocotyle foveolata*, Yellow Pennywort
E	*Hypericum gramineum*, Small St John's Wort
	Isolepis inundata, Swamp Club-rush
	Juncus amabilis, Hollow Rush
	Juncus bufonius, Toad Rush
C	*Juncus fockei/holoschoenus*, a joint-leaf rush [2009]
	Juncus pallidus, Pale Rush

Risk	Wild indigenous vascular species
E	*Juncus planifolius*, Broad-leaf Rush [2009]
E	*Juncus procerus*, Tall Rush
	Juncus sarophorus, Broom Rush
E	*Juncus subsecundus*, Finger Rush
	Kunzea leptospermoides, Yarra Burgan
	Kunzea sp. (Upright form), Forest Burgan
	Lachnagrostis filiformis, Common Blown-grass [2009]
V	*Lagenophora sublyrata*, Slender Bottle-daisy
	Laphangium luteoalbum, Jersey cudweed
	Lemna disperma, Common Duckweed
	Lepidosperma gunnii, Slender Sword-sedge
V	*Lepidosperma laterale*, Variable Sword-sedge
C	*Leptospermum continentale*, Prickly Tea-tree [2009]
	Leptospermum scoparium, Manuka (only planted?)
	Lomandra filiformis subsp. *coriacea*, Wattle Mat-rush
	Lomandra filiformis subsp. *filiformis*, Wattle Mat-rush
	Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
E	*Melaleuca ericifolia*, Swamp Paperbark
	Microlaena stipoides, Weeping Grass
V	*Microtis* ?*parviflora*, Slender Onion-orchid
C	*Muellerina eucalyptoides*, Creeping Mistletoe
V	*Opercularia ovata*, Broad-leaf Stinkweed
V	*Opercularia varia*, Variable Stinkweed
	Oxalis exilis/perennans, Wood-sorrel
V	*Ozothamnus ferrugineus*, Tree Everlasting
	Pandorea pandorana, Wonga Vine
E	*Pauridia vaginata*, Yellow Star [2005]
	Persicaria decipiens, Slender Knotweed
C	*Persicaria prostrata*, Creeping Knotweed [2009]
C	*Pimelea curviflora*, Curved Rice-flower
E	*Pimelea humilis*, Common Rice-flower
	Poa morrisii, Soft Tussock-grass [2009]
	Poranthera microphylla, Small Poranthera
	Pterostylis nutans, Nodding Greenhood [2009]
C	*Rumex brownii*, Slender Dock
	Rytidosperma fulvum, Leafy Wallaby-grass [2009]
	Rytidosperma geniculatum, Kneed Wallaby-grass
E	*Rytidosperma pallidum*, Red-anther (or Silvertop) Wallaby-grass [2009]
	Rytidosperma racemosum, Clustered Wallaby-grass
	Rytidosperma setaceum, Bristly Wallaby-grass
	Rytidosperma tenuius, Purplish Wallaby-grass
	Schoenus apogon, Common Bog-rush
E	*Senecio campylocarpus*, Bulging Fireweed [2009]
V	*Senecio glomeratus*, Annual Fireweed
	Senecio hispidulus, Rough Fireweed
	Senecio minimus, Shrubby Fireweed

Risk	Wild indigenous vascular species
V	*Senecio prenanthoides*, Common Fireweed [2009]
	Senecio quadridentatus, Cotton Fireweed
V	*Solanum laciniatum*, Large Kangaroo Apple
C	*Solanum prinophyllum*, Forest Nightshade
V	*Solenogyne dominii*, Smooth Solenogyne
C	*Stylidium* ?*graminifolium*, Grass Triggerplant
	Themeda triandra, Kangaroo Grass [2009]
E	*Thysanotus patersonii*, Twining Fringe-lily
	Tricoryne elatior, Yellow Rush-lily
	Typha orientalis, Cumbungi
	Vallisneria australis, Eel Grass
V	*Veronica gracilis*, Slender Speedwell [2009]
E	*Veronica plebeia*, Trailing Speedwell
E	*Viola hederacea*, Ivy-leaf Violet [2009]
C	***Wahlenbergia gracilenta*, Hairy Annual Bluebell**
	Wahlenbergia gracilis, Sprawling Bluebell
C	***Wahlenbergia* ?*multicaulis*, Tadgell's Bluebell**
E	*Wahlenbergia stricta*, Tall Bluebell
V	***Wolffia australiana*, Tiny Duckweed**
E	*Wurmbea dioica*, Common Early Nancy
E	*Xanthorrhoea minor*, Small Grass-tree

Risk	Planted species
V	*Acacia pycnantha*, Golden Wattle
V	*Acacia stictophylla*, Dandenong Range Cinnamon Wattle
E	*Acacia stricta*, Hop Wattle
V	*Allocasuarina littoralis*, Black Sheoak
	Dianella longifolia var. *longifolia*, Pale Flax-lily
	Eucalyptus globulus, Blue Gum
C	*Eucalyptus macrorhyncha*, Red Stringybark
C	*Eucalyptus rubida*, Candlebark [2009]
C	*Eucalyptus viminalis* subsp. *viminalis*, Manna Gum
	Goodenia ovata, Hop Goodenia
C	*Goodia lotifolia*, Common Golden-tip
C	*Hakea decurrens*, Bushy Needlewood
C	*Hakea nodosa*, Yellow Hakea
	Hakea sp., Hakea [2009]
	Kunzea sp. (Upright form), Burgan
C	*Leptospermum lanigerum*, Woolly Tea-tree [2001]
	Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
	Melaleuca hypericifolia, Hillock Bush
C	*Melaleuca squarrosa*, Scented Paperbark
	Myoporum insulare, Common Boobialla [2009]
C	*Myrsine howittiana*, Muttonwood [2009]
V	*Ozothamnus ferrugineus*, Tree Everlasting
C	*Ranunculus glabrifolius*, Shining Buttercup [2018]
C	*Viminaria juncea*, Golden Spray [2009]
E	*Xanthorrhoea minor*, Small Grass-tree [2009]

Introduced species
Acacia floribunda, White Sallow-wattle
Agrostis capillaris, Brown-top Bent [2009]
Aira ?*cupaniana*, Small Hair-grass
Anthoxanthum odoratum, Sweet Vernal-grass
Araujia sericifera, White Bladder-flower [2009]
Arctotheca calendula, Cape Weed
Asparagus asparagoides, Bridal Creeper [2009]
Briza maxima, Large Quaking-grass
Cassinia sifton, Sifton Bush
Cenchrus clandestinus, Kikuyu Grass [2009]
Centaurium erythraea, Common Centaury
Cerastium glomeratum s.l., Common Mouse-ear Chickweed
Chrysanthemoides monilifera subsp. *monilifera*, Boneseed
Cirsium vulgare, Spear Thistle
Cynodon dactylon, Couch [2009]
Cyperus eragrostis, Drain Flat-sedge [2003]
Dactylis glomerata, Cocksfoot [2001]
Echium plantagineum, Paterson's Curse
Ehrharta erecta, Panic Veldt-grass
Erigeron sumatrensis, Fleabane
Fumaria sp., an unidentified fumitory [2009]
Galium aparine, Cleavers
Galium murale, Small Bedstraw
Hakea salicifolia, Willow-leaf Hakea [2009]
Holcus lanatus, Yorkshire Fog [2009]
Hypochaeris radicata, Cat's Ear
Juncus articulatus, Jointed Rush
Leontodon saxatilis, Lesser Hawkbit [2009]
Lilium formosanum, Lily [2003]
Lotus subbiflorus, Hairy Bird's-foot Trefoil
Lysimachia arvensis, Pimpernel
Nassella trichotoma, Serrated Tussock [2009]
Oxalis incarnata, Pale Wood-sorrel
Oxalis pes-caprae, Soursob [2001]
Oxalis purpurea, Large-flower Wood-sorrel [2020]
Paspalum dilatatum, Paspalum [2009]
Paspalum distichum, Water Couch [2009]
Pinus radiata, Monterey Pine [2009]
Pittosporum undulatum, Sweet Pittosporum
Plantago lanceolata, Ribwort [2009]
Poa annua (non *P. infirma*), Annual Meadow-grass
Poa infirma, Early Meadow-grass
Prunus cerasifera, Cherry-plum
Pseudoscleropodium purum, Neat Feather-moss [2009]
Romulea rosea, Common Onion-grass
Rubus anglocandicans, Blackberry
Senecio pterophorus, Winged Groundsel
Solanum americanum, Glossy Nightshade [2009]
Solanum nigrum, Black Nightshade [2009]
Soliva sessilis, Jo Jo
Sonchus asper, Rough Sow-thistle
Sonchus oleraceus, Sow-thistle
Sporobolus africanus, Rat-tail Grass [2003]

Introduced species

Stellaria media, Chickweed
Symphyotrichum subulatum, Aster-weed [2009]
Ulex europaeus, Gorse (Furze) [2009]

Introduced species

Vicia sp., a Vetch [2009]
Vulpia bromoides, Squirrel-tail Fescue
Zantedeschia aethiopica, White Arum Lily [2009]

Notes concerning some of the significant plant species

Listed as Endangered under Victorian law

Austrostipa rudis subsp. *australis* (a subspecies of Veined Spear-grass): Seen in July 2009 at the adjacent Girl Guides camp and probably present in Heany Park but overlooked for want of a botanical survey at the right time of year.

Senecio campylocarpus (Bulging Fireweed): Dozens seen in the 2009 survey in drying mud above the reservoir's waterline. Numbers are likely to fluctuate as the water level rises and falls.

Rare and threatened in metro Melbourne

Arthropodium milleflorum (Pale Vanilla-lily): Very few individuals were reported by Yugovic and Timewell (2001) in the Valley Heathy Forest.

Crassula closiana (Stalked Crassula): A small colony was found in 2024 (the first record in Knox), close to the eastern fence near its closest point to the centre of the reservoir.

Locally threatened

Austrostipa mollis (a Spear-grass): Moderate numbers were observed in the author's surveys, which were in winter and early spring, and more would be found in summer. It is also present on adjoining properties.

Chamaescilla corymbosa (Blue Stars): Very scarce, around the break of slope and in the southeast corner.

Diuris, species indeterminate. Seen by Darren Wallace many years ago and perhaps now lost from the park.

Eucalyptus rubida (Candlebark): The very few wild trees seen by Dr Lorimer in the park's north in c. 2003 died. Replacements were planted.

Hydrocotyle callicarpa (Small Pennywort): Discovered in 2024 beside vehicle tracks south of the old shelter beside the reservoir, the first record in Knox since 2004.

Hydrocotyle foveolata (Yellow Pennywort): Seasonally abundant on the upper, steep slope; less abundant further downhill. As an opportunistic annual species, it is likely to appear from time to time anywhere in the park.

Persicaria prostrata (Creeping Knotweed): Four plants were found in 2009 at the southwestern corner of the reservoir's waterline, the only record of the species in Knox.

Pimelea curviflora (Curved Rice-flower): Scattered thinly over the middle- to upper slope.

Rytidosperma geniculatum (Kneed Wallaby-grass): Fairly abundant; Also present in the adjoining Hanson Quarry land and apparently secure.

Veronica plebeia (Trailing Speedwell): Small numbers grow on the slope south of the reservoir's southwest end.

Wahlenbergia gracilenta (Hairy Annual Bluebell): Discovered in small numbers on a track at the break of slope in 2024. The only other record in Knox's history was on the adjoining Hanson quarry land in 1998.

Fauna of special significance

Listed as Vulnerable under Victorian law

Blue-billed Duck: Recorded during each biological survey of the park, so probably regular visitors to the reservoir.

Locally threatened

Spotted Brown Butterfly: The Lysterfield Hills is a stronghold of this localised species and Heany Park represents suitable habitat, but the author has no knowledge of sightings within the park.

Fauna habitat features

- The tree canopy and scattered shrubs provide habitat for insects, bats, possums and a wide variety of forest birds. However, on the lower slopes, this value is diminished by aggressive Noisy Miners that displace smaller birds;

- There are many mature trees – dead and alive – that have hollows suitable for nesting or other occupation by native birds, bats, possums or invertebrates;
- The abundant large wattles provide sap to feed Krefft's Gliders (aka Sugar Gliders);
- The reservoir and its vegetation – both submerged and fringing – provide habitat for waterbirds, frogs and aquatic invertebrates;
- The reservoir provides drinking water for other native fauna such as kangaroos, wallabies and birds;
- The grassy groundcover is likely to provide fodder for butterfly caterpillars and other invertebrates;
- Fallen timber on the upper slopes provides the sort of cover required by many reptiles and invertebrates;
- Piles of corrugated iron and building waste may provide cover for reptiles and invertebrates around the camp.

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 and the adjacent Site 81 represent a link in 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.

Regionally Threatened Vegetation Types

Most of the park's Valley Heathy Forest meets the definition of a 'remnant patch' adopted by the standard criteria, i.e. a continuous area of at least 0.25 ha in which the cover of native understorey is at least 10% throughout. The Swampy Woodland is part of the same patch. Both those EVCs are regionally endangered. Under Appendix 3 of *Victoria's Native Vegetation Management – a Framework for Action* (NRE 2002a), any remnant patch of a regionally-endangered EVC has a conservation significance rating of at least 'High'. This translates to **State** significance under criterion 3.2.3 of Amos (2004).

Grassy Forest is regionally vulnerable. The Grassy Forest on the upper slopes at Heany Park is a 'remnant patch' and it has a habitat score far exceeding the threshold of 0.3 to have a conservation significance of 'High' under the abovementioned Appendix 3. Again, a 'High' conservation significance in Appendix 3 translates to **State** significance under criterion 3.2.3 of Amos (2004).

The regionally-vulnerable Valley Grassy Forest is in poorer ecological condition and represents **Regional** significance under criterion 3.2.3.

Under the guidelines of the Department of Energy, Environment and Climate Action, the reservoir's wetland vegetation does not qualify as representing any EVC because the reservoir is an artificial feature. That is despite its vegetation matching that of some natural wetlands.

Threatened Plants

The area surrounding the reservoir is known habitat for the Bulging Fireweed (*Senecio campylocarpus*). That species is listed under the *Flora and Fauna Guarantee Act* as Endangered in Victoria and it also occurs interstate. Any known habitat for such a species meets criterion 3.1.2 for **State** significance.

The spear-grass, *Austrostipa rudis* subsp. *australis*, is known to grow adjacent to the park and it has probably been overlooked within the park because botanical surveys have been at the wrong time of year. The species is listed under the *Flora and Fauna Guarantee Act* as Endangered in Victoria. It also occurs interstate. These characteristics meet the description in criterion 3.1.3, 'Apparently high quality habitat for a taxon which is FFG listed … though taxon has not been recorded from the site which is… adjacent to known habitat, or in locality of known habitat of State critically endangered, endangered or data deficient taxon'. This description applies to **State** significance.

Most of the locally-threatened plant species seen in Heany Park in 2024 have viable populations, thereby meeting criterion 3.1.5 for **Local** significance.

Threatened Fauna

The reservoir is good habitat for visits of Blue-billed Ducks, which have been repeatedly seen there. These birds are likely to be part of the wider-ranging, viable population seen in nearby lakes such as Caribbean Lake and Lakewood Nature Reserve. Heany Park could not support a viable population in its own right. This gives

the reservoir's habitat **Regional** significance under criterion 3.1.2, taking into account the Vulnerable status and that the species is not confined to Victoria.

The Powerful Owl is listed as a vulnerable species in Victoria. It is known to frequent the adjoining Hanson Quarry and nest on the adjacent ridge, and Heany Park provides suitable habitat. However, no evidence has been found that the site has, or is likely to have, a viable population of Powerful Owls in its own right. This represents **Regional** significance under criterion 3.1.3.

Threats

- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves, fires 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. The species of greatest concern are Boneseed (*Chrysanthemoides monilifera* subsp. *monilifera*) and South African Daisy (*Senecio pterophorus*), the latter being a recent arrival in Rowville and now quite out of control around Heany Park's reservoir. Sweet Pittosporum (*Pittosporum undulatum*) and Gorse (*Ulex europaeus*) are currently being kept well under control;
- Trampling;
- Removal of fallen timber for firewood at the campsites;
- Continuation of casual cutting of live indigenous plants;
- Potential over-grazing by kangaroos and/or rabbits, though the vegetation is coping well presently;
- 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 trampling.

Strategic planning

- The previous (2010) edition of this report led to Heany Park being covered by Schedule 2 of the Environmental Significance Overlay (ESO2), on the basis of the same matters of biological significance discussed above except for the two listed endangered plant species (whose status was different at the time). The only material change since 2010 in this regard is that the rationale for ESO2 has been slightly strengthened by the elevation of the status of those two plant species. The current application of ESO2 to the park does not need to change;
- The park is zoned Public Park and Recreation Zone (PPRZ) and it is outside the Urban Growth Boundary.

Information sources used in this assessment

- Yugovic J. and Timewell C.A. (2001). *'Draft Flora and Fauna Assessment of Heany Park, Rowville, Victoria'*, a draft report prepared for Knox City Council;
- A document from Jeff Yugovic titled 'Changes to Heany Park Report', providing corrections and updates to the report just cited;
- An ecological survey by Dr Lorimer for 50 minutes on 24/4/03 to fill gaps between the above documents and the requirements of the first edition of this report. The fieldwork included:
  - Compilation of lists of indigenous and introduced plant species in each of four sections of the park;
  - Description of the structural and floristic composition of each type of native vegetation;
  - Mapping of the ecological condition of the vegetation; and
  - Checks for ecological threats and management issues;
- A brief inspection of the park in January 2008 for the second edition of this report, confirming that there had been no significant changes to the site's natural assets;
- A study involving 24 hours of fieldwork by Dr Lorimer, culminating in the report, *'2009 Bushland Management Plan for Heany Park, Rowville and adjacent Girl Guides Land'* for Knox City Council;
- An inspection of the park by Dr Lorimer on 26th September 2024, compiling lists of plant species (one list for the reservoir and another for dry-land vegetation) and checking for changes in features relevant to this report compared with pre-existing information;
- Verbal reports of flora and fauna from respected local naturalist, Darren Wallace, and Council land manager, John Erwin;
- 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;

- Aerial and satellite imagery from between 1946 and 2025;
- The Victorian Government's 'NatureKit' website;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.

Acknowledgments

Thanks to Darren Wallace and John Erwin for records of flora and fauna sightings, and Jeff Yugovic for providing an update to his draft flora and fauna assessment report of 2001.

Aerial Photograph and Plan of Sites 81, 82, 83 & 115 in Lysterfield

For other sites shown, there are more magnified images in their respective sections of this report (except 118c).