Site 45. Roselyn Crescent Reserve, Boronia

Council park with extensive cover of native vegetation.

Summary of significant features:

- Nationally significant: an abundance of the flat-pea, *Platylobium infecundum*, which is Critically Endangered globally;
- State significance: a fairly intact patch of the Ecological Vegetation Class, Valley Heathy Forest, which is listed as regionally Endangered;
- Regionally significant: a patch of Graceful Fescue (*Festuca asperula*) – one of only four known patches in the South East Coastal Plain biogeographic region;
- Locally significant: scores of plant species that are threatened with dying out in Knox.

Boundaries

The site is the whole of the reserve, as outlined above with blue dashes. The total area is 2.52 ha.

Land use & tenure: Council park with playground facilities, bushland and paths.

Site description

This site lies on a shallow drainage line that flows southwest, at elevations of 83–90 m and with slopes of 2% to 4%. The Lower Devonian siltstone bedrock is part of the Humevale formation, which has weathered to form a clay subsoil and shallow, poorly draining, pale ochre clay loam topsoil. This is shallowly covered with silt along the drainage line shown above.

The park's vegetation varies from open lawn of introduced species through to rather natural forest of the regionally-endangered type, 'Valley Heathy Forest'. The aerial photograph shows a long children's slide on a large mound of soil in the largest treeless area of the park. The rest of the playground facilities are just east of the mound, beneath some trees. This eastern corner has very little native understorey other than revegetation. That description also applies to most of the reserve's 'neck' that provides pedestrian access between Roselyn Crescent and Wadhurst Drive.

The rest of the park retains native understorey whose ecological condition is patchy due to the history of slashing and pedestrian traffic. Up to the early 1980s, the more intact areas were rich in species and particularly orchids, as is characteristic of Valley Heathy Forest. There were several orchid species that were very rare in Knox and the Melbourne area generally, as well as one listed as threatened nationally and another in Victoria.

Unfortunately, most orchid species that were present in the early 1980s had died out by 1986 and have not been seen since, despite efforts to regenerate them through ecological burns and reduced mowing.

Nevertheless, those efforts have regenerated other species and maintained much of the reserve's native vegetation in good ecological condition with a high number of indigenous species. Among those species is a large population of the flat-pea, *Platylobium infecundum*, which is critically endangered globally, as well as species that are rare in Knox or regionally.

More background information about the reserve can be found in the 'Roselyn Crescent Reserve Bushland Management Plan 2010' by G.S. Lorimer for Knox City Council.

Relationship to other land

300 m south of Roselyn Crescent Reserve is Site 44 (Wadhurst Drive Park), which is part of the Blind Creek habitat corridor (see also Site 33). The birdlife in Roselyn Crescent Reserve, and particularly the abundance of parrots, is likely to be considerably reliant on the presence of the Blind Ck corridor and, to a small extent, Wadhurst Drive Park. The treed neighbourhood to the east of Roselyn Crescent Reserve forms Site 103 and is presumed to assist movement of flying fauna between the reserve and other habitat areas such as the Blind Creek corridor.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, **regionally Endangered**): Estimated to occupy 6,200 m², comprising 2,300 m² in good ecological condition (rating B), 1,900 m² in fair ecological condition (rating C) and 2,000 m² in poor ecological condition (rating D).

Canopy trees: Dominated by *Eucalyptus cephalocarpa*, followed by *E. obliqua, E. goniocalyx, E. ovata* and *E. macrorhyncha*.

Sub-canopy trees: Dominated by *Acacia mearnsii*, also with *A. melanoxylon* and a few sapling *Exocarpos cupressiformis*.

Shrubs: Mostly scarce due to past slashing but increasing; dominated by *Bursaria spinosa* and with modest numbers of *Acacia verticillata, Pultenaea gunnii, Leptospermum continentale* and a burgan that is intermediate between *Kunzea leptospermoides* and *K.* sp. (Upright form). A thriving clump of *Platylobium obtusangulum* is a useful indicator of Valley Heathy Forest.

Vines: *Billardiera mutabilis* is fairly abundant and the dubiously indigenous *Clematis decipiens* has arrived in recent years.

Creepers: Abundant and rich in species. *Platylobium infecundum* is abundant, north of the east-west footpath. *Dichondra repens, Goodenia lanata, Oxalis exilis/perennans* and *Viola hederacea* are fairly abundant. *Bossiaea prostrata* is scattered thinly. *Acacia aculeatissima, Acaena novae-zelandiae* and *Centella cordifolia* are scarce. *Goodenia elongata* appears to have died out.

Ferns: There are patches of *Pteridium esculentum*.

Other groundcover: Densely grassy but with scattered sub-shrubs including the characteristic species, *Acrotriche serrulata* and *Hibbertia australis*; rich in lily species and formerly very rich in orchids. The more natural areas are dominated by various mixtures of *Poa morrisii, Themeda triandra* and *Platylobium infecundum*, interspersed with smaller (but substantial) numbers of *Austrostipa rudis* and (seasonally) *Arthropodium strictum*. The more frequently mown areas are dominated by *Microlaena stipoides* and wallaby-grasses (*Rytidosperma* species). Species that are fairly abundant but with low foliage cover include *Bossiaea prostrata, Burchardia umbellata, Gonocarpus tetragynus, Goodenia lanata, Lepidosperma gunnii, Lomandra filiformis, Oxalis perennans/exilis, Poranthera microphylla, Pterostylis nutans* and *Thelymitra peniculata*. The characteristic species *Allittia cardiocarpa, Caesia parviflora, Coronidium scorpioides, Dianella revoluta, Diuris chryseopsis, Dipodium roseum, Eragrostis brownii, Hemarthria uncinata, Hypoxis vaginata, Opercularia ovata, Pimelea humilis, Rytidosperma pallidum, Tricoryne elatior* and *Xanthosia dissecta* are (or have been) present but not abundant.

Plant species

The following plant species were observed in the reserve by the author except for *Bulbine bulbosa* (recorded in iNaturalist) and the asterisked orchid species, which were reported by John Jeanes from 1985 or earlier. Those species not seen in December 2022 or a brief inspection in 5th August 2024 are indicated by superscripts showing the year of the most recent record. 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; and 'X'=extinct in Knox. In addition, *Platylobium infecundum* is Critically Endangered globally, *Pterostylis* × *ingens* is Vulnerable in Victoria and species with names in bold are rare throughout the Melbourne region.

Indigenous liverworts

Chiloscyphus semiteres, Green Worms
Fossombronia ?*pusilla*, a liverwort
Lunularia cruciata, Moonwort
Marchantia berteroana, a liverwort

Indigenous mosses

Breutelia affinis, Common Breutelia
Campylopus clavatus, Broody Swan-neck Moss
Campylopus introflexus, Heath Star Moss
Fissidens bifrons, a pocket-moss
Funaria hygrometrica, Common Fire-moss
Hypnum cupressiforme, Common Hypnum
Thuidiopsis furfurosa, Golden Weft-moss
Polytrichum juniperinum, Common Juniper-moss

Risk Wild indigenous vascular species

E *Acacia aculeatissima*, Thin-leaf Wattle
V *Acacia mearnsii*, Black Wattle
V *Acacia melanoxylon*, Blackwood
Acacia paradoxa, Hedge Wattle
V *Acacia verticillata*, Prickly Moses
Acaena novae-zelandiae, Bidgee-widgee
E *Acrotriche serrulata*, Honey-pots 2010
C ***Allittia cardiocarpa*, Swamp Daisy 2010**
C *Amyema pendula*, Drooping Mistletoe 2010
C ***Aphelia pumilio*, Dwarf Aphelia 2001**
Arthropodium strictum, Chocolate Lily
Austrostipa pubinodis, Tall Spear-grass 2010
Austrostipa rudis subsp. *rudis*, Veined Spear-grass
Billardiera mutabilis, Common Apple-berry
N *Bossiaea prostrata*, Creeping Bossiaea
E *Bulbine bulbosa*, Yellow Bulbine-lily 2020

Risk Wild indigenous vascular species

Burchardia umbellata, Milkmaids
Bursaria spinosa, Sweet Bursaria
V *Caesia parviflora*, Pale Grass-lily
X ***Caladenia clavigera*, Plain-lip Spider-orchid***
Carex breviculmis, Short-stem Sedge
Cassinia aculeata, Common Cassinia
Cassinia longifolia, Shiny Cassinia
E *Centella cordifolia*, Centella
Clematis decipiens, a small-leafed clematis
C *Coronidium scorpioides*, Button Everlasting
X *Corunastylis despectans*, Sharp Midge-orchid*
Cotula australis, Common Cotula
C *Craspedia variabilis*, Variable Billy-buttons 2010
V *Crassula* ?*colligata*, a crassula
Crassula decumbens, Spreading Crassula
Deyeuxia quadriseta, Reed Bent-grass
Dianella longifolia var. *longifolia*, Pale Flax-lily
Dianella revoluta, Black-anther Flax-lily
Dichondra repens, Kidney-weed
V *Dillwynia cinerascens*, Grey Parrot-pea
E *Dipodium roseum*, Rosy Hyacinth-orchid*
C *Diuris chryseopsis*, Golden Moths 2010
C *Diuris orientis*, Wallflower Orchid*
V *Drosera aberrans*, Scented Sundew
V *Drosera auriculata*, Tall Sundew
N *Drosera hookeri*, Branched Sundew 2001
C *Epacris impressa*, Common Heath 2010
Epilobium sp., a willow-herb
Eragrostis brownii, Common Love-grass 2010
E *Eucalyptus cephalocarpa*, Mealy Stringybark
V *Eucalyptus goniocalyx*, Bundy

Risk	Wild indigenous vascular species
C	*Eucalyptus macrorhyncha*, Red Stringybark
E	*Eucalyptus obliqua*, Messmate Stringybark
V	*Eucalyptus ovata*, Swamp Gum
E	*Eucalyptus radiata*, Narrow-leaved Peppermint
	Eucalyptus hybrids
	Euchiton japonicus, Creeping Cudweed [2010]
V	*Exocarpos cupressiformis*, Cherry Ballart
C	***Festuca asperula*, Graceful Fescue**
C	*Geranium* sp. 5, Naked Crane's-bill
	Gonocarpus tetragynus, Common Raspwort
C	***Goodenia elongata*, Lanky Goodenia [2001]**
N	*Goodenia lanata*, Trailing Goodenia
V	*Hemarthria uncinata*, Mat Grass [2010]
C	*Hibbertia australis*, Upright Guinea-flower
C	*Hovea heterophylla*, Common Hovea [2010]
E	*Hydrocotyle foveolata*, Yellow Pennywort [2010]
E	*Hypericum gramineum*, Small St John's Wort
	Hypoxis hygrometrica, Golden Weather-glass
C	*Imperata cylindrica*, Blady Grass [2010]
C	*Isolepis marginata*, Little Club-rush
	Juncus bufonius, Toad Rush
E	*Juncus planifolius*, Broad-leaf Rush
E	*Juncus subsecundus*, Finger Rush [2010]
	Kunzea ericoides group, Burgan
	Lachnagrostis filiformis, Common Blown-grass [1997]
V	*Lagenophora sublyrata*, Slender Bottle-daisy
	Lepidosperma gunnii, Slender Sword-sedge
C	*Leptorhynchos tenuifolius*, Wiry Buttons [2001]
C	*Leptospermum continentale*, Prickly Tea-tree
C	*Leptospermum continentale*, Prickly Tea-tree
	Leptospermum scoparium, Manuka [2010]
V	*Lindsaea linearis*, Screw Fern [2001]
	Lomandra filiformis subsp. *coriacea*, Wattle Mat-rush
	Lomandra filiformis subsp. *filiformis*, Wattle Mat-rush
	Lomandra longifolia subsp. *exilis*, Cluster-headed Mat-rush
	Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
V	*Luzula meridionalis*, Common Woodrush
E	*Melaleuca ericifolia*, Swamp Paperbark (planted?)
	Microlaena stipoides, Weeping Grass
V	*Microtis parviflora*, Slender Onion-orchid
C	*Muellerina eucalyptoides*, Creeping Mistletoe [2010]
V	*Opercularia ovata*, Broad-leaf Stinkweed
V	*Opercularia varia*, Variable Stinkweed
	Oxalis exilis/perennans, Wood-sorrel
E	*Pauridia vaginata*, Yellow Star
E	*Pimelea humilis*, Common Rice-flower
E	***Platylobium infecundum*, a flat-pea**
E	*Platylobium obtusangulum*, Common Flat-pea

Risk	Wild indigenous vascular species
	Poa morrisii, Soft Tussock-grass
	Poranthera microphylla, Small Poranthera
	Pteridium esculentum, Austral Bracken
	Pterostylis curta, Blunt Greenhood*
X	***Pterostylis* × *ingens*, Sharp Greenhood***
C	*Pterostylis pedunculata*, Maroonhood*
	Pterostylis nutans, Nodding Greenhood
V	*Pultenaea gunnii*, Golden Bush-pea
	Rytidosperma fulvum, Leafy Wallaby-grass
	Rytidosperma laeve, Smooth Wallaby-grass
E	*Rytidosperma pallidum*, Red-anther (or Silvertop) Wallaby-grass
	Rytidosperma penicillatum, Slender Wallaby-grass
	Rytidosperma pilosum, Velvet Wallaby-grass
	Rytidosperma racemosum, Clustered Wallaby-grass
	Rytidosperma setaceum, Bristly Wallaby-grass
	Schoenus apogon, Common Bog-rush
E	*Senecio campylocarpus*, Bulging Fireweed [2001]
	Senecio hispidulus, Rough Fireweed
	Senecio minimus, Shrubby Fireweed
V	*Senecio* ?*prenanthoides*, Common Fireweed [2010]
	Senecio quadridentatus, Cotton Fireweed
C	***Senecio runcinifolius*, Tall Groundsel**
V	*Solanum laciniatum*, Large Kangaroo Apple
V	*Solenogyne dominii*, Smooth Solenogyne
E	*Thelymitra peniculata*, Trim Sun-orchid
	Themeda triandra, Kangaroo Grass
	Tricoryne elatior, Yellow Rush-lily
E	*Viola hederacea*, Ivy-leaf Violet
	Wahlenbergia gracilis, Sprawling Bluebell
E	*Wurmbea dioica*, Common Early Nancy
E	*Xanthorrhoea minor*, Small Grass-tree
V	*Xanthosia dissecta*, Cut-leaf Xanthosia [2010]

Risk	Planted species (indigenous or not)
	Acacia retinodes s.l., Wirilda
	Acacia dealbata, Silver Wattle
	Acacia paradoxa, Hedge Wattle
E	*Acacia stricta*, Hop Wattle
V	*Allocasuarina littoralis*, Black Sheoak
	Callistemon sp., a bottlebrush [2010]
	Carex appressa, Tall Sedge [2010]
	Correa glabra × *reflexa*, a hybrid Correa
C	*Correa reflexa* var. *reflexa*, Common Correa
E	*Eucalyptus melliodora*, Yellow Box [2010]
	Goodenia ovata, Hop Goodenia
C	*Hakea nodosa*, Yellow Hakea
C	*Indigofera australis*, Austral Indigo
	Kunzea ericoides group, Burgan
	Leptospermum scoparium, Manuka [2010]
	Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush
	Poa ensiformis, Sword Tussock-grass [2010]

Wild introduced species

Acacia longifolia subsp. *longifolia*, Sallow Wattle [2010]
Agapanthus praecox, Agapanthus
Agrostis capillaris, Brown-top Bent
Aira cupaniana, Small Hair-grass
Aira sp., Hair Grass [2001]
Allium triquetrum, Angled Onion
Anthoxanthum odoratum, Sweet Vernal-grass
Arctotheca calendula, Cape Weed
Asparagus aethiopicus, Sprengeri Fern [2010]
Asparagus asparagoides, Bridal Creeper
Avena barbata, Bearded Oat
Billardiera fusiformis, Bluebell Creeper [2010]
Briza maxima, Large Quaking-grass
Briza minor, Lesser Quaking-grass
Bromus catharticus, Prairie Grass [2010]
Bromus lithobius, Chilean Brome
Cardamine hirsuta, Common Bitter-cress
Cassinia sifton, Sifton Bush
Cenchrus clandestinus, Kikuyu Grass
Centaurium erythraea, Common Centaury [2010]
Cerastium glomeratum s.l., Common Mouse-ear Chickweed
Cirsium vulgare, Spear Thistle
Coprosma repens, Mirror-bush
Cordyline australis, New Zealand Cabbage Tree [2001]
Cotoneaster glaucophyllus, Cotoneaster [2001]
Cotoneaster pannosus, Cotoneaster [2010]
Crocosmia ?× *crocosmiiflora*, Montbretia [2001]
Cynodon dactylon, Couch [2010]
Dactylis glomerata, Cocksfoot
Ehrharta erecta, Panic Veldt-grass
Ehrharta longiflora, Annual Veldt-grass
Erigeron sumatrensis, Fleabane
Festuca arundinacea, Tall Fescue [2001]
Freesia leichtlinii, Freesia
Fumaria capreolata, Ramping Fumitory
Fumaria muralis subsp. *muralis*, Wall Fumitory
Galium aparine, Cleavers [2010]
Gamochaeta purpurea, Spiked Cudweed

Wild introduced species

Gladiolus undulatus, Wild Gladiolus [2010]
Grevillea hybrids and cultivars
Hakea salicifolia, Willow-leaf Hakea [2010]
Hedera helix/hibernica, Ivy
Hypochaeris radicata, Cat's Ear
Isolepis levynsiana, Tiny Flat-sedge
Kennedia rubicunda, Dusky Coral-pea [2010]
Lactuca serriola, Prickly Lettuce
Leontodon saxatilis, Lesser Hawkbit [2010]
Lolium perenne, Perennial Rye-grass
Lotus subbiflorus, Hairy Bird's-foot Trefoil
Medicago polymorpha, Burr Medic
Moenchia erecta, Erect Chickweed [2010]
Oxalis incarnata, Pale Wood-sorrel
Oxalis pes-caprae, Soursob
Oxalis purpurea, Large-flower Wood-sorrel
Paspalum dilatatum, Paspalum
Pittosporum undulatum, Sweet Pittosporum
Plantago lanceolata, Ribwort
Poa annua, Annual Meadow-grass
Poa infirma, Early Meadow-grass
Prunella vulgaris, Self-heal [1997]
Prunus cerasifera, Cherry-plum [2001]
Pseudoscleropodium purum, Neat Feather-moss
Romulea rosea, Common Onion-grass
Rosa rubiginosa, Sweet Briar [2010]
Rubus anglocandicans, Blackberry
Senecio vulgaris, Common Groundsel
Sisyrinchium micranthum, Blue Pigroot
Solanum nigrum, Black Nightshade
Soliva sessilis, Jo Jo
Sonchus asper, Rough Sow-thistle
Sonchus oleraceus, Sow-thistle
Sporobolus africanus, Rat-tail Grass
Stellaria media, Chickweed
Taraxacum sect. *Taraxacum*, Garden Dandelion
Trifolium dubium, Suckling Clover
Trifolium ?*subterraneum*, Subterranean Clover
Vicia tetrasperma, Slender Vetch
Vulpia bromoides, Squirrel-tail Fescue

Notes concerning some of the locally-threatened plant species

Acacia aculeatissima (Thin-leaf Wattle) – very scarce, perhaps only one or two plants.

Allittia cardiocarpa (Swamp Daisy) – last recorded in 2010 – five individuals. Subsequent botanical surveys have been at the wrong time of year to detect this species, so it may still be present.

Aphelia pumilio (Dwarf Aphelia) – Hundreds were observed in one small area 30 m northwest of the base of the slide in 2001, not since despite searches at the right time of year. Specimen lodged at the National Herbarium of Victoria.

Caladenia clavigera (Plain-lip Spider-orchid) – last seen in the 1980s, before it was squashed into mud beneath tractor wheels during slashing.

Corunastylis despectans (Sharp Midge-orchid) – last seen in the mid-1980s, and suspected to be no longer present.

Cotula australis (Common Cotula) – many growing opportunistically beside the Roselyn Crescent footpath.

Craspedia variabilis (Variable Billy-buttons) – 25 regenerated after fire in 2005 but only one was seen in 2009 and none since, despite another burn in the same area in 2022.

Crassula decumbens var. *decumbens* (Spreading Crassula) – one patch found.

Diuris chryseopsis (Golden Moths) – Thirteen were flowering in September 2001 west and south of the large mound, none on 3/9/09, two in 2010 before one of them was apparently dug up, none since.

Diuris corymbosa (Wallflower Orchid) – reported by John Jeanes, who suspects this species died out in the reserve by 2000.

Drosera hookeri (Branched Sundew) – scattered in the reserve's south in 2001; not recorded since.

Festuca asperula (Graceful Fescue) – A patch covering roughly 1 m² was detected following the 2022 ecological burn. This species rarely flowers except after fire and is very difficult to detect at other times.

Goodenia elongata (Lanky Goodenia) – one seen in 2001, not before or since.

Hydrocotyle foveolata (Yellow Pennywort) – Several dozen were seen in 2010 on the northern verge of the walkway that heads diagonally from the dead end of Annette Gr to north of the large mound.

Hypoxis hygrometrica (Golden Weather-glass) – One plant sprouted from its tuber following the 2022 ecological burn. The species is very cryptic when not in flower, so has escaped detection in other years.

Kunzea (burgan) – the plants of this genus in Roselyn Crescent Reserve appear to be intermediate between *K. leptospermoides* and *K.* sp. (Upright form) – as noted in VicFlora, the distinction between these two taxa is rather unclear. The latter taxon may not be indigenous to Knox but it is commonly planted, e.g. at nearby Wadhurst Drive Park (Site 44) – some *Kunzea* shrubs were recorded in Roselyn Crescent Reserve in 2001, prior to any planting. It is unclear whether any of the *Kunzea* plants in the reserve today descend from the original wild plants, with or without cross-breeding with the *Kunzea* plants that have since been planted.

Pauridia vaginata (Sheath Star) – fairly abundant but very cryptic except during the brief flowering season. Twenty-four were seen following the 2022 ecological burn.

Platylobium infecundum (a flat-pea) – abundant.

Pterostylis × *ingens* (Sharp Greenhood) – last seen in the mid-1980s, and believed to be no longer present.

Pterostylis curta (Blunt Greenhood) – seen late last century by John Jeanes, number not stated.

Pterostylis pedunculata (Maroonhood) – reported by John Jeanes, who suspected this species died out in the reserve many years ago.

Senecio campylocarpus (Bulging Fireweed) – one plant recorded by the author on 19/9/01 and a specimen taken from it and lodged at the National Herbarium of Victoria. Likely to blow in from time to time.

Senecio runcinifolius (Tall Groundsel) – a single plant of this opportunistic species volunteered in blackened ground following the 2022 ecological burn.

Fauna of special significance

None recorded.

Fauna habitat features

- There is a high density of hollows in the trees, many of them occupied by galahs, rosellas, possums or honey bees;
- There is a small number of logs on the ground;
- There is at least one nest box.

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).

Endangered Vegetation Types

The reserve's native vegetation type – Valley Heathy Forest – is listed as regionally Endangered. According to *'Victoria's Native Vegetation Management – A Framework for Action'* (NRE 2002a), remnant patches of native vegetation belonging to a regionally-endangered EVC have a conservation significance rating of either High or Very High, depending on their ecological condition. In either case, standard criterion 3.2.3 of Amos (2004) translates the significance level to **State**.

Threatened Plant Species

Platylobium infecundum is abundant in the reserve, even being a co-dominant groundcover over hundreds of square metres. That species is listed under the *Flora and Fauna Guarantee Act* as Critically Endangered and it does not occur outside Victoria. As a result, the habitat provided for *Platylobium infecundum* in the reserve qualifies for **National** significance under criterion 3.1.2.

Platylobium infecundum had not been scientifically described in 2010 when the previous edition of this report was written. As a result, the site's significance level has risen from State to National.

Festuca asperula is extremely rare and threatened in the Gippsland Plain (or South East Coastal Plain) biogeographic region, with only three other known localities in the past 75 years. The present author found all four populations and knows them to all be very small, so Roselyn Crescent Reserve's patch is an important population. As a result, the habitat for *Festuca asperula* at the reserve qualifies for **Regional** significance under criterion 3.1.4.

Many of the locally-threatened plant species listed above have viable populations, thereby 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);
- Displacement of indigenous plants by Sweet Vernal-grass (*Anthoxanthum odoratum*) – medium-level threat;
- 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 scratched out buy a dog or struck by a falling tree limb. The most-affected species are *Acacia aculeatissima, Allittia cardiocarpa, Craspedia variabilis, Eucalyptus macrorhyncha, Goodenia elongata* and *Pimelea humilis*;
- Fragmentation of habitat, leading to reduced visitation by small insect-eating birds and hence a risk of plant pests and diseases;
- Galahs that have completely ringbarked two trees and threaten some others;
- Dog faeces and scratching – medium-level threat;
- Trampling – medium-level threat.

Strategic planning

- The previous (2010) edition of this report led to the reserve being covered by Schedule 2 of the Environmental Significance Overlay (ESO2). That edition cited the reserve's State significance, the endangered EVC, the large number of significant plant species, the richness of the site's native vegetation and the habitat that it provides for fauna. The only material changes since 2010 are that the reserve is now known to have a natural asset of National significance (being the habitat for *Platylobium infecundum*) and an asset of Regional significance (habitat for Graceful Fescue). Despite those increases in the reserve's recognised significance, ESO2 remains an appropriate strategic planning measure;
- The reserve is larger than 0.4 ha and therefore does not qualify for the size-based exemption from the state-wide baseline planning controls over removal of native vegetation (clause 52.17);
- The treed residential precinct abutting the reserve's eastern edge forms Site 103 in this report. That has led to it being covered by Schedule 4 of the Vegetation Protection Overlay (VPO4). That overlay provides basic planning protection for habitat that is believed to facilitate movement of flying fauna between the reserve and other habitat;
- The reserve is zoned Public Park and Recreation Zone (PPRZ).

Information sources used in this assessment

- A brochure about the park by the Knox Environment Society dated 1986;
- A quadrat record (N04069) collected by John Reid on 12/6/97;
- An ecological survey by Dr Lorimer, mainly on 19/9/01 and 1/10/01, principally for the report, *'Fire in Knox Bushland Reserves 2001'* by Lorimer (2001). This included compilation of lists of indigenous and introduced plant species, incidental fauna observations, and checks for fauna habitat, ecological threats, management issues and populations of scarce or threatened plant species;

- Dr Lorimer's specimens of *Aphelia pumilio* and *Senecio campylocarpus* held at the National Herbarium of Victoria (catalogue numbers MEL 2200768A and MEL 2200767A, respectively), both from 19/9/01;
- A letter about the park's orchid conservation from John Jeanes to Knox City Council, dated 8/10/01;
- Discussions with orchid experts John and Jeff Jeanes in 2001 and 2004 respectively, about the history of orchids in the reserve;
- Dr Lorimer's '2010 Bushland Management Plan for Roselyn Crescent Reserve, Boronia', which involved an intensive botanical survey, a broad ecological survey and an assessment of the reserve's management;
- A detailed investigation by Dr Lorimer of post-fire plant regeneration north of the reserve's east-west path in December 2022, culminating in the report, 'Post-fire Vegetation Assessment of Roselyn Crescent Reserve, Boronia' for Knox City Council;
- An inspection of the reserve by Dr Lorimer on 5th August 2024 for this report, including a fairly thorough botanical survey (for the time of year);
- 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.