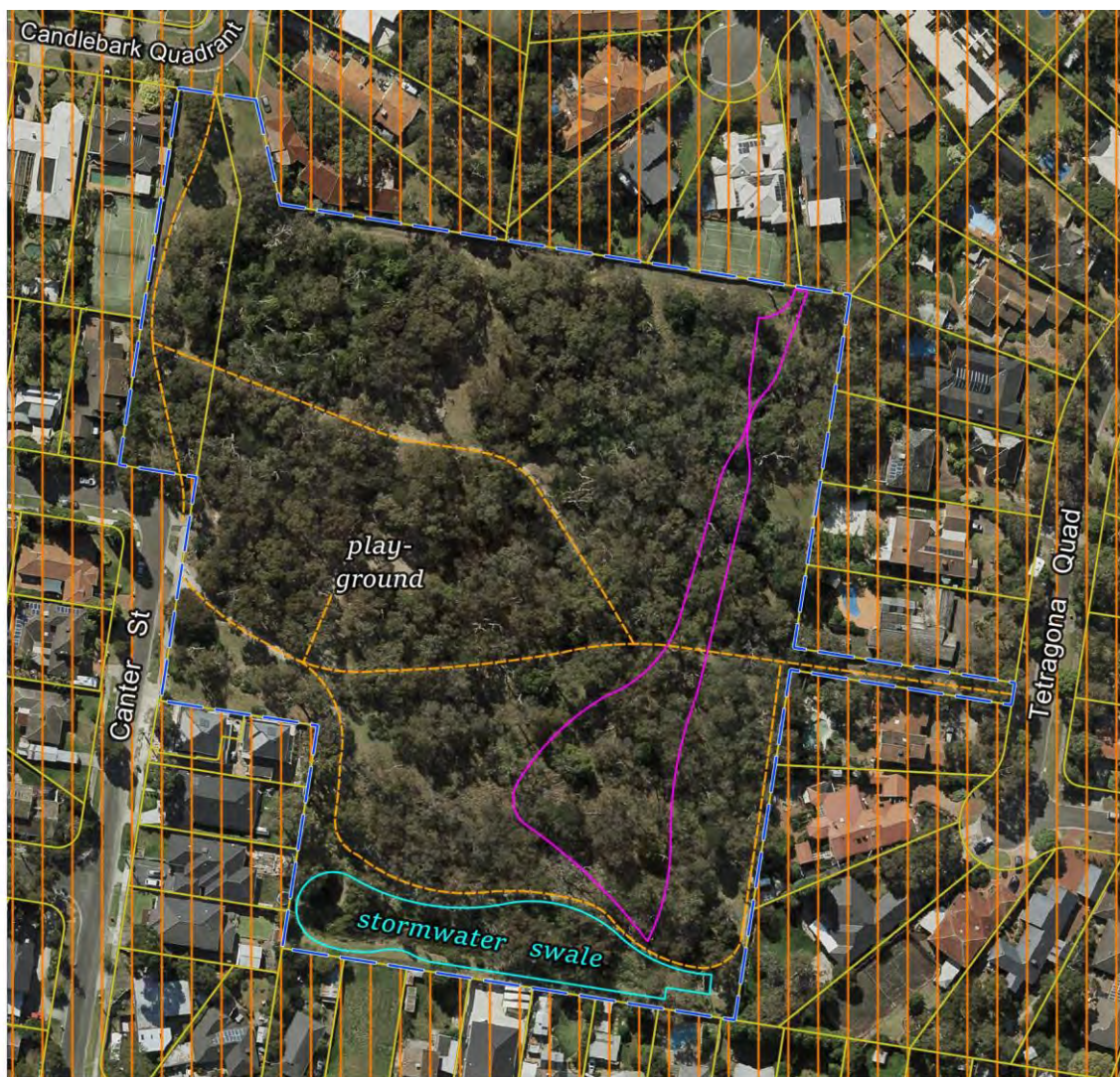


Site 73. Starlight Reserve, Rowville

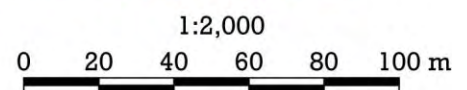
Council reserve with bushland, a playground and minor relics of the Second World War.

Summary of significant features:

- **Nationally significant:** two plants of the Matted Flax-lily (*Dianella amoena*) which is listed as Endangered under Commonwealth legislation and Critically Endangered under Victorian legislation;
- **State significance:** a substantial population of the spear-grass, *Austrostipa rudis* subspecies *australis*, which is listed as Endangered under Victorian legislation;
- **State significance:** vegetation belonging to the regionally-endangered vegetation types, Swampy Woodland and Valley Heathy Forest, some of it in good ecological condition;
- **Locally significant:** viable populations of plant species that are threatened with dying out in Knox;
- The reserve also has historical significance as part of a Second World War camp.



Legend		
	Site 73	
	Site 112	
	Swampy Woodland	
	Swale	
	Path	
	Properties	



Boundaries

This 3.26-hectare site is the whole of Starlight Reserve, as outlined with blue dashes above.

Land use & tenure: Council reserve for nature conservation, heritage conservation, stormwater management and public enjoyment, including a playground.

Site description

This site lies on the lower slope of a small hill, which drains toward Dandenong Creek 600 m to the southwest. The elevation range is 41–54 m and the slope is gentle (typically 6%), falling to the south but interrupted by an east-west stormwater management swale.

The soil is shallow, poorly draining, pale loam over clay subsoil, derived from weathering of the underlying Lower Devonian siltstone of the Humevale formation.

According to Knox City Council's records, Starlight Reserve was part of Rowville Army Camp for Australian and American soldiers from 1942 to 1944, which then became a transit hostel for Italian prisoners-of-war until 1946. The main uses of the land in those days appear to have been a latrine, an open sewer, a sewage treatment building and a vehicle track. The vehicle track is now the east-west path north of the playground. The open sewer was just inside what is now the reserve's southern boundary and it was expanded in 2013 to become the current-day stormwater management swale.

A 1946 aerial photograph shows what is now the reserve with a light cover of young trees, some grassy groundcover and areas of bare earth. It appears that heavy machinery had gone up and down the slope north of the abovementioned track, removing vegetation as it went. The absence of mature trees indicate that the whole site had been completely cleared during the decade or two prior.

Given the reserve's history, it is surprising that it retains so much of biological significance.

The richest areas of indigenous plants are toward the northwest corner and just east of the playground. These two areas are quite different in character from each other, the former being densely shrubby regrowth while the latter is open and grassy due to past mowing beneath mature trees. Both areas belong to the endangered Ecological Vegetation Class, Valley Heathy Forest.

There is also a shallow drainage line supporting a band of the regionally endangered Ecological Vegetation Class, Swampy Woodland. It is marked on the aerial photograph on the previous page.

The other highlights of the reserve are populations of two plant species listed as threatened. The first is a pair of patches of the Matted Flax-lily (*Dianella amoena*), which is listed as Endangered under the federal *Environment Protection and Biodiversity Conservation Act 1999* and is also Critically Endangered in Victoria and Knox. The other is a substantial population of the spear-grass, *Austrostipa rudis* subsp. *australis*, which is listed as Endangered under the Victorian *Flora and Fauna Guarantee Act*. The spear-grass is scattered liberally through the reserve's eastern third.

Knox City Council has supplemented the reserve's natural habitat by planting indigenous species, including locally-threatened species. The stormwater treatment swale and its surroundings were extensively planted following completion of construction in 2013.

More details about the reserve can be obtained from the '*Bushland Management Plan for Starlight Reserve, Rowville, 2001*' by G.S. Lorimer (2001) for Knox City Council.

Relationship to other land

Starlight Reserve is embedded within Site 112, whose leafy, residential landscape is much less significant than the reserve but still facilitates the movement of birds, flying insects, tree frogs and other fauna to and from the reserve. Many of the residential lots in the neighbourhood retain one or more remnant eucalypts, but few retain any native understorey. Australian native trees line the streets. The density of the neighbourhood's trees means that possums and hardier native birds still find good habitat but the diversity of wildlife species is low and imbalanced. For example, there are substantial numbers of aggressive nectar-eating birds such as Noisy Miners and Red Wattlebirds but few insect-eating birds.

Despite the shortcomings of Site 112's habitat, it still occasionally facilitates movement of sensitive forest birds to and from the reserve. This is evidenced by records of Grey Shrike-thrush and Grey Fantail in the reserve over recent years.

The reserve lies approximately 200 m from the public land corridor along Dandenong Creek and 600 m from the creek itself. Forest birds move along the creek's habitat corridor, and Starlight Reserve is visited daily by Eastern

Rosellas that are nomadic along the valley. Birds such as these probably also use the woodland at the Rowville Electricity Terminal Station (Site 72), 200 m to the northeast.

The nearest large area of natural vegetation is 1½ km to the southeast, extending between Churchill National Park and the adjoining Dandenong Police Paddocks Reserve. Waverley Golf Club provides a partially treed link for much of the distance between Starlight Reserve and the Dandenong Police Paddocks but the author has not observed wildlife movement along that alignment.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, **Endangered):** Estimated to cover 2 ha, comprising 0.1 ha in good ecological condition (rating B), 1.50 ha in fair ecological condition (rating C) and 0.4 ha in poor ecological condition (rating D). 82 indigenous plant species have been recorded.

Canopy trees: Dominated by *Eucalyptus cephalocarpa* with smaller numbers of *E. radiata* and *E. goniocalyx*.

Sub-canopy trees: Rather dense, comprising *Acacia mearnsii*, *A. melanoxylon*, *Allocasuarina littoralis* and *Exocarpos cupressiformis*.

Shrubs: The shrub layer is prickly and is dense in patches (varying with the history of slashing), being predominantly regrowth of *Bursaria spinosa*, *Acacia paradoxa*, *Leptospermum continentale* and *Leptospermum scoparium*.

Vines: The light twiner, *Billardiera mutabilis*, is abundant and *Pandorea pandorana* is scattered.

Ferns: Absent.

Groundcover: Densely grassy and dominated by *Microlaena stipoides* and *Austrostipa rudis*, with plenty of *Dichondra repens*. Lilies and geophytes (i.e. plants that die back to underground storage organs during the unfavourable season of the year) are particularly well represented, characteristically including large colonies of *Pterostylis nutans*.

Swampy Woodland (EVC 937, **regionally Vulnerable):** Estimated to cover 0.3 ha, comprising 0.2 ha in fair ecological condition (rating C) and 0.1 ha in poor ecological condition (rating D). 41 indigenous plant species have been recorded.

Canopy trees: *Eucalyptus ovata*.

Sub-canopy trees: *Acacia melanoxylon* and *Exocarpos cupressiformis*.

Shrubs: Rather sparse due to a long history of slashing. *Leptospermum scoparium* and *Pomaderris racemosa* are the only shrub species in reasonable numbers. *Melaleuca ericifolia* is very scarce but helps to confirm the diagnosis of Swampy Woodland.

Vines: The light twiner, *Billardiera mutabilis*, is present.

Ferns: Absent.

Groundcover: Moderately to very dense, dominated by *Microlaena stipoides* and *Lomandra longifolia*. Other species that are characteristic of Swampy Woodland are *Centella cordifolia*, *Drosera peltata* s.l. and *Eragrostis brownii*.

Plant species

The author observed the following plant species growing wild in the reserve in 2000 except for the *Diuris*, which was seen by John Erwin in September 2000, and the *Melicytus*, seen by the author in 2024. Asterisks indicate uncommon species whose presence was confirmed by the author in his brief site inspection in January 2024. 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.

Risk	Wild indigenous species	Risk	Wild indigenous species
V	<i>Acacia mearnsii</i> , Black Wattle	V	<i>Allocasuarina littoralis</i> , Black Sheoak
V	<i>Acacia melanoxylon</i> , Blackwood	C	<i>Amyema pendula</i> , Drooping Mistletoe
	<i>Acacia paradoxa</i> , Hedge Wattle	E	<i>Amyema quandang</i> , Grey Mistletoe
V	<i>Acacia verticillata</i> , Prickly Moses		<i>Arthropodium strictum</i> , Chocolate Lily
V	<i>Acaena echinata</i> , Sheep's Burr	V	<i>Austrostipa rudis</i> subsp. <i>australis</i> , Veined
	<i>Acaena novae-zelandiae</i> , Bidgee-widgee		Spear-grass*

Risk	Wild indigenous species
	<i>Austrostipa rudis</i> subsp. <i>rudis</i> , Veined Spear-grass
	<i>Billardiera mutabilis</i> , Common Apple-berry
N	<i>Bossiaea prostrata</i> , Creeping Bossiaea
	<i>Burchardia umbellata</i> , Milkmaids
	<i>Bursaria spinosa</i> , Sweet Bursaria
	<i>Carex breviculmis</i> , Short-stem Sedge
	<i>Cassinia aculeata</i> , Common Cassinia
E	<i>Centella cordifolia</i> , Centella
C	<i>Daviesia latifolia</i> , Hop Bitter-pea
	<i>Deyeuxia quadrisetata</i> , Reed Bent-grass
C	<i>Dianella amoena</i> , Matted Flax-lily*
	<i>Dianella longifolia</i> var. <i>longifolia</i> , Pale Flax-lily
	<i>Dianella revoluta</i> , Black-anther Flax-lily
	<i>Dichondra repens</i> , Kidney-weed
C	<i>Diuris chryseopsis</i> , Golden Moths
V	<i>Drosera aberrans</i> , Scented Sundew
V	<i>Drosera auriculata</i> , Tall Sundew
N	<i>Drosera peltata</i> s.l., a sundew
	<i>Eragrostis brownii</i> , Common Love-grass
E	<i>Eucalyptus cephalocarpa</i> , Mealy Stringybark
V	<i>Eucalyptus goniocalyx</i> , Bundy
V	<i>Eucalyptus ovata</i> , Swamp Gum
E	<i>Eucalyptus radiata</i> , Narrow-leaved Peppermint
C	<i>Eucalyptus rubida</i> , Candlebark
	<i>Euchiton japonicus</i> , Creeping Cudweed
V	<i>Exocarpos cupressiformis</i> , Cherry Ballart
	<i>Gonocarpus tetragynus</i> , Common Raspwort
C	<i>Hackelia suaveolens</i> , Sweet Hound's-tongue
E	<i>Hardenbergia violacea</i> , Purple Coral-pea
V	<i>Hemarthria uncinata</i> , Mat Grass
E	<i>Hydrocotyle ?foveolata</i> , Yellow Pennywort
V	<i>Hydrocotyle hirta</i> , Hairy Pennywort
E	<i>Hypericum gramineum</i> , Small St John's Wort
	<i>Juncus amabilis</i> , Hollow Rush
	<i>Juncus gregiflorus</i> , Green Rush
	<i>Juncus pallidus</i> , Pale Rush
	<i>Juncus sarophorus</i> , Broom Rush
E	<i>Juncus subsecundus</i> , Finger Rush
	<i>Kunzea ericoides</i> group, Burgan
E	<i>Lagenophora adenosa/stipitata</i> , a bottle-daisy
V	<i>Lagenophora sublyrata</i> , Slender Bottle-daisy
	<i>Lepidosperma gunnii</i> , Slender Sword-sedge
C	<i>Leptorhynchus tenuifolius</i> , Wiry Buttons
C	<i>Leptospermum continentale</i> , Prickly Tea-tree
	<i>Leptospermum scoparium</i> , Manuka
	<i>Lomandra filiformis</i> subsp. <i>coriacea</i> , Wattle Mat-rush
	<i>Lomandra filiformis</i> subsp. <i>filiformis</i> , Wattle Mat-rush
	<i>Lomandra longifolia</i> , Spiny-headed Mat-rush
	<i>Lythrum ?hyssopifolia</i> , Lesser Loosestrife
E	<i>Melaleuca ericifolia</i> , Swamp Paperbark
V	<i>Melicytus dentatus</i> , Tree Violet
	<i>Microlaena stipoides</i> , Weeping Grass

Risk	Wild indigenous species
V	<i>Opercularia varia</i> , Variable Stinkweed
	<i>Oxalis exilis/perennans</i> , Wood-sorrel
V	<i>Ozothamnus ferrugineus</i> , Tree Everlasting
	<i>Poa morrisii</i> , Soft Tussock-grass
C	<i>Pomaderris racemosa</i> , Cluster Pomaderris* (wild and planted)
	<i>Poranthera microphylla</i> , Small Poranthera
	<i>Pterostylis nutans</i> , Nodding Greenhood
	<i>Rytidosperma fulvum</i> , Leafy Wallaby-grass
	<i>Rytidosperma geniculatum</i> , Knead Wallaby-grass
	<i>Rytidosperma laeve</i> , Smooth Wallaby-grass
E	<i>Rytidosperma pallidum</i> , Red-anther (or Silvertop) Wallaby-grass
	<i>Rytidosperma penicillatum</i> , Slender Wallaby-grass
	<i>Rytidosperma pilosum</i> , Velvet Wallaby-grass
	<i>Rytidosperma setaceum</i> , Bristly Wallaby-grass
	<i>Rytidosperma tenuius</i> , Purplish Wallaby-grass
	<i>Schoenus apogon</i> , Common Bog-rush
V	<i>Senecio glomeratus</i> , Annual Fireweed
	<i>Senecio hispidulus</i> , Rough Fireweed
E	<i>Thelymitra ?peniculata</i> , Trim Sun-orchid
	<i>Themeda triandra</i> , Kangaroo Grass
	<i>Tricoryne elatior</i> , Yellow Rush-lily
V	<i>Veronica gracilis</i> , Slender Speedwell
E	<i>Veronica plebeia</i> , Trailing Speedwell
E	<i>Viola hederacea</i> , Ivy-leaf Violet
	<i>Wahlenbergia gracilis</i> , Sprawling Bluebell
V	<i>Xanthosia dissecta</i> , Cut-leaf Xanthosia

Introduced species

	<i>Acacia longifolia</i> subsp. <i>longifolia</i> , Sallow Wattle
	<i>Agrostis capillaris</i> , Brown-top Bent
	<i>Allium triquetrum</i> , Angled Onion
	<i>Anthoxanthum odoratum</i> , Sweet Vernal-grass
	<i>Billardiera fusiformis</i> , Bluebell Creeper
	<i>Briza maxima</i> , Large Quaking-grass
	<i>Cassinia sifton</i> , Sifton Bush
	<i>Cenchrus clandestinus</i> , Kikuyu Grass
	<i>Centaureum erythraea</i> , Common Centaury
	<i>Cerastium glomeratum</i> s.l., Common Mouse-ear Chickweed
	<i>Coprosma repens</i> , Mirror-bush
	<i>Cotoneaster glaucophyllus</i> , Cotoneaster
	<i>Cotoneaster pannosus</i> , Cotoneaster
	<i>Crassula multicava</i> , Shade Crassula
	<i>Crataegus monogyna</i> , Hawthorn
	<i>Cynodon dactylon</i> , Couch
	<i>Cyperus eragrostis</i> , Drain Flat-sedge
	<i>Dactylis glomerata</i> , Cocksfoot
	<i>Danthonia decumbens</i> , Heath Grass
	<i>Dodonaea viscosa</i> , Sticky Hop-bush
	<i>Ehrharta erecta</i> , Panic Veldt-grass
	<i>Ehrharta longiflora</i> , Annual Veldt-grass
	<i>Erigeron ?sumatrensis</i> , Fleabane

Introduced species

Freesia leichtlinii, Freesia
Galium aparine, Cleavers
Gamochaeta purpurea, Spiked Cudweed
Hedera helix/hibernica, Ivy
Holcus lanatus, Yorkshire Fog
Hypochaeris radicata, Cat's Ear
Leontodon saxatilis, Lesser Hawkbit
Lotus subbiflorus, Hairy Bird's-foot Trefoil
Oxalis incarnata, Pale Wood-sorrel
Oxalis pes-caprae, Soursob
Pandorea pandorana, Wonga Vine
Paspalum dilatatum, Paspalum
Phalaris aquatica, Toowoomba Canary-grass
Pitosporum undulatum, Sweet Pittosporum

Introduced species

Plantago coronopus, Buck's-horn Plantain
Plantago lanceolata, Ribwort
Prunella vulgaris, Self-heal
Prunus cerasifera, Cherry-plum
Ranunculus muricatus, Sharp Buttercup
Romulea rosea, Common Onion-grass
Rubus anglocandicans, Blackberry
Solanum nigrum, Black Nightshade
Sonchus oleraceus, Sow-thistle
Symphotrichum subulatum, Aster-weed
Taraxacum sect. *Taraxacum*, Garden Dandelion
Trifolium repens, White Clover
Ulex europaeus, Gorse (Furze)
Viola odorata, Common Violet

Notes concerning some of the significant plant species

Listed as Endangered under Commonwealth law and Critically Endangered under Victorian law

Dianella amoena (Matted Flax-lily) – One patch has been seen repeatedly from 2000 to 2024, when a second patch was discovered.

Listed as Endangered under Victorian law

Austrostipa rudis subsp. *australis* (a subspecies of Veined Spear-grass) – Fairly abundant in the reserve's eastern third.

Threatened in metro Melbourne

Diuris chryseopsis (Golden Moths) – One plant was reported by John Erwin (of Knox City Council) to have flowered in September 2000. Searches in subsequent years failed to find it.

Hackelia suaveolens (Sweet Hound's-tongue) – A patch measuring 1 m across was seen in 2000 – perhaps a single plant. A quick search in 2024 failed to find any.

Locally threatened

Drosera peltata s.l. (a sundew) – In 2000, hundreds of plants were found in the reserve's southeast. They were probably all destroyed in 2013 during construction of the stormwater management swale.

Eucalyptus rubida (Candlebark) – Two individuals were recorded in the past but none could be found in 2024.

Hydrocotyle ?foveolata (Yellow Pennywort) – Several tens of plants were found in 2000 near the eastern fence.

Lagenophora adenosastipitata (Common Lagenophora) – Numbers not recorded.

Pomaderris racemosa (Cluster Pomaderris) – Six plants were found in 2000, in two locations. At one of those locations, six were found in 2024 but it is unclear whether some or all of them had been planted.

Veronica plebeia (Trailing Speedwell) – Five separate patches were found in the reserve's northwest in 2000. A quick search in 2024 failed to find any.

Fauna of special significance

None recorded.

Fauna habitat features

- Some of the larger eucalypts have hollows that may be usable for nests or roosting by birds, bats, possums or invertebrates;
- There is a modest number of logs and branches on the ground which, combined with dense shrubs and groundcover, represent good habitat for reptiles and invertebrates;
- The high density of shrubs in the reserve's northwest significantly improves the habitat for native insects and birds. The prickliness of many of the shrubs helps protect birds from cats;
- The dense groundcover represents habitat for a range of invertebrates;

- The relative isolation of the site's native vegetation is to some degree offset by the diversity of habitat (dense to open, damp to dry), which is beneficial to some native fauna.

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

Valley Heathy Forest and Swampy Woodland are regionally-endangered EVCs. The representations in Starlight Reserve easily meet 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. It follows from Appendix 3 of *Victoria's Native Vegetation Management – a Framework for Action* (NRE 2002a) that the reserve's native vegetation is of at least High conservation significance. This translates to **State** significance under criterion 3.2.3.

Threatened Plants

The reserve has habitat known to be currently occupied by Matted Flax-lily (*Dianella amoena*). That species is listed as Endangered under Commonwealth legislation. Any habitat of such a species is treated as a matter of **National** significance under criterion 3.1.2.

The site has a substantial population of the spear-grass, *Austrostipa rudis* subsp. *australis*, which is listed under the *Flora and Fauna Guarantee Act* as Endangered in Victoria. The species also occurs interstate. Any known habitat for such a species meets criterion 3.1.2 for **State** significance.

Some of the other 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). Swampy Woodland is particularly vulnerable to droughts, which are predicted to become longer and more severe. Eucalypts are also quite vulnerable to drought and the associated falling of water tables;
- Displacement of indigenous flora and fauna by environmental weeds, except that environmental weeds are being kept under control;
- Loss or decline of plant species whose populations are so small that they are vulnerable to inbreeding, poor reproductive success or chance events such as being scratched out by a dog;
- Trampling;
- Damage to significant vegetation by children, e.g. cubby house construction.

Strategic planning

- The previous (2010) edition of this report led to the reserve being covered by Schedule 2 of the Environmental Significance Overlay (ESO2), on the basis of the presence of the regionally-endangered EVCs and the Matted Flax-lily (whose identity was unconfirmed at that time). Since 2010, the EVCs have changed little, the identity of the Matted Flax-lily has been confirmed and there is the additional consideration that the reserve contains a sizeable population of a spear-grass species that was listed as Endangered in 2020. The strength of the rationale for applying ESO2 to the reserve has therefore strengthened. There is no need to amend ESO2;
- The reserve is zoned Public Park and Recreation Zone (PPRZ).

Information sources used in this assessment

- 9½ hours of site survey by Dr Lorimer on 28/2/00, 2/3/00 and 26/6/00 for the 'Bushland Management Plan for Starlight Reserve, Rowville, 2001' for Knox City Council. This included:
 - Compilation of lists of indigenous and introduced plants within each of five parts of the reserve;
 - Detailed mapping and documentation of rare species populations and the ecological condition of the vegetation;
 - A description of the vegetation's structural and floristic composition;
 - Incidental fauna observations;

- Checks for fauna habitat, ecological threats and management issues; and
- Taking photographs that capture the main ecological features of the reserve and that will be useful for long-term monitoring of the reserve;
- Re-inspection of the site by Dr Lorimer on 3/10/01 for the report, '*Fire in Knox Bushland Reserves 2001*' by Lorimer (2001). This included:
 - An update to the lists of indigenous and introduced plants; and
 - Development of a strategy for ecological burning of the reserve, in consultation with Council and the Rowville Fire Brigade;
- An inspection of the reserve by Dr Lorimer for 35 minutes on 3rd January 2024, documenting and mapping significant plant species and checking for changes in features relevant to this report compared with pre-existing information;
- Occasional additional visits by the author, e.g. to search for the *Diuris chryseopsis* or check the identity of the *Dianella amoena*;
- Information from Council officer, Monte Hall, about his discovery of a second patch of *Dianella amoena* in November 2024;
- A search (in vain) for records of flora or fauna observations stored in Knox City Council's biodiversity database;
- 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.