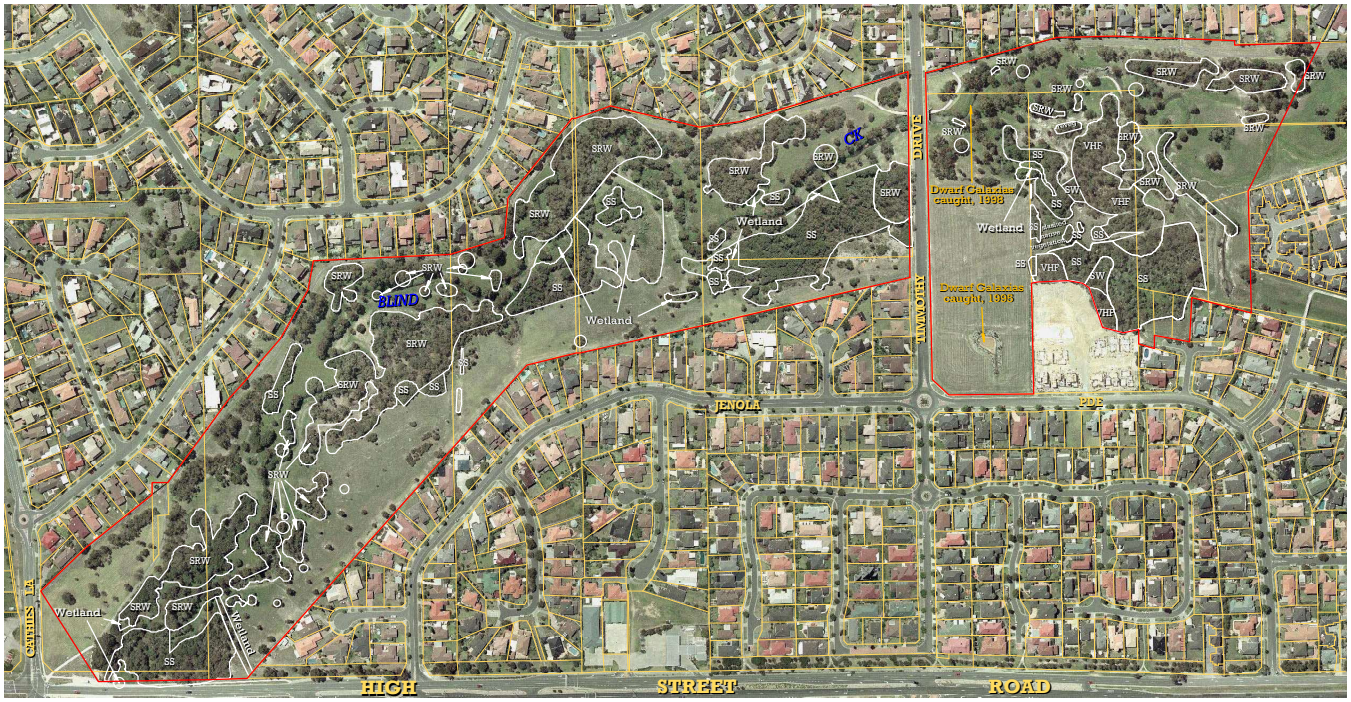
Site 59. Timmothy Drive Bushland, Wantirna South

Vegetated corridor of Blind Creek upstream of High Street Rd, including some private land proposed for development. Melway ref. 63 G12.

Site Significance Level: *State*

- All the native vegetation belongs to one or another endangered Ecological Vegetation Class;
- Some of the vegetation is in quite good condition (albeit regrowth);
- Being on Blind Creek, the site is a substantial ecological stepping stone on a corridor for daily and seasonal movements of birds and insects;
- The waters of Blind Creek and adjacent wetlands supported the rare fish, Dwarf Galaxias, at least until 1998 (but probably rarely if ever since then).



Scale (metres)
0 100 200

Aerial photograph taken February 2007

The red outlines above define the site boundary. The white outlines delimit different Ecological Vegetation Classes (EVCs), with 'SS' for Swamp Scrub, 'SRW' for Swampy Riparian Woodland, 'SW' for Swampy Woodland and 'VHF' for Valley Heathy Forest. The distinction between some of these EVCs is sometimes quite obscure due to modification from their natural state. Dark green patches without white outlines are mainly revegetation.

Boundaries

The site comprises the two segments outlined in red on the aerial photograph. The border follows property boundaries along the back fences of numerous residential lots, and also along Timmothy Drive and Jenola Pde. At the downstream (southwest) end of the site, the border follows the footpath of High Street Rd and an imaginary line from the Blind Ck bridge to a corner of the nearest residential lot to the north. At the upstream (eastern) end of the site, a somewhat arbitrary border has been drawn between the corners of two residential lots. Immediately east of the boundary segment along Jenola Pde, the boundary diverges around a new residential estate for which no cadastral boundaries could be obtained, but the intention is to follow the edge of the estate. The road reservation of Timmothy Drive is not included within the site. Note that the site includes a large proportion of open grass that is slashed regularly and supports scant indigenous flora. This is because: (a) management of the native vegetation has to be integrated with the open grassed areas; (b) the open areas provide potential for expanding the native vegetation; and (c) it is preferable for boundaries of sites and their planning overlays to coincide with cadastral boundaries where practical.

Land use & tenure: All the land downstream from Timmothy Drive is public reserve, either for drainage and related purposes or (beside High Street Rd) for a road reservation with a bridge. There is a mixture of public and private land upstream of Timmothy Drive. Some of the creek course is in private ownership.

Site description

This 25·2 ha site is an area of broad floodplain along Blind Creek, at elevations of 59-63 m. There are small strips along the northern boundary with grey loam topsoil and clay subsoil, derived from the underlying Lower Devonian siltstones of the Dargile Formation, but the rest of the site is covered with alluvium washed down by the creek.

The absence of large old trees indicates that practically the whole site has been previously cleared. However, the aerial photograph shows that there is a patchwork of native vegetation that has regrown since the clearing, along with substantial areas of revegetation. Some of the native vegetation is in surprisingly good condition and supports a large number of indigenous flora species – some of them rare or threatened in the Melbourne area.

The creek still takes its natural course, unlike the majority of Knox's creeks that have be converted to barrel drains. Some aquatic native vegetation persists as a result. However, native vegetation on the creek banks is mostly reduced to patches or small strips of regrowth scrub scattered along the top of the embankments.

Relationship to other land

The site is part of the Blind Creek habitat corridor, which continues on the other side of High Street Rd with the Cathies Lane Bushland (Site 60). The corridor is highly interrupted between the Timmothy Drive bushland and Lewis Park (part of Site 33), with a small amount of native vegetation at Collier Reserve and scattered small patches of native vegetation elsewhere.

Highly mobile birds, such as ibis and cockatoos, can be seen moving along the corridor notwithstanding its interruptions. Birds such as honeyeaters and whistlers, as well as insects, no doubt move between the Timmothy Drive Bushland, the Cathies Lane Bushland area (Site 60), the Coppelia St Bushland (Site 61), the Cathies Lane road reservation (Site 62), Redcourt Reserve (Site 63), and possibly the Dandenong Valley Parklands (Site 58). However, the newly constructed EastLink road may effectively sever the link to the Dandenong Valley Parklands.

Some insects and birds such as rosellas no doubt move between the Timmothy Drive Bushland and Flamingo Reserve (Site 56, which is 300 m away) and, to a lesser extent, the tiny patch of vegetation at Wakley Reserve (Site 57, 400 m away).

Blind Ck is above ground from this site to its confluence with Dandenong Ck, largely in its natural bed. It therefore allows migration of fish and other stream fauna. It is barrel-drained for a considerable distance upstream, which represents a major barrier for movement of stream fauna.

Bioregion: Gippsland Plain.

Habitat types

Perennial Stream (No EVC number). Flora includes *Triglochin procerum* and *Potamogeton ochreatus*.

Swamp Scrub (EVC 53, **regionally Endangered**): All or most of the Swamp Scrub is regrowth from former Swampy Riparian Woodland or Swampy Woodland. Total area 30·4 ha. Ecological condition is approximately 1-2% rating B (good), 70% rating C (fair) and the remainder rating D (poor). 35 indigenous plant species were found.

Dominant canopy trees: Dense *Melaleuca ericifolia* with occasional emergent *Eucalyptus ovata* and *Acacias*.

Shrubs: Sparse, including *Coprosma quadrifida, Ozothamnus ferrugineus, Acacia verticillata, Goodenia ovata* and *Senecio minimus*.

Vines: The indigenous *Cassytha pubescens* is sparse; the weed Japanese Honeysuckle is serious in places.

Ferns: none.

Ground flora: Sparse patches of *Juncus, Isolepis* and grasses. The character species *Triglochin striatum* and *Lobelia anceps* are present but very scarce.

Wetland (EVC 74, **regionally Endangered**): Mostly rushland dominated by *Juncus* species and weeds, and in fair ecological condition (rating C). 24 indigenous plant species were found.

Swampy Riparian Woodland (EVC 83, **regionally Endangered**): Total area 3.7 ha as shown above, but this may include some Swampy Woodland due to the confounding influences of past clearing. Ecological condition is approximately 40% rating B (good), 40% rating C (fair) and 20% rating D (poor). 44 indigenous plant species were found.

Dominant canopy trees: *Eucalyptus ovata* with fewer *E. radiata*, *E. viminalis* and *E. cephalocarpa*.

Dominant lower trees: *Acacia melanoxylon* (becoming a dense scrub in regrowth patches), with fewer *A. mearnsii* and *Exocarpos cupressiformis*.

Shrubs: *Melaleuca ericifolia* is dominant overall, but patchy. The other shrubs are *Bursaria spinosa*, *Coprosma quadrifida, Goodenia ovata, Gynatrix pulchella* and *Ozothamnus ferrugineus.*

Vines: Native vines are scarce, but the weed Japanese Honeysuckle is serious in places.

Ferns: none.

Ground flora: *Acæna novæ-zelandiæ, Alternanthera denticulata, Dianella admixta, Epacris impressa, Gonocarpus tetragynus, Juncus* species, *Lomandra longifolia, Microlaena stipoides, Phragmites australis, Austrostipa rudis, Themeda triandra*. *Gahnia radula* is scarce.

Valley Heathy Forest (EVC 127, **regionally Endangered**): 0·7 ha in total, comprising approximately 4,000 m² in good ecological condition (rating B), 2,000 m² in fair ecological condition (rating C) and 1,000 m² in poor ecological condition (rating D). 63 indigenous plant species were found.

Dominant canopy trees: *Eucalyptus cephalocarpa* with fewer *E. radiata* and scarce *E. melliodora*.

Dominant lower trees: *Exocarpos cupressiformis*, *Acacia melanoxylon* and *A. mearnsii*.

Shrubs: A mostly dense and prickly layer approximately 2-3 m deep, with *Bursaria spinosa*, *Acacia paradoxa, A. verticillata, Leptospermum continentale, L. scoparium, Cassinia arcuata, Spyridium parvifolium, Goodenia ovata, Epacris impressa*.

Vines: *Cassytha melantha* and *Cassytha pubescens* are both scattered. The light twiner *Billardiera mutabilis* is fairly abundant.

Ferns: None.

Ground flora: A layer typically 20-30 cm deep with a foliage cover of approximately 70%. Dominated by grasses (including *Austrostipa rudis, Themeda triandra*, *Rytidosperma pallidum, Poa morrisii, Microlaena stipoides*) with abundant *Xanthorrhoea minor, Lomandra filiformis* and *L. longifolia*. *Gahnia radula* was not found. Other character species are *Arthropodium strictum, Bossiaea prostrata, Burchardia umbellata, Caesia parviflora, Dianella admixta, Drosera whittakeri, Hibbertia riparia, Lepidosperma gunnii, L. laterale, Platylobium obtusangulum* and *Veronica gracilis*.

Swampy Woodland (EVC 937, **regionally Endangered**): Due to the effects of past clearing, it is very difficult to distinguish the interface between Swampy Woodland and Swampy Riparian Woodland. The map on p. 297 shows 800 m² of Swampy Woodland, and there is an adjacent mown area measuring 1,900 m² that best approximates regenerating Swampy Woodland. Approximately three-quarters of the total is in fair ecological condition (rating C) and the remainder is in poor ecological condition (rating D). 32 indigenous plant species were found.

Dominant canopy trees: *Eucalyptus ovata*, fairly sparse, with fewer *E. cephalocarpa*.

Dominant lower trees: *Acacia mearnsii* and *Melaleuca ericifolia*.

Shrubs: The main species are *Bursaria spinosa, Coprosma quadrifida, Goodenia ovata* and *Ozothamnus ferrugineus*.

Vines: Native vines are practically absent, but the weed Japanese Honeysuckle threatens to become dense.

Ferns: None.

Ground flora: *Eragrostis brownii, Gonocarpus tetragynus, Juncus* species, *Lepidosperma elatius, Lomandra longifolia, Lythrum hyssopifolia, Microlaena stipoides, Phragmites australis, Austrostipa rudis* and *Thelymitras*, with *Carex appressa* and *Persicaria decipiens* on wet ground (approaching wetland).

Plant species

125 indigenous plant species have been recorded either during this study, by Helen Moss in 1997 or Biosis Pty Ltd in 2002.

In the following plant list, the column headed 'Risk' indicates the indigenous species' risk of extinction in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; and 'V'=Vulnerable. In addition, *Acacia leprosa* (Dandenong Range variant) is rare nationally and species with names in bold are rare throughout the Melbourne region.

Risk	Indigenous Species
V	*Acacia mearnsii*
V	*Acacia melanoxylon*
	Acacia paradoxa
V	*Acacia verticillata*
	Acaena novae-zelandiae
	Acrotriche serrulata
	Alisma plantago-aquatica
V	*Allocasuarina littoralis*
V	*Alternanthera denticulata*
C	*Amyema pendula*
	Arthropodium strictum
	Austrostipa pubinodis
	Austrostipa rudis subsp. *rudis*
	Billardiera mutabilis
	Bossiæa prostrata
	Burchardia umbellata
	Bursaria spinosa
V	*Caesia parviflora*
C	***Calystegia sepium***
	Carex appressa
E	***Carex fascicularis***
	Carex inversa

Risk	Indigenous Species
	Cassinia arcuata
V	*Cassinia longifolia*
E	*Cassytha melantha*
E	*Cassytha pubescens*
E	*Centella cordifolia*
V	*Coprosma quadrifida*
V	*Crassula decumbens*
	Deyeuxia quadriseta
	Dianella admixta
V	*Dillwynia cinerascens*
V	*Drosera peltata* subsp. *auriculata*
E	*Drosera peltata* subsp. *peltata*
V	*Drosera whittakeri*
V	*Eleocharis acuta*
V	*Epacris impressa*
V	*Epilobium billardierianum* ssp. *cinereum*
	Epilobium hirtigerum
	Eragrostis brownii
V	*Eucalyptus cephalocarpa*
	Eucalyptus cephalocarpa × *ovata*
C	***Eucalyptus ?fulgens*** (possibly a hybrid)
V	*Eucalyptus melliodora*
V	*Eucalyptus ovata*
E	*Eucalyptus radiata*
E	*Eucalyptus viminalis* subsp. *viminalis*
V	*Euchiton collinus*
V	*Exocarpos cupressiformis*
	Gahnia radula
	Gonocarpus tetragynus
E	*Goodenia humilis*
	Goodenia ovata
E	*Gynatrix pulchella*
C	*Hakea nodosa*
E	*Hibbertia riparia*
E	*Hypericum gramineum*
E	*Isolepis cernua* var. *cernua*
E	*Isolepis hookeriana*
V	*Isolepis inundata*
E	*Isolepis marginata*
	Juncus amabilis
	Juncus bufonius
	Juncus gregiflorus
C	*Juncus holoschoenus*
	Juncus pallidus
E	*Juncus pauciflorus*
E	*Juncus planifolius*
E	*Juncus procerus*
	Juncus sarophorus
V	*Lagenophora gracilis*
E	*Lemna disperma*
	Lepidosperma elatius
E	***Lepidosperma filiforme***
	Lepidosperma gunnii
V	*Lepidosperma laterale*
	Leptospermum continentale
E	*Leptospermum scoparium*
E	*Lobelia anceps*
	Lomandra filiformis subsp. *coriacea*
	Lomandra filiformis subsp. *filiformis*
	Lomandra longifolia
V	*Lythrum hyssopifolia*
E	*Melaleuca ericifolia*
	Microlaena stipoides
	Microtis parviflora
V	*Opercularia ovata*
V	*Opercularia varia*
	Oxalis exilis/perennans
E	*Ozothamnus ferrugineus*
	Persicaria decipiens
E	*Persicaria hydropiper*
E	*Persicaria lapathifolia*
E	*Phragmites australis*
V	*Pimelea humilis*
V	*Platylobium formosum*
V	*Platylobium obtusangulum*
	Poa morrisii
	Poranthera microphylla
V	*Potamogeton ochreatus*
	Pteridium esculentum
	Rytidosperma pallidum
	Rytidosperma penicillatum
	Rytidosperma racemosum
E	*Rytidosperma semiannulare*
	Rytidosperma setaceum
	Rytidosperma ?tenuius
	Schoenus apogon
	Senecio hispidulus
E	*Senecio minimus*
	Senecio quadridentatus
V	*Solanum laciniatum*
C	***Sphaerolobium minus***
E	*Spyridium parvifolium*
E	*Stylidium armeria/graminifolium*
C	***Stylidium inundatum***
C	***Thelionema caespitosum***
V	*Thelymitra peniculata*
C	*Thelymitra rubra*
	Themeda triandra
	Tricoryne elatior
C	*Triglochin procera*
E	*Triglochin striata* (flat leaf variant)
E	*Typha orientalis*
V	*Veronica gracilis*
C	***Villarsia reniformis***
E	*Viola hederacea*
V	*Xanthorrhoea minor*
E	*Xanthosia dissecta*

Introduced Species

Acacia longifolia subsp. *longifolia*	*Cynodon dactylon*	*Pennisetum clandestinum*
Acer negundo	*Cyperus eragrostis*	*Phalaris aquatica*
Acetosella vulgaris	*Cytisus scoparius*	*Pinus radiata*
Agrostis capillaris	*Dactylis glomerata*	*Pittosporum undulatum*
Agrostis capillaris	*Daucus carota*	*Plantago lanceolata*
Allium triquetrum	*Delairea odorata*	*Plantago major*
Alopecurus geniculatus	*Ehrharta erecta*	*Poa trivialis*
Anagallis arvensis	*Ehrharta longiflora*	*Prunella vulgaris*
Anthoxanthum odoratum	*Erica lusitanica*	*Prunus cerasifera*
Arctotheca calendula	*Festuca arundinacea*	*Ranunculus repens*
Aster subulatus	*Foeniculum vulgare*	*Raphanus raphanistrum*
Atriplex prostrata	*Fraxinus angustifolia*	*Romulea rosea*
Avena barbata	*Fumaria bastardii*	*Rorippa palustris*
Avena sterilis	*Galium aparine*	*Rosa rubiginosa*
Billardiera heterophylla	*Genista monspessulana*	*Rubus anglocandicans*
Briza minor	*Geranium dissectum*	*Rumex crispus*
Bromus catharticus	*Helminthotheca echioides*	*Rumex pulcher*
Bromus diandrus	*Holcus lanatus*	*Salix cinerea*
Callitriche stagnalis	*Hypochoeris radicata*	*Senecio vulgaris*
Calystegia silvatica	*Juncus acuminatus*	*Solanum mauritianum*
Cardamine flexuosa	*Juncus articulatus*	*Solanum nigrum*
Centaurium erythraea	*Juncus microcephalus*	*Solanum pseudocapsicum*
Cerastium glomeratum	*Lactuca serriola*	*Sonchus asper*
Cicendia quadrangularis	*Leontodon taraxacoides*	*Sonchus oleraceus*
Cirsium vulgare	*Lolium perenne*	*Stellaria media*
Conium maculatum	*Lolium rigidum*	*Taraxacum officinale* spp. agg.
Conyza sumatrensis	*Lonicera japonica*	*Tradescantia fluminensis*
Cordyline australis	*Lotus subbiflorus*	*Trifolium repens*
Cortaderia selloana	*Medicago polymorpha*	*Ulex europaeus*
Cotula coronopifolia	*Medicago sativa*	*Vicia sativa*
Crataegus monogyna	*Oxalis pes-caprae*	*Viola odorata*
Crepis capillaris	*Paspalum dilatatum*	*Vulpia bromoides*
Crocosmia × *crocosmiiflora*	*Paspalum distichum*	

Notes concerning some of the locally threatened plant species

Carex fascicularis (Tassel Sedge). 3 plants in a wetland immediately upstream of Timmothy Drive.
Crassula decumbens (Spreading Crassula). Several seen in 2003 on 91 Jenola Pde.
Eucalyptus fulgens (Green Scentbark). Recorded at 91 Jenola Pde by Biosis Pty Ltd in 2002, but this record is dubious.
Goodenia humilis (Swamp Goodenia). Recorded at 91 Jenola Pde by Biosis Pty Ltd in 2002.
Gynatrix pulchella (Hemp Bush). Probably only 1 or 2, recorded behind 94 Wakley Cres by H. Moss in 1997.
Hakea nodosa (Yellow Hakea). One plant found in 2003 on 91 Jenola Pde.
Isolepis hookeriana (Grassy Club-rush). Recorded at 91 Jenola Pde by Biosis Pty Ltd in 2002.
Isolepis marginata (Little Club-rush). Rather abundant and widespread on 91 Jenola Pde.
Juncus holoschoenus (Joint-leaf Rush). A single plant was found in 2003 on 91 Jenola Pde.
Lemna disperma (Common Duckweed). A population was recorded by Lorimer beside High Street Rd in 1997.
Lepidosperma filiforme (Common Rapier-sedge). Unknown numbers on 91 Jenola Pde, recorded in 1996 and 2002.
Persicaria lapathifolia (Pale Knotweed). Recorded 1997 by H. Moss in Swamp Scrub, both sides of Timmothy Dr.
Sphaerolobium minus (Globe-pea). Unknown numbers on 91 Jenola Pde, recorded by Biosis in 2002.
Spyridium parvifolium (Australian Dusty Miller). Approximately 12 plants were found on 91 Jenola Pde in 2003 and others recorded just downstream of Timmothy Drive by H. Moss in 1997.
Thelionema caespitosum (Tufted Blue-lily). Unknown numbers on 91 Jenola Pde, recorded by H. Moss in 1997.
Triglochin striatum (Streaked Arrow-grass). At least one patch seen in 2003 on 91 Jenola Pde.
Villarsia reniformis (Running Marsh-flower). One plant found in 2003 on 91 Jenola Pde.

Fauna of special significance

Although the species just listed are significant, none approaches the significance of the Dwarf Galaxias, a tiny native fish that is listed as Vulnerable under the federal *Environment Protection and Biodiversity Conservation Act 1999*. It generally favours off-stream wetlands with warm, still water and dense vegetation, but it moves into streams at times of flood and then migrates around catchments.

Fish expert, Mr John McGuckin, found Dwarf Galaxias in the dam just northeast of the corner of Timmothy Drive and Jenola Pde during a fish study in 1995, but failed to find them more recently after a period when the dam dried out completely. He has also looked in the wetland to the north-northeast of there, on the western edge of 91 Jenola Pde, but found none. He also says that Mr Peter Unmack found Dwarf Galaxias about 50 m upstream of the Timmothy Drive bridge in 1998.

More recent studies indicate that the Dwarf Galaxias population in the Dandenong Creek catchment has crashed. Populations of this species are prone to rise and fall naturally with droughts and floods, but introduced fish and drainage works may have wiped out the species in this catchment in the last few years, according to Mr McGuckin.

Dwarf Galaxias have been taken from the catchment and bred at LaTrobe University for re-introduction, which could conceivably occur in Blind Ck.

Fauna habitat features

- There is a substantial stretch of creek still flowing in its natural bed and unimpeded in its flow to Dandenong Ck and beyond;
- The site is an ecological stepping-stone on the Blind Creek habitat corridor;
- Collectively, the patches of native vegetation represent a substantial sized area of woodland, scrub and wetland, some of which is in good ecological condition;
- The wetlands are good habitat for frogs and some native invertebrates;
- The scrub provides good habitat for small insect-eating birds;
- There are some large, old trees with hollows, but they are rather low in density.

Significance ratings

The following is an assessment of the site's significance against the Department of Sustainability & Environment's standard criteria (Amos 2004).

Ecological Integrity and Viability

The site is a 'stepping stone' on the Blind Creek habitat corridor. This represents **Local** significance under criterion 1.2.6 of Amos (2004).

Regionally Threatened Ecological Vegetation Class

According to the criteria of *'Victoria's Native Vegetation Management – A Framework for Action'* (NRE 2002a), most of the site's native vegetation has a conservation significance rating of at least High, probably reaching Very High in the most intact section of Valley Heathy Forest on 91 Jenola Pde and perhaps in the Swampy Riparian Woodland just downstream from Timmothy Dr. This is due to the Endangered status of the EVCs present, which confers High status on poor to moderately intact examples (habitat score <0·4), and Very High conservation significance on the rest. Either category gives the site **State** significance under criterion 3.2.3 of Amos (2004).

Rare or Threatened Flora

Many of the locally threatened plant species listed above have viable populations, thereby meeting criterion 3.1.5 for a site of **Local** significance.

Rare or Threatened Fauna

The presence of known habitat for a species listed under the federal *Environment Protection and Biodiversity Conservation Act 1999* (i.e. Dwarf Galaxias) confers at least **State** significance on the site, according to Amos (2004). Taking into account the recent crash in the species' population in this catchment, the site does not meet the criteria for National significance.

Threats

- Urban residential development on some of the private land;
- Invasion by environmental weeds, as discussed by Reid, Moss and Lorimer (1997);
- Damage such as trampling from recreational activities, including trail bikes;
- Dumping of rubbish from adjoining residential properties, particularly building sites;
- Slashing or mowing at the wrong time, frequency or height;
- Reid *et al*. (1997) reported progressive encroachment of slashing on previously unslashed native vegetation, which would cause ecological deterioration if allowed to resume;
- Loss or decline of plant species that are present in dangerously small numbers (e.g. only one *Villarsia reniformis* was found), due to inbreeding, poor reproductive success or vulnerability to localised chance events.

Management issues

- Mowing or slashing of indigenous ground flora is not intrinsically bad, but the timing and frequency are important. In particular, no vehicles should be on native vegetation when the ground is wet enough to cause bogging or loss of traction;
- Trials by Parks Victoria (assessed by Dr Lorimer) in the nearby Dandenong Valley Parklands have shown the value of fire in recovering plant species that have suffered massive decline in Knox (e.g. *Kennedia prostrata*). This site should be considered as part of Knox City Council's overall program for ecological burning. The ecological importance of burning this site is only moderate, but the overall importance may be high if the Country Fire Authority regards the vegetation as a significant fire risk;
- Reid *et al*. (1997) discuss additional management issues.

Administration matters

- This site is very worthy of inclusion within the proposed Environmental Significance Overlay, ESO2, because of its biological significance, importance to a waterway, the presence of threatened EVCs that are predominantly on private land, and the potential for residential subdivision to adversely affect the natural assets (directly or indirectly);
- The granting of planning permits for subdivision or development on any native vegetation within the site would be severely restricted by the endangered status of the vegetation and the Victorian government's policy for native vegetation management (NRE 2002a; Victoria Planning Provisions).

Information sources used in this assessment

- For 91 Jenola Pde, detailed vegetation data and mapping in accord with this study's standard approach described in Section 2.4 of Vol.1, including a list of indigenous and introduced plant species within each of five separate areas of the property, compiled by Dr Lorimer over 4½ hours on 7th October 2003;
- Similar data, maps and associated documentation from H. Moss in March 1997 for the whole site, as reported by Reid J.C., Moss H. and Lorimer G.S. (1997), *'Vegetation Survey of Linear Reserves – A Management Strategy for Riparian and Flood Plain Vegetation'*, for Knox City Council;
- Similar data, maps and associated documentation from G. Lorimer in September 1997 for the roadside of High Street Rd, as reported by Lorimer G.S. (1998), *'A Survey and Management Strategy for Significant Roadsides in Knox'*, for Knox City Council;
- Incidental observations of birds and frogs while the above data was being gathered;
- An inspection by Dr Lorimer on 10/3/08 to update the above information where appropriate, with particular attention to recent residential development requiring amendment of the site boundary used in the first edition of this report;
- Information about Dwarf Galaxias verbally from fish expert, Mr John McGuckin (Streamline Research Pty Ltd), in October 2003;
- A list of plant species and a basic report on flora and fauna at 91 Jenola Pde (apparently wrongly identified in the report as 90 Jenola Pde), produced by Biosis Pty Ltd (their project no. 2375);
- Aerial photography from February 2001 and April 2003;
- Satellite imagery of the district;
- The Department of Sustainability & Environment's BioMaps of the area;
- Maps of geology and topography produced by agencies of the Victorian government.

Acknowledgment

Thanks to fish expert, John McGuckin, for information concerning Dwarf Galaxias on the site.