Yarraloch becomes 'Warramate'

by Mardie Lambert

THE Victorian Government has announced its largest and most significant conservation and recreation land purchase since it began the programme in 1988.

On Sunday, September 25, the Minister for Conservation and Environment, Mr Barry Pullen, opened the 500 hectares of former private land at the junction of the Yarra River and Woori Yallock Creek, and renamed it the Warramate Hills Flora and Fauna Reserve.

This will allow general public access for the first time to the most important remaining area of bushland in the Upper Yarra Valley.

"The Warramate Reserve fits like a jewel in the crown of the Victorian Government's farsighted plan to surround Melbourne with green, to create conservation bushland and recreation parklands for people to enjoy, Mr Pullen said.

"Over $30 million has been spent over four years turning private land into publicly owned reserves right around Melbourne."

The Government has spent $400,000 on the Yarraloch land from the Government's $4 million conservation land purchase allocation for 1991-92.

Located in the Upper Yarra Valley near Coldstream, 48 km from Melbourne and owned for many years by Sir Francis Dashwood, Yarraloch was the largest single private property left in the Warramate Hills. (It took some years of negotiation — and the involvement of the Shire of Lilydale and the Upper Yarra Valley Dandenong Ranges Authority — before it was agreed that the gift of some 470 ha by the previous and current owners would be accepted while allowing the owners to sell off some subdivided land. Of this portion the government spent $400,000 on three parcels of land . . . Lots C, 22 and 23 . . . to make the new reserve just on 500 ha.)

In Minister Pullen's speech at the official launch of the new Warramate Reserve last Sunday week, he thanked the previous owner, Sir Francis Dashwood, and the current owner, Mr Keith Tudor, for their roles in preserving one of the finest conservation areas in the State, for the people of Victoria.

Mr Pullen told a group of local conservationists and other guests, that the Warramate Reserve was one of the Kirner Government's most notable acquisitions because of its size and ability to support an extraordinary diversity of wildlife and plants.

"The Warramate Reserve boasts the most important conservation values of the entire Upper Yarra Valley, outside our national parks.

"Surveys show the basic vegetation here has probably not changed since the 1840's.

"The firetower on the highest peak of the Reserve is surrounded by intact forest. It gives spectacular views of the entire Yarra Valley and across to Port Phillip Bay, views which the public has not been able to enjoy until now.

"Turning Yarraloch into the the Warramate Hills Reserve is a guarantee of protection for flora and fauna. It is a guarantee against further subdivision, and will allow people to enjoy and study its uniqueness."

The Warramate Reserve combines undisturbed bushland, and a mosaic of regrowth forest mixed with rare stands of original eucalypt forest, and a small area of pasture land.

Some of its diverse wildlife and plants are rare or endangered. The reserve contains more than 200 species of trees, shrubs and grasses, which provide habitats for 74 native birds and 20 native reptiles and mammals, including the endangered Tree Goanna, and a wealth of platypii, koalas, three species of cockatoos, four of cuckoos and five kinds of honeyeaters.

"All these features will be preserved through public ownership," Mr Pullen said.

Conditions of public access to the reserve will be confirmed in a Management Plan which the Department of Conservation and Environment has already commissioned.

"Since European settlement, Victoria has lost almost two thirds of its forest cover. This Government has put the brakes on this depletion through increasing Victoria's national parks, introducing native vegetation controls, introducing guarantees of flora and fauna, through our sustainable forestry policies and most recently through our wetlands protection package," Mr Pullen said.

Interested guests at the official opening last Sunday were shown around the proierty including the fine tower, which on a fine day gives magnificent views of the surrounds area — and across to Melbourne.

SEE PAGE 7.

Why let flooding happen?

THERE has been an interesting response to Liane Howie's appeal to Melbourne Water to release water from Maroondah Dam *before* there is a flood.

Mrs Howie wrote on behalf of farmers, market gardeners and sporting clubs, all of whom, at one time or another, have suffered expensive damage.

We asked Mr Peter Rankin of Melbourne Water, Mitcham, "Why can't water be released from Maroondah Dam when flooding seems imminent?"

Mr Rankin replied that it was not as simple as that. It was not always possible to predict, and that it was not a matter of releasing water just hours or days ahead. In fact, it would have to be done gradually, weeks ahead.

"In any case," he said, "Maroondah Dam is not a retarding basin but a water supply reservoir in a catchment area. The only way you could make Mrs Howie's suggestion work is to have Maroondah Dam (level) always down."

Mr Rankin said that Melbourne Water had had discussions with Healesville Shire and they were looking at the possibility of doing further drainage work in Queen's park.

Mr Richard Davison, manager of the Healesville Caravan Park in River Street, has had enough of what he calls 'bloody poor management'.

He has had legal and insurance experts looking into the implications of floods occurring again in and around the caravan park.

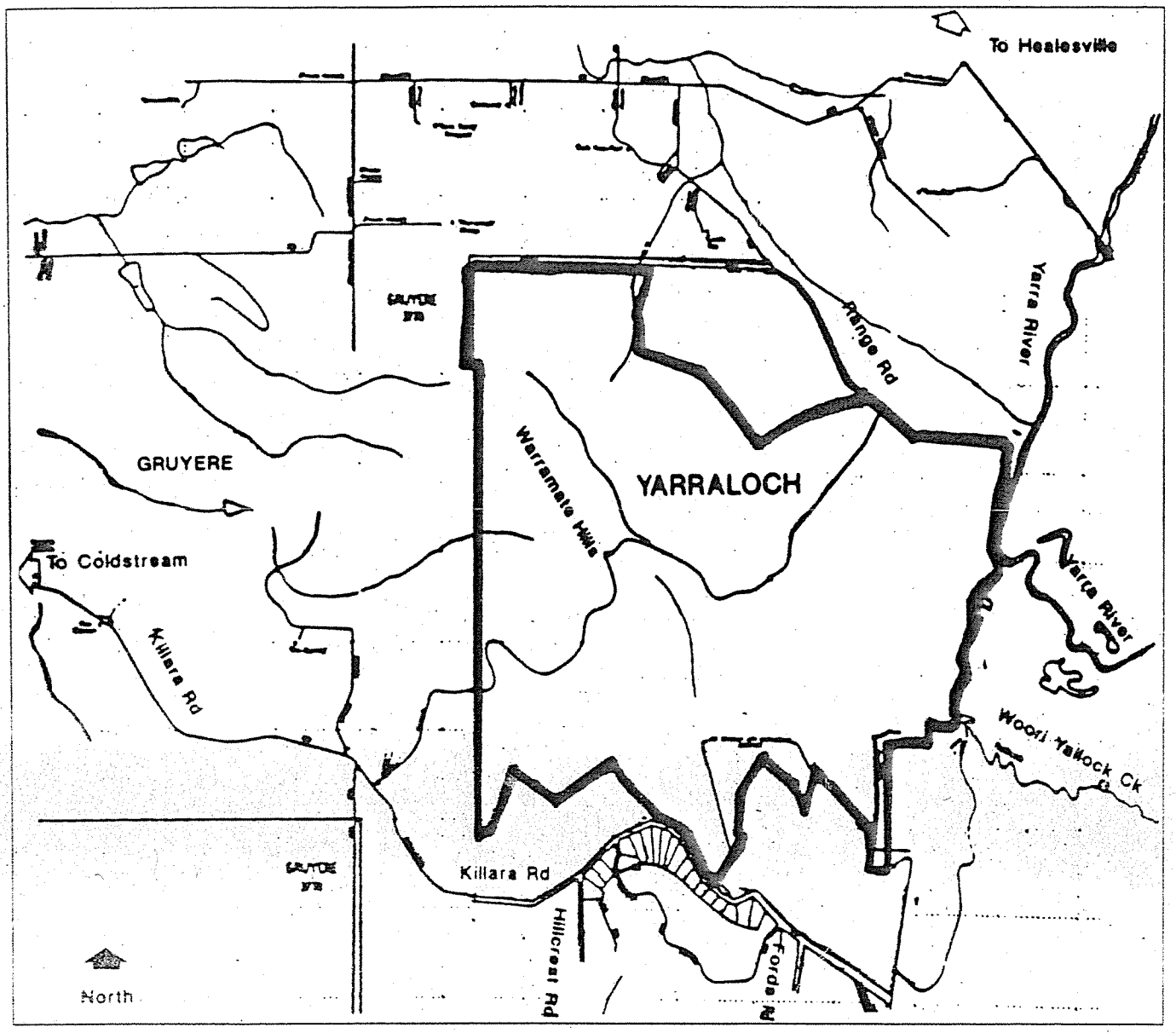
He feels that inadequate, or sometimes blocked drains are at least part of the trouble. And, he added, "I don't believe that Maroondah Dam has to be filled to capacity at all times."

Farewell to Luke and

congratulations to his great—grandmother.

SEVEN year old Luke is heading off to Western Australia to join his mother, Leeane, and his new Dad, this week. Healesville Primary School turned on a special farewell for Luke on the last day of term. Principal, Bruce Watkinson, told Luke's classmates that he was honoured to welcome Luke's great-

WARRAMATE HILLS (YARRALOCH) FLORA AND FAUNA RESERVE



INFORMATION SHEET

WARRAMATE HILLS (YARRALOCH) FLORA AND FAUNA RESERVE

INFORMATION SHEET

SITE DESCRIPTION

The Warramate Hills are located within the Shire of Lillydale, 48km east of Melbourne and 11km east of Lilydale, at the confluence of the Yarra River and Woori Yallock Creek. The area contains relatively undisturbed forest, which according to a comparison survey completed in the 1840's, 1850's and 1990's, still remain relatively untouched.

The "Yarraloch" estate is a 614 ha parcel of land that is considered to be of state botanical significance offering significant habitat for many variety's of fauna. The site includes the junction of the Yarra River and Woori Yallock Creek, and is regarded on botanical, zoological and landscape grounds to be the most significant private property in the Upper Yarra Valley.

The site contains two principle hills (Briarty Hill and Steel's Hill) with the highest point being 420 metres. The lower slopes and river flats have been cleared in the past for pasture, although some continuous pockets of remnant vegetation remain on the lower slopes.

ZONING

The current zoning of the subject land is Rural Conservation within the Shire of Lillydale Planning Scheme.

HISTORY

The Warramate Hills were within the territory of the 'Woiwurung' people prior to European settlement. In 1837 the Ryrie brothers obtained a grazing licence over 43,000 acres of land in the Yarra River, Woori Yallock and Olinda Creek area. This was reduced to just 12,000 acres in 1840. The effects of uncontrolled grazing was minimal on the steeper slopes during this time, however the native vegetation on the lower slopes was substantially modified.

The first person to formally settle in the area was J J Madden in 1852 on the low lying area called Yering. In 1859 the area was comprehensively surveyed, and during the 1860's and 1870's the low lying sections of the Warramate Hills were subdivided and given to unemployed people for a small fee.

During the 1900's, several owners occupied the Warramate Hills and it was during this time that the clearing of the Eucalypts in the lower gullies took place, principally for the construction of slab huts, the main type of housing in the area.

PREVIOUS OWNER(S)

Sir Francis Dashwood Baronet of Buckinghamshire England acquired the property in 1969. In 1973, Sir Francis established a "Heads of Agreement" with the Government of the day, giving it first option should the site come up for sale. In 1989, Sir Francis offered to donate 443 ha of the site to the State Government, with the balance to be subdivided into 30 lots as part of a negotiated planning agreement under Section 173 of the Planning and Environment Act 1987.

A Planning Scheme amendment and subdivision plan was then prepared, however Sir Francis decided not to proceed with the negotiations, and put the entire property on the market. In 1990, the land was sold with the Heads of Agreement intact to Mr Keith Tudor, Mr Adrian Van Tilburg and Mr Leigh Farthirwell of the Yarraloch Pastoral Company Limited.

The agreement entered into with the Pastoral Company included the donation of 470 ha of land to the State Government as part of the negotiated planning solution, with the option, in accordance with the Independent Panel Hearing's recommendation to acquire Lots 22 (6 ha) and 23 (7 ha).

In addition, the State Government also acquired Lot C (16 ha), to provide a wider corridor for native wildlife between the forest area and the Yarra River, bringing the total acquisition costs for the 3 Lots to $400 000, and a total area of 499 hectares into public ownership.

VEGETATION

The property contains one of the last remaining areas of undisturbed bush in the Yarra Valley acting as a refuge for a diverse range of wildlife. The steeper portions of the site are densely forested with the lower slopes containing pasture and a mix of remnant and regenerated forest.

Floristic data shows that there are more than 190 species of plants recorded in the area which include Damp Sclerophyll Forest, Wet Sclerophyll Forest and Sclerophyll Woodland, with Eucalyptus obliqua, E.radiata, E.cypellocarpa, E.goniocalyx and E.macrorryhyncha predominating, all of which are considered to be of high botanical significance. The distribution and number of plant species in the area remain as much the same today as it was when it was first described in the mid 1890's.

FAUNA

Several studies undertaken in the Upper Yarra Region indicate that there is an excellent range of native fauna present, both on the site and in the Warramate Hills. Past sightings include 20 species of mammals, 3 species of reptiles - 1 endangered (Tree Goanna - *Varanus varius*), 74 species of birds and an endangered invertebrate (Damselfly - *Hemiphlebia mirabilis)*.

The avifauna present includes birds of prey (eg Wedge Tailed Eagle), Quails, Honey Eaters, Wrens, Ducks and Cockatoo's. The mammals found on the site include Bats, Kangaroo's, Bandicoots, Possums, Gliders and Platypus, as well as the rare and threatened Swamp Wallaby and Echidna and the endangered Tree Goanna (See wildlife species list attached).

TOPOGRAPHY

The Warramate Hills have great diversity of landform in the catchments of the property. From the central spur between Briarty Hill and Steele's Hill, the catchments drain in four main directions The topography on the site ranges from 80 metres along the Yarra to 420 meters above sea level at Briarty's Hill.

GEOLOGY

The bed-rock of the area is all sedimentary. The principle range and associated ridges from part of a rock formation known as the Dargile formation (deposited approximately 395-415 Million years ago), comprising of sandstone and rhythmically interbedded siltstones. Resistant quartzites are also present as cappings to ridges.

SOILS

There are two distinct types of soils, shallow yellowish duplex soils and dark brown gradational soils which occur on the lower sections of the eastern slopes, gully lines and river flats.

A:EKFACT

Wildlife and Plants recorded from Yarraloch area

Atlas of Victorian Wildlife, Department of Conservation & Environment. 17-7-1992

Species list from 3740 14525, 5 minute block, centred on YARRALOCH

Code	B	Last	#rec	Con	FFG	Species	
9	-	1988	5	-	-	**Stubble Quail**	*Coturnix novaezelandiae*
14	-	1977	1	-	-	**Painted Button-quail**	*Turnix varia*
34	B	1989	6	-	-	**Common Bronzewing**	*Phaps chalcoptera*
56	B	1988	2	-	-	**Dusky Moorhen**	*Gallinula tenebrosa*
58	B	1988	4	-	-	**Purple Swamphen**	*Porphyrio porphyrio*
59	-	1988	3	-	-	**Eurasian Coot**	*Fulica atra*
61	-	1988	3	-	-	**Australasian Grebe**	*Tachybaptus novaehollandiae*
96	-	1988	2	-	-	**Great Cormorant**	*Phalacrocorax carbo*
97	-	1977	1	-	-	**Little Black Cormorant**	*Phalacrocorax sulcirostris*
100	-	1988	2	-	-	**Little Pied Cormorant**	*Phalacrocorax melanoleucos*
133	-	1988	3	-	-	**Masked Lapwing**	*Vanellus miles*
179	-	1988	6	-	-	**Sacred Ibis**	*Threskiornis aethiopicus*
180	-	1988	3	-	-	**Straw-necked Ibis**	*Threskiornis spinicollis*
187	-	1977	1	R/C	-	**Great Egret**	*Egretta alba*
188	B	1989	9	-	-	**White-faced Heron**	*Ardea novaehollandiae*
192	-	1989	3	R/C	-	**Rufous Night Heron**	*Nycticorax caledonicus*
202	B	1988	9	-	-	**Maned Duck**	*Chenonetta jubata*
203	B	1988	2	-	-	**Black Swan**	*Cygnus atratus*
207	-	1977	1	-	-	**Australian Shelduck**	*Tadorna tadornoides*
208	B	1989	7	-	-	**Pacific Black Duck**	*Anas superciliosa*
211	B	1988	2	-	-	**Grey Teal**	*Anas gibberifrons*
212	-	1988	1	-	-	**Australasian Shoveler**	*Anas rhynchotis*
218	-	1988	1	-	-	**Spotted Harrier**	*Circus assimilis*
221	B	1989	7	-	-	**Brown Goshawk**	*Accipiter fasciatus*
224	B	1989	2	-	-	**Wedge-tailed Eagle**	*Aquila audax*
228	B	1988	2	-	-	**Whistling Kite**	*Haliastur sphenurus*
232	-	1988	1	-	-	**Black-shouldered Kite**	*Elanus notatus*
235	-	1977	1	-	-	**Australian Hobby**	*Falco longipennis*
239	B	1988	5	-	-	**Brown Falcon**	*Falco berigora*
240	-	1988	3	-	-	**Australian Kestrel**	*Falco cenchroides*
242	-	1989	2	-	-	**Southern Boobook**	*Ninox novaeseelandiae*
249	-	1977	2	-	-	**Barn Owl**	*Tyto alba*
267	-	1983	3	-	-	**Yellow-tailed Black-Cockatoo**	*Calyptorhynchus funereus*
268	-	1989	2	-	-	**Gang-gang Cockatoo**	*Callocephalon fimbriatum*
269	-	1989	4	-	-	**Sulphur-crested Cockatoo**	*Cacatua galerita*
271	-	1988	1	-	-	**Little Corella**	*Cacatua sanguinea*
273	-	1988	3	-	-	**Galah**	*Cacatua roseicapilla*
282	-	1989	6	-	-	**Crimson Rosella**	*Platycercus elegans*
288	-	1989	11	-	-	**Eastern Rosella**	*Platycercus eximius*
313	-	1988	1	-	-	**Tawny Frogmouth**	*Podargus strigoides*
322	-	1989	11	-	-	**Laughing Kookaburra**	*Dacelo novaeguineae*
326	-	1989	6	-	-	**Sacred Kingfisher**	*Halcyon sancta*
329	B	1988	2	-	-	**Rainbow Bee-eater**	*Merops ornatus*
337	B	1988	3	-	-	**Pallid Cuckoo**	*Cuculus pallidus*
338	-	1989	3	-	-	**Fan-tailed Cuckoo**	*Cuculus pyrrhophanus*
342	B	1988	3	-	-	**Horsfield's Bronze-Cuckoo**	*Chrysococcyx basalis*
344	-	1988	6	-	-	**Shining Bronze-Cuckoo**	*Chrysococcyx lucidus*
357	B	1989	11	-	-	**Welcome Swallow**	*Hirundo neoxena*
359	-	1988	1	-	-	**Tree Martin**	*Cecropis nigricans*
360	B	1988	3	-	-	**Fairy Martin**	*Cecropis ariel*
361	B	1989	12	-	-	**Grey Fantail**	*Rhipidura fuliginosa*
362	-	1990	8	-	-	**Rufous Fantail**	*Rhipidura rufifrons*
364	-	1989	11	-	-	**Willie Wagtail**	*Rhipidura leucophrys*

365	-	1977	1	-	-	Leaden Flycatcher	*Myiagra rubecula*
366	-	1989	7	-	-	Satin Flycatcher	*Myiagra cyanoleuca*
369	-	1977	2	-	-	Restless Flycatcher	*Myiagra inquieta*
377	-	1989	4	-	-	Jacky Winter	*Microeca leucophaea*
380	-	1977	1	-	-	Scarlet Robin	*Petroica multicolor*
382	-	1988	2	-	-	Flame Robin	*Petroica phoenicea*
392	-	1989	9	-	-	Eastern Yellow Robin	*Eopsaltria australis*
398	B	1989	10	-	-	Golden Whistler	*Pachycephala pectoralis*
401	-	1989	8	-	-	Rufous Whistler	*Pachycephala rufiventris*
405	B	1988	4	-	-	Olive Whistler	*Pachycephala olivacea*
408	-	1989	12	-	-	Grey Shrike-thrush	*Colluricincla harmonica*
415	B	1989	11	-	-	Australian Magpie Lark	*Grallina cyanoleuca*
416	-	1989	6	-	-	Crested Shrike-tit	*Falcunculus frontatus*
421	-	1988	4	-	-	Eastern Whipbird	*Psophodes olivaceus*
424	B	1989	11	-	-	Black-faced Cuckoo-shrike	*Coracina novaehollandiae*
447	-	1977	1	-	-	White's Thrush	*Zoothera dauma*
470	-	1989	10	-	-	Striated Thornbill	*Acanthiza lineata*
471	-	1988	2	-	-	Yellow Thornbill	*Acanthiza nana*
475	-	1989	12	-	-	Brown Thornbill	*Acanthiza pusilla*
484	-	1989	2	-	-	Buff-rumped Thornbill	*Acanthiza reguloides*
486	-	1989	12	-	-	Yellow-rumped Thornbill	*Acanthiza chrysorrhoa*
488	-	1989	13	-	-	White-browed Scrubwren	*Sericornis frontalis*
508	-	1988	1	-	-	Brown Songlark	*Cinclorhamphus cruralis*
509	-	1988	1	-	-	Rufous Songlark	*Cinclorhamphus mathewsi*
525	-	1988	5	-	-	Golden-headed Cisticola	*Cisticola exilis*
529	-	1989	10	-	-	Superb Fairy-wren	*Malurus cyaneus*
547	B	1989	6	-	-	Dusky Woodswallow	*Artamus cyanopterus*
549	-	1989	5	-	-	Varied Sittella	*Daphoenositta chrysoptera*
558	-	1989	7	-	-	White-throated Treecreeper	*Climacteris leucophaea*
564	-	1989	9	-	-	Mistletoebird	*Dicaeum hirundinaceum*
565	-	1989	8	-	-	Spotted Pardalote	*Pardalotus punctatus*
574	-	1989	11	-	-	Silvereye	*Zosterops lateralis*
578	-	1989	9	-	-	White-naped Honeyeater	*Melithreptus lunatus*
583	-	1989	5	-	-	Brown-headed Honeyeater	*Melithreptus brevirostris*
591	-	1988	7	-	-	Eastern Spinebill	*Acanthorhynchus tenuirostris*
614	-	1990	10	-	-	Yellow-faced Honeyeater	*Lichenostomus chrysops*
617	-	1990	6	-	-	White-eared Honeyeater	*Lichenostomus leucotis*
625	-	1990	12	-	-	White-plumed Honeyeater	*Lichenostomus penicillatus*
630	-	1977	1	-	-	Crescent Honeyeater	*Phylidonyris pyrrhoptera*
631	-	1989	9	-	-	New Holland Honeyeater	*Phylidonyris novaehollandiae*
633	-	1990	8	-	-	Bell Miner	*Manorina melanophrys*
634	-	1988	5	-	-	Noisy Miner	*Manorina melanocephala*
638	-	1989	10	-	-	Red Wattlebird	*Anthochaera carunculata*
647	B	1988	5	-	-	Richard's Pipit	*Anthus novaeseelandiae*
662	B	1990	11	-	-	Red-browed Firetail	*Emblema temporalis*
694	-	1977	1	-	-	Pied Currawong	*Strepera graculina*
697	-	1989	2	-	-	Grey Currawong	*Strepera versicolor*
702	-	1989	3	-	-	Grey Butcherbird	*Cracticus torquatus*
705	B	1989	13	-	-	Australian Magpie	*Gymnorhina tibicen*
930	-	1988	2	-	-	Australian Raven	*Corvus coronoides*
954	-	1989	11	-	-	Little Raven	*Corvus mellori*
976	B	1989	11	-	-	Striated Pardalote	*Pardalotus striatus*
989	-	1988	3	*	-	Spotted Turtle-Dove	*Streptopelia chinensis*
991	-	1989	11	*	-	Common Blackbird	*Turdus merula*
992	-	1988	1	*	-	Song Thrush	*Turdus philomelos*
993	-	1988	6	*	-	Common Skylark	*Alauda arvensis*
995	-	1989	7	*	-	House Sparrow	*Passer domesticus*
996	-	1989	13	*	-	European Goldfinch	*Carduelis carduelis*
997	-	1988	1	*	-	European Greenfinch	*Carduelis chloris*
998	B	1988	5	*	-	Common Myna	*Acridotheres tristis*

999	B	1989	13	*	-	Common Starling	*Sturnus vulgaris*
1001	-	1989	4	-	-	Platypus	*Ornithorhynchus anatinus*
1003	-	1988	4	-	-	Short-beaked Echidna	*Tachyglossus aculeatus*
1028	-	1979	5	-	-	Brown Antechinus	*Antechinus stuartii*
1097	-	1985	5	-	-	Long-nosed Bandicoot	*Perameles nasuta*
1113	-	1988	6	-	-	Common Brushtail Possum	*Trichosurus vulpecula*
1115	-	1971	1	-	-	Mountain Brushtail Possum	*Trichosurus caninus*
1129	-	1989	11	-	-	Common Ringtail Possum	*Pseudocheirus peregrinus*
1138	-	1988	2	-	-	Sugar Glider	*Petaurus breviceps*
1165	-	1989	12	-	-	Common Wombat	*Vombatus ursinus*
1242	-	1989	4	-	-	Swamp Wallaby	*Wallabia bicolor*
1335	-	1979	1	-	-	Lesser Long-eared Bat	*Nyctophilus geoffroyi*
1395	-	1983	3	-	-	Bush Rat	*Rattus fuscipes*
1398	-	1987	2	-	-	Swamp Rat	*Rattus lutreolus*
1412	-	1989	1	*	-	House Mouse	*Mus musculus*
1510	-	1989	10	*	-	Rabbit	*Oryctolagus cuniculus*
1532	-	1989	5	*	T	Fox	*Vulpes vulpes*
1536	-	1983	2	*	-	Cat (feral)	*Felis catus*
2283	-	1977	1	Ins	-	Tree Goanna	*Varanus varius*
2444	-	1979	6	-	-	McCoy's Skink	*Nannoscincus maccoyi*
2450	-	1971	2	-	-	Delicate Skink	*Lampropholis delicata*
2451	-	1989	7	-	-	Garden Skink	*Lampropholis guichenoti*
2452	-	1988	3	-	-	Weasel Skink	*Lampropholis mustelina*
2578	-	1989	3	-	-	Blotched Blue-tongued Lizard	*Tiliqua nigrolutea*
2956	-	1989	1	-	-	Southern Water Skink CTF	*Sphenomorphus tympanum CTF*
2973	-	1989	1	-	-	Lowland Copperhead	*Austrelaps superbus*
3033	-	1971	1	-	-	Victorian Smooth Froglet	*Geocrinia victoriana*
3058	-	1988	1	-	-	Southern Bullfrog	*Limnodynastes dumerilii*
3063	-	1971	3	-	-	Spotted Marsh Frog	*Limnodynastes tasmaniensis*
3134	-	1989	37	-	-	Common Froglet	*Ranidella signifera*
3182	-	1974	4	-	-	Southern Brown Tree Frog	*Litoria ewingii*
3207	-	1979	2	-	-	Growling Grass Frog	*Litoria raniformis*
3303	-	1988	1	-	-	Southern Brown Tree Frog SCR	*Litoria ewingii SOUTHERN*
3318	-	1988	1	-	-	Spotted Marsh Frog SCR	*Limnodynastes tasmaniensis SCR*
8002	-	1959	1	End	L	Damselfly	*Hemiphlebia mirabilis*

Code: species code number
B: breeding recorded
Last: year last recorded
#r: number of reports
Con: Conservation status - End = endangered, Ins = insufficiently known, R/C = breeding colonies important
FFG: Listed under Flora and Fauna Guarantee Act - L = listed, T = threatening process

Flora recorded from 5 minute block centered on YARRALOCH.

Data form Flora Database, Department of Conservation & Environement. July 1992
Compiled from 14 quadrats between 1979 and 1990.

* denotes introduced species

FERNS AND FERN ALLIES

ADIANTACEAE	
Adiantum aethiopicum	Common Maidenhair
BLECHNACEAE	
Blechnum cartilagineum	Gristle Fern
Blechnum nudum	Fishbone Water-fern
CYATHEACEAE	
Cyathea australis	Rough Tree-fern
DENNSTAEDTIACEAE	
Culcita dubia	Common Ground-fern
Hypolepis rugosula	Ruddy Ground-fern
Pteridium esculentum	Austral Bracken
DICKSONIACEAE	
Dicksonia antarctica	Soft Tree-fern
DRYOPTERIDACEAE	
Polystichum proliferum	Mother Shield-fern

MONOCOTYLEDONS

ALISMATACEAE	
Alisma plantago-aquatica	Water Plantain
CYPERACEAE	
Carex appressa	Tall Sedge
Carex fascicularis	Tassel Sedge
Carex inversa	Common Sedge
**Cyperus eragrostis*	Drain Flat-sedge
Cyperus lucidus	Leafy Flat-sedge
Fimbristylis aestivalis	Summer Fringe-sedge
Gahnia radula	Thatch Saw-sedge
Isolepis fluitans	Floating Club-sedge
Isolepis inundata	Swamp Club-sedge
Lepidosperma elatius	Tall Sword-sedge
Lepidosperma laterale	Variable Sword-sedge
Lepidosperma semiteres	Wire Rapier-sedge
Schoenus apogon	Common Bog-sedge
JUNCACEAE	
Juncus amabilis	Hollow Rush
Juncus bufonius	Toad Rush
Juncus gregiflorus	Green Rush
Juncus sarophorus	Rush
Luzula campestris spp. agg.	Field Woodrush
JUNCAGINACEAE	
Triglochin procera	Water-ribbons
LEMNACEAE	
Lemna disperma	Common Duckweed
LILIACEAE	
Burchardia umbellata	Milkmaids
Caesia parviflora	Pale Grass-lily
Dianella revoluta	Black-anther Flax-lily
ORCHIDACEAE	
Pterostylis longifolia	Tall Greenhood
Pterostylis parviflora	Tiny Greenhood
POACEAE	
Chionochloa pallida	Silvertop Wallaby-grass
**Dactylis glomerata*	Cocksfoot
Danthonia racemosa	Branched Wallaby-grass
Deyeuxia quadriseta	Reed Bent-grass
Dichelachne micrantha	Short-hair Plume-grass

Echinopogon ovatus	Common Hedgehog-grass
**Holcus lanatus*	Yorkshire Fog
Microlaena stipoides	Weeping Grass
**Phalaris aquatica*	Toowoomba Canary-grass
**Phalaris arundinacea*	Reed Canary-grass
**Phalaris minor*	Lesser Canary-grass
Phragmites australis	Common Reed
Poa australis spp. agg.	Tussock Grass
Poa labillardieri	Common Tussock-grass
Tetrarrhena juncea	Forest Wire-grass
Themeda triandra	Kangaroo Grass
TYPHACEAE	
Typha domingensis	Cumbungi
XANTHORRHOEACEAE	
Lomandra filiformis	Wattle Mat-lily
Lomandra longifolia	Spiny-headed Mat-lily
Xanthorrhoea minor	Small Grass-tree

DICOTYLEDONS

AMARANTHACEAE	
Alternanthera denticulata	Lesser Joyweed
APIACEAE	
Hydrocotyle hirta	Hairy Pennywort
ARALIACEAE	
Polyscias sambucifolia	Elderberry Panax
ASTERACEAE	
Cassinia aculeata	Common Cassinia
Centipeda minima	Spreading Sneezeweed
**Cirsium vulgare*	Spear Thistle
Cymbonotus preissianus	Austral Bear's-ears
Gnaphalium gymnocephalum	Creeping Cudweed
Helichrysum dendroideum	Tree Everlasting
**Hypochoeris radicata*	Cat's Ear
Lagenifera stipitata	Common Lagenifera
**Leontodon taraxacoides*	Hairy Hawkbit
Olearia argophylla	Musk Daisy-bush
Olearia lirata	Snow Daisy-bush
Olearia phlogopappa	Dusty Daisy-bush
Pseudognaphalium luteo-album	Jersey Cudweed
Senecio lautus	Variable Groundsel
Senecio minimus	Shrubby Fireweed
Senecio quadridentatus	Cotton Fireweed
Senecio tenuiflorus	Narrow Groundsel
Sigesbeckia orientalis	Indian Weed
**Sonchus oleraceus*	Milk Thistle
BIGNONIACEAE	
Pandorea pandorana	Wonga Vine
BORAGINACEAE	
Cynoglossum latifolium	Forest Hound's-tongue
BRASSICACEAE	
**Rorippa palustris*	Marsh Bitter-cress
CALLITRICHACEAE	
**Callitriche hamulata*	Water Starwort
**Callitriche stagnalis*	Water Starwort
CAMPANULACEAE	
Wahlenbergia stricta	Tall Bluebell
CARYOPHYLLACEAE	
Stellaria flaccida	Forest Starwort
CHENOPODIACEAE	
Chenopodium pumilio	Clammy Goosefoot
CLUSIACEAE	
Hypericum gramineum	Small St. John's Wort
**Hypericum tetrapterum*	Square-stem St. John's Wort

CONVOLVULACEAE	
Calystegia sepium	Large Bindweed
Dichondra repens	Kidney-weed
CRASSULACEAE	
Crassula helmsii	Swamp Crassula
DILLENIACEAE	
Hibbertia obtusifolia	Grey Guinea-flower
Hibbertia riparia	Erect Guinea-flower
DROSERACEAE	
Drosera peltata ssp. auriculata	Tall Sundew
ELATINACEAE	
Elatine gratioloides	Waterwort
EPACRIDACEAE	
Acrotriche serrulata	Honey-pots
Epacris impressa	Common Heath
Monotoca scoparia	Prickly Broom-heath
EUPHORBIACEAE	
Poranthera microphylla	Small Poranthera
FABACEAE	
Daviesia leptophylla	Narrow-leaf Bitter-pea
Glycine clandestina	Twining Glycine
Hardenbergia violacea	Purple Coral-pea
Hovea linearis	Common Hovea
Kennedia prostrata	Running Postman
**Lotus corniculatus*	Bird's-foot Trefoil
GENTIANACEAE	
**Centaurium tenuiflorum*	Centaury
GERANIACEAE	
Geranium potentilloides	Cinquefoil
GOODENIACEAE	
Goodenia lanata	Trailing Goodenia
HALORAGACEAE	
Gonocarpus tetragynus	Common Raspwort
LAMIACEAE	
Lycopus australis	Australian Gipsywort
Prostanthera lasianthos	Victorian Christmas-bush
LORANTHACEAE	
Amyema pendulum	Drooping Mistletoe
Muellerina eucalyptoides	Creeping Mistletoe
MIMOSACEAE	
Acacia dealbata	Silver Wattle
Acacia mearnsii	Black Wattle
Acacia melanoxylon	Blackwood
Acacia mucronata	Narrow-leaf Wattle
Acacia stricta	Hop Wattle
Acacia verniciflua	Varnish Wattle
Acacia verticillata	Prickly Moses
MONIMIACEAE	
Hedycarya angustifolia	Austral Mulberry
MYRTACEAE	
Eucalyptus angophoroides/ bridgesiana	Apple-topped Box/But But
Eucalyptus cypellocarpa	Mountain Grey Gum
Eucalyptus dives	Broad-leaved Peppermint
Eucalyptus goniocalyx/nortonii	Long-leaf Box/Silver Bundy
Eucalyptus ignorabilis	Green Scentbark
Eucalyptus macrorhyncha	Red Stringybark
Eucalyptus obliqua	Messmate
Eucalyptus ovata	Swamp Gum
Eucalyptus radiata sensu lato	Narrow-leaf Peppermint
Eucalyptus viminalis	Manna Gum
Kunzea ericoides	Burgan
Leptospermum continentale	Prickly Tea-tree

OXALIDACEAE	
Oxalis corniculata spp. agg.	Yellow Wood-sorrel
Oxalis perennans	Grassland Wood-sorrel
PITTOSPORACEAE	
Billardiera scandens	Common Apple-berry
PLANTAGINACEAE	
**Plantago lanceolata*	Ribwort
POLYGALACEAE	
Comesperma volubile	Love Creeper
POLYGONACEAE	
Persicaria hydropiper	Water-pepper
Persicaria strigosa	Ridged Knotweed
Persicaria subsessilis	Hairy Knotweed
Polygonum minus	Slender Knotweed
PRIMULACEAE	
**Anagallis arvensis*	Pimpernel
PROTEACEAE	
Lomatia ilicifolia	Holly Lomatia
RANUNCULACEAE	
Clematis aristata	Mountain Clematis
Ranunculus inundatus	River Buttercup
Ranunculus plebeius/scapiger	Forest/Subalpine Buttercup
**Ranunculus repens*	Creeping Buttercup
RHAMNACEAE	
Pomaderris aspera	Hazel Pomaderris
Pomaderris elliptica	Smooth Pomaderris
ROSACEAE	
Acaena novae-zelandiae	Bidgee-widgee
**Rubus discolor*	Blackberry
**Rubus fruticosus spp. agg.*	Blackberry
RUBIACEAE	
Asperula scoparia	Prickly Woodruff
Coprosma quadrifida	Prickly Coprosma
**Galium aparine*	Cleavers
Galium gaudichaudii	Rough Bedstraw
Galium propinquum	Maori Bedstraw
SANTALACEAE	
Exocarpos cupressiformis	Cherry Ballart
SCROPHULARIACEAE	
Veronica calycina	Hairy Speedwell
SOLANACEAE	
Solanum americanum	Glossy Nightshade
**Solanum pseudocapsicum*	Madeira Winter-cherry
THYMELAEACEAE	
Pimelea linifolia	Slender Rice-flower
URTICACEAE	
Australina pusilla	Shade Nettle
Urtica incisa	Scrub Nettle
VIOLACEAE	
Viola hederacea	Ivy-leaf Violet

DRAFT ONLY

YARRALOCH - DRAFT MANAGEMENT PLAN

Prepared by the Faculty of Applied Science, Deakin University, Rusden Campus

February 1990

NATURE OF THE AREA

The study area is located 11 kilometres east of Lilydale (about 48 km east of Melbourne) and is approximately midway between the Maroondah and Warburton Highways. Relatively undisturbed forest in the Warramate Hills is restricted to an area of approximately 320 hectares on a privately owned property (614 hectares) called 'Yarraloch'. It is an outlier of the Great Dividing Range which has a large range of natural features and is in relatively close proximity to Melboune.

The principal hill range of Briarty Hill and Steel's Hill and associated slopes down to approximately 250 metres elevation contain the largest continuous body of native vegetation in the Warramate Hills. The lower slopes and river flats have been extensively cleared for pasture and contain only discontinuous pockets of remnant vegetation.

DESCRIPTION OF THE AREA

Climate

The region of the Warramate Hills has a temperate climate, similar to that of nearby Melbourne, with warm dry summers and a tendency for maximum rainfall in Winter. Average annual rainfall for the study area is 900 to 1000 mm. (Box, 1986). The range of temperatures for the Warramate Hill area is similar to Melbourne with the mean maximum temperature being 18.7 degrees Celcius and the mean minimum temperature being 7.6 degrees Celcius. (Box, 1986). The Land Conservation Council (1973) report concluded that summer drought is likely to prevent growth during February and that low temperatures would restrict growth from May to October.

Topography

The study area is part of the Warramate Hills in the Yarra Valley. It has a great diversity of landform in the number of small catchments on the property. The central spur between Briarty's Hill and Steele's Hill cause these catchments to drain in all four main directions. However, those drainage lines to the North and West are not as substantial as those to the South and East. The topography ranges from 80 metres (A.S.L.) along the Yarra River to 420 metres (A.S.L.) at Briarty's Hill. The difference between the highest and lowest points is 400 metres. The eastern

boundary of the study area comprises of the Woori Yallock Creek and the Yarra River.

Geology

The bedrock of the study area is all sedimentaty . The principal range and associated ridges form part of a rock formation known as the 'Dargile Formation' and is comprised of sandstone with rhythmically interbedded siltstones. Resistant quartzites are present as 'cappings' to the ridges. The Dargile Formation was deposited during the Ludlovian Epoch of the Silurian Period, approximately 395-415 million years ago (Box, 1986).

Soils

The soils of the study area form two distinct types. The first are shallow, yellowish brown duplex soils which occur on the exposed northern and western slopes and narrow crests. The second type are dark brown gradational soils which occur on the lower sections of the eastern slopes and the lower to middle sections of the southern slopes. These gradational soils also occur in gully lines and along the river flats.

Vegetation

The steeper portions of the hills are largely forested and the lower slopes are covered by a mosaic of pasture and forest. Due to massive clearing of some of the forested slopes in the late 1960's some of the forest cover on the northern and western slopes consists of young, regenerating forest.

Floristic data for the area can be divided into 9 species groups based primarily on a survey of the vegetation by Box (1986). These groups include Tall Open Forest, Open Forest, Closed Scrubland and Regenerating Forest. 190 species have been recorded but more species will become evident with further research. The importance of aspect and position on slope to the pattern of vegetation can be recognised in the Warramate Hills, where the vegetation units align themselves along an apparent moisture gradient. The species present and their combinations in vegetation types are similar to those in the Dandenong Ranges, Christmas Hills and Kinglake areas and many of these species are common throughout Victoria. For a list of recorded species, refer to Appendix 1. The physical and vegetative characteristics of this area provide a large number of habitat types ranging from the river flats, to fern gullies and the dry forested slopes.

Fauna

There is a good range of native fauna present at Yarraloch ranging from mammals (20 species), to reptiles (3 species) and birds (74 species). The Insect, Amphibian and Fish fauna have not been recorded as yet.

The mammals present include bats, kangaroos, bandicoots, possums, gliders, echidnas and platypus. For a complete list of recorded mammal species refer to Appendix 3.

The avian fauna is quite diverse with representatives from the birds of prey, owls, quails, honeyeaters, wrens, herons, ducks and cockatoos to name but a few. Appendix 2 contains a complete list of recorded species.

Introduced fauna are also found and include the more common animals such as the feral cat, rabbit, fox mouse and black rat.

History of the Area

Prior to European settlement, the forested Warramates were within the territory of the 'Wawurrong' people. The arrival of Europeans saw the beginning of a number of dramatic changes to the Warramate's landscape that had probably remained largely unchanged by the activities of pre-Europeans.

In1837 the Ryrie Brothers obtained a grazing licence over an area of 43000 acres that stretched from the Olinda Creek to the Woori Yallock Creek and to the Yarra in the North. In the 1840's the Ryrie's pastoral lease was reduced to 12000 acres and a number of other pastoral leases were established in the Upper Yarra Valley. These included the "Steel's Flat" run established by Robert Briarty along the Wandin Yallock Creek Valley.

The effect of uncontrolled grazing during this period was probably fairly minimal on the steeper slopes but the native vegetation on the river flats and the lower slopes must have been substantialliy modified. Active clearing of the river flat areas to increase the stocking rate accelerated this process.

The Warramate Hills were first surveyed by T.H. Nutt in 1840 and the area described as 'steep stringybark ranges, thickly timbered' (from original hand-drawn map). The first person to settle in the area was J.J. Madden in 1852 on the low lying area called Yering. In 1859 the area was comprehensively surveyed, subdivided and most of the Warramate Hills were proposed as a reserve for 'Timber, Future Commonage and so on'. The reserve comprised a total of 2958 acres, 1 rod and 36 perches. During the 1860's and 1870's the low lying sections of the Warramate Hills were subdivided and given to the unemployed people for a nominal fee provided they could viably establish themselves.

Letters from such settlers to the Chairman of the Lilydale Land Board indicate that very little clearing took place and that conditions on the land were extremely harsh. Many problems were reported, such as a bushfire in 1885 and the ruggedness of the terrain. Copies of the original field survey sheets drawn up during the 1880's describe the Warramate Hills as:

> 'schistose, very rangy, heavily timbered, with gum, stringybark, box, cherry and messmate, poor soils, light gravelly lands by Yarra of fair grazing quality'.

Surveys of the area in the 1840's and 1850's indicate that the basic types of native vegetation found within this area correspond closely with the vegetation found there today (Box, 1986).

During the mid 1880's Briarty was the principal landowner grazing cattle over the range. During the early 1900's several owners occupied the Warramate Hills, one of whom was A. Meadway who recorded the practice of cool burning to promote growth of grasses for cattle grazing. Two gold mine shafts were sunk and some fossicking was carried out on the top of the range near where the current fire tower exists. A meeting with one of the oldest remaining residents of the Gruyere region, Mr. W. Spence (pers, comm.), revealed that the lack of eucalypts in many of the lower gully lines was due to small scale logging. The principle trees in these gullies were 'gum trees', now known to be *Eucalyptus cypellocarpa*. These trees were particularly suitable for the construction of slab huts, the main type of housing then, due to their fine wood grain and ability to split into long lengths of even thickness. One such slab hut still exists on the range.

By the early 1900's the lower northern slopes had been cleared for grazing and logging was in the process of removing the best timber. While nearly 120 years of low intensity grazing must have resulted in substantial changes to the native vegetation of the steeper slopes it was not until very recent times (1960's) that large scale clearing was undertaken on these slopes. Once cleared these areas were recognised to be of no value for grazing and were allowed to regenerate.

The Warramate Hills remained heavily timbered until unitl 1969 when the owner at that time (Dr. Diamond) cleared 330 ha. for pasture land. The largest property remaining on the Warramate Hills, Yarraloch, comprises 620 ha., 320 ha. of which is fenced off and is left in a relatively undisturbed state. Evidence of man's influence in this fenced-off area is restricted to a vehicle access track along the ridge-top, location of a Forestry Commission fire tower on Briarty's hill (420m.), the lack of eucalypts in the lower reaches of some southern-facing gullies and the occasional weed species. The last known bushfire to effect the Warramate Hills occured in 1926, A controlled, fuel-reduction burn was conducted through the forested area of the Yarraloch property during April, 1982.

Current Land Use

Deakin University, Rusden has been using this property since 1972. The Faculty of Applied Science has established a Field Studies Centre, incorporating accommodation and classroom facilities, which utilises solar energy for power and hot water. These facilities have been used for courses in teacher education and land management. The Centre accommodates for 30 people overnight and approximately 50 people for a day visit. The educational aspects include environmental awareness and field study skills as well as the principles of recycling and renewable energy.

Many research projects have been completed, including mammal surveys, botanical surveys and studies into regeneration. Environmental monitoring has been carried out for many years and the Faculty now has a good collection of background data about the property.

The solar energy facility at the centre has also been a focus for some studies.

The property has been used regularly by Rusden in its courses. The following programs have used the property:

Biology 1st year - ecology field work;
Geography 2nd year - surveying, stream gauging and biogeography;
Geography 3rd year - advanced soils and advanced biogeography;
Chemistry - water quality testing;
Wildlife Management - mammal trapping and research projects;
Environmental Studies - land use planning, tree planting, sue of renewable energy
Orientation Camps for Bachelors of Education and Applied Science students.

The wider community has also used the property in the past. Groups such as the Guides, Scouts, Bird Observers, bush walkers and the Field Naturalists.

Significance

The forested hills rising steeply from the surrounding pastoral river flats provide a focal point for views from many surrounding areas. The distribution of plant species remains much the same today as it was when first described in the mid-1890's and there has been little influence on species diversity due to the lack of exotic species on the main range (Box, 1986). The vegetation of the study area can be related to that in many other parts of south-eastern Australia. This is partly due to the wide species diversity occurring in a relatively confined area, isolated in the middle of the Yarra Valley. The modanock nature of the Warramate Hills combined with the existing species diversity provides an unusual variety of vegetation types in a relatively small area.

The diversity of habitat and landform provides an excellent opportunity for study in the disciplines of botany, zoology, biogeography and geomorphology; indeed for all areas of environmental studies. The current monitoring of land-use by Rusden College is of value in that it may demonstrate a pattern of use which will allow the co-existence of farming and conservation interests (Fleming *et al.*, 1979).

There are other elements of diversity on the property, and on the Warramate Hills in general. The land now ranges from undisturbed habitat of very high quality through catchments which have previously been logged, to regenerating bushland and pasture which was cleared in 1968 and 1969. The area has been burned on a mosaic pattern, with some catchments not burnt in historic times. The area is an outlier of the Great Dividing Range and contains a range of habitats which are remnants of bush now largely cleared from the surrounding region. These factors provide a diversity of educational resources.

The significance of the vegetation is discussed in Gullan *et al.* (1979). Those plant species considered significant have been divided into categories. Yarraloch contains plants from three of those categories:

Category 2: Species of Restricted Distribution in Victoria and Endemics.

Hypolepis muelleri (Harsh Ground-fern),
Lomandra multiflora (Many-flowered Mat-rush)

Category 3: Species of Restricted Distribution within the Study Area (Shires of Upper Yarra, Healesville, Lillydale and Sherbrooke) but not restricted in the State.

Acianthus exsertus (Gnat Orchid),
Brachyscome multifida (Cut-leaf Daisy),
Brunonia australis (Blue Pincushion),
Deyeuxia rodwayi (Bent-grass),
Dichelachne crinata (Long-hair Plume-grass),
Grevillea alpina (Cat's Claws),
Hibbertia obtusifolia (Guinea-flower),
Kennedia prostrata (Running Postman),
Muellerina eucalyptoides (Creeping Mistletoe),
Opercularia ovata (Broad-leaf Stinkweed),
Pimelea humilis (Common Rice-flower),
Pomaderris vaccinifolia (Round-leaf Pomaderris),
Pteris tremula (Tender Brake),
Pterostylis falcata (Sickle Greenhood),
Pterostylis longifolia (Tall Greenhood),
Pterostylis scabrida (Alpine Greenhood),
Thysanotus tuberosus (Common Fringe-lily),
Viola hederacea ssp. *sieberiana* (Tiny Violet).

Category 4: Species Occurring with Greater Frequency than Category 3 but of Botanical Significance and worthy of Conservation.

Blechnum patersonii (Strap Water-fern),
Eucalyptus aromaphloia (Scent-bark),
Lepidosperma semiteres (Wire Rapier-sedge).

Support for preserving at least the forested area of the property has been forthcoming from a wide range of organisations including the Soil Conservation Authority, CSIRO, Monash and Melbourne Universities, MMBW, Upper Yarra Valley and Dandenong Ranges Authority, National Parks Service (Victoria), Conservation Council of Victoria, Victorian Association for Environmental Education and the Shire of Lillydale.

Policies

STATE CONSERVATION STRATEGY

The State Government in its policy document 'Protecting the Environment', (1987) identifies several aspects which have relevance to Yarraloch. Chapter 3 of the document, titled 'Flora and Fauna: Ensuring their Future' includes an objective for protecting areas of special value for natural heritage, flora and fauna habitat, or for maintenance of ecological processes. Furthermore, in Chapter 9 'Environmental Education and Community Involvement', there is an objective to promote and strengthen inter-disciplinary environmental education programs in schools and tertiary institutions.

The Upper Yarra Valley and Dandenong Ranges Authority and the Shire of Lillydale have zoned Yarraloch as Rural (Conservation). The purpose of this zone is to protect steep slopes and forested areas of the Warramate Hills.by allowing

Subdivision and Development of only that land which is suitable and capable of supporting it, and

1) To limit residential density in accordance with Land Capability,
2) To conserve indigenous forest and wildlife,
3) To preserve the landscape quality and amenity of the area,
4) To prevent erosion of the soil and ensure that innappropriate management does not occur.

Objective

An overall objective for Yarraloch is:

To allow for passive recreational use of the property, while maintaining and enhancing the educational and research aspects for both the general public and educational institutes.

FACTORS INFLUENCING MANAGEMENT

STAFFING

There are two aspects to staffing:

1) Technical basis. In which all the technical aspects of running the property need to be addressed. Factors such as grazing of the existing paddocks to keep the weeds and fire hazard down, maintenance of Field Study Centre, tracks, fences, farm machinery and buildings.

2) Educational basis. Depending on the level of use the facility receives (or is allowed to receive), there will be the need for someone to organise the teaching aspects. This would involve preparing education programs, supervising research, organising the bookings and acting as the reserve manager to provide planning guidance and liase with Government and community groups.

The question remains of who will fund these positions and will they need to be full-time or part-time.

ACCESS

Two access points will need to be maintained, to ensure escape is possible from within the property. Possible dangers include bushfire and flooding of the roadway. The current access point from Killara Road should be retained and a second from Range Road be re-established. Regular maintenance of the track and clearance of road-way need to be addressed.

GRAZING

The pasture areas of the property will need to continue to be grazed in the short-term, to ensure that weed problems and a fire risk do not arise. The Department of Conservation, Forests and Lands will need to lease the area, to preferably one of the local graziers, on an annual basis. Students can become involved in revegetating these paddocks, beginning with the gully lines initially and then those areas adjacent to the bushland. Indigenous species should be used.

FIRE

Fire protection on the property needs considerable thought. Due to the large area of forest, some of which has not been burnt for more than 40 years, and the nearby small-lot settlements, care will have to be taken to ensure that a fire does not originate from within the property and spread to surrounding areas. Consultation with the local C.F.A., and in particular the current manager Kel Tilney, will need to be carried out and appropriate measures taken to ensure adequate fire protection. One such measure would be the provision of a grassed area between the proposed subdivisions and the forested areas, this would provide a fire break and could be maintained by either grazing or slashing.

Research into fire as a vegetation management tool should be looked into. The presence of 9 vegetation communitiess (representative of a large part of southern Victoria) will allow comparitive studies to be undertaken, which may provide information which is relevant to much of south-eastern Australia.

CREEK

Access to the creek/river frontage by cattle should be reduced to the minimum area necessary for stock watering. Damage to the bank and subsequent erosion needs to be minimised.

HORSE RIDING

Horse riding for recreation should be banned from the forested area as horses will increase the erosion hazard to tracks/slopes and introduce weeds into areas which are relatively "weed-free". Carr *et al.* (1987) state that "Horse riding has had a profound effect on indigenous vegetation in Victoria. Soil disturbance, compaction, and eutrophication, in addition to the importation of weed propagules in faeces (particularly exotic grasses and clover) are the major impacts.

VERMIN

A systematic approach needs to be taken to ensure the control of vermin species present at Yarraloch. Emphasis should be placed on the feral cats and rabbits. Students may wish to undertake research projects into this field.

RECREATION

Recreation within Yarraloch should be restricted to passive forms such as walking, except for around the Field Studies Centre and the river flats nearby where games and other activities can be carried out. The Yarra River presents many opportunities, activities such as swimming, canoeing and rafting can be carried out.

Interpretation material at various localities could be provided to assist in the education of the general public about the nature of Yarraloch and its significance.

FUTURE OPTIONS

Once Yarraloch transfers to public ownership the opportunity will arise for Deakin University, Rusden to jointly manage the property with the State Government. The Faculty of Applied Science has much to offer such a joint management team. They have been associated with Yarraloch for 20 years. This has allowed them to collate a large amount of background data about the property. They have built up a good relationship with the local community and administrative bodies, and have worked closely with the manager of the property. A Field Studies Centre has been established which allows for the teaching of, and research in, field based subjects. Furthermore, the staff at Rusden have experience and expertise in education, ecology and land management.

These factors, combined with the large workforce that a tertiary institute has available, will allow Yarraloch to develop its full potential for environmental education.

The Faculty would like to pursue the possibilty of Yarraloch being designated an 'Education Area' by the Land Conservation Council (LCC) in their Review of the Melbourne Area - District 2.

The LCC in their report 'Statewide Assessment of Public Land Use' (1988) have set down selection criteria to assist in selecting education areas:

* provision of examples of major land systems within the study area;
* inclusion of a maximum diversity of environments, preferably with natural boundaries;
* a size large enough to sustain continued usage while rotating activities among a number of sites to permit their recovery;
* reasonable vehicular access;
* close proximity to other land types and land uses;
* a wide distribution of areas throughout the study area;
* situated so that fire, erosion, and pollution hazards are minimised.

In addition to the above criteria, it was found that potential users seek areas that are internally accessible and in which limited facilities such as toilets and water supply are available. As many teachers are uncertain of how these areas could be used, and lack confidence in dealing with the unfamiliar environments, it was suggested that the land manager should be clearly identifiable and supportive of the area's use for educational purposes and should also monitor, if not actually conduct, manipulative and interactive programs for students.

From this it can be seen that Yarraloch would be an appropriate site for an education area. Rusden has established the Field Studies Centre and have the expertise to prepare educational programs. Educational use can initially be restricted to the current use by Rusden; but demand for wider use by primary and post-primary schools does exist. Lilburn (1986) discovered that there would be "...great demand for a field studies centre at Yarraloch; so much so, that the facility could be fully booked by schools year-round." Of the schools surveyed by Lilburn, 74% indicated that they didn't expect to receive a free service, they would be prepared to help offset expenses of the facility by paying for their use.

Examples of this type of set up do exist. An education area (as recommended by the Land Conservation Council) located in Kinglake West is being used as a site to carry out both educational and recreational programs within the forest. The Church of England Boys' Society back this venture and have set up an old forestry camp to act as a base to run their many programs. School groups have formed a substatial portion of those who utilise the facility.

Along different lines is an example from New South Wales. Here, the Australian National University has received a 348 hectare property (40 kilometres north of Bateman's Bay) from a private citizen. It was given to the University to be used primarily for teaching and research in the field sciences. The great attraction of the property as a field station is its variety of ecological situations, combined with farming land, within a small and accessible area. In 5 years the University had set up facilities to accommodate a set number of people, they had employed a 'resident contracter' to carry out the day-to-day tasks and had begun planning their major policies and future directions. For further information into this innovative project, refer to the Quinquennial Report, 1975-1979 of the Edith and Joy London Foundation of the Australian National University.

Hence, Yarraloch has the potential to be set up to act as an educational resource for tertiary institutions, primary and post-primary schools as well as the wider community; and there are a number of other areas available to act as models in establishing Yarraloch's educational programs.

The critical aspects which need to be addressed now, are who will take over the role of management and how such a venture can be funded. The input of the Department of Conservation and Environment is critical due to their expertise in land management as is input by Deakin University, Rusden, with experience in education and research. These two bodies are going to have to come to a solution so that this important educational resource is not lost, rather that it is realised and allowed to develop to its full potential

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Appendix 1

PLANT SPECIES LIST

Species names follow Forbes S.J. and Ross J. H. (1988). A Census of the Vascular Plants of Victoria, Second Edition. Department of Conservation, Forests and Lands, Melbourne.

*denotes those plants that are introduced to the study area.

Botanical Name	Common Name
Acacia dealbata	Silver Wattle
Acacia melanoxylon	Blackwood
Acacia mucronata	Narrow-leaf Wattle
Acacia myrtifolia	Myrtle Wattle
Acacia obliquinervia	Mountain Hickory Wattle
Acacia paradoxa	Hedge Wattle
Acacia stricta	Hop Wattle
Acacia verniciflua	Varnish Wattle
Acacia verticillata	Prickly Moses
Acaena anserinifolia	Bidgee-Widgee
Acianthus exsertus	Gnat Orchid
Acrotriche serrulata	Honey Pots
Adiantum aethiopicum	Common Maidenhair
**Aira caryophylla*	Hair-grass
**Anagallis arvensis*	Pimpernel
**Anthoxanthum odoratum*	Sweet Vernal Grass
Arthropodium milleflorum	Pale Vanilla-lily
Asplenium bulbiferum	Mother Spleenwort
Asplenium flabellifolium	Necklace Fern
Banksia marginata	Silver Banksia
Bedfordia arborescens	Blanket-leaf
Billardiera scandens	Common Apple-berry
Blechnum cartilagineum	Gristle Fern
Blechnum nudum	Fishbone Water-fern
Blechnum patersonii	Strap warter-fern
Bossiaea prostrata	Creeping Bossiaea
Brachyscome aculeata	Daisy
Brachyscome multifida	Cut-leaf Daisy
Brunonia australis	Blue Pincushion
Burchardia umbellata	Milkmaids
Bursaria spinosa	Sweet Bursaria
Caladenia gracilis	Musky Caladenia
Caladenia patersonii	Common Spider-orchid
Calochilus robertsonii	Purplish Beard-orchid
Carex breviculmis	Sedge
Cassinia aculeata	Common Cassinia
Cassinia Longifolia	Shiny Cassinia
**Centaurium erythraea*	Common Centaury
**Chenopodium album*	Fat Hen

Chiloglottis gunnii	Common Bird Orchid
Chionochloa pallida	Red Anther Wallaby Grass
Clematis aristata	Austral Clematis
Comesperma volubile	Love Creeper
Coprosma hirtella	Rough Coprosma
Coprosma quadrifida	Prickly Current-bush
Corybas unguiculatus	Small Helmet-orchid
Culcita dubia	False Bracken
Cyathea australis	Rough Tree-fern
Cymbonotus preissianus	Austral Bear's Ear
Cynoglossum latifolium	Forest Hound's Toungue
**Cyperus rotundus*	Nut Grass
**Cyperus tenellus*	Tiny Flat-sedge
Daviesia leptophylla	Narrow-leaf Bitter pea
Deyeuxia quadriseta	Reed Bent-grass
Deyeuxia rodwayi	Bent-grass
Dianella caerulrea	Paroo Lily
Dianella revoluta	Black-anther Flax-lily
Dichelachne crinata	Long-hair Plume-grass
Dichelachne micrantha	Short-hair Plume-grass
Dicksonia antarctica	Soft Tree-fern
Dillwynia cinerascens	Grey Parrot-pea
Dipodium punctatum	Hyacinth Orchid
Diuris maculata	Leopard Orchid
Doodia caudata	Small Rasp-fern
Drosera peltata ssp. *auriculata*	Tall Sundew
Echinopogon ovatus	Hedgehog Grass
Epacris impressa	Common Heath
Eucalyptus aromaphloia	Scent Bark
Eucalyptus cypellocarpa	Mountain Grey-gum
Eucalyptus goniocalyx	Long-leaf Box
Eucalyptus macrorhyncha	Red stingybark
Eucalyptus obliqua	Messmate
Eucalyptus ovata	Swamp Gum
Eucalyptus radiata	Narrow-leaf Peppermint
Eucalyptus dives	Broad-leaf Peppermint
Eucalyptus viminalis	Manna Gum
Exocarpos cupressiformis	Cherry Ballart
Galium propinquum	Maori Bedstraw
Geranium potentilloides	Crane's Bill
Glossoidia major	Waxlip Orchid
Glycine clandestina	Twining Goodenia
Gnaphalium involucratum	Common Cudweed
Gonocarpus tetragynus	Common Raspwort
Goodenia lanata	Trailing Goodenia
Goodenia ovata	Hop Goodenia
Goodia lotifolia	Golden Tip
Gratiola peruviana	Austral Brooklime
Grevillea alpina	Cat's Claws
Hardenbergia violacea	Purple Coral-pea
**Hedera helix*	English Ivy
Helichrysum scorpioides	Button Everlasting

Hibbertia obtusifolia	Guinea-flower
Hibbertia riparia	Silky Guinea-flower
Histiopteris incisa	Bat's-wing Fern
Hovea linearis	Common hoves
Hydrocotyle foveolata	Pennywort
Hydrocotyle hirta	Hairy Pennywort
Hymenanthera dentata	Tree Violet
Hypericum gramineum	Small St Johns Wort
**Hypochoeris radicata*	Cat's Ear
Hypolepis muelleri	Harsh Ground-fern
Indigofera australis	Austral Indigo
Isolepis marginata	Club-rush
Juncus pallidus	Pale Rush
Juncus pauciflorus	Loose-flower Rush
Kennedia prostrata	Running Postman
Kunzea ericoides	Burgan
Lagenifera strpitata	Blue Bottle-daisy
Lepidosperma elatius	Tall Sword-sedge
Lepidosperma laterale	Variable Sword-sedge
Lepidosperma semiteres	Wire Rapier-sedge
Leptospermum juniperinum	Prickly Tea Tree
Lomandra filiformis	Wattle Mat-rush
Lomandra longifolia	Spiny-headed Mat-rush
Lomandra multiflora	Many-flowered Mat-rush
Lomatia ilicifolia	Holly lomatia
Luzula campestris spp. agg.	Field Wood-rush
Luzula meridionalis var. *flaccida*	Wood-rush
Lythrum hyssopifolia	Small loosestrife
Microlaena stipoides	Weeping Grass
Microsorum diversifolium	Kangaroo Fern
Monotoca scoparia	Prickly Broom-heath
Muellerina eucalyptoides	Creeping Mistletoe
Olearia argophylla	Musk Daisy-bush
Olearia lirata	Snowy Daisy-bush
Opercularia ovata	Broad-leaf Stinkweed
Opercularia varia	Variable stinkwort
**Oxalis articulata*	Wood-sorrel
**Oxalis corniculata*	Yellow Wood-sorrel
Pandorea pandorana	Wonga Vine
Pimelea humilis	Common Rice-flower
Pimelea linifolia	Slender Rice-flower
**Pittosporum undulatum*	Sweet Pittosporum
**Plantago lanceolata*	Ribwort
**Plantago major*	Greater Plantain
Plantago varia	Variable Plantain
Platylobium formosum	Handsome Flat-pea
**Poa annua*	Annual Meadow-grass
Poa labillardieri	Tussock Grass
Poa sieberiana	Tussock Grass
Polyscias sambucifolia	Elderberry Panax
Polystichum proliferum	Mother Shield-fern
Pomaderris aspera	Hazel Pomaderris

Pomaderris elliptica	Pomaderris
Pomaderris vacciniifolia	Round-leaf Pomaderris
Poranthera microphylla	Small Poranthera
Prostranthera lasianthos	Victorian Christmas-bush
Prostranthera mellisifolia	Balm Mint-bush
Pteridium esculentum	Austral Bracken
Pteris tremula	Tender Brake
Pterostylis falcata	Sickle Greenhood
Pterostylis longifolia	Tall Greenhood
Pterostylis scabrida	Alpine Greenhood
Pultenaea gunnii	Golden Bush-pea
Pultenaea junniperina var. *mucronata*	Prickly Bush-pea
Ranunculus lappaceus	Australian Buttercup
Ranunculus plebeius	Forest Buttercup
**Rosa rubiginosa*	Sweet Briar
**Rubus fruiticosus* spp. agg.	Blackberry
Rubus parvifolius	Small-leaf bramble
Sambucus gaudichaudiana	White Elderberry
Senecio biserratus	Groundsel
Senecio hispidulus	Rough Fireweed
Senecio linearifolius	Fireweed Groundsel
Senecio quadridentatus	Cotton Fireweed
Solanum aviculare	Kangaroo Apple
**Solanum nigrum*	Black Nightshade
**Solanum pseudocapsicum*	Madier Winter-cherrry
Stackhousia monogyna	Creamy Candles
Stellaria flaccida	Forest Starwort
Stellaria palustris	Swamp Starwort
Stellaria pungens	Prickly Starwort
Stylidium graminifolium	Grass Trigger-plant
Stypandra glauca	Nodding Blue-lily
Tetrarrhena juncea	Forest Wire Grass
Tetratheca ciliata	Pink Bells
Thelymitra aristata	Scented Sun Orchid
Thelymitra pauciflora	Pale Sun Orchid
Themeda triandra	Kangaroo Grass
Thysanotus patersonii	Twining Fringe-lily
Thysanotus tuberosus	Common Fringe-lily
**Trifolium dubium*	Suckling Clover
Velleia paradoxa	Spur Velleia
Veronica calycina	Hairy Speedwell
Viola hederacea ssp. *hederacea*	Ivy-leaf Violet
Viola hederacea ssp. *sieberiana*	Tiny Violet
Wahlenbergia gracilenta	Annual Bluebell
Wahlenbergia stricta	Tall Bluebell
Wurmbea diocea	Early Nancy
Xanthorrhoea minor	Small Grass Tree

Appendix 2

BIRD SPECIES LIST

Species names follow Emison W.B., Beardsell C. M., Normen F.I.and Loyn R.H. (1987). Atlas of Victorian Birds. Department of Conservation, Forests and Lands and Royal Ornithologists Union. Melbourne.

Species Name	Common Name
**Turdus merula*	Blackbird
Calyptorhynchus funereus	Black Cockatoo, Yellow Tailed
Ninox boobook	Boobook, Southern
Phaps chalcoptera	Bronzewing, Common
Callocephalon fimbriatum	Cockatoo, Gang Gang
Fulcita atra	Coot, Eurasian
Phalacrocorax sulcirstris	Cormorant, Little black
Cacomantis flabelliformis	Cuckoo, Fantailed
Chrysococcyx lucidus	Shining Bronze
Chrysococcyx basalis	Horsefield's Bronze
Culculus pallidus	Pallid
Coracina novaehollandiae	Cuckoo-Shrike, Black Faced
Streptera graculina	Currawong, Pied
Anas superciliosa	Duck, Black
Chenonetta jubata	Maned
Aquila audax	Eagle, Wedge-Tailed
Egretta alba	Egret, White
Petrocheldon ariel	Fairy Martin
Malurus cyaneus	Fairy-wren, Superb
Falco berigora	Falcon, Brown
Falco longipennis	Little
Rhipidura fuliginosa	Fantail, Grey
Rhipidura rufifrons	Rufous
Emblema temporalis	Firetail, Red-browed
Myiagra rubecula	Flycatcher, Leaden
Myiagra inquieta	Restless
Carduelis carduelis	Goldfinch, European
Ardea novaehollandiae	Heron, White-faced
Phylidonyris pyrrhoptera	Honeyeater, Crescent
Lichenostomus leucotis	White Eared
Melithreptus lunatus	White-naped
Lichenostomus penicillatus	White-plumed
Lichenostomus chrysops	Yellow-faced
Threskiornis molucca	Ibis, White
Microeca leucophaea	Jackey Winter
Falco cenchroides	Kestrel, Australian
Halcyon cancta	Kingfisher, Sacred
Dacelo novaeguineae	Kookaburra, Laughing
Vanellus miles	Lapwing, Masked
Gymnorhina tibicen	Magpie, Australian
Grallina cyanoleuca	Magpie-lark, Australian
Maonorina melanophrys	Minor Bell

Tyto alba	Owl, Barn
Pardalotus striatus	Pardalote, Striated
Pardalotus punctatus	Spotted
Turnix varis	Quail, Painted
Corvus mellori	Raven, Little
Petroica phoenicea	Robin, Flame
Petroica multicolor	Scarlet
Eopsaltria australis	Eastern Yellow
Platycercus elegans	Rosella,Crimson
Platycercus eximius	Eastern
Tadorna tadornoides	Shelduck, Australian
Zosterops lateralis	Silvereye
Daphoenositta chrysoptera	Sittella, Varied
Passer domesticus	Sparrow, House
Acanthorhynchus tenuirostris	Spinebill, Eastern
**Sturnus vulgaris*	Starling, Common
Artamus cyanopterus	Swallow, Dusky Wood
Hirundo neoxena	Welcome
Cecropis nigricans	Tree Martin
Acanthiza pusilla	Thornbill, Brown
Acanthiza nana	Yellow
Acanthiza lineata	Striated
Acanthiza chrysorrhoa	Yellow-rumped
Acanthiza regulides	Buff-rumped
Zoothera dauma	Thrush, White's
Collurincincla harmonica	Grey-shrike
Climacteris leucopheae	Treecreper, White-throated
Rhipidura leucpohrys	Wagtail, Willie
Anthochaera carunculata	Wattlebird, Red
Psophodes olivaceus	Whipbird, Eastern
Pachycephala pectoralis	Whistler, Golden
Pachycephala olivacea	Olive
Pachycephala rufiventris	Rufous
Sericornis frontalis	Wren, White-browed Scrub

Appendix 3

REPTILE AND MAMMAL SPECIES LIST

REPTILES

Species Name	Common Name
Anotis maccoti	McCoy's Skink
Varanus varanus	Common Goanna
Amphibolurus muricatus	Jacky Lizard

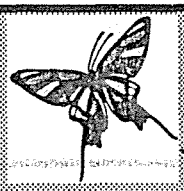
MAMMALS

*Denotes those that are introduced to the area.

Species Name	Common Names
Acrobates pygmaeus	Feathertail Glider
Antechinus stuartii	Brown Antechinus
Antechinus swainsonii	Dusky Antechinus
Chalinolobus gouldii	Gould's Wattled Bat
**Felis catus*	Feral Cat
Hydromys chrysogaster	Water-rat
Isoodon obesulus	Short-nosed Bandicoot
Macropus giganteus	Grey Kangaroo
Miniopteris schreibersii	Common Bent-wing Bat
**Mus musculus*	House mouse
Nyctophilus geoffroyi	Lesser Long-eared Bat
Nyctophilus gouldi	Gould's Long-eared Bat
Ornithorhynchus anatinus	Platypus
**Oryctolagus cuniculus*	Rabbit
Petaurus breviceps	Sugar Glider
Phascolarctus cinereus	Koala
Pseudocheirus peregrinus	Common Ringtail Possum
Rattus fuscipes	Bush Rat
**Rattus rattus*	Black Rat
Tachyglossus aculeatus	Short-beaked Echidna
Trichosurus caninus	Mountain Brushtail Possum
Trichosurus vulpecula	Common Bushtail Possum
Vombatus ursinus	Common Wombat
**Vulpes vulpes*	Fox
Wallabia bicolor	Swamp Wallaby

Shire of Lillydale

Department of Conservation and Natural Resources



Yarraloch Conservation Estate

Community Newsletter

Introduction. Welcome to the first of what is hoped to be many newsletters for the Yarraloch Estate. The purpose of this newsletter is to provide you the land owners with information on topics of interest and land management issues relevant to you, your property and the Yarraloch area. It is hoped that such a newsletter will foster a community spirit in the area and provide a network of cooperative land management. Your input into the newsletter is encouraged

History of Yarraloch

Prior to its subdivision, 'Yarraloch' was a 614.25 hectare (approximately 1550 acre) property which was purchased by Sir Francis Dashwood of Buckinghamshire, United Kingdom, in 1969. It is bordered on the eastern side by the Yarra River and Woori Yallock Creek and has an elevation range from 80 m on the Yarra flats to 420 m at Briarty Hill.

The property is a registered wildlife reserve with over 700 acres of natural forest and regenerating bushland. There are a number of small catchments on the property which drain in all 4 directions. The land ranges from undisturbed habitat of very high quality to regenerating bushland and cleared pasture on the lower slopes which was managed as a beef cattle farm.

The Environmental Studies Department at Rusden College (now part of Deakin University) has been allowed use of the property as a field studies centre since 1972. Field work and research have occurred on the property since that time with the aim being to monitor the natural environment at Yarraloch.

At the time of the subdivision, 470 hectares of the property was donated to the Crown and is now the Warramate Hills Flora and Fauna Reserve. Passive recreational activities are allowed in the Reserve and as residents you are welcome to use the reserve for nature observation, walking and bird watching however dogs, cats and firearms are not permitted in the reserve due to it being a reserve to protect the flora and fauna.

The remainder of the original property was subdivided into the 26 parcels of land varying in size from 2.5 to 12 hectares. Although it was recognised that the land was partially or completely cleared and therefore lower in conservation value, it was still considered significant to the integrity of the Reserve. Therefore the impact of any residential rural activity on the nearby bushland was minimised by the provisions under the Lilydale Planning Scheme. Hence, the provisions such as the building restrictions are in place, dogs are to be kept in runs and cats are not permitted.

Fire Protection

As the recent fires at Airleys Inlet have illustrated, the bushfire season is approaching. It is therefore important that you undertake some fire protection measures and plan what you would do in the event of a fire. Listed below are a few tips, recommended by the Country Fire Authority, on how to protect your property.

- place the fire brigade number near the phone.
- regularly clean your roof gutters of debris
- carry out fuel reduction ie. removal of dead branches, fallen leaves and the cutting of long grass, within 30 m of the house.
- place firewood stacks away from the house.
- removal of flammable liquid fuels, petrol, paint etc away from the house to a secure enclosed shed.
- look at your water supply ensuring sufficient reserves.
- gather equipment and regularly check to ensure its in working order.
- prepare for your own safety ie. a kit of protective clothing for everyone.

Most importantly, be decisive in your actions, make the decision to stay or go in the event of a bushfire early and stick to your plan. It may be reassuring to know that there is a fire tower on the top of Briarty Hill, which is manned during the summer to enable the early detection of any fires.

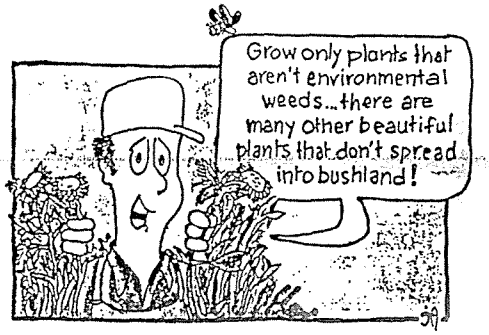
Environmental Weeds

Did you know that there are over 200 environmental weeds in the Upper Yarra Valley and Dandenong Ranges area? Many of these are popular garden species which people unknowingly plant in their garden. Species include English Ivy (*Hedera helix*), Wandering Jew (*Tradescantia albiflora*), Willows (*Salix spp.*), Poplars (*Populus spp.*) and Pampas Grass (*Cortaderia selloana*).

The term environmental weed is used to describe a plant which is capable of invading and persisting in natural plant communities in which it does not belong. Even native species can become environmental weeds such as Sweet Pittosporum (*Pittosporum undulatum*). The enclosed pamphlet provides an identification chart for many of these species and weed control sheets are available from the outlets listed.

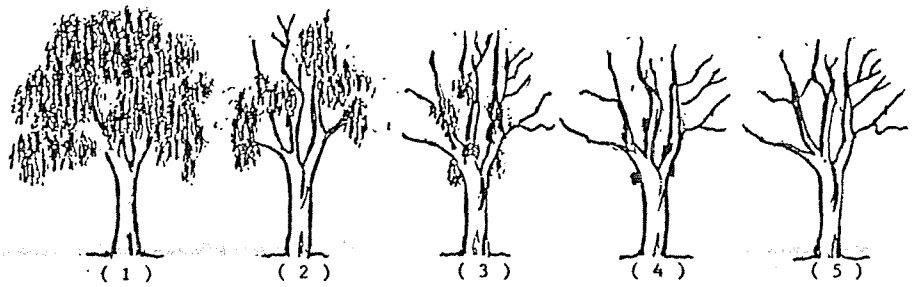
Environmental weeds are a problem because they are escaping from our gardens, they often take over from indigenous species and or prevent their regeneration, most of the native wildlife in an area is directly dependent on local indigenous vegetation and loss of this vegetation and habitat can lead to the local extinction of our birds and animals. A feature of weeds is also their ability to spread with birds and the wind being capable of spreading the seeds of environmental weeds from your garden to bushland up to 20 km away.

So, what can you do the help? The first step is to use the checklist enclosed when planning your garden to ensure you don't select environmental weeds. Many of these species continue to be sold in nurseries. The list can then be taken with you when buying plants and environmental weed species avoided. The chart can also be used to identify environmental weeds in your garden which can be removed and destroyed and replaced with indigenous substitutes which are equally beautiful but don't spread into bushland. It is however important to never dump your garden refuse in the bush or throw it over your back fence.



Indigenous Plants

So by now you may well be asking what is an indigenous plant? Indigenous plants are defined as members of the original flora, that is, plants that occur naturally in a specific locality. It is important to protect existing indigenous vegetation and plant more when you consider that over 60 percent of the State has been cleared and of the two thirds of the State which is privately owned, only 5 percent retains its bushland cover.



The use of local indigenous plants also has many advantages. It creates habitat for local fauna as well as contributing to the conservation of vulnerable or rare local species. Local species are well adapted to the local soils and climatic conditions which results in a reduced need for watering and fertiliser applications and indigenous plantings also maintain the natural balance in the local ecosystem thus reducing possible pest outbreaks. The planting of indigenous species also helps maintain an areas local identity and can give the community a sense of pride.

It is therefore preferable to plant indigenous species in your garden and avoid the use of environmental weeds. Enclosed is a list of species indigenous to the area to assist you with this. You can also help reverse the trend of rural tree dieback. Many of the remaining indigenous eucalypt trees in the Yarraloch Estate are declining in health and vigour due to environmental stresses. This often leads to their eventual death and is known as dieback. Species at risk include Narrow-leaf Peppermint (*Eucalyptus radiata*), Broad-leaf Peppermint (*E. dives*), Messmate (*E. obliqua*). Red Stringybark (*E. macrohyncha*) and Brown Stringybark (*E. baxteri*) which are all indigenous to the Yarraloch area.

The causes of dieback include:

- stock damage to trunk and compaction of soil
- insect attack
- drought
- fungi attack
- windthrow
- mistletoe

Dieback occurs in several stages:

1. healthy tree with dense foliage
2. foliage retreating, exposing dead branches
3. many branches dead, new shoots of growth on main branches and trunk
4. most of the new growth has died
5. death occurs

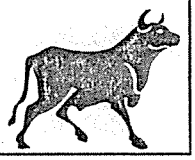
Natural recovery of a declining tree can occur from any stage except 5. The process can take several years for death to occur.

You can help prevent and overcome dieback by fencing out stands of remnant trees to allow natural regeneration of young seedlings to occur. Eventually the younger trees will mature and replace the older dying trees. The fencing will also protect the trees from stock damage and the planting and encouragement of understorey species can also attract birds that will assist with insect control

Stocking rates

Since the major cause of dieback in the Yarra Valley is due to damage by livestock, stocking rates are of great importance. The Department of Agriculture has recommended the following stocking rates for good productive pasture:

- beef cow 1.1 / ha
- steer 1.5 / ha
- sheep (dry) 15 / ha
- ewes 10 / ha
- horse (small) 0.7 / ha



Stocking at levels greater than this is likely to cause land degradation and soil erosion and should thus be avoided. The stocking for horses is not as clear cut as the stocking rate really depends on the size of the horse with 4 ponies being equivalent to one racehorse. Horses should be preferably grazed with other stock eg. cattle, goats or sheep and a rotational pattern of grazing adopted to preserve the pasture species. An appropriate pattern would be to graze an area with horses and other stock eg. one cow and then spell the area for 3 to 4 weeks and then graze it hard again. This means the pasture is eaten evenly and helps to reduce the chances of the horses foundering and helps to ensure a healthy pasture.

Written by J. Woodward, November 1994.

For further information

Contact: Department of Conservation and Natural Resources, Woori Yallock
(059) 647 088

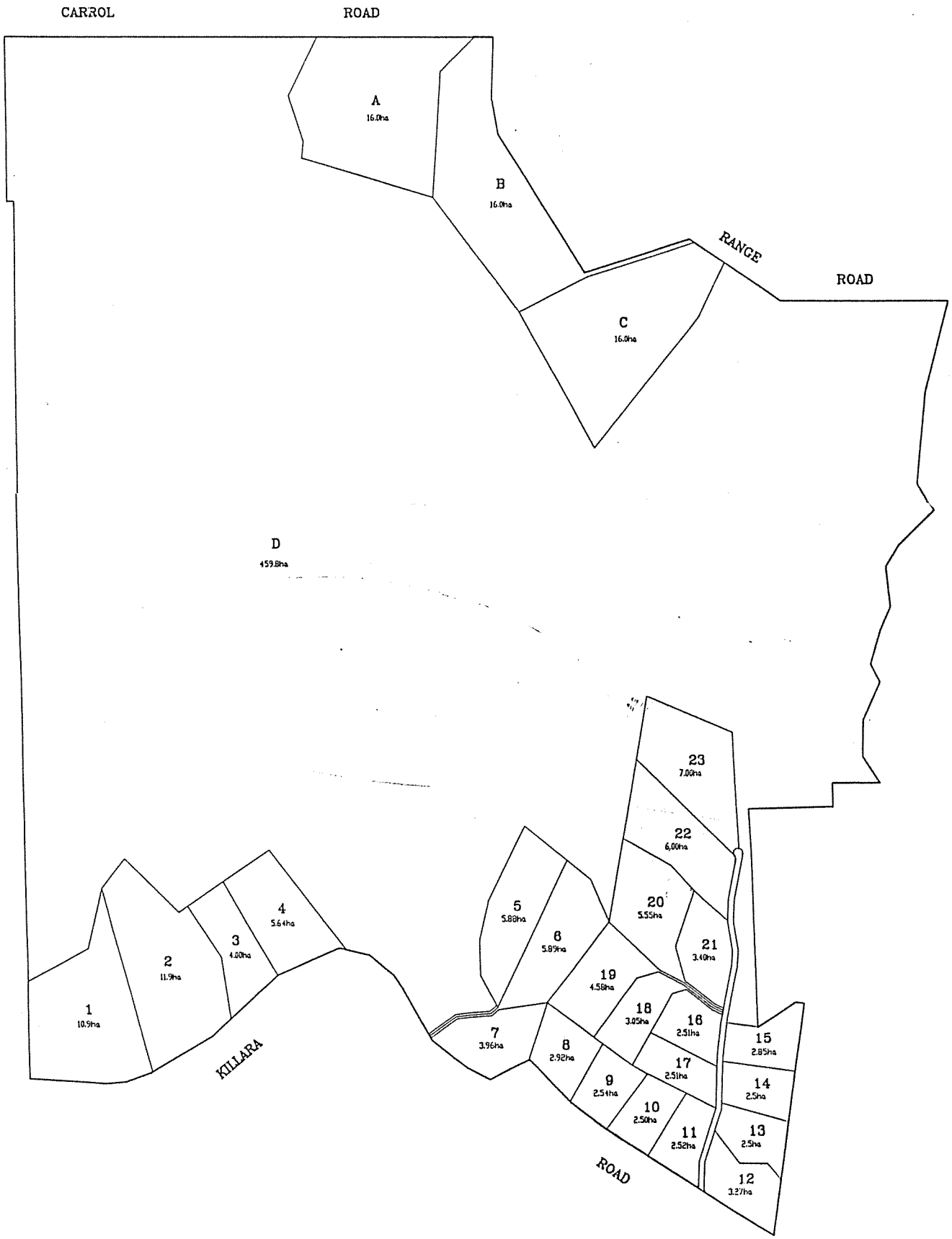
We would also appreciate any feedback you would like to give us on what we hope will be a regular newsletter and on any issues you would like covered. You can write to us at

DCNR
Yarraloch Newsletter
P.O. Box 264
Woori Yallock 3139

or

Shire of Lillydale
Yarraloch Newsletter
P.O. Box 105
Lilydale 3140

We look forward to hearing from you.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22
6.00ha
23
7.00ha
KILLARA
ROAD

HEALESVILLE NEWS by Mardie Lambert

Warramate Reserve opened

★ *The Minister for Conservation and Environment, Barry Pullen (right) officially opens the new Warramate Flora and Fauna Reserve (formerly "Yarraloch").*

FROM PAGE 1: Farewell to Luke.

Luke, aged 7, is leaving Healesville this week to go and live in Telfer, WA, which is 350 kilometres east of the nearest town, Marble Bar. There he will join his mother, Leeanne, and her new husband, Darren Sloan.

The Principal of Healesville School, Bruce Watkinson, explained to the children of Grade 1, that Luke is the fourth generation of a very well-known Healesville family, the McConnells. Mrs Nell McConnell is the "matriarch", then comes Jenny Dovaston, then Leeanne and then Luke!

Mr Watkinson also produced two certificates which are nearly seventy years old. Nell McConnell received them from the Hawksburn State School No.1467 because she had not missed one single school day during the seven years of 1919 to 1925!

The afternoon ended with the visitors, the children, and their teacher Linda Richardson, joining hands and singing 'He's got the whole world in His hands" and then, with last goodbyes to Luke, the children raced off to begin their term holidays.

We wish Luke every happiness in his new life in Western Australia.

New owner of wellknown building

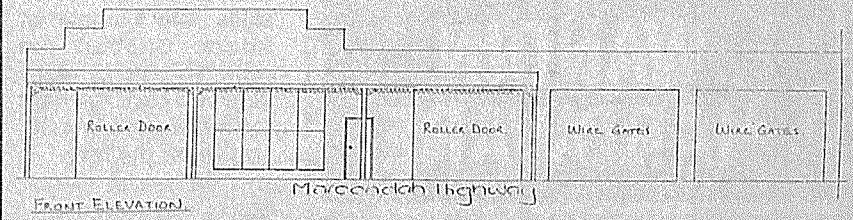
★ *Ray Donkin working on the former service station.*

WE'RE glad to see that former McVea's/RC Panels building has been bought — and by someone as energetic as Ray Donkin!

The big, solid, former service station (originally built by Bluey Aldous) was getting severely battered by vandals but Ray has fixed all that.

He has done a considerable amount of work, inside and out, to make two attractive sets of premises for rent or lease.

See Ray, if you're interested.



★ *Architect's drawing of how the building will look.*

Healesville Police rounds

POLICE are investigating a number of complaints of damage to business premises and have interviewed a number of people. this has resulted in the coming appearance of some alleged offenders in Lilydale Magistrate's Court. Police are aware that the damage to these businesses has been witnessed by a number of people. Police request that anyone who has witnessed any of these incidents come forward, and any information will be treated with confidentially.

Police comment that it appears to be an ever-growing accepted activity in Healesville, and that unless residents stand up and be counted, the community will continue to pay. Sergeant Willmott hopes that the Police Community Consultative Committee will address this problem.

The Media has given a lot of coverage to disillusioned youth, but police think that this community may feel 'it can't happen here'. It can and it has! They pointed out that there are a number of programmes and services provided and organised by the Shire for young people.

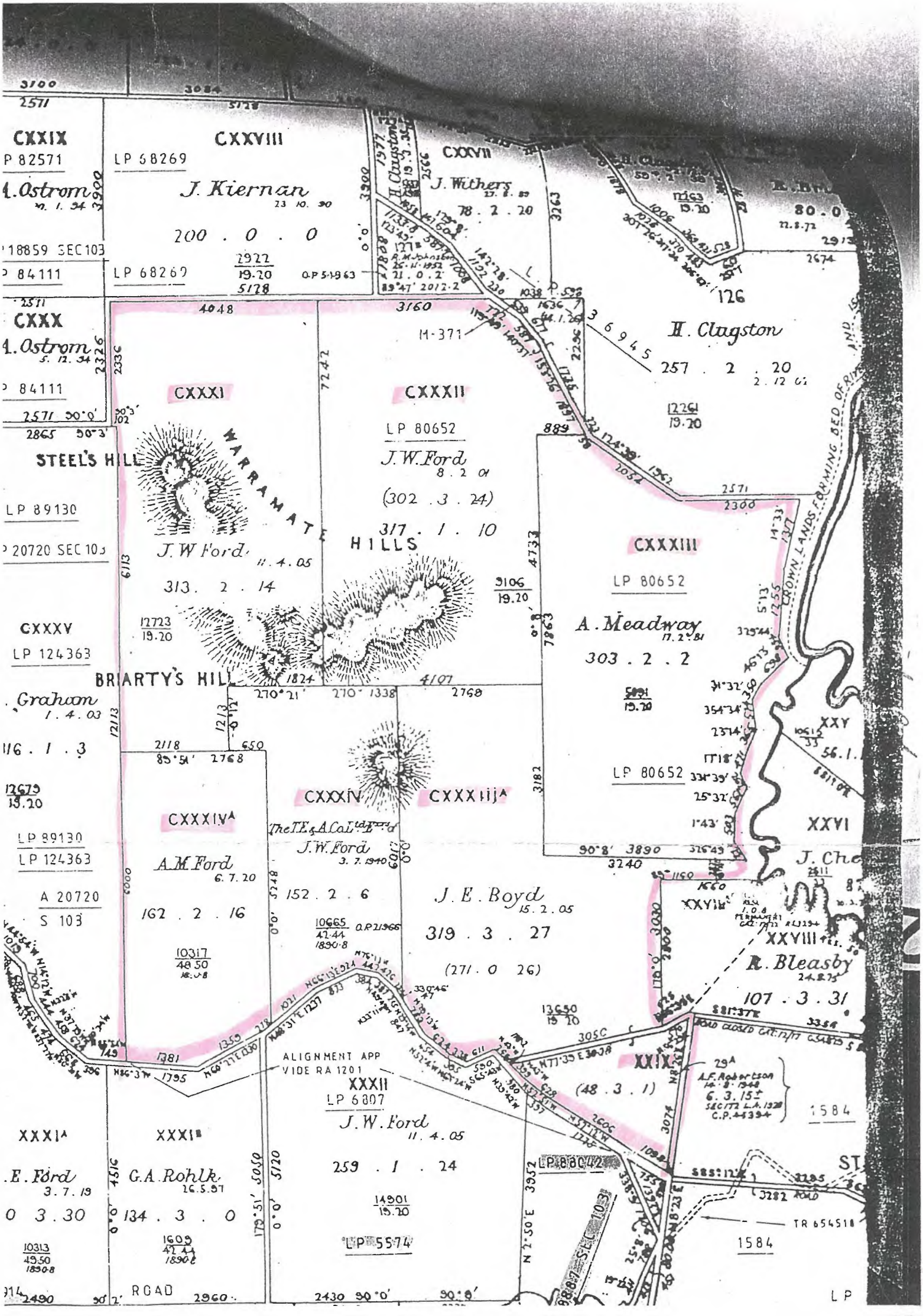
★★★★★

A 23 year old Healesville man, Dean Francis Beecroft, appeared in Lilydale Magistrate's Court on September 11. He pleaded guilty to handling stolen goods and to two counts of carrying a loaded firearm while under the influence of intoxicating liquor, two counts of being a prohibited person in possession of a pistol, shortening the barrel of a firearm and unlicensed driving. He was sented to three terms of four months, three of one month and one of three months (total 18 months) to be served accumulatively. He was also ordered to forfeit his firearms to the Crown.

★★★★★★

Police and a number of local traders are having a blitz on shop stealing (shop lifting) in Healesville. This has resulted in a number of people appearing at Lilydale Magistrate's Court on summons.

Shop stealing is a criminal offence, and people who are charged with this offence could face a stiff penalty.


CXXIX
P 82571
1. Ostrom
CXXVIII
LP 68269
J. Kiernan
200 . 0 . 0
LP 68269
CXXVII
J. Withers
78 . 2 . 20
H. Clagston
257 . 2 . 20
CXXX
1. Ostrom
CXXXI
CXXXII
LP 80652
J.W. Ford
8.2 or
(302 . 3 . 24)
317 . 1 . 10
J.W. Ford
313 . 2 . 14
STEEL'S HILL
WARRAMATE HILLS
BRIARTY'S HILL
CXXXIII
LP 80652
A. Meadway
303 . 2 . 2
CXXXV
LP 124363
CXXXIV
CXXXIIIA
CXXXIVA
A.M. Ford
162 . 2 . 16
J.W. Ford
152 . 2 . 6
J.E. Boyd
319 . 3 . 27
(271 . 0 26)
R. Bleasby
107 . 3 . 31
XXIX
(48 . 3 . 1)
XXXII
LP 6807
J.W. Ford
259 . 1 . 24
XXXIA
XXXIB
G.A. Rohlk
134 . 3 . 0
ROAD
LP 5574
LP 89130
LP 124363
A 20720
S 103
ALIGNMENT APP VIDE RA 1201
CROWN LANDS FORMING BED OF RIVER
TR 654518
1584

source of captive-bred young for release following habitat restoration. To date fourteen individuals have been collected and housed at Healesville Sanctuary.

Yellingbo Nature Conservation Reserve habitat restoration and revegetation

Since 2009, Parks Victoria have undertaken targeted revegetation in active Leadbeater's Possum territories at Yellingbo to compensate for the loss of dense vegetation structure and lack of natural regeneration. In 2014, a significant revegetation project coordinated by Greening Australia and Parks Victoria commenced to improve the condition of the FFG-listed Sedge Rich *Eucalyptus camphora* Swamp Community in Yellingbo Nature Conservation Reserve. The planned revegetation is part of the Victorian Government '2 Million Trees' initiative which aims to plant two million trees across Victoria from 2012 to 2014. Revegetation at Yellingbo has been directed at priority Leadbeater's Possum sites. The Judith Eardley Save Wildlife Association also provided a $225 000 grant to increase habitat complexity for Leadbeater's Possum and Helmeted Honeyeater at Yellingbo and Warramate Hills Nature Conservation Reserves, and to improve the condition of the *E. camphora* swamp community.

A deer control program was introduced to Yellingbo Nature Conservation Reserve in 2014 in an attempt to reduce browsing on the revegetation. The program is a partnership between Parks Victoria and Australian Deer Association and the Sporting Shooters Association of Australia. In addition to this, Parks Victoria has funding for 2014 to fence revegetation plots to exclude deer and native browsers. Parks Victoria remote camera monitoring suggests that there are approximately 20 – 30 Sambar *Cervus unicolor* and at times (depending on daily movement) in excess of 80 Fallow in Yellingbo Nature Conservation Reserve. The continued presence of Sambar and Fallow *Cervus dama* populations within Yellingbo Nature Conservation Reserve will continue to damage critical native habitat and restoration efforts for the Leadbeater's Possum.

SLO No & title	Key elements of significant landscape
SLO14 **Warramate Hills**	The Warramate Hills comprise an isolated range of forested hills which are flanked by the broad flood plain of the Yarra River. The hills form a prominent landscape feature which is conspicuous from many parts of the Yarra Valley. Much of the forested hillsides were previously cleared for grazing but have been allowed to regenerate. They now form part of an important area which is visually, botanically and zoologically significant, as it contains a substantial block of native vegetation within a largely cleared pastoral area. Most of this land is included in the Yarraloch Conservation Reserve although margins of the hills include some cleared farm land and pockets of rural residential development. Further intrusion of additional rural residential development and loss of remnant vegetation would detract from the conservation and scenic value of the area.
SLO15 **Western Face: Dandenong Ranges**	The western face of the Dandenong Ranges extends in a broad band from Montrose in the north to Ferntree Gully in the south. The western face is visible from many parts of the Melbourne metropolitan area and beyond and dominates the skyline of Melbourne's outer eastern suburbs. The western face is characterised by very steep forested slopes which include many areas of dry woodland on the exposed aspects. It contains an extensive area of intact native bushland which provides an important habitat for rare plant and animal communities and now forms part of the Dandenong Ranges National Park. Large areas of the western face were previously subdivided for residential development but remained undeveloped due to severe physical and servicing constraints. The area is highly susceptible to bush fires and extensive areas of subdivided land have been brought back into public ownership. Some of the lower slopes in the Montrose area have been developed with houses although the appearance of a continuous forest cover has generally been retained. Further residential development on the lower slopes would detract from the important scenic value of the western face unless the existing native vegetation cover is maintained.