

SHIRE OF CARDINIA

INDIGENOUS VEGETATION SURVEY

AN INVENTORY OF SITES OF BIODIVERSITY SIGNIFICANCE IN
THE PAKENHAM GROWTH CORRIDOR AND ADJOINING AREA



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Report

**Prepared by
S.E. McMillan and S.L. Way**

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ECOLOGY AUSTRALIA PTY LTD

FLORA AND FAUNA CONSULTANTS

88 B STATION STREET, FAIRFIELD, VICTORIA, AUSTRALIA 3078

TEL: (03) 9489 4191 FAX: (03) 9481 7679

EMAIL ADDRESS: admin@ecologyaustralia.com.au

A.B.N. 83 006 757 142

Legend

*	Introduced species.
CaLP	<i>Catchment and Land Protection</i> Act 1994.
CAMBA	China and Australia Migratory Bird Agreement.
ce	Listed as Critically Endangered in Victoria on <i>Advisory List of Threatened Vertebrate Fauna in Victoria – 2003</i> . Department of Sustainability and Environment, East Melbourne, Victoria. (DSE, 2003).
E	Listed as Endangered in Australia on the Federal <i>Environment Protection and Biodiversity Conservation</i> Act 1999 (EPBC Act).
e	Endangered in Victoria (DSE 2003).
JAMBA	Japan and Australia Migratory Bird Agreement
L	Listed on Victoria's <i>Flora and Fauna Guarantee</i> Act 1988 (FFG Act).
M	Listed as a migratory species on the EPBC Act 1999.
n	new record.
N	Nominated for listing on Victoria's FFG Act 1988.
nt	Near Threatened in Victoria (DSE 2003).
r	Regionally significant.
V	Listed as Vulnerable in Australia on the EPBC Act 1999.
v	Vulnerable in Victoria (DSE 2003).

Table of Contents

	PAGE
1.0 INTRODUCTION	1
2.0 METHODOLOGY	5
2.1 Site selection	5
2.2 Flora	5
2.3 Fauna	6
2.4 Database	7
2.5 Limitations	7
3.0 SITES OF SIGNIFICANCE	9
3.1 Index of Sites	9
4.0 REFERENCES	269

Appendices

Appendix 1. Vegetation Condition Field Assessment - Arthur Rylah Institute (ARI) Flora Research

Appendix 2. Maps of City of Casey Study area showing locations of sites of Biodiversity significance.

1.0 INTRODUCTION

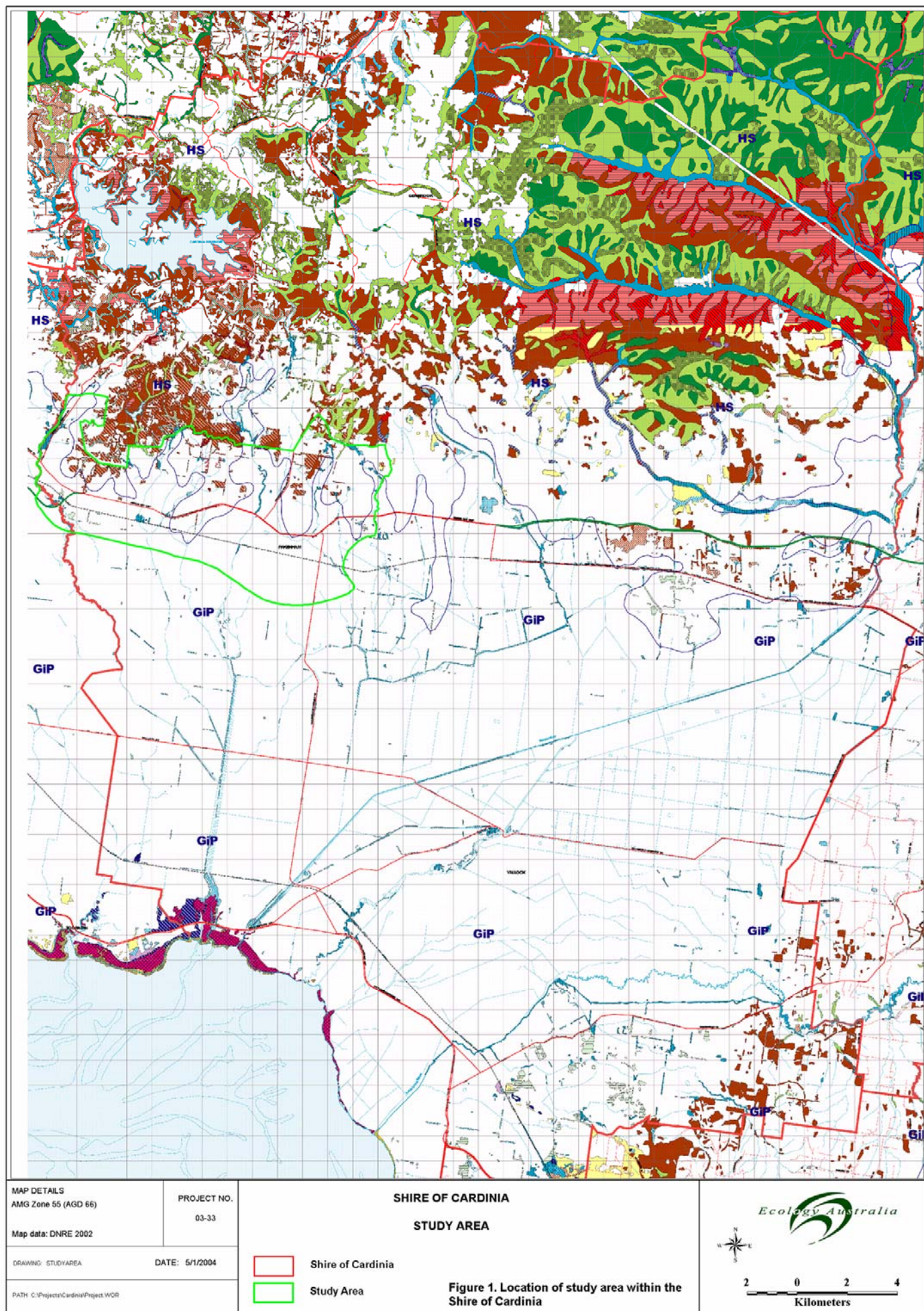
In May 2003 the Shire of Cardinia commissioned Ecology Australia to conduct an Indigenous Vegetation Survey of the Shire's growth corridor and areas to the north of potential rural residential development (see Figure 1 for study area). The aim of the survey is to document remnant terrestrial native flora and fauna, including significant communities, their condition and threats within the study area. This will be utilised by local government planners for consideration during the planning process and for environmental management purposes.

This information will be incorporated into the Shire of Cardinia's Geographical Information System (GIS) and Planning Scheme through appropriate overlays and schedules. The Survey will predominantly identify remnant vegetation; hence individual or stands of non-indigenous trees in urban areas which may have cultural, landscape or heritage significance have not been included in this report.

The results will be presented in two separate reports. Volume 1 provides an overview of the findings of the Indigenous Vegetation Survey. This section also outlines the legislative content and discusses guiding principles for native vegetation protection and management in the study area.

Volume 2 presents the Sites of Biodiversity Significance identified during the study. Each site is dealt with individually and may include:

- Vegetation Condition Field Assessment for each site;
- EVC classification of vegetation type/s present;
- assessment of the EVC significance at the bioregional scale;
- identification of threats and management issues for vegetation and fauna habitats e.g. weed invasions, revegetation, dieback, clearing, stock grazing, rabbits, urban development;
- GPS location (recorded as AMG suitable for Council's GIS); and
- a list of indigenous and exotic plant species.



2.0 METHODOLOGY

2.1 Site selection

Sites potentially supporting remnant vegetation, and thus warranting field inspection, were located by the following methods:

- aerial photograph interpretation (1:15,500 scale) provided by the Shire of Cardinia;
- literature (published and unpublished) that documents some sites of significance in the study area including ; and
- personal communications from landholders, local naturalists, and Shire of Cardinia staff (information from interested parties was solicited via a workshop held for this purpose).

The majority of sites were assessed by viewing the site from public land, through existing knowledge of the area, and aerial photograph interpretation. A field inspection was conducted on sites occurring on public land and on some sites on private land where the vegetation/habitat quality was high. Sites were not visited without the knowledge or permission of the landholder. The Shire of Cardinia contacted landholders through a mail-out.

2.2 Flora

The vegetation of the study area was assessed on the basis of existing information as well as a site survey.

2.2.1 Literature and desktop review

The desktop review included a search of the Victorian Flora Information System (DSE 2003b), a Statewide database maintained by the Department of Sustainability and Environment (DSE); this was conducted to access data previously collected from within the study area. Information from previous reports on the area have also been reviewed (e.g. Kern (2003), Beveridge Williams and Co. (2002), Oates and Taranto (2001), Department of Conservation, Forests and Lands (1989), Opie et al. (1984a), Opie et al. (1984b), see also References – Section 4.0).

2.2.2 Field work

Vegetation sampling was undertaken from August – December 2003 with additional opportunistic data acquisition early in 2004. Data were collected from public and private land and involved the collection of quadrat data, species lists and incidental records of native and exotic plant species.

Quadrat data collection involved recording all vascular plant species in c. 700 m² (either 30 m diameter circles or areas of equivalent size along creek banks or roadsides) and assigning a visually-assessed cover/abundance value from the Braun-Blanquet scale (Gullan 1978).

- | | |
|---|--|
| + | cover <5%, few individuals; |
| 1 | cover <5%, any number of individuals; |
| 2 | cover 5-20%, any number of individuals; |
| 3 | cover 20-50%, any number of individuals; |
| 4 | cover 50-75%, any number of individuals; and |
| 5 | cover 75-100%, any number of individuals. |

Species lists were recorded from a site of any size and these lists are not necessarily comprehensive and the abundance of the plant species was not noted. Incidental records were used to record a small number of species (usually between 1-5) found at site (e.g. a weed, rare indigenous species or a remnant species in a degraded landscape); abundance was not recorded. Notes were made on the vegetation structure

and other features in the study area and in the vicinity of the survey site (e.g. soil type, slope, aspect and management issues).

Planted exotic trees and shrubs (i.e. not naturalised) were not recorded. Sites, which upon field inspection, were found to have no remnant vegetation and little or no faunal habitat were not included in the inventory.

2.2.3 Habitat Quality Rating

The habitat Quality rating was determined using the criteria set out in the Arthur Rylah Institute (ARI) Vegetation Condition Field Assessment Sheets (Appendix 1).

2.2.4 Taxonomy

Plant names in this report and the accompanying documents follow *The Census of the Vascular Plants of Victoria* (Ross and Walsh 2003) except for taxa with informal names recognised by Ecology Australia (unpubl. data). These are undescribed or taxonomically unrecognised species or infraspecific taxa (subspecies, varieties) as well as newly recorded naturalised taxa – most recorded during this study – but not yet formally recognised by the National Herbarium of Victoria which maintains the *Census* of the Victorian flora.

2.2.5 Mapping

Maps of vegetation remnants and otherwise significant sites for biodiversity across the study area were prepared using aerial photograph interpretation, field observations and information (including maps) from previous studies. The vegetation was categorised using Ecological Vegetation Classes (EVCs) which is now the standard typology for vegetation description and land use planning in Victoria. Where the vegetation was degraded, the former EVC (i.e. the pre-1750 EVC) was assigned. Polygons represented by the same EVC type can therefore have different vegetation qualities (e.g. an area of Grassy Woodland can contain intact, high quality vegetation while another area of the same EVC can be of disturbed, low quality vegetation). The maps were produced in hard copy form and will also be utilised through Council's Geographic Information System (GIS). Digital data is to be stored and maintained by the Shire of Cardinia.

A roadside vegetation layer has been included in the GIS package accompanying this report. This data has been incorporated in an attempt to provide a holistic picture of the vegetation coverage within the study area. The data has been sourced from the Cardinia Shire Council roadside vegetation map (Road-5000-Shire) which was produced in 1999. The data collection and production of this map was separate from the current study. Ecology Australia assumes no responsibility for its accuracy.

2.3 Fauna

A selection of sites within the Cardinia study area was visited. An assessment of the fauna values of the study area was conducted using the following methods:

Database and desktop review

The Victorian Fauna Display (DSE 2003b), a CD-ROM version of the Atlas of Victorian Wildlife (AVW) database curated by the Department of Sustainability and Environment (DSE) was searched for fauna records from in and around the study area. An area encompassing the study area was searched for fauna records and is referred to as the Data Review Area (DRA).

Previous reports (e.g. Andrew et al. 1984, LCC 1991, 1993 & 1994) documenting biodiversity assets in the area were resourced. Unpublished data supplied by land owners and community conservation groups during the workshop were also reviewed and supplemented data collected from the field and database searches.

Active Searching. The majority of sites were searched for signs of wildlife including: scats, tracks, nests, dreys, burrows. Where appropriate, rock and log rolling was employed to try and locate reptiles. All opportunistic observations of wildlife were recorded, including indirect observations (e.g. bird calls).

Habitat Assessment. Sites were assessed according to their ability to support native fauna, particularly threatened species (if appropriate). As well as scoring the vegetation quality (see Section 4.2.1), the presence of other habitat attributes were noted including:

- Stags and hollow-bearing trees.
- Microhabitat including fallen timber, hollow logs, rocks and leaf litter.
- Waterways, wetlands and/or dams.
- Continuity with other remnants or areas of suitable habitat.

Any threatening processes affecting the site's potential to support wildlife and/or habitat quality were also noted.

2.4 Database

Data collected during the project is stored within a Microsoft Access Database. The database has been designed to allow both use on personal computers and also for incorporation into council's GIS. The data are stored in a series of tables in the database, which will allow for the incorporation of new information in the future. A number of standard queries have been established to allow routine searches to be performed on the data.

The database contains an inventory of the flora and fauna data collected during the project. This includes specific details with regard to the source of the data, the sites from where the data were collected, significance of the site, species and Ecological Vegetation Classes recorded and management prescriptions.

2.5 Limitations

Access to all private properties containing potential remnant flora was not possible. In such cases attempts were made to assess the vegetation using aerial photograph interpretation and viewing the vegetation from the public roads. Remote assessment of the conservation values of vegetation is particularly difficult and remnants of some vegetation types such as grasslands would undoubtedly have been overlooked. The inventory may be therefore lacking in detail for these particular areas.

The field inspection was performed from August – December 2003. Spring/Summer is the best time to record most seasonal botanical species, however, given the dry conditions encountered this year and the time taken to cover an area the size of the study area some indigenous and exotic species may not be evident at the time of survey.

3.0 SITES OF SIGNIFICANCE

3.1 Index of Sites

Site Number	Site Location	Map Number	Page Number
1	Desmond Court	3	13
2	Desmond Court	1,3	15
3	End of Rix Road	3	17
4	Cardinia Creek (from Rix Road to Old Princes Highway creek crossing)	3	19
5	Officer South Road	3	21
6	Hickson Road	3	23
7	Station Street (opposite Officer Railway Station)	3	25
8	Station Street (opposite Officer Railway Station)	3	27
9	Bayview Road	1,3	29
10	Tivendale Road	1,3	31
11	Corner of The Grange and Fraser Court	1	33
12	O'Niel Road	1	35
13	Fraser Court	1	37
14	Pakenham Railway line	4	39
15	Deep Creek and associated drainage lines (Pakenham)	4	41
16	Racecourse Road (Fairway Waters development)	4	43
17	Pakenham and District Golfcourse	4	45
18	Pinehill Drive	4	47
19	Deep Creek - near Ryan Road crossing	4	49
20	Deep Creek - near Princes Hwy	4	51
21	Fairway Court	4	53
22	Johanna Court	4	55
23	Toomuc Creek (railway crossing)	4	57
24	End of Whiteside Road	1	59
25	Brown Road	1,3	61
26	Whiteside Road	1	63
27	Beaconsfield Sanctuary for Flora and Fauna (Cardinia Creek)	1	65
28	Beaconsfield - Emerald Road	1	67
29	O'Niel Road	1	69
30	Payne Road	1	71
31	Payne Road	1	73
32	Mavis Avenue	1	75
33	Drainage line below Mavis Avenue	1	77
34	Cardinia Creek - Beaconsfield - Emerald Road	1	79
35	Payne Road - drainage line	1	81
36	Holm Park Road	1	83
37	Holm Park Road	1	85
38	Holm Park Road	1	87
39	Princes Highway	3	89
40	Bayview Road	1	91

41	Bayview Road	1	93
42	End of Bayview Road	1	95
43	Brown Road	1	97
44	Dickie Road	1	99
45	Officer Water reserve - Officer - Upper Beaconsfield Road	1	101
46	Officer Water reserve - Officer - Upper Beaconsfield Road	1	103
47	Carsons Road	1	105
48	McGregor Road	4	107
49	Pakenham Railway line	3	109
50	Pakenham Railway line	3	111
51	Bayview Road	1,3	113
52	Harold Street	3	115
53	May Street	1,3	117
54	Carsons Road	1	119
55	Toomuc Creek - Toomuc valley Road	2	121
56	Toomuc Valley Road	2	123
57	Toomuc Valley Road	2	125
58	Toomuc Valley Road	2	127
59	Toomuc Valley Road	2	129
60	Toomuc Valley Road	2	131
61	Toomuc Valley Road	2	133
62	Toomuc Valley Road	2	135
63	Toomuc Valley Road	2	137
64	Mulcahy Road	2	139
65	Brown Road	2	141
66	Short Lane	2	143
67	Ahern Road	4	145
68	Ahern Road	2,4	147
69	Ahern Road	2	149
70	Ahern Road	2	151
71	Ahern Road	2	153
72	Pakenham Road	2	155
73	Pakenham Road	2	157
74	Highland Crescent	4	159
75	Highland Crescent	2,4	161
76	Balmoral Way - Drainage line crossing	4	163
77	Pakenham Road	2	165
78	Pakenham Road	2	167
79	Pakenham Road	2	169
80	Pakenham Road	2	171
81	Deep Creek	2	173
82	Deep Creek Road	2	175
83	Deep Creek	2	177
84	Deep Creek Road	2	179
85	Deep Creek Road	2	181
86	Deep Creek Road	2	183
87	Deep Creek Road	2	185
88	Deep Creek Road	2	187
89	Norris Road	2	189

90	Norris Road	2	191
91	Settlement Road	2	193
92	Settlement Road	2	195
93	Settlement Road	2	197
94	Army Settlement Road - Deep Creek crossing	2	199
95	Army Settlement Road - Deep Creek crossing	2	201
96	Army Road	2	203
97	Army Road	2	205
98	Bellbird Crescent	2,4	207
99	Army Road	2	209
100	Army Road	2	211
101	Army Road	2	213
102	Kennedy Creek	4	215
103	Army Road - aqueduct	2	217
104	Army Road	2	219
105	Army Road - end of aqueduct	2	221
106	Reynolds Road	2	223
107	Reynolds Road	2	225
108	Reynolds Road	2	227
109	Thewlis Road	1,2	229
110	Thewlis Road - adjacent to aqueduct	1	231
111	Thewlis Road	2	233
112	Thewlis Road	2	235
113	Thewlis Road	2	237
114	Lamour Road	1	239
115	Peck Road	2	241
116	Peck Road	2	243
117	Peck Road	1,3	245
118	Godfrey Road	1	247
119	Brown Road	1	249
120	Peterson Road	1	251
121	Peterson Road	1	253
122	Brown Road	1	255
123	Brown Road	1	257
124	Beaconsfield - Emerald Road	1	259
125	O'Neil Road	1	261
126	Mary Road	3	263
127	McGregor Road	4	265
128	O'Neil Road	1	267

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 1
Site Location: Desmond Court
Land Tenure: Private property
Data Source: On-site survey and aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/08/2003
Vegetation Condition Field Assessment: 48
EVC Name / Significance:

Gippsland Plain Bioregion Plains Grassy Woodland	Endangered	Highlands - Southern Fall Bioregion Endangered
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Comments:

Riparian strip on Desmond Court; scattered trees on private property; highly disturbed. Part of this remnant is continuous with Site 2 which follows a drainage line. Moderate habitat values.

Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), Australian White Ibis (*Threskiornis molucca*), Masked Lapwing (*Vanellus miles*), Common Bronzewing (*Phaps chalcoptera*), Galah (*Cacatua roseicapilla*), Sulphur-crested Cockatoo (*Cacatua galerita*), Rainbow Lorikeet (*Trichoglossus haematodus*), Eastern Rosella (*Platycercus eximius*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Laughing Kookaburra (*Dacelo novaeguineae*), Superb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), Brown Thornbill (*Acanthiza pusilla*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), Noisy Miner (*Manorina melanocephala*), New Holland Honeyeater (*Phylidonyris-novaehollandiae*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), Red-browed Finch (*Neochmia temporalis*), *Common Blackbird (*Turdus merula*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Weed management. Dieback in the canopies is evident and some dead trees are present. Potential revegetation site.

Flora species recorded at Site 1

Recs 39 Date : 15 Aug 2003 Location : 145°22'27" 38°03'28"

+	25	<i>Acacia dealbata</i>	Silver Wattle
+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	105	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
+	8022	<i>Agrostis</i> s.l. spp.	Bent/Blown Grass
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	515	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
+	639	<i>Carex gaudichaudiana</i>	Fen Sedge
+	822	<i>Coprosma quadrifida</i>	Prickly Currant-bush
+	1029	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
+	1110	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
+	1272	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1395	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1692	* <i>Holcus lanatus</i>	Yorkshire Fog
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	1616	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
+	2497	<i>Phragmites australis</i>	Common Reed
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2602	<i>Poa morrisii</i>	Soft Tussock-grass
+	2608	<i>Poa sieberiana</i>	Grey Tussock-grass
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	3421	<i>Tricoryne elatior</i>	Yellow Rush-lily
+	9072	<i>Solanum</i> spp.	Nightshade
+	3599	* <i>Zantedeschia aethiopica</i>	White Arum-lily
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic
+	8194	<i>Carex</i> spp.	Sedge
+	2387	* <i>Oxalis pes-caprae</i>	Soursob
+	2053	* <i>Lonicera japonica</i>	Japanese Honeysuckle
+	8474	<i>Geranium</i> spp.	Crane's Bill
+	9094	<i>Stellaria</i> spp.	Starwort
+	3518	* <i>Vicia sativa</i>	Common Vetch

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	2		
Site Location:	Desmond Court		
Land Tenure:	Melbourne Water		
Data Source:	On-site survey and aerial photography		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	15/08/2003		
Vegetation Condition Field Assessment:	28		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Plains Grassy Woodland	Endangered	Endangered

Comments:

Linear remnant with scattered old growth eucalypts following a drainage line. This is continuous with Site 1. Moderate habitat values.

Fauna species recorded: Pacific Black Duck (*Anas superciliosa*), Australian White Ibis (*Threskiornis molucca*), Straw-necked Ibis (*Threskiornis spinicollis*), Black-shouldered Kite (*Elanus axillaris*), *Spotted Turtle-Dove (*Streptopelia chinensis*), Galah (*Cacatua roseicapilla*), Little Corella (*Cacatua sanguinea*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), Striated Pardalote (*Pardalotus striatus*), Brown Thornbill (*Acanthiza pusilla*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), Noisy Miner (*Manorina melanocephala*), Grey Shrike-thrush (*Colluricincla harmonica*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), *Common Blackbird (*Turdus merula*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), *European Rabbit (*Oryctolagus cuniculus*), Common Eastern Froglet (*Crinia signifera*), Spotted Grass Frog (*Limnodynastes tasmaniensis*).

Principal Management Requirements:

Weed management. Dieback in the canopies is evident and some dead trees are present. Potential revegetation site.

Flora species recorded at Site 2

Recs 19 Date : 15 Aug 2003 Location : 140°00'00" 40°00'00"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	1029	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1395	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
+	1402	* <i>Galium aparine</i>	Cleavers
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	2497	<i>Phragmites australis</i>	Common Reed
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2942	* <i>Romulea rosea</i>	Onion Grass
+	3919	<i>Persicaria decipiens</i>	Slender Knotweed
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic
+	2387	* <i>Oxalis pes-caprae</i>	Soursob
+	8998	<i>Rubus</i> spp.	Bramble
+	2053	* <i>Lonicera japonica</i>	Japanese Honeysuckle
+	2917	* <i>Raphanus raphanistrum</i>	Wild Radish

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 3
Site Location: End of Rix Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/08/2003
Vegetation Condition Field Assessment: 5
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Plains Grassy Woodland	Endangered

Comments:

Two remnants of scattered old growth eucalypts in grazed paddocks. There is dieback in the canopy and no recruitment due to grazing pressures. These remnants are in close proximity to Site 4 (Cardinia Creek riparian remnant). The smaller of the two habitats has artificial wetland areas in modified drainage lines.

Scattered trees on private land. Dam and modified waterhole provide good general frog habitat, and potential habitat for Growling Grass Frog (*Litoria reniformis*). Fauna species recorded: Purple Swamphen (*Porphyrio porphyrio*), Laughing Kookaburra (*Dacelo novaeguineae*), Superb Fairy-wren (*Malurus cyaneus*), Striated Pardalote (*Pardalotus striatus*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), White-eared Honeyeater (*Lichenostomus leucotis*), Grey Shrike-thrush (*Colluricincla harmonica*), Grey Fantail (*Rhipidura albiscapa*), Willie Wagtail (*Rhipidura leucophrys*), Little Raven (*Corvus mellori*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*), Eastern Banjo Frog (*Limnodynastes dumerilii*), Brown-striped Frog (*Limnodynastes peronii*), Spotted Grass Frog (*Limnodynastes tasmaniensis*).

Principal Management Requirements:

Fence to encourage recruitment.

Flora species recorded at Site 3

Recs 3 Date : 15 Aug 2003 Location : 140°00'00" 40°00'00"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	4		
Site Location:	Cardinia Creek (from Rix Road to Old Princes Highway)		
Land Tenure:	Melbourne Water		
Data Source:	On-site survey and aerial photography		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	15/08/2003		
Vegetation Condition Field Assessment:	56		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Swampy Riparian	Endangered	Depleted

Comments:

Linear remnant confined to Cardinia Creek. Some old growth eucalypts along the creek (>60cm DBH). The creek appears to be unfenced in some areas and hence grazing is potentially occurring to the creek edge.

Potential habitat for Growling Grass Frog (*Litoria reniformis*). Fauna species recorded: Purple Swamphen (*Porphyrio porphyrio*), Laughing Kookaburra (*Dacelo novaeguineae*), Superb Fairy-wren (*Malurus cyaneus*), Striated Pardalote (*Pardalotus striatus*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), White-eared Honeyeater (*Lichenostomus leucotis*), Grey Shrike-thrush (*Colluricincla harmonica*), Grey Fantail (*Rhipidura albiscapa*), Willie Wagtail (*Rhipidura leucophrys*), Little Raven (*Corvus mellori*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*), Eastern Banjo Frog (*Limnodynastes dumerilii*), Brown-striped Frog (*Limnodynastes peronii*), Spotted Grass Frog (*Limnodynastes tasmaniensis*).

Principal Management Requirements:

Protect the flora and fauna values of the creek from grazing and weed invasion; encourage recruitment.

Flora species recorded at Site 4

Recs 6 Date : 15 Aug 2003 Location : 145°22'34" 38°03'56"

+	25	<i>Acacia dealbata</i>	Silver Wattle
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8723	<i>Melaleuca</i> spp.	Honey-myrtle

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 5
Site Location: Officer South Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/08/2003
Vegetation Condition Field Assessment: 4
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Plains Grassy Woodland Endangered Endangered

Comments:

Scattered eucalypts in a grazed paddock. Dieback in the canopy.

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 5

Recs 1 Date : 15 Aug 2003 Location : 145°24'27" 38°04'13"

+ 1307 *Eucalyptus ovata*

Swamp Gum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 6
Site Location: Hickson Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/08/2003
Vegetation Condition Field Assessment: 6
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Plains Grassy Woodland	Endangered
Endangered	Endangered

Comments:

Small patch of intermediate-sized Swamp Gum (*Eucalyptus ovata*) following a drainage line in a grazed paddock.

Fauna habitat value low. Fauna species recorded: Flame Robin (*Petroica phoenicea*), Grey Shrike-thrush (*Colluricincla harmonica*), Little Raven (*Corvus mellori*), *House Sparrow (*Passer domesticus*), *Common Blackbird (*Turdus merula*).

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 6

Recs 2 Date : 15 Aug 2003 Location : 145°24'23" 38°04'06"

+ 57 *Acacia melanoxylon*
+ 1307 *Eucalyptus ovata*

Blackwood
Swamp Gum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	7		
Site Location:	Station Street (opposite Officer Railway Station)		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	15/08/2003		
Vegetation Condition Field Assessment:	37		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Swampy Woodland	Endangered	Vulnerable

Comments:

Large patch of Swampy Woodland between the railway line and private properties on Gumleaf Lane. Death of most of the old trees has occurred, however there is substantial recruitment in the southern section of the site. A large area in the northern section has been cleared and there is evidence of horse grazing throughout the site.

Moderate - high fauna habitat values across site. Fauna species recorded: Brown Falcon (*Falco berigora*), *Spotted Turtle-Dove (*Streptopelia chinensis*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Striated Pardalote (*Pardalotus striatus*), White-browed Scrubwren (*Sericornis frontalis*), Brown Thornbill (*Acanthiza pusilla*), White-eared Honeyeater (*Lichenostomus leucotis*), New Holland Honeyeater (*Phylidonyris novaehollandiae*), Eastern Yellow Robin (*Eopsaltria australis*), Magpie-lark (*Grallina cyanoleuca*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), *House Sparrow (*Passer domesticus*), Red-browed Finch (*Neochmia temporalis*), *European Goldfinch (*Carduelis carduelis*), Welcome Swallow (*Hirundo neoxena*), *Common Blackbird (*Turdus merula*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), Common Ringtail Possum (*Pseudocheirus peregrinus*), Common Eastern Froglet (*Crinia signifera*), Brown-striped Frog (*Limnodynastes peronii*), Spotted Grass Frog (*Limnodynastes tasmaniensis*).

Principal Management Requirements:

Bulbil *Watsonia* (*Watsonia meriana* var. *bulbilifera*) is prolific along the railway line. This should be managed to control its spread.

Flora species recorded at Site 7

Recs 24 Date : 15 Aug 2003 Location : 145°24'36" 38°04'00"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	105	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1353	<i>Exocarpos strictus</i>	Pale-fruit Ballart
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1722	<i>Hydrocotyle hirta</i>	Hairy Pennywort
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2179	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
+	2497	<i>Phragmites australis</i>	Common Reed
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	3471	* <i>Ulex europaeus</i>	Gorse
+	8660	<i>Leptospermum</i> spp.	Tea Tree
+	8998	<i>Rubus</i> spp.	Bramble
+	5128	# <i>Acacia longifolia</i> s.l.	Coast/Sallow Wattle
+	1856	<i>Kunzea ericoides</i>	Burgan
+	1076	<i>Distichlis distichophylla</i>	Australian Salt-grass

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	8		
Site Location:	Station Street (opposite Officer Railway Station)		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	15/08/2003		
Vegetation Condition Field Assessment:	Not known		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Swamp Scrub	Endangered	Endangered

Comments:

This site appears to be contiguous with the Swampy Woodland vegetation of site 7.

Moderate - high fauna habitat values across site. Fauna species recorded: Brown Falcon *Falco berigora*, *Spotted Turtle-Dove *Streptopelia chinensis*, Eastern Rosella *Platycercus eximius*, Superb Fairy-wren *Malurus cyaneus*, Striated Pardalote *Pardalotus striatus*, White-browed Scrubwren *Sericornis frontalis*, Brown Thornbill *Acanthiza pusilla*, White-eared Honeyeater *Lichenostomus leucotis*, New Holland Honeyeater *Phylidonyris novaehollandiae*, Eastern Yellow Robin *Eopsaltria australis*, Magpie-lark *Grallina cyanoleuca*, Australian Magpie *Gymnorhina tibicen*, Little Raven *Corvus mellori*, *House Sparrow *Passer domesticus*, Red-browed Finch *Neochmia temporalis*, *European Goldfinch *Carduelis carduelis*, Welcome Swallow *Hirundo neoxena*, *Common Blackbird *Turdus merula*, *Common Starling *Sturnus vulgaris*, *Common Myna *Acridotheres tristis*, Common Ringtail Possum *Pseudocheirus peregrinus*, Common Eastern Froglet *Crinia signifera*, Brown-striped Frog *Limnodynastes peronii*, Spotted Grass Frog *Limnodynastes tasmaniensis*.

Principal Management Requirements:

Bulbil Watsonia (*Watsonia meriana* var. *bulbilifera*) is prolific along the railway line. This should be managed to control its spread.

Flora species recorded at Site 8

No records

***Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance***

Site Number:	9		
Site Location:	Bayview Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	15/08/2003		
Vegetation Condition Field Assessment:	Not applicable		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
Wetland (derived) Complex	N/A	N/A	

Comments:

Well vegetated artificial wetland above larger open water body. This site is associated with Site 51. Many hollows in small Swamp Gum stand upslope from dams.

High potential for Growling Grass Frog (*Litoria reniformis*). Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), Pacific Black Duck (*Anas superciliosa*), Cattle Egret (*Ardea ibis*), Australian White Ibis (*Threskiornis molucca*), Straw-necked Ibis (*Threskiornis spinicollis*), Purple Swamphen (*Porphyrio porphyrio*), Dusky Moorhen (*Gallinula tenebrosa*), Eurasian Coot (*Fulica atra*), Galah (*Cacatua roseicapilla*), Little Corella (*Cacatua sanguinea*), Rainbow Lorikeet (*Trichoglossus haematodus*), Striated Pardalote (*Pardalotus striatus*), Red Wattlebird (*Anthochaera carunculata*), Magpie-lark (*Grallina cyanoleuca*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), Welcome Swallow (*Hirundo neoxena*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 9

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 10
Site Location: Tivendale Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/08/2003
Vegetation Condition Field Assessment: 18
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Former Grassy Forest now comprised of scattered eucalypts with a grazed, mostly exotic understorey. Dieback in the canopies is evident and there are dead trees present. The Grassy Forest remnant on the adjoining road reserve has an intact understorey and should be protected and managed.

Grassy forest remnant with many large trees - good potential for hollow bearing trees now or in the future, and therefore high quality habitat for hollow dependant fauna (gliders, bats, owls, parrots, etc.). Fauna species recorded: Galah (*Cacatua roseicapilla*), Eastern Rosella (*Platycercus eximius*), Striated Pardalote (*Pardalotus striatus*), Red Wattlebird (*Anthochaera carunculata*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Grey Butcherbird (*Cracticus torquatus*), Little Raven (*Corvus mellori*), Welcome Swallow (*Hirundo neoxena*), *Common Starling (*Sturnus vulgaris*).

Principal Management Requirements:

Encourage recruitment of tree and shrub species. Protect and manage road reserve vegetation. Sweet Pittosporum (*Pittosporum undulatum*) should be controlled.

Flora species recorded at Site 10

Recs 6 Date : 15 Aug 2003 Location : 145°24'44" 38°03'12"

+	25	<i>Acacia dealbata</i>	Silver Wattle
+	677	<i>Allocasuarina littoralis</i>	Black Sheoak
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	3733	<i>Eucalyptus cephalocarpa</i> s.s.	Mealy Stringybark
+	218	<i>Amyema miquelii</i>	Box Mistletoe

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 11
Site Location: Corner of The Grange and Fraser Court
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 21
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Stand of eucalypts on private property. There has probably been a history of grazing at the site. The site is part of a developing housing estate and may be lost due to development pressures.

Low - moderate quality grassy forest remnant. Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), Straw-necked Ibis (*Threskiornis spinicollis*), Crimson Rosella (*Platycercus elegans*), Eastern Rosella (*Platycercus eximius*), Tawny Frogmouth (*Podargus strigoides*), Red Wattlebird (*Anthochaera carunculata*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), *Common Myna (*Acridotheres tristis*), *European Rabbit (*Oryctolagus cuniculus*)

Principal Management Requirements:

Retain eucalypts if possible.

Flora species recorded at Site 11

Recs 5 Date : 27 Aug 2003 Location : 145°23'03" 38°02'56"

+	677		<i>Allocasuarina littoralis</i>	Black Sheoak
+	5175	r	<i>Eucalyptus fulgens</i>	Green Scentbark
+	1286		<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1313		<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350		<i>Exocarpos cupressiformis</i>	Cherry Ballart

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 12
Site Location: O'Niel Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 29
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Large remnant of mixed eucalypts fringing a residential development. This site may be lost due to development pressures.

Low - moderate quality grassy forest remnant. Fauna species recorded: Crimson Rosella (*Platycercus elegans*), Eastern Rosella (*Platycercus eximius*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Laughing Kookaburra (*Dacelo novaeguineae*), Spotted Pardalote (*Pardalotus punctatus*), Striated Pardalote (*Pardalotus striatus*), Brown Thornbill (*Acanthiza pusilla*), Striated Thornbill (*Acanthiza lineata*), Red Wattlebird (*Anthochaera carunculata*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Grey Fantail (*Rhipidura albiscapa*), Black-faced Cuckoo-shrike (*Coracina novaehollandiae*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), Red-browed Finch (*Neochmia temporalis*), *Common Blackbird (*Turdus merula*), *Common Myna (*Acridotheres tristis*).

Principal Management Requirements:

Protect and enhance remnant and associated corridors from development pressures. Weed management.

Flora species recorded at Site 12

Recs 9 Date : 27 Aug 2003 Location : 145°22'58" 38°02'48"

+	72		<i>Acacia paradoxa</i>	Hedge Wattle
+	515		<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
+	5175	r	<i>Eucalyptus fulgens</i>	Green Scentbark
+	1286		<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1313		<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350		<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1856		<i>Kunzea ericoides</i>	Burgan
+	2543	#	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8200		<i>Cassinia</i> spp.	Cassinia

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 13
Site Location: Fraser Court
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Shrubby Gully Forest Vulnerable Vulnerable

Comments:

Scattered eucalypts on private property. There has probably been a history of grazing at the site. The site is part of a developing housing estate and may be lost due to development pressures.

Principal Management Requirements:

Retain eucalypts if possible.

Flora species recorded at Site 13

Recs 1 Date : 27 Aug 2003 Location : 145°23'07" 38°02'46"

+ 1323 *Eucalyptus viminalis*

Manna Gum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 14
Site Location: Pakenham Railway line
Land Tenure: Rail reserve
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 7
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swamp Scrub	Endangered
Endangered	Endangered

Comments:

Linear patches of Melaleuca following drainage line.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 14

Recs 2 Date : 27 Aug 2003 Location : 145°29'56" 38°05'04"

+ 2147 *Melaleuca ericifolia*

Swamp Paperbark

+ 3471 * *Ulex europaeus*

Gorse

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 15
Site Location: Deep Creek and associated drainage lines
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 7
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swamp Scrub Endangered Endangered

Comments:

Linear patches of grazed Melaleuca scrub following water courses.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 15

Recs 5 Date : 27 Aug 2003 Location : 145°30'07" 38°05'16"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	3471	* <i>Ulex europaeus</i>	Gorse
+	8936	* <i>Prunus</i> spp.	Prunus

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 16
Site Location: Racecourse Road (Fairway Waters development)
Land Tenure: Private property
Data Source: On-site survey and literature
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/06/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swamp Scrub Endangered Endangered

Comments:

Due to the proposed development for this site it is envisaged that some of the remnant vegetation will be lost. There is a potential for this to be compensated, through the Net Gain policy, via planting and habitat recreation elsewhere on the site.

Principal Management Requirements:

Refer to Moysey et al 2003.

Flora species recorded at Site 16

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 17
Site Location: Pakenham and District Golfcourse
Land Tenure: Private property
Data Source: Literature
Data Type: Literature
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Riparian Endangered Depleted

Comments:

Swampy Riparian Woodland probably with Black wattle (*Acacia mearnsii*), Burgan (*Kunzea ericoides*), Eucalypt (*Eucalyptus* sp.), Gorse (*Ulex europaeus*) and other planted horticultural species.

Existing Growling Grass Frog (*Litoria raniformis*) records in DSE state database.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 17

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 18
Site Location: Pinehill Drive
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Swampy Riparian Woodland possibly with Swamp Paperbark (*Melaleuca ericifolia*), Burgan (*Kunzea ericoides*), Eucalypt (*Eucalyptus* sp.), Gorse (*Ulex europaeus*) and other planted horticultural species.

Dam present, but with little or no aquatic vegetation, and therefore relatively low habitat value. Fauna species recorded: *Spotted Turtle-Dove (*Streptopelia chinensis*), Galah (*Cacatua roseicapilla*), Eastern Rosella (*Platycercus eximius*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Superb Fairy-wren (*Malurus cyaneus*), Red Wattlebird (*Anthochaera carunculata*), Willie Wagtail (*Rhipidura leucophrys*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Red-browed Finch (*Neochmia temporalis*), *Common Blackbird (*Turdus merula*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 18

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 19
Site Location: Deep Creek - near Ryan Road crossing
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 22
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Swamp Gum (*Eucalyptus ovata*) over Swamp Paperbark (*Melaleuca ericifolia*). Some dead trees. Scattered large Swamp Gum in the nearby paddocks. Swampy riparian woodland along watercourse; narrow and degraded.

Fauna species recorded: Masked Lapwing (*Vanellus miles*), *Spotted Turtle-Dove (*Streptopelia chinensis*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Welcome Swallow (*Hirundo neoxena*), Tree Martin (*Hirundo nigricans*), *Common Blackbird (*Turdus merula*), *Song Thrush (*Turdus philomelos*), *Common Starling (*Sturnus vulgaris*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 19

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 20
Site Location: Deep Creek - near Princes Hwy
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swamp Scrub	Endangered
Endangered	Endangered

Comments:

Swamp Scrub along watercourse; narrow and degraded.

Fauna species recorded: Masked Lapwing (*Vanellus miles*), *Spotted Turtle-Dove (*Streptopelia chinensis*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Welcome Swallow (*Hirundo neoxena*), Tree Martin (*Hirundo nigricans*), *Common Blackbird (*Turdus merula*), *Song Thrush (*Turdus philomelos*), *Common Starling (*Sturnus vulgaris*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 20

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 21
Site Location: Fairway Court
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: 14
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Woodland	Depleted

Comments:

Scattered eucalypts in a grazed paddock. Some up to 50 cm (DBH). Sites 21 and 22 are contiguous, involving grassy woodland and swamp scrub.

Fauna species recorded (Sites 21 and 22 combined): *Spotted Turtle-Dove (*Streptopelia chinensis*), Rainbow Lorikeet (*Trichoglossus haematodus*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 21

Recs 6 Date : 27 Aug 2003 Location :

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1307	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	3471	* <i>Ulex europaeus</i>	Gorse

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 22
Site Location: Johanna Court
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swamp Scrub	Endangered

Comments:

Scattered remnants of Melaleuca in grazed paddocks; some areas with a Swamp Gum (*Eucalyptus ovata*) overstorey. Sites 21 and 22 are contiguous, involving grassy woodland and swamp scrub.

Fauna species recorded (Sites 21 and 22 combined): *Spotted Turtle-Dove (*Streptopelia chinensis*), Rainbow Lorikeet (*Trichoglossus haematodus*), Eastern Rosella (*Platycercus eximius*), Superb Fairy-wren (*Malurus cyaneus*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Willie Wagtail (*Rhipidura leucophrys*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 22

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 23
Site Location: Toomuc Creek (railway crossing)
Land Tenure: Council reserve
Data Source: Aerial photography and literature
Data Type: Literature
Data Representation: Polygon
Data Collection Date: 27/08/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Swampy Woodland following Toomuc Creek.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 23

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	24		
Site Location:	End of Whiteside Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Quadrat and species list		
Data Representation:	Polygon		
Data Collection Date:	4/09/2003		
Vegetation Condition Field Assessment:	68		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Grassy Forest	Endangered	Vulnerable

Comments:

Large remnant on private property. High regional significance; possibly State significant site for fauna. The condition of this site improves moving from the road inward. Close to the road the site is dominated by Sweet Pittosporum (*Pittosporum undulatum*) which in some cases has completely shaded out the understorey. A gas easement runs through the site which is being invaded by exotic species, spreading from the road reserve. This site includes the EVC Gully Woodland along a creek to the north east of the remnant.

Fauna species recorded: Common Bronzewing (*Phaps chalcoptera*), Sulphur-crested Cockatoo (*Cacatua galerita*), Crimson Rosella (*Platycercus elegans*), Pallid Cuckoo (*Cuculus pallidus*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), White-throated Treecreeper (*Cormobates leucophaeus*), Superb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), Brown Thornbill (*Acanthiza pusilla*), Striated Thornbill (*Acanthiza lineata*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), Noisy Miner (*Manorina melanocephala*), Yellow-faced Honeyeater (*Lichenostomus Chrysops*), White-naped Honeyeater (*Melithreptus lunatus*), Crescent Honeyeater (*Phylidonyris pyrrhoptera*), New Holland Honeyeater (*Phylidonyris novaehollandiae*), Eastern Spinebill (*Acanthorhynchus tenuirostris*), Eastern Yellow Robin (*Eopsaltria australis*), Golden Whistler (*Pachycephala pectoralis*), Grey Shrike-thrush (*Colluricincla harmonica*), Magpie-lark (*Grallina cyanoleuca*), Grey Fantail (*Rhipidura albiscapa*), Black-faced Cuckoo-shrike (*Coracina novaehollandiae*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Australian Raven (*Corvus coronoides*), Little Raven (*Corvus melleri*), Tree Martin (*Hirundo nigricans*), Silveryeye (*Zosterops lateralis*), *Common Blackbird (*Turdus merula*), Short-beaked Echidna (*Tachyglossus aculeatus*), Common Wombat (*Vombatus Ursinus*), Koala (*Phascolarctos cinereus*), Eastern Grey Kangaroo (*Macropus giganteus*), *Red fox (*Vulpes vulpes*), *European Rabbit (*Oryctolagus cuniculus*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Large, remnants in good condition such as this one require protection. The property owners appear to be sympathetic towards conservation objectives and requires support. Many exotic plant species are growing in the adjacent road reserve. These should be controlled to eliminate their spread into this remnant. Unless the exotic plant species within the remnant are managed the condition will continue to deteriorate.

Flora species recorded at Site 24

Recs 27 Date : 04 Sep 2003 Location : 145°23'30" 38°02'49"

1	56	<i>Acacia mearnsii</i>	Black Wattle
2	72	<i>Acacia paradoxa</i>	Hedge Wattle
1	91	<i>Acacia stricta</i>	Hop Wattle
+	1038	<i>Arthropodium strictum</i> s.l.	Chocolate Lily
1	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	4291	<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry
1	440	<i>Bossiaea prostrata</i>	Creeping Bossiaea
1	1165	<i>Epacris impressa</i>	Common Heath
3	3732	<i>Eucalyptus goniocalyx</i> s.s.	Bundy
2	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
3	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	8548	<i>Hydrocotyle</i> spp.	Pennywort
+	1748	* <i>Hypochoeris radicata</i>	Cat's Ear
1	1861	<i>Lagenophora gracilis</i>	Slender Bottle-daisy
2	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
3	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
1	2580	* <i>Poa annua</i>	Annual Meadow-grass
1	2584	<i>Poa clelandii</i>	Noah's Ark
1	8998	<i>Rubus</i> spp.	Bramble
1	3129	<i>Senecio tenuiflorus</i>	Slender Fireweed
+	3427	* <i>Trifolium dubium</i>	Suckling Clover
1	5058	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet
1	1107	<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
1	8491	<i>Gonocarpus</i> spp.	Raspwort
1	2042	<i>Lomandra filiformis</i>	Wattle Mat-rush
1	4710	<i>Lomandra filiformis</i> ssp. <i>filiformis</i>	Wattle Mat-rush
+	4888	<i>Chiloglottis valida</i>	Common Bird-orchid

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 25
Site Location: Brown Road
Land Tenure: Private property
Data Source: On-site survey and literature
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This site appears to be contiguous with the Grassy Forest vegetation of site 24 and is probably dominated by Bundy (*Eucalyptus goniocalyx*). However, unlike site 24 the understorey appears to be grazed.

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 25

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 26
Site Location: Whiteside Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: 25
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Highly fragmented Grassy Forest. In some areas the understorey has been cleared and replaced by mown grass, while in others a partially intact understorey persists.

Principal Management Requirements:

Encourage recruitment.

Flora species recorded at Site 26

Recs 8 Date : 04 Sep 2003 Location : 145°23'19" 38°02'56"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 27
Site Location: Beaconsfield Sanctuary for Flora and Fauna
Land Tenure: Council reserve
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: 55
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Swampy Riparian Woodland streamside reserve, Beaconsfield - Emerald Road.

Many large trees; extensive ground cover vegetation; generally moderate - high habitat values. Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), *Spotted Turtle-Dove (*Streptopelia chinensis*), Common Bronzewing (*Phaps chalcoptera*), Little Corella (*Cacatua sanguinea*), Crimson Rosella (*Platycercus elegans*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Laughing Kookaburra (*Dacelo novaeguineae*), Superb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), White-browed Scrubwren (*Sericornis frontalis*), Brown Thornbill (*Acanthiza pusilla*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), Noisy Miner (*Manorina melanocephala*), Eastern Spinebill (*Acanthorhynchus tenuirostris*), Eastern Yellow Robin (*Eopsaltria australis*), Magpie-lark (*Grallina cyanoleuca*), Grey Fantail (*Rhipidura albiscapa*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Pied Currawong (*Strepera graculina*), Little Raven (*Corvus mellori*), Red-browed Finch (*Neochmia temporalis*), *Common Blackbird (*Turdus merula*), *Common Starling (*Sturnus vulgaris*), *Common Myna (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

The associated Friends Group appears to be active with weed management and new plantings in the Sanctuary.

Flora species recorded at Site 27

Recs 18 Date : 04 Sep 2003 Location : 145°22'12" 38°02'13"

+	25	<i>Acacia dealbata</i>	Silver Wattle
+	56	<i>Acacia mearnsii</i>	Black Wattle
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	403	<i>Billardiera scandens</i>	Common Apple-berry
+	822	<i>Coprosma quadrifida</i>	Prickly Currant-bush
+	1030	<i>Dianella tasmanica</i>	Tasman Flax-lily
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1507	<i>Goodenia ovata</i>	Hop Goodenia
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2312	<i>Olearia lirata</i>	Snowy Daisy-bush
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2916	<i>Rapanea howittiana</i>	Mutton-wood
+	8998	<i>Rubus</i> spp.	Bramble
+	3387	<i>Themeda triandra</i>	Kangaroo Grass

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 28
Site Location: Beaconsfield - Emerald Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: 29
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

This site neighbours a recently developed residential estate. Grazed Grassy Forest remnant opposite Site 27.

Currently low habitat values, but trees are potentially hollow bearing and therefore have long term habitat potential. Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), Common Bronzewing (*Phaps chalcoptera*), Musk Lorikeet (*Glossopsitta concinna*), Eastern Rosella (*Platycercus eximius*), Noisy Miner (*Manorina melanocephala*), Magpie-lark (*Grallina cyanoleuca*), Black-faced Cuckoo-shrike (*Coracina novaehollandiae*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Pied Currawong (*Strepera graculina*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Any future developments proposed for this site should try to retain the remnant trees by incorporating them into the design.

Flora species recorded at Site 28

Recs 16 Date : 04 Sep 2003 Location : 145°22'13" 38°02'18"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	105	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2431	* <i>Paspalum distichum</i>	Water Couch
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2942	* <i>Romulea rosea</i>	Onion Grass
+	8998	<i>Rubus</i> spp.	Bramble
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	2387	* <i>Oxalis pes-caprae</i>	Soursob
+	1760	<i>Imperata cylindrica</i>	Blady Grass

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 29
Site Location: O'Niel Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Literature
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Some old growth eucalypts (possibly Mealy Stringybark (*Eucalyptus cephalocarpa*)) over a cleared and probably grazed understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 29

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 30
Site Location: Payne Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Shrubby Gully Forest Vulnerable Vulnerable

Comments:

Scattered eucalypts over a grazed understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 30

Recs 3 Date : 04 Sep 2003 Location : 145°23'28" 38°01'49"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 31
Site Location: Payne Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Lowland Forest Vulnerable Least Concern

Comments:

Scattered eucalypts over a grazed understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 31

Recs 3 Date : 04 Sep 2003 Location : 145°23'37" 38°01'45"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	3733	<i>Eucalyptus cephalocarpa</i> s.s.	Mealy Stringybark
+	3732	<i>Eucalyptus goniocalyx</i> s.s.	Bundy

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 32
Site Location: Mavis Avenue
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: 15
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Fragmented remnant amongst residential dwellings and horticultural gardens. The understorey has been predominantly cleared but in some areas an indigenous understorey persists. Dieback in the canopy is evident.

Fauna species recorded: *Spotted Turtle-Dove (*Streptopelia chinensis*), Gang-gang Cockatoo (*Callocephalon fimbriatum*), Galah (*Cacatua roseicapilla*), Sulphur-crested Cockatoo (*Cacatua galerita*), Eastern Rosella (*Platycercus eximius*), Laughing Kookaburra (*Dacelo novaeguineae*), Red Wattlebird (*Anthochaera carunculata*), Little Wattlebird (*Anthochaera chrysoptera*), Bell Miner (*Manorina melanophrys*), Yellow-faced Honeyeater (*Lichenostomus chrysops*), Brown-headed Honeyeater (*Melithreptus brevirostris*), New Holland Honeyeater (*Phylidonyris novaehollandiae*), Eastern Spinebill (*Acanthorhynchus tenuirostris*), Eastern Yellow Robin (*Eopsaltria australis*), Magpie-lark (*Grallina cyanoleuca*), Grey Butcherbird (*Cracticus torquatus*), Little Raven (*Corvus mellori*), Welcome Swallow (*Hirundo neoxena*), Silvereye (*Zosterops lateralis*), *Common Blackbird (*Turdus merula*), Brown-striped Frog (*Limnodynastes peronii*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 32

Recs 8 Date : 04 Sep 2003 Location : 145°23'10" 38°01'58"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	677	<i>Allocasuarina littoralis</i>	Black Sheoak
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 33
Site Location: Drainage line below Mavis Avenue
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Shrubby Gully Forest Vulnerable Vulnerable

Comments:

Shrubby Gully Forest following drainage line.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 33

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 34
Site Location: Cardinia Creek - Beaconsfield - Emerald Road
Land Tenure: Council reserve
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Riparian Endangered Depleted

Comments:

Swampy Riparian Woodland streamside reserve, Beaconsfield - Emerald Road. Many large trees; extensive ground cover vegetation; generally moderate - high habitat values.

Principal Management Requirements:

Weed management and encourage recruitment.

Flora species recorded at Site 34

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 35
Site Location: Payne Road - drainage line
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Linear remnant of Melaleuca (*Melaleuca ericifolia*) scrub following drainage line on private property.

Principal Management Requirements:

Weed management and encourage recruitment.

Flora species recorded at Site 35

Recs 5 Date : 04 Sep 2003 Location : 145°22'48" 38°01'50"

+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2497	<i>Phragmites australis</i>	Common Reed
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	9018	* <i>Salix</i> spp.	Willow

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 36
Site Location: Holm Park Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered eucalypts over a cleared and grazed understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 36

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 37
Site Location: Holm Park Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: 47
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Large remnant at the end of Holm Park Road. This remnant supports a healthy eucalypt overstorey, including old growth individuals and mistletoe; and a dense shrub stratum. The understorey appears to be in relatively good condition (Beveridge Williams and Co 2002).

Principal Management Requirements:

Protect from clearing and grazing; and manage for weeds. Refer to Beveridge Williams and Co (2002) for further recommendations.

Flora species recorded at Site 37

Recs 19 Date : 04 Sep 2003 Location : 145°23'09" 38°02'34"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	123	<i>Acrotriche serrulata</i>	Honey-pots
+	677	<i>Allocasuarina littoralis</i>	Black Sheoak
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	1165	<i>Epacris impressa</i>	Common Heath
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1260	<i>Eucalyptus cephalocarpa</i> s.l.	Silver-leaf Stringybark
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998	<i>Rubus</i> spp.	Bramble
+	3471	* <i>Ulex europaeus</i>	Gorse
+	9236	<i>Wahlenbergia</i> spp.	Bluebell
+	3523	<i>Viminaria juncea</i>	Golden Spray

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 38
Site Location: Holm Park Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 4/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This site appears to contain a large continuous remnant, which forms part of a corridor linking to Beaconsfield Reservoir.

Principal Management Requirements:

Protect from clearing and grazing; and manage for weeds.

Flora species recorded at Site 38

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 39
Site Location: Princes Highway
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 9
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

This isolated remnant is highly degraded and contains many exotic trees and shrubs. There is however some recruitment of eucalypts and the remnant is associated with two large dams, containing fringing vegetation. High weed infestation.

Two large dams with fringing reeds providing habitat for frogs and waterbirds. Potential Growling Grass Frog (*Litoria raniformis*) habitat, although low quality. Fauna species observed: Grey Fantail (*Rhipidura albiscapa*), Suberb Fairy-wren (*Malurus cyaneus*), Magpie-lark (*Grallina cyanoleuca*), Australian Magpie (*Gymnorhina tibicen*), Raven (*Corvus* sp.), Australian White Ibis (*Threskiornis molucca*), Eurasian Coot (*Fulica atra*), Australasian Grebe (breeding and non-breeding plumage) (*Tachybaptus novaehollandiae*), Welcome Swallow (*Hirundo neoxena*), Eastern Rosella (*Platycercus eximius*), Grey Shrike-thrush (*Colluricincla harmonica*), Common Starling* (*Sturnus vulgaris*), Common Blackbird* (*Turdus merula*), Spotted Turtledove* (*Streptopelia chinensis*), European Rabbit* (*Oryctolagus cuniculus*), Red Fox* (*Vulpes vulpes*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Manage for weeds. Maintain dams and aquatic vegetation to support frog populations and water birds.

Flora species recorded at Site 39

Recs 14 Date : 10 Sep 2003 Location : 145°24'04" 38°03'34"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	255	* <i>Arctotheca calendula</i>	Cape Weed
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	825	* <i>Cortaderia selloana</i>	Pampas Grass
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2942	* <i>Romulea rosea</i>	Onion Grass
+	8998	<i>Rubus</i> spp.	Bramble
+	8033	<i>Allocasuarina</i> spp.	Sheoak
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 40
Site Location: Bayview Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Linear remnant following drainage line on private property. Linear remnant on farmland containing eucalypts of fairly young age.

Several trees old enough to provide hollows for fauna. When in flower, these trees provide a potential forage resource for locally common birds such as honeyeaters, parrots and lorikeets. Understorey absent and farm rubbish evident. Trees connected to larger remnant block behind dam at rear of the site, increasing its value as fauna habitat. Fauna species observed: Southern Bullfrog (Pobblebonk Frog) (*Limnodynastes dumerilii*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 40

Recs 6 Date : 10 Sep 2003 Location : 145°24'11" 38°02'45"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	9018	* <i>Salix</i> spp.	Willow
+	8936	* <i>Prunus</i> spp.	Prunus

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	41		
Site Location:	Bayview Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	10/09/2003		
Vegetation Condition Field Assessment:	16		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Wetland (derived) Complex	N/A	N/A

Comments:

Linear remnant following drainage line on private property. Drainage line and pond with good aquatic vegetation. A number of weeds are spreading on the neighbouring road reserve which should be eliminated.

Good quality linear wetland with native aquatic species (e.g. Water-ribbons and Spike- sedge) providing habitat for locally significant frogs and breeding Purple Swamphen (*Porphyrio porphyrio*). Potential Growling Grass Frog (*Litoria raniformis*) habitat. Fauna species observed: Straw-necked Ibis (*Threskiornis spinicollis*), Eurasian Coot (*Fulica atra*), Dusky Moorehen (*Gallinula tenebrosa*), Suberb Fairy-wren (*Malurus cyaneus*), Willie Wagtail (*Rhipidura leucophrys*), Australian Magpie (*Gymnorhina tibicen*), Raven (*Corvus sp.*), Common Mynah* (*Acridotheres tristis*), Common Froglet (*Crinia signifera*).

Principal Management Requirements:

Weed management on neighbouring road reserve. Maintain natural drainage into wetland. Install sediment traps at drains at the Bayview Road cross roads to protect wetland from sedimentation and run off from the dirt roads.

Flora species recorded at Site 41

Recs 7 Date : 10 Sep 2003 Location : 145°24'25" 38°02'52"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1139	<i>Eleocharis acuta</i>	Common Spike-sedge
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	8601	<i>Juncus</i> spp.	Rush
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	3524	* <i>Vinca major</i>	Blue Periwinkle

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 42
Site Location: End of Bayview Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

The understorey of this remnant is degraded in a broad area surrounding the house, however the quality may improve away from the house. Small woodland remnant with disturbed understorey and Sweet Pittosporum (**Pittosporum undulatum*) invasion.

One stag providing hollows for arboreal mammals or nesting birds. Fauna species observed: Red Wattlebird (*Anthochaera carunculata*), Pied Currawong (*Strepera graculina*), Black-faced Cuckoo-shrike (*Coracina novaehollandiae*).

Principal Management Requirements:

Retain hollow-bearing old and dead trees and stags.

Flora species recorded at Site 42

Recs 9 Date : 10 Sep 2003 Location : 145°24'29" 38°02'41"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxydon</i>	Blackwood
+	5175	r <i>Eucalyptus fulgens</i>	Green Scentbark
+	1286	<i>Eucalyptus gonicalyx</i> s.l.	Bundy
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8936	* <i>Prunus</i> spp.	Prunus

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number:	43		
Site Location:	Brown Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	10/09/2003		
Vegetation Condition Field Assessment:	Not applicable		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
Wetland (derived)	Complex	N/A	N/A

Comments:

Farm dam. The adjacent road reserve contains degraded woodland remnant including; Bundy (*Eucalyptus goniocalyx*), Messmate (*Eucalyptus obliqua*), Sweet Pittosporum (**Pittosporum undulatum*), Coast Wattle (**Acacia longifolia* var. *sophorae*), Prunus (*Prunus* sp.) and Black Wattle (*Acacia mearnsii*).

Limited fringing and aquatic vegetation, but providing habitat for amphibian species tolerant of disturbed sites. Common Froglet (*Crinia signifera*), 15 Cattle Egrets (*Ardea ibis*) (some in breeding plumage) observed foraging in inundated paddock adjacent to the dam.

Principal Management Requirements:

Weed management

Flora species recorded at Site 43

Recs 3 Date : 10 Sep 2003 Location : 145°24'58" 38°02'52"

+	1286		<i>Eucalyptus goniocalyx</i> s.l.
+	1304		<i>Eucalyptus obliqua</i>
+	88	#	<i>Acacia longifolia</i> ssp. <i>sophorae</i>

Bundy
Messmate Stringybark
Coast Wattle

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 44
Site Location: Dickie Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 31
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Damp Forest	Least Concern

Comments:

This remnant is associated with some residential dwellings and associated horticultural plantings. The remnant follows a drainage line and includes farm dam providing habitat for frogs and water birds. Some larger hollow-bearing trees evident. Upslope the understorey is cleared and grazed. There is dieback in the tree canopies.

High density of Bell Miners (*Manorina melanophrys*) throughout the remnant. Residents report observing Eastern Grey Kangaroo (*Macropus giganteus*), Common Wombat (*Vombatus ursinus*), Sugar Glider (*Petaurus breviceps*), Australian King Parrot (*Alisterus scapularis*) and Kingfishers, potentially the Sacred Kingfisher (*Halcyon sancta*) from description of observation (Local Resident, Dickie Road, pers. comm.). Other species observed: Eastern Spinebill (*Acanthorhynchus tenuirostris*), Brown Thornbill (*Acanthiza pusilla*), White-throated Treecreeper (*Cormobates leucophaeus*), White-browed Scrubwren (*Sericornis frontalis*), Bell Miner (*Manorina melanophrys*), Pacific Black Duck (*Anas rhynchos*), Little Pied Cormorant (*Phalacrocorax melanoleucos*), Red Wattlebird (*Anthochaera carunculata*), Grey Fantail (*Rhipidura albiscapa*), Superb Fairy-wren (*Malurus cyaneus*), Australian Magpie (*Gymnorhina tibicen*), Welcome Swallow (*Hirundo neoxena*), Eastern Rosella (*Platycercus eximius*), Grey Shrike-thrush (*Colluricincla harmonica*), Common Blackbird* (*Turdus merula*), Common Froglet (*Crinia signifera*).

Principal Management Requirements:

Weed management. Retain hollow-bearing old and dead trees and stags.

Flora species recorded at Site 44

Recs 12 Date : 10 Sep 2003 Location : 145°24'48" 38°02'26"

+	56		<i>Acacia mearnsii</i>	Black Wattle
+	57		<i>Acacia melanoxylon</i>	Blackwood
+	236	*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	1307		<i>Eucalyptus ovata</i>	Swamp Gum
+	1394		<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956		<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2543	#	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777		<i>Pteridium esculentum</i>	Austral Bracken
+	8998		<i>Rubus</i> spp.	Bramble
+	88	#	<i>Acacia longifolia</i> ssp. <i>sophorae</i>	Coast Wattle
+	8936	*	<i>Prunus</i> spp.	Prunus
+	8723		<i>Melaleuca</i> spp.	Honey-myrtle

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 45
Site Location: Officer Water reserve
Land Tenure: Unknown
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 33
EVC Name / Significance:

Grassy Forest	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Endangered	Endangered	Vulnerable

Comments:

Officer Water Reserve. Despite extensive weed invasion (e.g. Blackberry (**Rubus* sp.) and Sweet Pittosporum (**Pittosporum undulatum*), a number of native species are present at this site. Evidence of acacia dieback. This site is continuous with Site 46.

Logs and leaf litter provide good ground cover and potential habitat for small terrestrial mammals such as Bush Rat (*Rattus fuscipes*) and Swamp Rat (*Rattus lutreolus*). The site contains some remnant Swamp Paperbark (*Melaleuca ericifolia*) which provides potential, although low quality, habitat for the State significant (FFG listed) Swamp Skink (*Egernia coventryi*). Evidence of the Common Wombat (*Vombatus ursinus*) throughout this site is common and tracks, scats and burrows were observed. There are several large hollow-bearing trees with active nests/dens in the hollows. Smaller bird nests (probably belonging to wrens or robins) and a Common Ringtail Possum (*Pseudocheirus peregrinus*) drey were also observed. Other fauna species observed: Grey Fantail (*Rhipidura fuliginosa*), Superb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), Magpie-lark (*Grallina cyanoleuca*), Noisy Miner (*Manorina melanocephala*), Red Wattlebird (*Anthochaera carunculata*), Common Blackbird* (*Turdus merula*), European Rabbit* (*Oryctolagus cuniculus*), Red Fox* (*Vulpes vulpes*).

Principal Management Requirements:

The understorey is relatively intact in some areas, however the spread of some highly invasive weeds within the remnant is cause for concern. Weed management is required.

Flora species recorded at Site 45

Recs 27 Date : 10 Sep 2003 Location : 145°25'05" 38°02'51"

+	25	<i>Acacia dealbata</i>	Silver Wattle
+	56	<i>Acacia mearnsii</i>	Black Wattle
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	677	<i>Allocasuarina littoralis</i>	Black Sheoak
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	1036	<i>Dichondra repens</i>	Kidney-weed
+	1165	<i>Epacris impressa</i>	Common Heath
+	1272	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
+	1286	<i>Eucalyptus gonicalyx</i> s.l.	Bundy
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8909	<i>Poa</i> spp.	Tussock Grass
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2942	* <i>Romulea rosea</i>	Onion Grass
+	8998	<i>Rubus</i> spp.	Bramble
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic
+	4420	<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 46
Site Location: Officer Water reserve
Land Tenure: Unknown
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Officer Water Reserve. Despite extensive weed invasion (e.g. Blackberry (**Rubus* sp.) and Sweet Pittosporum (**Pittosporum undulatum*), a number of native species are present at this site. Evidence of acacia dieback. This site is continuous with Site 46.

Logs and leaf litter provide good ground cover and potential habitat for small terrestrial mammals such as Bush Rat (*Rattus fuscipes*) and Swamp Rat (*Rattus lutreolus*). The site contains some remnant Swamp Paperbark (*Melaleuca ericifolia*) which provides potential, although low quality habitat for the State significant (FFG listed) Swamp Skink (*Egernia coventryi*). Evidence of the Common Wombat (*Vombatus ursinus*) throughout this site is common and tracks, scats and burrows were observed. There are several large hollow-bearing trees with active nests/dens in the hollows. Smaller bird nests (probably belonging to wrens or robins) and a Common Ringtail Possum (*Pseudocheirus peregrinus*) drey were also observed in the Tea-tree. Other species observed: Grey Fantail (*Rhipidura fuliginosa*), Suberb Fairy-wren (*Malurus cyaneus*), Spotted Pardalote (*Pardalotus punctatus*), Magpie-lark (*Grallina cyanoleuca*), Noisy Miner (*Manorina melanocephala*), Red Wattlebird (*Anthochaera carunculata*), Common Blackbird* (*Turdus merula*), European Rabbit* (*Oryctolagus cuniculus*), Red Fox* (*Vulpes vulpes*).

Principal Management Requirements:

The understorey is relatively intact in some areas, however the spread of some highly invasive weeds within the remnant is cause for concern. Weed management is required.

Flora species recorded at Site 46

Recs 8 Date : 10 Sep 2003 Location : 145°25'15" 38°02'57"

+	129	<i>Adiantum aethiopicum</i>	Common Maidenhair
+	1050	<i>Dillwynia cinerascens</i> s.l.	Grey Parrot-pea
+	2584	<i>Poa clelandii</i>	Noah's Ark
+	2743	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
+	4420	<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily
+	1856	<i>Kunzea ericoides</i>	Burgan
+	4699	<i>Lepidosperma gunnii</i>	Slender Sword-sedge
+	1965	<i>Leptospermum scoparium</i>	Manuka

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 47
Site Location: Carsons Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 10/09/2003
Vegetation Condition Field Assessment: 46
EVC Name / Significance:

Grassy Forest	Gippsland Plain Bioregion Endangered	Highlands - Southern Fall Bioregion Vulnerable
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Comments:

There are not many remnants of this quality persisting in the study area. Some invasive weeds species are spreading in the neighbouring road reserve and pose a threat to this remnant. Good quality large remnant.

Ground layer and understorey intact, ground debris for reptile habitat and hollow-bearing trees common. Some Sweet Pittosporum (**Pittosporum undulatum*) present and evidence of eucalypt dieback. Fauna species observed: Pied Currawong (*Strepera graculina*), Grey Fantail (*Rhipidura fuliginosa*), Eastern Spinebill (*Acanthorhynchus tenuirostris*), White-eared Honeyeater (*Lichenostomus leucotis*), Brown Treecreeper (*Climacteris picumnus*), Sulphur-crested Cockatoo (*Cactua galerita*), Crimson Rosella (*Platycercus elegans*), Laughing Kookaburra (*Dacelo novaeguineae*), Eastern Grey Kangaroo (*Macropus giganteus*), Common Ringtail Possum (*Pseudocheirus peregrinus*), Short-beaked Echidna (*Tachglossus aculeatus*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Protect from clearing and grazing; and manage for weeds, particularly in the road reserve.

Flora species recorded at Site 47

Recs 36 Date : 10 Sep 2003 Location : 145°25'00" 38°02'32"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	63	<i>Acacia myrtifolia</i>	Myrtle Wattle
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	91	<i>Acacia stricta</i>	Hop Wattle
+	110	<i>Nemacianthus caudatus</i>	Mayfly Orchid
+	1038	<i>Arthropodium strictum</i> s.l.	Chocolate Lily
+	4291	<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry
+	543	<i>Stegostyla praecox</i>	Early Hood
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	726	<i>Chamaescilla corymbosa</i> var. <i>corymbosa</i>	Blue Stars
+	1050	<i>Dillwynia cinerascens</i> s.l.	Grey Parrot-pea
+	1080	<i>Diuris pardina</i>	Leopard Orchid
+	1110	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
+	1165	<i>Epacris impressa</i>	Common Heath
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1504	<i>Goodenia lanata</i>	Trailing Goodenia
+	2042	<i>Lomandra filiformis</i>	Wattle Mat-rush
+	2048	<i>Lomandra multiflora</i> ssp. <i>multiflora</i>	Many-flowered Mat-rush
+	2179	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2569	<i>Platylobium obtusangulum</i>	Common Flat-pea
+	2608	<i>Poa sieberiana</i>	Grey Tussock-grass
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2850	<i>Pultenaea gunnii</i>	Golden Bush-pea
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	973	<i>Joycea pallida</i>	Silvertop Wallaby-grass
+	1705	<i>Hovea heterophylla</i>	Common Hovea
+	3591	<i>Xanthosia dissecta</i> s.l.	Cut-leaf Xanthosia
+	2042	<i>Lomandra filiformis</i>	Wattle Mat-rush
+	1856	<i>Kunzea ericoides</i>	Burgan
+	4439	<i>Acianthus pusillus</i>	Small Mosquito-orchid

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 48
Site Location: McGregor Road
Land Tenure: Unknown
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 24/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Plains Grassland	Endangered
Endangered	Endangered

Comments:

Highly modified remnant of Plains Grassland.

Principal Management Requirements:

A detailed flora and fauna survey is required to determine the flora and fauna values of this site and management recommendations required.

Flora species recorded at Site 48

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 49
Site Location: Pakenham Railway line
Land Tenure: Rail reserve
Data Source: Literature
Data Type: Literature
Data Representation: Polygon
Data Collection Date: 15/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion Swamp Scrub	Endangered	Highlands - Southern Fall Bioregion Endangered
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Comments:

Linear remnant along railway line.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 49

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 50
Site Location: Pakenham Railway line
Land Tenure: Rail reserve
Data Source: Literature
Data Type: Literature
Data Representation: Polygon
Data Collection Date: 15/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Woodland Endangered Vulnerable

Comments:

Isolated, linear remnant along railway line.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 50

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 51
Site Location: Bayview Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/09/2003
Vegetation Condition Field Assessment: 5
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Scattered remnant eucalypts over a cleared and grazed understorey. This site is associated with Site 9.

High potential for Growling Grass Frog (*Litoria reniformis*). Fauna species recorded: Australian Wood Duck (*Chenonetta jubata*), Pacific Black Duck (*Anas superciliosa*), Cattle Egret (*Ardea ibis*), Australian White Ibis (*Threskiornis molucca*), Straw-necked Ibis (*Threskiornis spinicollis*), Purple Swamphen (*Porphyrio porphyrio*), Dusky Moorhen (*Gallinula tenebrosa*), Eurasian Coot (*Fulica atra*), Galah (*Cacatua roseicapilla*), Little Corella (*Cacatua sanguinea*), Rainbow Lorikeet (*Trichoglossus haematodus*), Striated Pardalote (*Pardalotus striatus*), Red Wattlebird (*Anthochaera carunculata*), Magpie-lark (*Grallina cyanoleuca*), Grey Butcherbird (*Cracticus torquatus*), Australian Magpie (*Gymnorhina tibicen*), Little Raven (*Corvus mellori*), Welcome Swallow (*Hirundo neoxena*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 51

Recs 2 Date : 15 Aug 2003 Location : 145°24'23" 38°04'06"

+ 57 *Acacia melanoxylon*

Blackwood

+ 1307 *Eucalyptus ovata*

Swamp Gum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 52
Site Location: Harold Street
Land Tenure: Private property
Data Source: Literature
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 15/09/2003
Vegetation Condition Field Assessment: Not applicable
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Wetland (derived) Complex N/A N/A

Comments:

Growling Grass Frog (*Litoria raniformis*) recorded at this site.

Principal Management Requirements:

Manage for nationally significant Growling Grass Frog (*Litoria raniformis*).

Flora species recorded at Site 52

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 53
Site Location: May Street
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This site contains scattered eucalypts (possibly Bundy (*Eucalyptus goniocalyx*) and Narrow-leaf Peppermint (*Eucalyptus radiata*) amongst residential dwellings and horticultural plantings.

Linear remnant of eucalypts in grazed farmland. These trees contribute to habitat links and "stepping stones" across the landscape and provide habitat for locally common birds species such as cockatoos, galahs, honeyeaters and robins. They also provide a foraging resource when in flower. Their habitat value is enhanced by proximity to a more extensive roadside remnant.

Principal Management Requirements:

Management recommendations not given

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Flora species recorded at Site 53

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	54		
Site Location:	Carsons Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	18/09/2003		
Vegetation Condition Field Assessment:	69		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Shrubby Gully Forest	Vulnerable	Vulnerable

Comments:

Linear remnant along drainage line with good structural vegetation.

Sedgey ground cover and extensive leaf litter and fallen logs providing habitat. Trees generally too young to be producing hollows, but several hollow-bearing trees observed. Habitat for invertebrates and forage resources for birds and reptiles. Invasive plant species in the neighbouring road reserve. Good continuous canopy cover and presence of acacia and eucalypt species providing potential habitat for Sugar Glider (*Petaurus breviceps*), Swamp Wallaby (*Wallabia bicolor*), Eastern Grey Kangaroo (*Macropus giganteus*) and Common Wombat (*Vombatus ursinus*) scats were observed. Potential habitat for native rat species. Common Ringtail Possum (*Pseudocheirus peregrinus*) drey was also observed. A dam provides a watering point for woodland birds as well as providing habitat for the Common Froglet (*Crinia signifera*) and Southern Brown Tree Frog (*Litoria ewingii*).

Other fauna species observed: Eastern Yellow Robin (*Eopsaltria australis*), Brown Thornbill (*Acanthiza pusilla*), Varied Sitella (*Daphoenositta chrysoptera*), White-throated Treecreeper (*Cormobates leucophaeus*), Red Wattlebird (*Anthochaera carunculata*), Grey Fantail (*Rhipidura albiscapa*), Suberb Fairy-wren (*Malurus cyaneus*), Crimson Rosella (adult and juvenile) (*Platycercus elegans*), Grey Shrike-thrush (*Colluricincla harmonica*), Short-beaked Echidna (*Tachyglossus aculeatus*).

Principal Management Requirements:

Access to this site has been an issue in the past. Clearing for fire wood is evident. Dumping of rubbish has degraded the site close to the road and weed invasion as a result of dumped garden waste and escapes from the neighbouring property need to be controlled. This site is continuous with the high quality vegetation of Site 47. Control weeds to stop their spread into adjacent vegetation.

Flora species recorded at Site 54

Recs 28 Date : 18 Sep 2003 Location : 145°25'12" 38°02'32"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	72	<i>Acacia paradoxa</i>	Hedge Wattle
+	91	<i>Acacia stricta</i>	Hop Wattle
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	129	<i>Adiantum aethiopicum</i>	Common Maidenhair
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1110	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
+	1165	<i>Epacris impressa</i>	Common Heath
+	3732	<i>Eucalyptus goniocalyx</i> s.s.	Bundy
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	8653	<i>Lepidosperma</i> spp.	Sword Sedge
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3303	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	2802	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
+	3638	* <i>Agapanthus praecox</i> ssp. <i>orientalis</i>	Agapanthus
+	5367	* <i>Freesia alba</i>	White Freesia
+	8336	<i>Dillwynia</i> spp.	Parrot Pea
+	1965	<i>Leptospermum scoparium</i>	Manuka

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 55
Site Location: Toomuc Creek - Toomuc Valley Road
Land Tenure: Melbourne Water
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Linear remnant following Toomuc Creek. This site has been highly degraded due to vegetation clearing, dumping of rubbish, soil erosion, and weed invasion. Toomuc Creek has been the focus of revegetation efforts by Melbourne Water. Revegetation success varies, with some planted species are dead or in bad condition. Some revegetation areas are overrun with weeds.

Riparian habitat degraded and impacted by weeds. Toomuc Creek provides potential habitat for the native Water Rat (*Hydromys crysogaster*). Some large hollow-bearing trees remain and provide nesting habitat for birds such as galahs, parrots and lorikeets as well as roost habitat for bats. Canopy cover of remnant eucalypts considered too inconsistent and understorey too degraded to support Sugar Glider (*Petaurus breviceps*). Fauna species observed: Grey Fantail (*Rhipidura albiscapa*), Magpie-lark (*Grallina cyanoleuca*), Australian Magpie (*Gymnorhina tibicen*), Red Wattlebird (*Anthochaera carunculata*), Raven (*Corvus* sp.), Common Blackbird* (*Turdus merula*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Weed control is imperative to ensure 'new plantings' survival. Control rubbish dumping along the creek.

Flora species recorded at Site 55

Recs 20 Date : 18 Sep 2003 Location : 145°27'59" 38°03'24"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1422	* <i>Genista monspessulana</i>	Montpellier Broom
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2497	<i>Phragmites australis</i>	Common Reed
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8936	* <i>Prunus</i> spp.	Prunus
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia
+	3524	* <i>Vinca major</i>	Blue Periwinkle
+	8327	<i>Dianella</i> spp.	Flax Lily
+	770	* <i>Chrysanthemoides monilifera</i>	Boneseed
+	3599	* <i>Zantedeschia aethiopica</i>	White Arum-lily
+	3448	<i>Triglochin procerum</i> s.l.	Water Ribbons

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 56
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: 10
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Woodland Endangered Vulnerable

Comments:

Scattered eucalypts over a cleared and grazed understorey. Grazed remnant opposite Toomuc Creek.

No understorey, fallen timber has been gathered and piled up decreasing its value as fauna habitat. Several larger trees are providing hollows and different sized spouts for bird and bat habitat. Proximity to Toomuc Creek and adjacent remnant increases the habitat value of this remnant of scattered paddock trees.

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 56

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 57
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swamp Scrub	Endangered

Comments:

Small remnant following drainage line. Probably dominated by Swamp Paperbark (*Melaleuca ericifolia*).

Farm dam nearby provides habitat for frogs and the Southern Bullfrog (*Limnodynastes dumerilii*) was recorded here.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 57

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 58
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered trees and shrubs over a cleared and grazed understorey. This vegetation is continuous with that to north, which appears to be of higher quality. Scattered eucalypts in grazed paddock. Close to Site 59.

This site provides limited fauna habitat. It is heavily grazed with no understorey. Tree density is low with infrequent hollows. Fauna species observed: Black-shouldered Kite (*Elanus axillaris*).

Principal Management Requirements:

Encourage recruitment. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 58

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 59
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Riparian Endangered Depleted

Comments:

Scattered trees and shrubs over a cleared and grazed understorey. This vegetation is continuous with that to north, which appears to be of higher quality. Scattered eucalypts in grazed paddock. Close to Site 58.

This site provides limited fauna habitat. It is heavily grazed with no understorey. Tree density is low with infrequent hollows.

Principal Management Requirements:

Encourage recruitment. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 59

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 60
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Large remnant of Grassy Forest which is continuous with sites 58, 59, and 63.

Principal Management Requirements:

Large, continuous remnants contribute to the overall integrity of the vegetation and fauna habitat of the broader area. Protect this vegetation from clearing and grazing where possible. Weed management may be required.

Flora species recorded at Site 60

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 61
Site Location: Toomuc Valley Road
Land Tenure: Melbourne Water
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: 24
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Linear remnant following Toomuc Creek. Toomuc Creek. Better quality section of Toomuc Creek compared to Site 55.

Better quality instream habitat including logs, rocks and riffles. Potential habitat for frogs and Water Rat (*Hydromys chrysogaster*). Habitat potential is compromised by weed invasions. Remnant Manna Gums (*Eucalyptus viminalis*) provide good sized hollow for fauna and forage resource for birds. Fauna species observed: Red Wattlebird (*Anthochaera carunculata*), White-browed Scrubwren (*Sericornis frontalis*), Grey Fantail (*Rhipidura albiscapa*), Common Blackbird* (*Turdus merula*).

Principal Management Requirements:

Weed management

Flora species recorded at Site 61

Recs 7 Date : 18 Sep 2003 Location : 145°27'41" 38°02'34"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	2497	<i>Phragmites australis</i>	Common Reed
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 62
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: 26
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Scattered eucalypts (possibly Bundy (*Eucalyptus goniocalyx*) and Messmate (*Eucalyptus obliqua*) in a grazed paddock. This site grades into Swampy Woodland of Site 61. Remnant opposite Toomuc Creek at Site 61.

Weedy and grazed understorey but good density of remnant eucalypts with fallen timber, fallen dead trees and logs providing habitat for reptiles and invertebrates. Fauna species observed: Eastern Grey Kangaroo (*Macropus giganteus*), Australian Wood Duck (*Chenonetta jubata*), White-faced Heron (*Egretta novaehollandiae*), Red Wattlebird (*Anthochaera carunculata*).

Principal Management Requirements:

Encourage recruitment. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 62

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 63
Site Location: Toomuc Valley Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Lowland Forest Vulnerable Least Concern

Comments:

Large remnant of Lowland Forest following aqueduct. This site is continuous with 58, 59, and 60.

Principal Management Requirements:

Large, continuous remnants contribute to the overall integrity of the vegetation and fauna habitat of the broader area. Protect this vegetation from clearing and grazing where possible. Weed management may be required.

Flora species recorded at Site 63

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 64
Site Location: Mulcahy Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Isolated remnants surrounded by grazed paddocks. The understorey of the remnant has been cleared and is grazed. Small grazed remnant surrounding private residence. No understorey therefore provides limited habitat for fauna.

Principal Management Requirements:

Encourage recruitment. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 64

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 65
Site Location: Brown Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: 17
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Small remnant of scattered eucalypts (possibly Swamp Gum (*Eucalyptus ovata*) grading into Bundy (*Euclayptus goniocalyx*) over an exotic, grazed understorey. Small patch of Swamp Gums (*Eucalyptus ovata*) in horse paddock.

Trees being utilised by locally common birds such as Australian Wood Duck (*Chenonetta jubata*). Trees provide several hollows and habitat for birds and potentially bats. One hollow occupied by nesting Noisy Miner (*Manorina melanocephala*) and one large stick nest, probably belonging to a corvid or Australian Magpie (*Gymnorhina tibicen*) was observed. A dam adjacent to this site provides habitat for frogs and common water birds. Other species observed: Masked Lapwing (*Vanellus miles*), Welcome Swallow (*Hirundo neoxena*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage recruitment. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 65

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 66
Site Location: Short Lane
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/09/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Lowland Forest	Least Concern

Comments:

Large remnant containing larger mature eucalypts. Sweet Pittosporum (**Pittosporum undulatum*) invading understorey from the edges of the remnant. This site is continuous with Sites 109 and 110, including the Bunyip Main Race.

Fauna species observed: Australian Wood Duck (*Chenonetta jubata*), Red Wattlebird (*Anthochaera carunculata*), Laughing Kookaburra (*Dacelo novaeguineae*), Grey Fantail (*Rhipidura fuliginosa*).

Principal Management Requirements:

Weed management

Flora species recorded at Site 66

No records

Site Number:	67		
Site Location:	Ahern Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	Not known		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
Wetland (derived) Complex	N/A	N/A	

Farm dam with fringing vegetation, surrounded by eucalypts and sheoaks.

Principal Management Requirements:

Weed management

Flora species recorded at Site 67

Recs 5 Date : 16 Oct 2003 Location : 145°29'09" 38°03'38"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8033	<i>Allocasuarina</i> spp.	Sheoak

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 68
Site Location: Ahern Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 21
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

This site contains some old growth trees over a degraded understorey. It adjoins a cleared area carrying scattered acacias and appears to be designated for future residential development. The houses of this development will back right onto this remnant, further increasing degrading pressures.

Native ground cover species provides potential habitat for native rodents. Bark has been stripped from several eucalypts, evidence that Yellow-tailed Black-Cockatoo (*Calyptorhynchus funereus*) may utilise the site for feeding. Linkages to adjacent remnants in this area increase the remnant's habitat potential and continuity/proximity to Sites 69, 70 and 71 create potential habitat "stepping stones" which may benefit native fauna, particularly birds.

Fauna species observed: Australian Magpie (*Gymnorhina tibicen*), Grey Fantail (*Rhipidura albiscapa*), New Holland Honeyeater (*Phylidonyris novaehollandiae*), Common Starling* (*Turdus vulgaris*), Common Mynah* (*Acridotheres tritis*), Common Ringtail Possum (*Pseudocheirus peregrinus*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 68

Recs 17 Date : 16 Oct 2003 Location : 145°28'52" 38°03'36"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	1036	<i>Dichondra repens</i>	Kidney-weed
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1748	* <i>Hypochoeris radicata</i>	Cat's Ear
+	2179	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	2942	* <i>Romulea rosea</i>	Onion Grass
+	8998	<i>Rubus</i> spp.	Bramble
+	4420	<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily
+	8660	<i>Leptospermum</i> spp.	Tea Tree
+	2042	<i>Lomandra filiformis</i>	Wattle Mat-rush
+	3289	<i>Austrostipa rudis</i>	Veined Spear-grass

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	69		
Site Location:	Ahern Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	24		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Grassy Forest	Endangered	Vulnerable

Comments:

This large remnant contains a highly degraded understorey which probably has a history of grazing. Sweet Pittosporum (*Pittosporum undulatum*) forms a major component of the understorey cover and will be contributing to the loss of understorey species and a change in vegetation structure. Residential development is encroaching on this remnant.

Scattered logs and patches of natural ground cover (e.g. sedges) provide low quality habitat for common reptiles. Some larger trees and stags observed, but few hollows present. This remnant is dominated by Bell Miners (*Manorina melanophrys*) and introduced species such as the Common Mynah* (*Acridotheres tristis*) that is common from degraded native vegetation. Linkages to adjacent remnants in this area increase the remnant's habitat potential and continuity/proximity to Sites 68, 70 and 71 create potential habitat "stepping stones" which may benefit native fauna, particularly birds.

Other observed fauna species: Gang-gang Cockatoo (*Callocephalon fimbriatum*), Suberb Fairy-wren (*Malurus cyaneus*), Australian Magpie (*Gymnorhina tibicen*), Magpie-lark (*Grallina cyanoleuca*), Rufous Whistler (*Pachcephala rufiventris*), Laughing Kookaburra (*Dacelo novaeguineae*), Spotted Turtledove* (*Streptopelia chinensis*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 69

Recs 9 Date : 16 Oct 2003 Location : 145°28'57" 38°03'30"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	255	* <i>Arctotheca calendula</i>	Cape Weed
+	3732	<i>Eucalyptus gonicalyx</i> s.s.	Bundy
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	70		
Site Location:	Ahern Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	19		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Grassy Forest	Endangered	Vulnerable

Comments:

This large remnant contains a highly degraded understorey which probably has a history of grazing. Sweet Pittosporum (*Pittosporum undulatum*) forms a major component of the understorey cover and will be contributing the loss of understorey species and a change in vegetation structure. Although some large old growth eucalypts are present, dieback is evident in the eucalypt canopies. Some old growth eucalypts, in adjoining paddocks, over a grazed understorey area are associated with this site.

Larger, hollow-bearing trees and stags observed. Linkages to adjacent remnants in this area increase the remnant's habitat potential and continuity/proximity to Sites 68, 69, 71 & 73 create potential habitat "stepping stones" which may benefit native fauna, particularly birds. Bell Miners (*Manorina melanophrys*) are abundant as in Site 69 and would be aggressively excluding other woodland native bird species. Two farm dams nearby provide frog habitat as well as containing remnant Tea Tree and fringing reeds. Low quality but potential site for Swamp Skink (*Egernia coventryi*).

Other fauna species observed: Australian Wood Duck (*Chenonetta jubata*), Welcome Swallow (*Hirundo neoxena*), Eastern Rosella (*Platycercus eximius*), Brown Thornbill (*Acanthiza pusilla*), White-browed Scrubwren (*Sericornis frontalis*), Common Blackbird* (*Turdus merula*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site70

Recs 8 Date : 16 Oct 2003 Location : 145°28'59" 38°03'20"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	3732	<i>Eucalyptus goniocalyx</i> s.s.	Bundy
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	8653	<i>Lepidosperma</i> spp.	Sword Sedge
+	8660	<i>Leptospermum</i> spp.	Tea Tree

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 71
Site Location: Ahern Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 18
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered trees (possibly Bundy (*Eucalyptus goniocalyx*) and Messmate (*Eucalyptus obliqua*) over a degraded understorey. This vegetation is continuous with that of Site 72.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 71

Recs 2 Date : 16 Oct 2003 Location : 145°29'10" 38°03'03"

+ 1286 *Eucalyptus goniocalyx* s.l.

Bundy

+ 2543 # *Pittosporum undulatum*

Sweet Pittosporum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	72		
Site Location:	Pakenham Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	32		
EVC Name / Significance:	Gippsland Plain Bioregion Lowland Forest	Highlands - Southern Fall Bioregion Vulnerable	Least Concern

Comments:

This site forms part of an extensive band of vegetation (Sites 71 and 78) in the area. The site faces many pressures including; clearing and weed invasion. Residential houses also back onto the east side of the remnant. Parts of this vegetation (if not all) probably have a history of grazing. Remnant vegetation is being encroached by housing development. Cleared, grazed and exotic understorey, but trees in good condition providing continuous canopy. Little to no natural recruitment or ground debris.

Eastern Grey Kangaroos (*Macropus giganteus*) are utilising this remnant and move out from here onto the grassy flats surrounding the housing development to feed. Seven individuals were observed.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites to from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Retain fallen timber and dead/senescing trees. Erect road signs warning of kangaroos and investigate a low maximum speed limit of 40 km per hour along Bellbird Crescent and the new housing development to reduce risk of vehicle collisions with kangaroos. Avoid the use of barbed wire or chicken-wire fencing so as not to restrict kangaroo movements.

Flora species recorded at Site 72

Recs 7 Date : 16 Oct 2003 Location : 145°29'26" 38°02'57"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 73
Site Location: Pakenham Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered eucalypts over a grazed understorey form a stepping stone between Sites 70 and 71.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites to from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area.

Flora species recorded at Site 73

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 74
Site Location: Highland Crescent
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 10
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Nine, scattered old growth eucalypts in yet to be developed residential estate. Some trees are > 1m DBH.

These eucalypts provide hollows and spouts for nesting birds, but are currently occupied by the aggressive and territorial Common Starling* (*Sturnus vulgaris*) and Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Retain eucalypts if possible.

Flora species recorded at Site 74

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 75
Site Location: Highland Crescent
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 6
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered eucalypts and acacias in grazed paddocks. This property adjoins a developing residential estate.

Two of the seven trees in this group are old enough to provide hollows. Limited value for native fauna given the common occurrence of aggressive, introduced birds competing for limited and isolated hollows.

Principal Management Requirements:

Retain eucalypts if possible.

Flora species recorded at Site 75

Recs 2 Date : 16 Oct 2003 Location : 145°28'36" 38°03'37"

- | | | | |
|---|------|--------------------------------|------------------------|
| + | 56 | <i>Acacia mearnsii</i> | Black Wattle |
| + | 1313 | <i>Eucalyptus radiata</i> s.l. | Narrow-leaf Peppermint |

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 76
Site Location: Balmoral Way - Drainage line crossing
Land Tenure: Unknown
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 4
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Small, linear remnant following drainage line. Some eucalypts persisting over a mostly exotic understorey.

Fauna species observed: Spotted Turtledove* (*Streptopelia chinensis*), Common Mynah* (*Acridotheres tristis*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 76

Recs 7 Date : 16 Oct 2003 Location : 134°04'27" 84°37'57"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	8998	<i>Rubus</i> spp.	Bramble
+	9018	* <i>Salix</i> spp.	Willow
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 77
Site Location: Pakenham Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Damp Heathy Woodland Vulnerable Depleted

Comments:

Scattered eucalypts in grazed paddocks. The understorey appears to be very degraded.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 77

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 78
Site Location: Pakenham Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This site was recorded as a site of local significance by the Department of Conservation, Forests and Land (1989). It is described as sclerophyll woodland above a small sand quarry. The scrub layer is sparse and there is evidence of moderate burning from the 1983 fire. The ground layer has a relatively wide variety of herbs. The site was considered to be significant because of the sensitivity of sclerophyll woodland to disturbance and because of the rarity of this vegetation type in the corridor outside the area around Beaconsfield Reservoir.

Principal Management Requirements:

The site forms a large and important component of the belt of vegetation in the area. Access to this site was not possible, and the most recent data collected was in 1989 by the Department of Conservation, Forests and Lands. The site has recently been disturbed as a result of clearing. Furthermore, residential development is encroaching on the remnant to the west. Data should be collected to determine the quality of the vegetation and fauna habitat of the site to establish the management requirements of the site.

Flora species recorded at Site 78

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 79
Site Location: Pakenham Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Lowland Forest Vulnerable Least Concern

Comments:

Scattered trees over a grazed, exotic understorey. The site is continuous with Sites 72 and 78.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area.

Flora species recorded at Site 79

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 80
Site Location: Pakenham Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Remnant trees (possibly Narrow-leaf Peppermint (*Eucalyptus radiata*)) surrounding a residential dwelling and surrounding paddocks. The understorey is exotic and grazed. Remnant patch of eucalypts around private residence and associated linear remnant with no understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 80

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	81		
Site Location:	Deep reek		
Land Tenure:	Melbourne Water		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	4		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
Swampy Riparian Woodland	Endangered	Depleted	

Comments:

This linear remnant contains some old growth Manna Gum (*Eucalyptus viminalis* ssp. *viminalis*) (up to 1m DBH) and Swamp Paperbark (*Melaleuca ericifolia*) following a drainage line. The surrounding grazed paddocks contain scattered Messmate (*Eucalyptus obliqua*) which are also included in the site. Revegetation towards Princes Highway end of creek has died.

Scattered mature Manna Gums providing hollows for bats and nesting birds as well as potential perches/roost areas for raptors and/or owls. Adjacent farmland cleared and grazed to the edge of the creek banks is causing erosion. Holes in bare creek bank have been utilised as nest sites by birds, probably martins or swallows (*Hirundo* spp.).

Fauna species observed: Eastern Whipbird (*Psophodes olivaceus*), Galah (*Eolophus roseicapillus*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), White-faced Heron (*Egretta novaehollandiae*), Straw-necked Ibis (*Threskiornis spinicollis*), Welcome Swallow (*Hirundo neoxena*), Red Wattlebird (*Anthochaera carunculata*), Bell Miner (*Manorina melanophrys*), Pacific Black Duck (*Anas superciliosa*), Noisy Miner (*Manorina melanocephala*), Common Blackbird* (*Turdus merula*), Spotted Turtledove* (*Streptopelia chinensis*), Common Starling* (*Sturnus vulgaris*), European Rabbit* (*Oryctolagus cuniculus*).

Principal Management Requirements:

The eucalypts in the surrounding paddocks are cattle damaged. Protect existing trees and encourage recruitment by fencing.

Flora species recorded at Site 81

Recs 41 Date : 16 Oct 2003 Location : 145°27'39" 38°03'27"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	223	* <i>Anagallis arvensis</i>	Pimpernel
+	255	* <i>Arctotheca calendula</i>	Cape Weed
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	495	* <i>Briza maxima</i>	Large Quaking-grass
+	500	* <i>Bromus diandrus</i>	Great Brome
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	4420	<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily
+	1030	<i>Dianella tasmanica</i>	Tasman Flax-lily
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1353	<i>Exocarpos strictus</i>	Pale-fruit Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1507	<i>Goodenia ovata</i>	Hop Goodenia
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2179	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
+	2312	<i>Olearia lirata</i>	Snowy Daisy-bush
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3471	* <i>Ulex europaeus</i>	Gorse
+	53	# <i>Acacia longifolia</i> ssp. <i>longifolia</i>	Sallow Wattle
+	179	* <i>Allium triquetrum</i>	Three-corner Garlic
+	2387	* <i>Oxalis pes-caprae</i>	Soursob
+	2919	* <i>Rapistrum rugosum</i>	Giant Mustard
+	9065	* <i>Silene</i> spp.	Catchfly
+	9223	* <i>Vulpia</i> spp.	Fescue
+	5053	* <i>Vicia sativa</i> ssp. <i>nigra</i>	Narrow-leaf Vetch
+	823	* <i>Coprosma repens</i>	Mirror Bush
+	8936	* <i>Prunus</i> spp.	Prunus
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia
+	3599	* <i>Zantedeschia aethiopica</i>	White Arum-lily
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom
+	8924	* <i>Populus</i> spp.	Poplar
+	9099	<i>Austrostipa</i> spp.	Spear Grass

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number:	82	
Site Location:	Deep Creek Road	
Land Tenure:	Private property	
Data Source:	On-site survey	
Data Type:	Not applicable	
Data Representation:	Polygon	
Data Collection Date:	16/10/2003	
Vegetation Condition Field Assessment:	Not applicable	
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Wetland (derived) Complex	N/A	N/A

Comments:

This site includes two farm dams on either side of Deep Creek Road. Remnant patch of eucalypts around private residence and associated linear remnant with no understorey.

Two large farm dams providing habitat for at least two locally common frog species, Southern Bullfrog (*Limnodynastes dumerilii*) and Common Froglet (*Crinia signifera*), and potentially the nationally significant Growling Grass Frog (*Litoria raniformis*). The dams have little fringing vegetation, but one is lined with sand bags which may be providing suitable refuge for frogs.

Other fauna species observed: Hardhead (*Aythya australis*) (State significant, Vulnerable in Victoria, DSE 2003), Eurasian Coot (*Fulica atra*), Welcome Swallow (*Hirundo neoxena*), Pacific Black Duck (*Anas superciliosa*), Masked Lapwing (*Vanellus miles*), Galah (*Eolophus roseicapillus*), European Goldfinch* (*Carduelis carduelis*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 82

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 83
Site Location: Deep Creek
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Riparian Endangered Depleted

Comments:

Riparian remnant along Deep Creek

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 83

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number:	84		
Site Location:	Deep Creek Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Not applicable		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	Not known		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Grassy Forest	Endangered	Vulnerable

Comments:

Scattered eucalypts in grazed paddocks. The understorey appears to be very degraded.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 84

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 85
Site Location: Deep Creek Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian Complex	Endangered
Endangered	Endangered

Comments:

Large Swamp Scrub (*Melaleuca ericifolia*) remnant following drainage line.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 85

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 86
Site Location: Deep Creek Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

This site has been grazed and hence the diversity of the understorey has been depleted. Some understorey species persist near the fenceline, where the adjoining road reserve carries quality vegetation. Weed control should be carried out in the road reserve. Dieback is evident in the canopy of the eucalypts and much fallen timber is present within the site.

The continuity of the vegetation with other sites increases the habitat value despite grazing impacts and the individual low quality habitat. Trees appear of uniform age, too young to be producing hollows and understorey is largely absent due to grazing pressures. Fauna species observed: Long-billed Corella (*Cacatuatenuirostris*), Galah (*Eolophus roseicapillus*), Eastern Rosella (*Platycercus eximius*), Grey Fantail (*Rhipidura albiscapa*), Brown Thornbill (*Acanthiza pusilla*), Striated Thornbill (*Acanthiza lineata*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

This site is continuous with Sites 87 and 88. The continuity of these sites should be protected.

Flora species recorded at Site 86

Recs 5 Date : 16 Oct 2003 Location : 145°31'13" 38°02'54"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	8354	<i>Drosera</i> spp.	Sundew
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	2777	<i>Pteridium esculentum</i>	Austral Bracken

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 87
Site Location: Deep Creek Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 17
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Heathy Woodland	Least Concern

Comments:

This remnant carries eucalypts over a grazed understorey. Woodland remnant continuous with Sites 86 and 88. The continuity of these sites increases their habitat value despite grazing impacts and the individual low quality habitat.

Trees appear of uniform age, too young to be producing hollows and understorey is largely absent due to grazing pressures. Species observed: Long-billed Corellas (*Cacatua tenuirostris*), Galah (*Eolophus roseicapillus*), Eastern Rosella (*Platycercus eximius*), Grey Fantail (*Rhipidura albiscapa*), Brown Thornbill (*Acanthiza pusilla*), Striated Thornbill (*Acanthiza lineata*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

This site is continuous with Sites 86 and 88. The continuity of these sites should be protected.

Flora species recorded at Site 87

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	88		
Site Location:	Deep Creek Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Not applicable		
Data Representation:	Polygon		
Data Collection Date:	16/10/2003		
Vegetation Condition Field Assessment:	16		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Swampy Riparian Complex	Endangered	Endangered

Comments:

This remnant carries eucalypts over a grazed understorey. Woodland remnant continuous with Sites 86 and 87. The continuity of these sites increases their habitat value despite grazing impacts and the individual low quality habitat.

Trees appear of uniform age, too young to be producing hollows and understorey is largely absent due to grazing pressures. Species observed: Long-billed Corellas (*Cacatua tenuirostris*), Galah (*Eolophus roseicapillus*), Eastern Rosella (*Platycercus eximius*), Grey Fantail (*Rhipidura albiscapa*), Brown Thornbill (*Acanthiza pusilla*), Striated Thornbill (*Acanthiza lineata*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

This site is continuous with Sites 86 and 87. The continuity of these sites should be protected.

Flora species recorded at Site 88

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 89
Site Location: Norris Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Riparian Thicket	Vulnerable

Comments:

Linear remnant along tributary of Deep Creek containing remnant Swamp Gum (*Eucalyptus ovata*) and Swamp Paperbark (*Melaleuca ericifolia*).

Grazed and weedy understorey decreases habitat value. This site is continuous with Site 90, as well as having some continuity with Site 88 via good quality roadside vegetation. Fauna species observed: Eastern Rosella (*Platycercus eximius*), Noisy Miner (*Manorina melanocephala*), Common Blackbird* (*Turdus merula*), Common Starling* (*Sturnus vulgaris*) and Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 89

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 90
Site Location: Norris Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 18
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Riparian vegetation following drainage line. This site is continuous with Site 89, but is surrounded by grazed pasture. Some areas have been fenced, but in other areas the trees are ring barked from grazers. Site is continuous with Site 89 and may provide potential habitat for Sugar Glider (*Petaurus breviceps*) and is an important riparian corridor for the region.

Principal Management Requirements:

Protect from grazing.

Flora species recorded at Site 90

Recs 11 Date : 16 Oct 2003 Location : 145°31'23" 38°02'41"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom
+	8936	* <i>Prunus</i> spp.	Prunus
+	1370	* <i>Foeniculum vulgare</i>	Fennel

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 91
Site Location: Settlement Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 11
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Scattered eucalypts around a farm dam.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 91

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	92
Site Location:	Settlement Road
Land Tenure:	Private property
Data Source:	On-site survey
Data Type:	Species list
Data Representation:	Polygon
Data Collection Date:	16/10/2003
Vegetation Condition Field Assessment:	Not applicable
EVC Name / Significance:	Gippsland Plain Bioregion Highlands - Southern Fall Bioregion
Wetland (derived) Complex	N/A N/A

Comments:

Some old growth Manna Gum (*Eucalyptus viminalis* ssp. *viminalis*) fringing a farm dam.

Farm dam providing habitat for frogs and common water birds, despite sparse aquatic and fringing vegetation. Fauna species observed: Suberb Fairy-wren (*Malurus cyaneus*), Laughing Kookaburra (*Dacelo novaeguineae*), Eurasian Coot (*Fulica atra*), Dusky Moorehen (*Gallinula tenebrosa*), Galah (*Eolophus roseicapillus*), Australian Magpie (*Gymnorhina tibicen*), Common Eastern Froglet (*Crinia signifera*), Striped Marsh Frog (*Limnodynastes peronii*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 92

Recs 5 Date : 16 Oct 2003 Location : 145°30'42" 38°02'44"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1353	<i>Exocarpos strictus</i>	Pale-fruit Ballart
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 93
Site Location: Settlement Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 13
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian Complex	Endangered
Endangered	Endangered

Comments:

Manna Gum (*Eucalyptus viminalis* ssp. *viminalis*) following creek over exotic shrubs. Scattered eucalypts in adjoining paddocks are included in this site.

Fauna species observed: Magpie-lark (*Grallina cyanoleuca*), Australian Magpie (*Gymnorhina tibicen*), Grey Fantail (*Rhipidura albiscapa*), Long-billed Corella (*Cacatua tenuirostris*), Common Bronzewing (*Phaps chalcoptera*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 93

Recs 8 Date : 16 Oct 2003 Location : 145°30'41" 38°02'40"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	3468	<i>Typha domingensis</i>	Narrow-leaf Cumbungi
+	9018	* <i>Salix</i> spp.	Willow
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 94
Site Location: Army Settlement Road - Deep Creek crossing
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 23
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Riparian Forest	Least Concern

Comments:

Linear remnant following Deep Creek. Some good sized Manna Gum (*Eucalyptus viminalis* ssp. *viminalis*) with patches of Swamp Paperbark (*Melaleuca ericifolia*) but a mostly exotic understorey.

Moderate quality riparian vegetation continuous with Site 95 and providing an important riparian corridor for the region. Remnant large Manna Gums providing hollows and spouts for nesting birds and arboreal mammals (e.g. bats, Common Brushtail Possum (*Trichosurus vulpecular*), Sugar Glider (*Petaurus breviceps*). Largely exotic understorey, but patches of Swamp Paperbark and some acacias persist. The patch of Swamp Paperbark is of low quality and is unlikely to support the State significant Swamp Skink (*Egernia coventryi*), but may provide habitat for native rodents or more common reptiles.

Fauna species observed: Grey Fantail (*Rhipidura albiscapa*), Suberb Fairy-wren (*Malurus cyaneus*), Australian Magpie (*Gymnorhina tibicen*), White-browed Scrubwren (*Sericornis frontalis*), White-eared Honeyeater (*Lichenostomus leucotis*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 94

Recs 22 Date : 16 Oct 2003 Location : 145°30'18" 37°59'44"

+	56		<i>Acacia mearnsii</i>	Black Wattle
+	57		<i>Acacia melanoxydon</i>	Blackwood
+	274	*	<i>Asparagus asparagoides</i>	Bridal Creeper
+	666		<i>Cassinia aculeata</i>	Common Cassinia
+	822		<i>Coprosma quadrifida</i>	Prickly Currant-bush
+	1323		<i>Eucalyptus viminalis</i>	Manna Gum
+	1394		<i>Gahnia radula</i>	Thatch Saw-sedge
+	1407	r	<i>Galium curvifolium</i>	Tight Bedstraw
+	1692	*	<i>Holcus lanatus</i>	Yorkshire Fog
+	1748	*	<i>Hypochoeris radicata</i>	Cat's Ear
+	8601		<i>Juncus</i> spp.	Rush
+	2046		<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147		<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	#	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777		<i>Pteridium esculentum</i>	Austral Bracken
+	8998		<i>Rubus</i> spp.	Bramble
+	9018	*	<i>Salix</i> spp.	Willow
+	1421	*	<i>Genista linifolia</i>	Flax-leaf Broom
+	3562	*	<i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia
+	8653		<i>Lepidosperma</i> spp.	Sword Sedge
+	2387	*	<i>Oxalis pes-caprae</i>	Soursob
+	276	*	<i>Asparagus scandens</i>	Asparagus Fern

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 95
Site Location: Army Settlement Road - Deep Creek crossing
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 15
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

Eucalypts over a grazed understorey. This site is continuous with Site 94. Understorey grazed and weedy with overstorey of uniform young age class and not yet producing hollows.

Limited natural debris on the ground. Fauna species observed: Grey Fantail (*Rhipidura fuliginosa*), Australian Magpie (*Gymnorhina tibicen*), Long-billed Corella (*Cacatua tenuirostris*), Willie Wagtail (*Rhipidura leucophrys*), Eastern Whipbird (*Psophodes olivaceus*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 95

Recs 5 Date : 16 Oct 2003 Location : 145°30'03" 38°02'33"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1286	<i>Eucalyptus gonicalyx</i> s.l.	Bundy
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 96
Site Location: Army Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 19
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

Grazed remnant continuous with tributary of Deep Creek.

Remnant trees provide forage resource for birds when flowering as well as several hollows for nesting sites. Fauna species observed: Australian Wood Duck (*Chenonetta jubata*), six Eastern Grey Kangaroos (*Macropus giganteus*), European Rabbit* (*Oryctolagus cuniculus*), Cat* (*Felis catus*).

Management Requirements:

Management recommendations not given.

Flora species recorded at Site 96

Recs 5 Date : 16 Oct 2003 Location : 145°29'50" 38°02'52"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 97
Site Location: Army Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Lowland Forest Vulnerable Least Concern

Comments:

Lowland forest continuous with Swampy Riparian Woodland of site 96.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 97

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 98
Site Location: Bellbird Crescent
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Woodland Endangered Vulnerable

Comments:

Drainage line with remnant Swamp Paperbark (*Melaleuca ericifolia*) and Swamp Gum (*Eucalyptus ovata* var. *ovata*). There are several large specimens.

Remnant vegetation provides good habitat and refuge for frogs, however the two remnants of Swamp Paperbark are narrow, isolated and impacted by grazing, decreasing potential for additional wildlife habitat. Fauna species observed: Common Blackbird* (*Turdus merula*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Protect from grazing. Weed management and monitoring of revegetation efforts. Refer to Kern (2003).

Flora species recorded at Site 98

Recs 6 Date : 16 Oct 2003 Location : 145°29'33" 38°02'59"

+	56		<i>Acacia mearnsii</i>	Black Wattle
+	0867	*	<i>Crataegus monogyna</i>	Hawthorn
+	1307		<i>Eucalyptus ovata</i>	Swamp Gum
+	1313		<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1394		<i>Gahnia radula</i>	Thatch Saw-sedge
+	2147		<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	*	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998		<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 99
Site Location: Army Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Eucalypts over a cleared understorey.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 99

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 100
Site Location: Army Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This site is continuous with Site 101. However, there appears to be dieback in the canopies and death of the eucalypts and acacias. Remnant vegetation continuous with Site 101. See Site 101 for details.

Principal Management Requirements:

Biological survey in this commercial property will provide better knowledge of flora and fauna values.

Flora species recorded at Site 100

Recs 6 Date : 16 Oct 2003 Location : 145°29'51" 38°03'31"

+	56		<i>Acacia mearnsii</i>	Black Wattle
+	2147		<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	#	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998		<i>Rubus</i> spp.	Bramble
+	179	*	<i>Allium triquetrum</i>	Three-corner Garlic
+	1421	*	<i>Genista linifolia</i>	Flax-leaf Broom

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 101
Site Location: Army Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 16/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Woodland	Endangered
	Vulnerable

Comments:

Remnant vegetation continuous with Site 100. Swamp Paperbark (*Melaleuca ericifolia*) potentially providing habitat for State significant Swamp Skink (*Egernia coventryi*) and native rodents such as the Swamp Rat (*Rattus lutreolus*), however understorey is disturbed, so habitat quality is low. Fauna species observed: Common Bronzewing (*Phaps chalcoptera*), Grey Butcherbird (*Cracticus torquatus*), Magpie-lark (*Grallina cyanoleuca*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Biological survey in this commercial property will provide better knowledge of flora and fauna values.

Flora species recorded at Site 101

Recs 4 Date : 16 Oct 2003 Location : 145°29'56" 38°03'32"

+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 102
Site Location: Kennedy Creek
Land Tenure: Melbourne Water
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 11
EVC Name / Significance:

Swamp Scrub	Gippsland Plain Bioregion Endangered	Highlands - Southern Fall Bioregion Endangered
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Comments:

Kennedy Creek at Army Road. Highly degraded and discontinuous riparian vegetation along creekline dominated by Gorse (**Ulex europaeus*), Blackberry (**Rubus* sp). The exotic plant species provide habitat for the European Rabbit* (*Oryctolagus cuniculus*) and Red Fox (**Vulpes vulpes*). Small patches of remnant Swamp Paperbark (*Melaleuca ericifolia*) provides limited habitat for fauna considering the overall degraded nature of the site. The creek provides habitat for common frogs such as the Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Encourage Friends of Kennedy Creek to become involved in weed management and surveying for Nationally significant Growling Grass Frog (*Litoria raniformis*). For other management actions, refer to the Kennedy Creek Submission (Friends of Kennedy Creek 2002) and Kern (2003).

Flora species recorded at Site 102

Recs 8 Date : 20 Oct 2003 Location : 145°29'25" 38°03'55"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	8998	<i>Rubus</i> spp.	Bramble
+	9018	* <i>Salix</i> spp.	Willow
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom
+	1123	* <i>Echium plantagineum</i>	Paterson's Curse

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	103		
Site Location:	Army Road - aqueduct		
Land Tenure:	Council reserve		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Point		
Data Collection Date:	20/10/2003		
Vegetation Condition Field Assessment:	Not applicable		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
Wetland (derived) Complex	N/A	N/A	

Comments:

Bunyip Main Race along Liliput Lane. Bunyip Main Race provides good quality habitat for reptiles and amphibians, as well as potential habitat for the State significant Swamp Skink (*Egernia coventryi*). Logs and natural debris piled in the aqueduct provide habitat and refuge for frogs, snakes and lizards. Emergent stags adjacent to the aqueduct provide perch sites for raptors. Species observed: Pacific Black Duck (*Anas superciliosa*), Grey Fantail (*Rhipidura albiscapa*), Eurasian Coot (*Fulica atra*), Common Froglet (*Crinia signifera*), Striped Marsh Frog (*Limnodynastes peronii*).

Principal Management Requirements:

Principal Management Requirements:
Weed management. Retain natural debris in aqueduct.

Flora species recorded at Site 103

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	104		
Site Location:	Army Road		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	20/10/2003		
Vegetation Condition Field Assessment:	58		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Damp Forest	Endangered	Least Concern

Comments:

This remnant forms part of a continuous vegetation belt in and adjoining the study area. Residential dwellings and horticultural gardens are scattered through the vegetation and weed issues are prevalent. This site is continuous with larger remnants, including Site 105. One of the better quality habitats in the study area.

Numerous mature trees providing hollows and spouts for nesting birds, arboreal mammals and bats. Potential habitat for small terrestrial mammals such as Swamp Rat (*Rattus lutreolus*) and Bush Rat (*Rattus fuscipes*). Potential habitat for roosting owls and/or raptors.

Fauna species observed: Grey Shrike-hrush (*Colluricincla harmonica*), Superb Fairy-wren (*Malurus cyaneus*), White-throated Treecreeper (*Cormobates leucophaeus*), Brown Thornbill (*Acanthiza pusilla*), Crimson Rosella (*Platycercus elegans*), Sulphur-crested Cockatoo (*Cacatua galerita*), Eastern Yellow Robin (*Eopsaltria australis*), Striated Thornbill (*Acanthiza lineata*), Buff-rumped Thornbill (*Acanthiza reguloides*), Common Bronzewing (*Phaps chalcoptera*), Common Blackbird* (*Turdus merula*), Spotted Turtledove* (*Streptopelia chinensis*), Common Ringtail Possum (*Pseudocheirus peregrinus*), Common Wombat (*Vombatus ursinus*), Swamp Wallaby (*Wallabia bicolor*), European Rabbit* (*Oryctolagus cuniculus*), Yabbie (*Cherax* sp.).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 104

Recs 40 Date : 20 Oct 2003 Location : 145°29'50" 38°02'19"

+	57	<i>Acacia melanoxylon</i>	Blackwood
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	104	<i>Acaena agnipila</i>	Hairy Sheep's Burr
+	123	<i>Acrotriche serrulata</i>	Honey-pots
+	129	<i>Adiantum aethiopicum</i>	Common Maidenhair
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	274	* <i>Asparagus asparagoides</i>	Bridal Creeper
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	895	<i>Cyathea australis</i>	Rough Tree-fern
+	996	<i>Daviesia latifolia</i>	Hop Bitter-pea
+	1030	<i>Dianella tasmanica</i>	Tasman Flax-lily
+	1036	<i>Dichondra repens</i>	Kidney-weed
+	1210	* <i>Erica lusitanica</i>	Spanish Heath
+	1286	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1626	<i>Helichrysum scorpioides</i>	Button Everlasting
+	1748	* <i>Hypochoeris radicata</i>	Cat's Ear
+	1863	<i>Lagenophora stipitata</i>	Common Bottle-daisy
+	4701	<i>Lepidosperma laterale</i> var. <i>majus</i>	Variable Sword-sedge
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2610	<i>Poa tenera</i>	Slender Tussock-grass
+	2757	* <i>Prunella vulgaris</i>	Self-heal
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3129	<i>Senecio tenuiflorus</i>	Slender Fireweed
+	3558	<i>Wahlenbergia gracilis</i> s.l.	Sprawling Bluebell
+	8474	<i>Geranium</i> spp.	Crane's Bill
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	3562	* <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia
+	5058	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet
+	4888	<i>Chiloglottis valida</i>	Common Bird-orchid
+	515	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	105
Site Location:	Army Road - end of aqueduct
Land Tenure:	Private property
Data Source:	On-site survey
Data Type:	Species list
Data Representation:	Polygon
Data Collection Date:	20/10/2003
Vegetation Condition Field Assessment:	36
EVC Name / Significance:	Gippsland Plain Bioregion Highlands - Southern Fall Bioregion
	Lowland Forest Vulnerable Least Concern

Comments:

This remnant forms part of a continuous vegetation belt in and adjoining the study area. Residential dwellings and horticultural gardens are scattered through the vegetation and weed issues are prevalent. The majority of this remnant has been grazed and the understorey diversity has been much reduced. Outside of grazed areas the vegetation condition is improved. Large Lowland Forest remnant continuous with Site 104 but of lower habitat quality due to grazing impacts and weed invasion, particularly Sweet Pittosporum (**Pittosporum undulatum*). Ungrazed area of remnant adjacent to the property fence provides good quality habitat and contains more diverse ground layer vegetation and woody debris for reptile habitat. A farm dam provides habitat for locally common frogs. Fauna species observed: Common Bronzewing (*Phaps chalcoptera*), White-eared Honeyeater (*Lichenostomus leucotis*), Common Blackbird* (*Turdus merula*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 105

Recs 27 Date : 20 Oct 2003 Location : 145°29'41" 38°02'17"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	100	<i>Acacia verticillata</i>	Prickly Moses
+	122	<i>Acrotriche prostrata</i>	Trailing Ground-berry
+	1038	<i>Arthropodium strictum</i> s.l.	Chocolate Lily
+	512	<i>Burchardia umbellata</i>	Milkmaids
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1165	<i>Epacris impressa</i>	Common Heath
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1353	<i>Exocarpos strictus</i>	Pale-fruit Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1596	<i>Hardenbergia violacea</i>	Purple Coral-pea
+	1748	* <i>Hypochoeris radicata</i>	Cat's Ear
+	973	<i>Joycea pallida</i>	Silvertop Wallaby-grass
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2046	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
+	2179	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2743	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3348	<i>Tetrarrhena juncea</i>	Forest Wire-grass
+	3399	<i>Thysanotus patersonii</i>	Twining Fringe-lily
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	4845	<i>Prostanthera lasianthos</i> var. <i>lasianthos</i>	Victorian Christmas-bush
+	4291	<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry
+	5058	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 106
Site Location: Reynolds Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 31

EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Lowland Forest	Vulnerable	Least Concern

Comments:

This remnant has been degraded as a result of clearing for residential dwellings and horticultural gardens, grazing and weed invasion. There is a high Pine (*Pinus radiata*) cover and much acacia regrowth. A small drainage line passes through the site. This remnant forms part of a continuous vegetation belt in and adjoining the study area. Dieback of eucalypts evident. Drainage line along Reynolds Road.

Limited habitat for fauna as remnant vegetation has been cleared and understorey is lacking and tree canopy discontinuous. However this site is continuous with other remnant vegetation in the area and along the drainage line. Several large dead trees provide hollows for fauna and/or perching sites for raptors. Fauna species observed: Grey Fantail (*Rhipidura albiscapa*), Laughing Kookaburra (*Dacelo novaeguineae*), Noisy Miner (*Manorina melanocephala*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 106

Recs 13 Date : 20 Oct 2003 Location : 145°29'36" 38°02'10"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	895	<i>Cyathea australis</i>	Rough Tree-fern
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1323	<i>Eucalyptus viminalis</i>	Manna Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	1421	* <i>Genista linifolia</i>	Flax-leaf Broom

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 107
Site Location: Reynolds Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 16
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Damp Forest	Least Concern

Comments:

Swamp Gum (*Eucalyptus ovata*) and high cover of Sweet Pittosporum (**Pittosporum undulatum*) and Pine (**Pinus radiata*) follow the drainage line. Upslope from the drainage line the site has been grazed. This remnant forms part of a continuous vegetation belt in and adjoining the study area. This remnant provides limited wildlife habitat. Eucalypts are generally young and currently provide small hollows and spouts suitable for bats and smaller hollow-nesting birds such as parrots and lorikeets.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 107

Recs 10 Date : 20 Oct 2003 Location : 145°29'13" 38°02'02"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998	<i>Rubus</i> spp.	Bramble
+	515	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 108
Site Location: Reynolds Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 20
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

This remnant forms part of a continuous vegetation belt in and adjoining the study area. It has a high Pine (**Pinus radiata*) cover and the understorey has been grazed. This remnant is continuous with Site 106 and 107. This continuity adds to the habitat values of the area despite the high occurrence of established weed invasions. Evidence of birds nesting in hollow-bearing eucalypts. Striped Marsh Frog (*Limnodynastes peroni*) recorded in farm dam.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 108

Recs 11 Date : 20 Oct 2003 Location : 145°29'23" 38°02'19"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 109
Site Location: Thewlis Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 47
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Few areas of good vegetation quality persist in this remnant, as the understorey has been cleared in some areas, but more importantly Sweet Pittosporum (**Pittosporum undulatum*) invasion is prevalent and is reducing the species diversity in the understorey. Mature hollow-bearing trees are common, however lack of indigenous shrub layer decreases habitat value. Two Common Ring-tail Possum (*Pseudocheirus peregrinus*) dreys were observed. Other fauna species observed: Grey Shrike-thrush (*Colluricincla harmonica*), Laughing Kookaburra (*Dacelo novaeguineae*), White-throated Treecreeper (*Cormobates leucophaeus*), Striated Thornbill (*Acanthiza lineata*), Sulphur-crested Cockatoo (*Cactua galerita*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 109

Recs 24 Date : 20 Oct 2003 Location : 145°26'38" 38°02'35"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	111	<i>Acianthus exsertus</i> s.l.	Gnat Orchid
+	129	<i>Adiantum aethiopicum</i>	Common Maidenhair
+	236	* <i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
+	1036	<i>Dichondra repens</i>	Kidney-weed
+	5175	r <i>Eucalyptus fulgens</i>	Green Scentbark
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1626	<i>Helichrysum scorpioides</i>	Button Everlasting
+	4714	<i>Lomandra longifolia</i> ssp. <i>longifolia</i>	Spiny-headed Mat-rush
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2602	<i>Poa morrisii</i>	Soft Tussock-grass
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	5058	<i>Viola hederacea</i> sensu Entwistle (1996)	Ivy-leaf Violet
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	8978	<i>Ranunculus</i> spp.	Buttercup
+	4420	<i>Dianella longifolia</i> var. <i>longifolia</i>	Pale Flax-lily
+	1965	<i>Leptospermum scoparium</i>	Manuka
+	5126	<i>Arthropodium strictum</i> s.s.	Chocolate Lily

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number:	110		
Site Location:	Thewlis Road - adjacent to aqueduct		
Land Tenure:	Private property		
Data Source:	On-site survey		
Data Type:	Species list		
Data Representation:	Polygon		
Data Collection Date:	20/10/2003		
Vegetation Condition Field Assessment:	53		
EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion	
	Lowland Forest	Vulnerable	Least Concern

Comments:

Few areas of good vegetation quality persist in this remnant, as the understorey has been cleared in some areas, but more importantly Sweet Pittosporum (**Pittosporum undulatum*) invasion is prevalent and is reducing the species diversity in the understorey. Dieback in the canopies of the eucalypts is also present.

Remnant adjacent to Bunyip Main Race and continuous with Sites 66 and 109 as well as a large block of vegetation to the north. The aqueduct provides habitat for frogs including the Common Froglet (*Crinia signifera*). Tadpoles (unidentified) were also observed. Mature hollow-bearing trees provide potential nesting habitat for owls however severe Sweet Pittosporum (**Pittosporum undulatum*) invasion lessens the site's ability to support arboreal mammals which are the main prey of most owl species. Fallen timber and hollow logs increased habitat attributes for herpetological fauna. Other species observed: Spotted Pardalote (*Pardalotus punctatus*), Grey Shrike-thrush (*Colluricincla harmonica*), Red-browed Finch (*Neochmia temporalis*), Striated Thornbill (*Acanthiza lineata*), Bell Miner (*Manorina melanophrys*), Australian Magpie (*Gymnorhina tibicen*), Common Blackbird* (*Turdus merula*), Common Wombat (*Vombatus ursinus*), Swamp Wallaby (*Wallabia bicolor*), Short-beaked Echidna (*Tachyglossus aculeatus*).

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 110

Recs 35 Date : 20 Oct 2003 Location : 145°26'36" 38°02'13"

+	56		<i>Acacia mearnsii</i>	Black Wattle
+	57		<i>Acacia melanoxylon</i>	Blackwood
+	63		<i>Acacia myrtifolia</i>	Myrtle Wattle
+	122		<i>Acrotriche prostrata</i>	Trailing Ground-berry
+	1038		<i>Arthropodium strictum</i> s.l.	Chocolate Lily
+	4291		<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry
+	666		<i>Cassinia aculeata</i>	Common Cassinia
+	788		<i>Clematis aristata</i>	Mountain Clematis
+	822		<i>Coprosma quadrifida</i>	Prickly Currant-bush
+	1036		<i>Dichondra repens</i>	Kidney-weed
+	1210	*	<i>Erica lusitanica</i>	Spanish Heath
+	5175	r	<i>Eucalyptus fulgens</i>	Green Scentbark
+	1304		<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1313		<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
+	1394		<i>Gahnia radula</i>	Thatch Saw-sedge
+	8474		<i>Geranium</i> spp.	Crane's Bill
+	1455		<i>Glycine clandestina</i>	Twining Glycine
+	1489		<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1504		<i>Goodenia lanata</i>	Trailing Goodenia
+	1748	*	<i>Hypochoeris radicata</i>	Cat's Ear
+	1863		<i>Lagenophora stipitata</i>	Common Bottle-daisy
+	1956		<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2147		<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	#	<i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777		<i>Pteridium esculentum</i>	Austral Bracken
+	8998		<i>Rubus</i> spp.	Bramble
+	3528		<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
+	8653		<i>Lepidosperma</i> spp.	Sword Sedge
+	1107		<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
+	8004		<i>Acaena</i> spp.	Sheep's Burr
+	8327		<i>Dianella</i> spp.	Flax Lily
+	1050		<i>Dillwynia cinerascens</i> s.l.	Grey Parrot-pea
+	4765	*	<i>Cotoneaster franchetii</i>	Grey Cotoneaster
+	3637		<i>Acianthus exsertus</i> s.s.	Large Mosquito-orchid
+	3516	*	<i>Vicia hirsuta</i>	Tiny Vetch

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 111
Site Location: Thewlis Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 19
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Woodland Endangered Vulnerable

Comments:

Scattered eucalypts and acacias over an exotic, grazed understorey. Some old growth Blackwood (*Acacia melanoxylon*) are present, but there is some dieback in the canopies and death of trees. There is evidence of ring barking of the eucalypts by cattle. Limited value for wildlife habitat per se., although contributes to landscape habitat "stepping stones" with Sites 112-116.

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 111

Recs 2 Date : 20 Oct 2003 Location : 145°26'55" 38°02'46"

+ 57 *Acacia melanoxylon*

Blackwood

+ 1307 *Eucalyptus ovata*

Swamp Gum

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 112
Site Location: Thewlis Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Damp Heathy Woodland	Vulnerable Depleted

Comments:

Fragmented remnants of scattered eucalypts over an exotic, grazed understorey. Some wetter areas carry small patches of Swamp Scrub (*Melaleuca ericifolia*). There is some ring barking of eucalypts by cattle. Limited value for wildlife habitat per se., although contributes to landscape habitat "stepping stones" with Sites 111 and 113-116.

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 112

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 113
Site Location: Thewlis Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Damp Heathy Woodland Vulnerable Depleted

Comments:

Scattered eucalypts surrounding a residential dwelling. Contains some larger potentially hollow-bearing trees. Limited value for wildlife habitat per se., although contributes to landscape habitat "stepping stones" with Sites 111, 112 and 114-116.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 113

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 114
Site Location: Lamour Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Damp Heathy Woodland Vulnerable Depleted

Comments:

Large remnant block with grazed understorey. Provides habitat stepping stone to larger remnants in the north via Site 119, Site 109 and roadside remnants.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 114

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 115
Site Location: Peck Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

This site is grazed by goats which decreases the vegetation quality. There is dieback in the canopies and death of trees. The adjoining road reserve is heavily infested with exotic species. The site is continuous with Site 116. Fauna species observed: Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Bell Miner (*Manorina melanophrys*), Magpie-lark (*Grallina cyanoleuca*), Spotted Turtle dove* (*Streptopelia chinensis*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 115

Recs 9 Date : 20 Oct 2003 Location : 145°26'45" 38°03'17"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 116
Site Location: Peck Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 17
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Damp Heathy Woodland Vulnerable Depleted

Comments:

Small remnant continuous with Site 115. This site is of very poor vegetation quality. The understorey is infested with Blackberry (**Rubus* sp.)

Fauna species observed: Grey Shrike-thrush (*Colluricincla harmonica*), Striated Thornbill (*Acanthiza lineata*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Bell Miner (*Manorina melanophrys*), Common Starling* (*Sturnus vulgaris*), Red Fox* (*Vulpes vulpes*), Common Eastern Froglet (*Crinia signifera*).

Principal Management Requirements:

Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 116

Recs 9 Date : 20 Oct 2003 Location : 145°26'49" 38°03'19"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	666	<i>Cassinia aculeata</i>	Common Cassinia
+	867	* <i>Crataegus monogyna</i>	Hawthorn
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 117
Site Location: Peck Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion Swamp Scrub	Endangered	Highlands - Southern Fall Bioregion Endangered
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Comments:

Drainage line habitat containing patchy remnants of Swamp Paperbark (*Melaleuca ericifolia*). Potential habitat for locally common frog species. Habitat unlikely to support Swamp Skink (FFG) (*Egernia coventryi*) as too fragmented and diminished.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 117

Recs 4 Date : 20 Oct 2003 Location : 145°25'54" 38°03'30"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	57	<i>Acacia melanoxylon</i>	Blackwood
+	1307	<i>Eucalyptus ovata</i>	Swamp Gum
+	2147	<i>Melaleuca ericifolia</i>	Swamp Paperbark

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 118
Site Location: Godfrey Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 13
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Remnant vegetation around private residence and extending into grazed farmland, continuous with vegetation associated with the Bunyip Main Race and Sites 109 and 110. Flock of 21 Cattle Egrets (*Ardea ibis*), some in breeding plumage, feeding in paddock. Other fauna species observed: Magpie-lark (*Grallina cyanoleuca*), Australian Wood Duck (*Chenonetta jubata*), Eastern Rosella (*Platycercus eximius*), Spotted Turtledove* (*Streptopelia chinensis*), Common Mynah* (*Acridotheres tristis*).

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 118

Recs 3 Date : 20 Oct 2003 Location : 145°26'00" 38°02'24"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1313	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 119
Site Location: Brown Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Swampy Woodland Endangered Vulnerable

Comments:

Swampy Woodland following creek. The understorey is grazed and dieback and death of eucalypts is present. Scattered trees are linked with drainage line vegetation, Site 114 and 109, increasing habitat potential. Fauna species observed: Sulphur-crested Cockatoo (*Cacatua galerita*), Noisy Miner (*Manorina melanocephala*).

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 119

Recs 7 Date : 20 Oct 2003 Location : 145°26'13" 38°02'45"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 120
Site Location: Peterson Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 23
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Swampy Riparian	Depleted

Comments:

This site is continuous with a vegetation belt which extends outside the study area. It is heavily invaded by Sweet Pittosporum (**Pittosporum undulatum*) and Blackberry (**Rubus* sp.). Continuous with Site 121 and large remnant block to the north of the study area. Eucalypts are suffering from dieback and there are few hollows for fauna habitat. Native vegetation provides ground cover for native rodents (e.g. Swamp Rat (*Rattus lutreolus*), Bush Rat (*Rattus fuscipes*)). Fauna species observed: Bell Miner (*Manorina melanophrys*), Common Blackbird* (*Turdus merula*).

Principal Management Requirements:

Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 120

Recs 9 Date : 20 Oct 2003 Location : 145°25'28" 38°02'21"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2543	# <i>Pittosporum undulatum</i>	Sweet Pittosporum
+	2777	<i>Pteridium esculentum</i>	Austral Bracken
+	8998	<i>Rubus</i> spp.	Bramble
+	3689	<i>Drosera peltata</i>	Pale Sundew

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 121
Site Location: Peterson Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 20/10/2003
Vegetation Condition Field Assessment: 51
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Grassy Forest	Endangered
	Vulnerable

Comments:

The understorey is probably slashed, but the understorey diversity is still good. The site is adjacent to a road reserve of excellent vegetation quality. Continuous with Site 120 and large remnant block to the north of the study area. Fauna species observed: Crimson Rosella (*Platycercus elegans*), Australian Magpie (*Gymnorhina tibicen*) Magpie-lark (*Grallina cyanoleuca*), Common Mynah* (*Acridotheres tristis*), Short-beaked Echidna (*Tachyglossus aculeatus*).

Principal Management Requirements:

Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 121

Recs 33 Date : 20 Oct 2003 Location : 145°25'23" 38°02'16"

+	56	<i>Acacia mearnsii</i>	Black Wattle
+	91	<i>Acacia stricta</i>	Hop Wattle
+	105	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
+	110	<i>Nemacianthus caudatus</i>	Mayfly Orchid
+	123	<i>Acrotriche serrulata</i>	Honey-pots
+	1038	<i>Arthropodium strictum</i> s.l.	Chocolate Lily
+	4291	<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry
+	512	<i>Burchardia umbellata</i>	Milkmaids
+	589	<i>Calochilus robertsonii</i>	Purple Beard-orchid
+	1110	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
+	1165	<i>Epacris impressa</i>	Common Heath
+	1304	<i>Eucalyptus obliqua</i>	Messmate Stringybark
+	1350	<i>Exocarpos cupressiformis</i>	Cherry Ballart
+	1394	<i>Gahnia radula</i>	Thatch Saw-sedge
+	1489	<i>Gonocarpus tetragynus</i>	Common Raspwort
+	1504	<i>Goodenia lanata</i>	Trailing Goodenia
+	973	<i>Joycea pallida</i>	Silvertop Wallaby-grass
+	1956	<i>Leptospermum continentale</i>	Prickly Tea-tree
+	2539	* <i>Pinus radiata</i>	Radiata Pine
+	2569	<i>Platylobium obtusangulum</i>	Common Flat-pea
+	4138	<i>Pultenaea gunnii</i> ssp. <i>gunnii</i>	Golden Bush-pea
+	3382	<i>Thelymitra pauciflora</i> s.l.	Slender Sun-orchid
+	3387	<i>Themeda triandra</i>	Kangaroo Grass
+	3528	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
+	3689	<i>Drosera peltata</i>	Pale Sundew
+	8909	<i>Poa</i> spp.	Tussock Grass
+	8327	<i>Dianella</i> spp.	Flax Lily
+	9101	<i>Stylidium</i> spp.	Trigger Plant
+	4439	<i>Acianthus pusillus</i>	Small Mosquito-orchid
+	8535	<i>Hibbertia</i> spp.	Guinea Flower
+	2042	<i>Lomandra filiformis</i>	Wattle Mat-rush
+	2048	<i>Lomandra multiflora</i> ssp. <i>multiflora</i>	Many-flowered Mat-rush
+	4138	<i>Pultenaea gunnii</i> ssp. <i>gunnii</i>	Golden Bush-pea

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 122
Site Location: Brown Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Wet Heathland	Depleted

Comments:

Wet Heathland remnant continuous with sites 123 and 109.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 122

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 123
Site Location: Brown Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Damp Heathy Woodland	Vulnerable Depleted

Comments:

Damp Heathy Woodland remnant continuous with sites 118 and 122.

Principal Management Requirements:

This remnant forms part of contiguous belt of vegetation through this area. Protect this remnant and associated sites from clearance. Encourage recruitment of overstorey trees and shrubs to improve the continuity of the vegetation in the area. Weed management. Retain fallen timber and dead/senescing trees.

Flora species recorded at Site 123

No records

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 124
Site Location: Beaconsfield - Emerald Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 18/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

Grassy Forest remnant continuous with site 31.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 124

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 125
Site Location: O'Neil Road
Land Tenure: Private property
Data Source: Aerial photography
Data Type: Not applicable
Data Representation: Polygon
Data Collection Date: 19/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance:

Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Shrubby Gully Forest	Vulnerable

Comments:

Very small remnant of Shrubby Gully Forest. This site is continuous 31.

Principal Management Requirements:

Management recommendations not given.

Flora species recorded at Site 125

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 126
Site Location: Mary Road
Land Tenure: Unknown
Data Source: Literature
Data Type: Not applicable
Data Representation: Point
Data Collection Date: 19/12/2003
Vegetation Condition Field Assessment: Not known
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Wetland (derived) Complex N/A N/A

Comments:

Growling Grass Frog (*Litoria raniformis*) recorded at this site.

Principal Management Requirements:

Manage for Nationally significant Growling Grass Frog (*Litoria raniformis*).

Flora species recorded at Site 126

No records

Pakenham Growth Corridor and Adjoining Area

Sites of Biodiversity Significance

Site Number: 127
Site Location: McGregor Road
Land Tenure: Private property
Data Source: On-site survey
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 17/01/2004
Vegetation Condition Field Assessment: Not known

EVC Name / Significance:	Gippsland Plain Bioregion	Highlands - Southern Fall Bioregion
Plains Grassland	Endangered	Endangered

Comments:

The site had been disturbed by grazing but still has patches of Plains Grassland persisting amongst exotic grasses.

Principal Management Requirements:

A detailed flora and fauna survey is recommended prior to any works on the site. A spring survey is recommended to establish whether *Prasophyllum* spp. and/or *Diuris punctata* persist at the site.

Flora species recorded at Site 127

+ 0153	* <i>Agrostis capillaris</i>	Brown-top Bent
+ 0967	<i>Austrodanthonia laevis</i>	Smooth Wallaby-grass
+ 0496	* <i>Briza minor</i>	Lesser Quaking-grass
+ 0702	* <i>Centaurium erythraea</i>	Common Centaury
+ 0706	<i>Centella cordifolia</i>	Centella
+ 1185	<i>Eragrostis brownii</i>	Common Love-grass
+ 1654	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass
+	<i>Microtis unifolia</i> s.l.	Onion-orchid
+ 3039	<i>Schoenus apogon</i>	Common Bog-sedge
+ 3382	<i>Thelymitra pauciflora</i> s.l.	Slender Sun-orchid
+ 3387	<i>Themeda triandra</i>	Kangaroo Grass

Pakenham Growth Corridor and Adjoining Area
Sites of Biodiversity Significance

Site Number: 128
Site Location: O,Neil Road
Land Tenure: Private property
Data Source: Literature
Data Type: Species list
Data Representation: Polygon
Data Collection Date: 25/04/2002
Vegetation Condition Field Assessment: 3
EVC Name / Significance: **Gippsland Plain Bioregion** **Highlands - Southern Fall Bioregion**
Grassy Forest Endangered Vulnerable

Comments:

The site has been disturbed by stock and is relatively species poor and weed invaded.

Principal Management Requirements:

Refer to Beveridge Williams and Co. (2002).

Flora species recorded at Site 128

No record.

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Appendix 2. Maps of City of Casey Study area showing locations of sites of Biodiversity significance.

